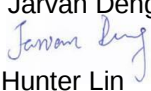




|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TEST REPORT</b><br><b>COMMISSION REGULATION (EU) No 206/2012</b><br><b>of 6 March 2012</b><br><b>implementing Directive 2009/125/EC of the European Parliament and of the Council with regard</b><br><b>to ecodesign requirements for air conditioners and comfort fans</b><br><b>COMMISSION REGULATION (EU) No 626/2011</b><br><b>of 4 May 2011</b><br><b>supplementing Regulation(EU) 2017/1369 of the European Parliament and of the Council with</b><br><b>regard to energy labelling of air conditioners</b> |                                                                                                                                                        |
| <b>Report Reference No.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AHEE230900189551                                                                                                                                       |
| <b>Tested by (name + signature)..... :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Jarvan Deng<br>                                                       |
| <b>Approved by (+ signature) ..... :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Hunter Lin<br>                                                        |
| <b>Date of issue.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2023-09-18                                                                                                                                             |
| <b>Total number of pages .....</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30 pages                                                                                                                                               |
| <b>Testing Laboratory.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SGS-CSTC standards Technical Services Co., Ltd. Anhui Branch                                                                                           |
| <b>Address .....</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1/F&2/F, West Building C12, Gongtou Liheng Industrial Square,<br>Fanhua Road, Economic & Technological Development Area,<br>Hefei, 230601 Anhui, China |
| <b>Applicant's name .....</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | AUX AIR CONDITIONER CO., LTD.                                                                                                                          |
| <b>Address .....</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1166 North Mingguang Road, Jiangshan, Yinzhou, Ningbo,<br>315191 Zhejiang, China                                                                       |
| <b>Test specification:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                        |
| <b>Standard.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | COMMISSION REGULATION (EU) No 206/2012, (EU) No<br>626/2011                                                                                            |
| <b>Test procedure.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | STR: Regulation(EU) 2017/1369 and Directive 2009/125/EC                                                                                                |
| <b>Non-standard test method.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | None                                                                                                                                                   |
| <b>Test Report Form No. ....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | EEC_(EU) No 206/2012&626/2011 B                                                                                                                        |
| <b>Test Report Form(s) Originator.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SGS-CSTC                                                                                                                                               |
| <b>Master TRF.....:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2023-09-01                                                                                                                                             |

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Member of the SGS Group (SGS SA)  
TRF No. EEC\_(EU) No 206/2012&626/2011 B

|                              |                                                                                                                                                                                                                                                                                                                          |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test item description..... : | Split Type Air Conditioner                                                                                                                                                                                                                                                                                               |
| Trade Mark..... :            |                                                                                                                                                                                                                                         |
| Manufacturer..... :          | Same as applicant                                                                                                                                                                                                                                                                                                        |
| Model/Type reference..... :  | ASW-H12C5E4/*R3DI-B8<br>(*=FA, FB, FD, FI, FJ, FO, FC, FY, FQ, FM, FF, FH, FVMA, FE, FL, FU, FV, FP, FX, FW, FR, FZ, FN, FS, FG, JA, JC, JD, JE, JF, JI, JK, JL, JM, JN, JO, JP, JQ, JR, JS, HA, HB, HC, HD, HE, HF, HG, HH, HJ, HK, HL, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT) |
| Ratings..... :               | See marking plates                                                                                                                                                                                                                                                                                                       |
| Factory..... :               | Same as applicant                                                                                                                                                                                                                                                                                                        |

### Summary of testing:

#### Tests performed (name of test and test clause):

COMMISSION REGULATION (EU) No 206/2012,  
COMMISSION REGULATION (EU) No 626/2011

The length of refrigerant lines between indoor unit and outdoor unit was 5m.

The tests were performed on model ASW-H12C5E4/FAR3DI-B8.  
The test result which covering all models was classed as A++ of cooling, A+ for heating(average), A+++ for heating(warmer).

#### Testing location:

Refer to p.1

### Copy of marking plate: (the marking plates maybe only drafts)



**Split Type Air Conditioner  
(Indoor Unit)**

|                           |                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------|
| Model                     | ASW-H12C5E4/FAR3DI-B8                                                                   |
| Electric Shock Prevention | Class I                                                                                 |
| Climates Type             | T1                                                                                      |
| Power Supply              | 220-240V~/50Hz                                                                          |
| Cooling Capacity          | 3.4(0.8-3.8)kW                                                                          |
| Heating Capacity          | 3.5(0.8-4.0)kW                                                                          |
| Cooling Power Input       | 1.34(0.2-1.5)kW                                                                         |
| Heating Power Input       | 0.95(0.2-1.4)kW                                                                         |
| Max. Input Current        | 9A                                                                                      |
| Max. Discharge Pressure   | 4.3MPa                                                                                  |
| Max. Suction Pressure     | 2.5MPa                                                                                  |
| Refrigerant               |  R32 |
| Refrigerant Quantity      | 0.57kg/0.38tCO <sub>2</sub> eq.                                                         |
| Indoor Unit Net Weight    | 7.5kg                                                                                   |
| Date                      | 2023.08.31                                                                              |
| No.                       | A00015428901W00006                                                                      |



AUX AIR CONDITIONER CO., LTD.  
1166 North Mingguang Road, Jiangshan, Yinzhou,  
Ningbo, 315191 Zhejiang, China



**Split Type Air Conditioner  
(Outdoor Unit)**

|                                                    |                                                                                          |
|----------------------------------------------------|------------------------------------------------------------------------------------------|
| Model                                              | ASW-H12C5E4/FAR3DI-B8                                                                    |
| Power Supply                                       | 220-240V~/50Hz                                                                           |
| Cooling Power Input                                | 1.34(0.2-1.5)kW                                                                          |
| Heating Power Input                                | 0.95(0.2-1.4)kW                                                                          |
| Max. Input Current                                 | 9A                                                                                       |
| Refrigerant                                        |  R32 |
| Refrigerant Quantity                               | 0.57kg/0.38tCO <sub>2</sub> eq.                                                          |
| Water-proof Class                                  | IPX4                                                                                     |
| Outdoor Unit Net Weight                            | 18.5kg                                                                                   |
| GWP                                                | 675                                                                                      |
| This product contains fluorinated greenhouse gases |                                                                                          |
| Date                                               | 2023.08.31                                                                               |
| No.                                                | A00015428901W00006                                                                       |



AUX AIR CONDITIONER CO., LTD.  
1166 North Mingguang Road, Jiangshan, Yinzhou,  
Ningbo, 315191 Zhejiang, China

Remark: the marking plates for other models are identical with ASW-H12C5E4/FAR3DI-B8 except model name.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Test item particulars</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Split Type Air Conditioner</b>              |
| Classification of installation and use .....                                                                                                                                                                                                                                                                                                                                                                                                       | Fixed appliance                                |
| Supply Connection .....                                                                                                                                                                                                                                                                                                                                                                                                                            | Flexible supply cord connected to fixed wiring |
| .....                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                |
| <b>Possible test case verdicts:</b>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |
| - test case does not apply to the test object .....                                                                                                                                                                                                                                                                                                                                                                                                | N/A                                            |
| - test object does meet the requirement.....                                                                                                                                                                                                                                                                                                                                                                                                       | P (Pass)                                       |
| - test object does not meet the requirement .....                                                                                                                                                                                                                                                                                                                                                                                                  | F (Fail)                                       |
| <b>Testing</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |
| Date of receipt of test item .....                                                                                                                                                                                                                                                                                                                                                                                                                 | 2023-09-04                                     |
| Date (s) of performance of tests .....                                                                                                                                                                                                                                                                                                                                                                                                             | 2023-09-04 to 2023-09-18                       |
| <b>General remarks:</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                |
| <p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report.</p> <p>"(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> |                                                |
| <b>General product information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |
| <p>Split-type air-conditioners for household use, the refrigerant was R32.</p> <p>The appliances have cooling and heating functions.</p> <p>All the models are totally the same except for the external enclosure of indoor unit with different '*' values which indicated different display panel of indoor unit.</p>                                                                                                                             |                                                |

| COMMISSION REGULATION (EU) No 206/2012  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------|----------------------|-----------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|-----------------------------|------|------|------|------|-----------------------------|------|------|------|------|---|
| Cl.                                     | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Result-Remark        |                              | Verdict              |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| ANNEX I                                 | Ecodesign requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                              | —                    |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| 1                                       | DEFINITIONS APPLICABLE FOR THE PURPOSES OF THE ANNEXES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                              | P                    |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| 2                                       | REQUIREMENTS FOR MINIMUM ENERGY EFFICIENCY, MAXIMUM POWER CONSUMPTION IN OFF-MODE AND STANDBY MODE AND FOR MAXIMUM SOUND POWER LEVEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                              | P                    |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
|                                         | (a) From 1 January 2013, single duct and double duct air conditioners shall correspond to requirements as indicated in Tables 1, 2 and 3 below, calculated in accordance with Annex II. Single duct and double duct air conditioners and comfort fans shall fulfil the requirements on standby and off mode as indicated in Table 2 below. The requirements on minimum energy efficiency and maximum sound power shall relate to the standard rating conditions specified in Annex II, Table 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                              | N/A                  |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
|                                         | <p style="text-align: center;"><i>Table 1</i></p> <p style="text-align: center;"><b>Requirements for minimum energy efficiency</b></p> <table><tr><th rowspan="2"></th><th colspan="2">Double duct air conditioners</th><th colspan="2">Single duct air conditioners</th></tr><tr><th>EER<sub>rated</sub></th><th>COP<sub>rated</sub></th><th>EER<sub>rated</sub></th><th>COP<sub>rated</sub></th></tr><tr><td>If GWP of refrigerant &gt; 150</td><td>2,40</td><td>2,36</td><td>2,40</td><td>1,80</td></tr><tr><td>If GWP of refrigerant ≤ 150</td><td>2,16</td><td>2,12</td><td>2,16</td><td>1,62</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                              |                      | Double duct air conditioners                                                      |              | Single duct air conditioners                                                                                                                                                                                           |                                                                                                                                                                                                                        | EER <sub>rated</sub>                    | COP <sub>rated</sub>                                                                                                                                                                                                                                                                                     | EER <sub>rated</sub> | COP <sub>rated</sub> | If GWP of refrigerant > 150 | 2,40 | 2,36 | 2,40 | 1,80 | If GWP of refrigerant ≤ 150 | 2,16 | 2,12 | 2,16 | 1,62 | — |
|                                         | Double duct air conditioners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | Single duct air conditioners |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
|                                         | EER <sub>rated</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COP <sub>rated</sub> | EER <sub>rated</sub>         | COP <sub>rated</sub> |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| If GWP of refrigerant > 150             | 2,40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2,36                 | 2,40                         | 1,80                 |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| If GWP of refrigerant ≤ 150             | 2,16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2,12                 | 2,16                         | 1,62                 |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
|                                         | <p style="text-align: center;"><i>Table 2</i></p> <p style="text-align: center;"><b>Requirements for maximum power consumption in off-mode and standby mode for single duct and double duct air conditioners and comfort fans</b></p> <table><tr><td>Off mode</td><td>Power consumption of equipment in any off-mode condition shall not exceed 1,00 W.</td></tr><tr><td rowspan="2">Standby mode</td><td>The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 1,00 W.</td></tr><tr><td>The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, shall not exceed 2,00 W.</td></tr><tr><td>Availability of standby and/or off mode</td><td>Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source.</td></tr></table> |                      |                              | Off mode             | Power consumption of equipment in any off-mode condition shall not exceed 1,00 W. | Standby mode | The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 1,00 W. | The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, shall not exceed 2,00 W. | Availability of standby and/or off mode | Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source. | —                    |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| Off mode                                | Power consumption of equipment in any off-mode condition shall not exceed 1,00 W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| Standby mode                            | The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 1,00 W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
|                                         | The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, shall not exceed 2,00 W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |
| Availability of standby and/or off mode | Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |                                         |                                                                                                                                                                                                                                                                                                          |                      |                      |                             |      |      |      |      |                             |      |      |      |      |   |

| COMMISSION REGULATION (EU) No 206/2012 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |                                       |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------|-----------------------|------|----------------------------------|--|--------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|-----------------------------|------|------|----|---|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                      | Result-Remark                         | Verdict               |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
|                                        | <div>Table 3</div> <div>Requirements for maximum sound power level</div> <div>Indoor sound power level in dB(A)</div> <div>65</div>                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |                                       | —                     |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
| (b)                                    | From 1 January 2013, air conditioners, except single and double duct air conditioners, shall correspond to minimum energy efficiency and maximum sound power level requirements as indicated in Tables 4 and 5 below, calculated in accordance with Annex II. The requirements on energy efficiency shall take into account the reference design conditions specified in Annex II, Table 3 using the 'Average' heating season where applicable.                                                                                                                     |                                      | GWP of refrigerant > 150              | P                     |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
|                                        | The requirements on sound power shall relate to the standard rating conditions specified in Annex II, Table 2                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      | Rated capacity ≤6 kW                  | P                     |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
|                                        | <div>Table 4</div> <div>Requirements for minimum energy efficiency</div> <table><tr><td></td><td>SEER</td><td colspan="2">SCOP<br/>(Average heating season)</td></tr><tr><td>If GWP of refrigerant &gt; 150</td><td>3,60</td><td colspan="2">3,40</td></tr><tr><td>If GWP of refrigerant ≤ 150</td><td>3,24</td><td colspan="2">3,06</td></tr></table>                                                                                                                                                                                                              |                                      |                                       |                       | SEER | SCOP<br>(Average heating season) |  | If GWP of refrigerant > 150          | 3,60                                  | 3,40                                 |                                       | If GWP of refrigerant ≤ 150 | 3,24 | 3,06 |    | — |
|                                        | SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SCOP<br>(Average heating season)     |                                       |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
| If GWP of refrigerant > 150            | 3,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3,40                                 |                                       |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
| If GWP of refrigerant ≤ 150            | 3,24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3,06                                 |                                       |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
|                                        | <div>Table 5</div> <div>Requirements for maximum sound power level</div> <table><tr><td colspan="2">Rated capacity ≤ 6 kW</td><td colspan="2">6 &lt; Rated capacity ≤12 kW</td></tr><tr><td>Indoor sound power level in<br/>dB(A)</td><td>Outdoor sound power level in<br/>dB(A)</td><td>Indoor sound power level in<br/>dB(A)</td><td>Outdoor sound power level in<br/>dB(A)</td></tr><tr><td>60</td><td>65</td><td>65</td><td>70</td></tr></table>                                                                                                                |                                      |                                       | Rated capacity ≤ 6 kW |      | 6 < Rated capacity ≤12 kW        |  | Indoor sound power level in<br>dB(A) | Outdoor sound power level in<br>dB(A) | Indoor sound power level in<br>dB(A) | Outdoor sound power level in<br>dB(A) | 60                          | 65   | 65   | 70 | — |
| Rated capacity ≤ 6 kW                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6 < Rated capacity ≤12 kW            |                                       |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
| Indoor sound power level in<br>dB(A)   | Outdoor sound power level in<br>dB(A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Indoor sound power level in<br>dB(A) | Outdoor sound power level in<br>dB(A) |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
| 60                                     | 65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 65                                   | 70                                    |                       |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |
| (c)                                    | From 1 January 2014, air conditioners shall correspond to requirements as indicated in the table below, calculated in accordance with Annex II. The requirements on energy efficiency for air conditioners, excluding single and double duct air conditioners, shall relate to the reference design conditions specified in Annex II, Table 3 using the 'Average' heating season where applicable. The requirements on energy efficiency for single and double duct air conditioners shall relate to the standard rating conditions specified in Annex II, Table 2. |                                      |                                       | P                     |      |                                  |  |                                      |                                       |                                      |                                       |                             |      |      |    |   |

| COMMISSION REGULATION (EU) No 206/2012  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                |                              |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------|----------------------|------------------------------|----------------------|-----------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------------------------|------|------|------|------|------|------|----------------------------------------|------|------|------|------|------|------|-----------------------------------------|------|------|------|------|------|------|-----------------------------------------|------|------|------|------|------|------|---|
| Cl.                                     | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                |                              | Result-Remark        |                              | Verdict              |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
|                                         | <p style="text-align: center;"><i>Table 6</i></p> <p style="text-align: center;"><b>Requirements for minimum energy efficiency</b></p> <table><tr><th rowspan="2"></th><th colspan="2">Air conditioners, except double and single duct air conditioners</th><th colspan="2">Double duct air conditioners</th><th colspan="2">Single duct air conditioners</th></tr><tr><th>SEER</th><th>SCOP (heating season: Average)</th><th>EER<sub>rated</sub></th><th>COP<sub>rated</sub></th><th>EER<sub>rated</sub></th><th>COP<sub>rated</sub></th></tr><tr><td>If GWP of refrigerant &gt; 150 for &lt; 6 kW</td><td>4,60</td><td>3,80</td><td>2,60</td><td>2,60</td><td>2,60</td><td>2,04</td></tr><tr><td>If GWP of refrigerant ≤ 150 for &lt; 6 kW</td><td>4,14</td><td>3,42</td><td>2,34</td><td>2,34</td><td>2,34</td><td>1,84</td></tr><tr><td>If GWP of refrigerant &gt; 150 for 6-12 kW</td><td>4,30</td><td>3,80</td><td>2,60</td><td>2,60</td><td>2,60</td><td>2,04</td></tr><tr><td>If GWP of refrigerant ≤ 150 for 6-12 kW</td><td>3,87</td><td>3,42</td><td>2,34</td><td>2,34</td><td>2,34</td><td>1,84</td></tr></table>                                                                    |                                |                              |                      |                              |                      | Air conditioners, except double and single duct air conditioners                  |              | Double duct air conditioners                                                                                                                                                                                           |                                                                                                                                                                                                                       | Single duct air conditioners            |                                                                                                                                                                                                                                                                                                          | SEER | SCOP (heating season: Average) | EER <sub>rated</sub> | COP <sub>rated</sub> | EER <sub>rated</sub> | COP <sub>rated</sub> | If GWP of refrigerant > 150 for < 6 kW | 4,60 | 3,80 | 2,60 | 2,60 | 2,60 | 2,04 | If GWP of refrigerant ≤ 150 for < 6 kW | 4,14 | 3,42 | 2,34 | 2,34 | 2,34 | 1,84 | If GWP of refrigerant > 150 for 6-12 kW | 4,30 | 3,80 | 2,60 | 2,60 | 2,60 | 2,04 | If GWP of refrigerant ≤ 150 for 6-12 kW | 3,87 | 3,42 | 2,34 | 2,34 | 2,34 | 1,84 | — |
|                                         | Air conditioners, except double and single duct air conditioners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                | Double duct air conditioners |                      | Single duct air conditioners |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
|                                         | SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SCOP (heating season: Average) | EER <sub>rated</sub>         | COP <sub>rated</sub> | EER <sub>rated</sub>         | COP <sub>rated</sub> |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| If GWP of refrigerant > 150 for < 6 kW  | 4,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3,80                           | 2,60                         | 2,60                 | 2,60                         | 2,04                 |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| If GWP of refrigerant ≤ 150 for < 6 kW  | 4,14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3,42                           | 2,34                         | 2,34                 | 2,34                         | 1,84                 |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| If GWP of refrigerant > 150 for 6-12 kW | 4,30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3,80                           | 2,60                         | 2,60                 | 2,60                         | 2,04                 |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| If GWP of refrigerant ≤ 150 for 6-12 kW | 3,87                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3,42                           | 2,34                         | 2,34                 | 2,34                         | 1,84                 |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| (d)                                     | From 1 January 2014, single duct and double duct air conditioners and comfort fans shall correspond to requirements as indicated in Table 7 below, calculated in accordance with Annex II.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |                              |                      |                              | N/A                  |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
|                                         | <p style="text-align: center;"><i>Table 7</i></p> <p style="text-align: center;"><b>Requirements for maximum power consumption in off-mode and standby mode</b></p> <table><tr><td>Off mode</td><td>Power consumption of equipment in any off-mode condition shall not exceed 0,50 W.</td></tr><tr><td rowspan="2">Standby mode</td><td>The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 0,50 W.</td></tr><tr><td>The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display shall not exceed 1,00 W.</td></tr><tr><td>Availability of standby and/or off mode</td><td>Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source.</td></tr></table> |                                |                              |                      |                              | Off mode             | Power consumption of equipment in any off-mode condition shall not exceed 0,50 W. | Standby mode | The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 0,50 W. | The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display shall not exceed 1,00 W. | Availability of standby and/or off mode | Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source. | —    |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| Off mode                                | Power consumption of equipment in any off-mode condition shall not exceed 0,50 W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                |                              |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| Standby mode                            | The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 0,50 W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |                              |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
|                                         | The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display shall not exceed 1,00 W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                |                              |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |
| Availability of standby and/or off mode | Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                |                              |                      |                              |                      |                                                                                   |              |                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                          |      |                                |                      |                      |                      |                      |                                        |      |      |      |      |      |      |                                        |      |      |      |      |      |      |                                         |      |      |      |      |      |      |                                         |      |      |      |      |      |      |   |

| COMMISSION REGULATION (EU) No 206/2012 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |         |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Result-Remark        | Verdict |
|                                        | <div>Power management</div> <div> <p>When equipment is not providing the main function, or when other energy-using product(s) are not dependent on its functions, equipment shall, unless inappropriate for the intended use, offer a power management function, or a similar function, that switches equipment after the shortest possible period of time appropriate for the intended use of the equipment, automatically into:</p> <ul style="list-style-type: none"> <li>— standby mode, or</li> <li>— off mode, or</li> <li>— another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source. The power management function shall be activated before delivery.</li> </ul> </div> |                      | —       |
| 3.                                     | PRODUCT INFORMATION REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | P       |
|                                        | (a) From 1 January 2013, as regards air conditioners and comfort fans, the information set out in points below and calculated in accordance with Annex II shall be provided on:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | P       |
|                                        | (i) the technical documentation of the product;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | P       |
|                                        | (ii) free access websites of manufacturers of air conditioners and comfort fans;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | P       |
|                                        | (b) The manufacturer of air conditioners and comfort fans shall provide laboratories performing market surveillance checks, upon request, the necessary information on the setting of the unit as applied for the establishment of declared capacities, SEER/EER, SCOP/COP values and service values and provide contact information for obtaining such information.                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | P       |
|                                        | (c) Information requirements for air conditioners, except double duct and single duct air conditioners.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See attached table 1 | P       |
|                                        | (d) Information requirements for single duct and double duct air conditioners.<br>Single duct air conditioners shall be named 'local air conditioners' in packaging, product documentation and in any advertisement material, whether electronic or in paper.<br>Manufacturer shall provide information as detailed in the table 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      | N/A     |
|                                        | (e) Information requirements for comfort fans.<br>Manufacturer shall provide information as detailed in the table 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      | N/A     |
| ANNEX II                               | Measurements and calculations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      | —       |

| COMMISSION REGULATION (EU) No 206/2012 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                  |         |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Result-Remark                                                                    | Verdict |
| 1                                      | For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published in the <b>Official Journal of European Union</b> , or other reliable, accurate and reproducible method, which takes into account the generally recognised state of the art methods, and whose results are deemed to be of low uncertainty. They shall fulfil all of the following technical parameters. | EN 14825: 2022;<br>EN14511-2: 2022;<br>EN14511-3: 2022;<br>EN 12102-1: 2022 used | P       |
| 2                                      | The determination of the seasonal energy consumption and efficiency for seasonal energy efficiency ratio (SEER) and seasonal coefficient of performance (SCOP) shall take into account:                                                                                                                                                                                                                                                                                                                                                   |                                                                                  | P       |
|                                        | (a) European cooling and heating season(s), as defined in Table 1 below;                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                  | P       |
|                                        | (b) reference design conditions, as defined in Table 3 below;                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                  | P       |
|                                        | (c) electric energy consumption for all relevant modes of operation, using time periods as defined in Table 4 below;                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                  | P       |
|                                        | (d) effects of the degradation of the energy efficiency caused by on/off cycling (if applicable) depending on the type of control of the cooling and/or heating capacity;                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  | P       |
|                                        | (e) corrections on the seasonal coefficients of performance in conditions where the heating load can not be met by the heating capacity;                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                  | P       |
|                                        | (f) the contribution of a back-up heater (if applicable) in the calculation of the seasonal efficiency of a unit in heating mode.                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  | P       |
| 3                                      | Where the information relating to a specific model, being a combination of indoor and outdoor unit(s), has been obtained by calculation on the basis of design, and/or extrapolation from other combinations, the documentation should include details of such calculations and/or extrapolations, and of tests undertaken to verify the accuracy of the calculations undertaken (including details of the mathematical model for calculating performance of such combinations, and of measurements taken to verify this model).          |                                                                                  | P       |
| 4                                      | The rated energy efficiency ratio (EER rated ) and, when applicable, rated coefficient of performance (COP rated ) for single and double duct air conditioners shall be established at the standard rating conditions as defined in Table 2 below.                                                                                                                                                                                                                                                                                        |                                                                                  | N/A     |
| 5                                      | The calculation of seasonal electricity consumption for cooling (and/or heating) shall take into account electric energy consumption of all relevant modes of operation, as defined in Table 3 below, using operational hours, as defined in Table 4 below.                                                                                                                                                                                                                                                                               |                                                                                  | P       |

COMMISSION REGULATION (EU) No 206/2012

| Cl.            | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Result-Remark | Verdict        |              |         |                |        |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|--------------|---------|----------------|--------|--|--|--|---|----|----|---|----|----|--|--|---|----|---------|---|----|---------|--|--|--|----|--|--|----|---------|--------|--------|---|----|-----|--------|--------------|---|---|---|---|----|-----|---|------|---|---|---|---|----|-----|----|------|---|---|---|---|----|-----|----|------|---|---|----|---|----|-----|----|------|---|---|----|---|----|-----|----|------|---|---|----|---|----|-----|----|------|---|---|----|---|----|-----|----|------|---|---|----|---|----|-----|----|------|---|---|----|----|----|-----|----|------|---|---|----|----|----|-----|----|------|---|---|----|----|----|-----|----|------|---|---|----|----|----|----|----|------|---|---|----|----|----|----|----|------|---|---|----|----|----|----|----|-----|----|---|----|----|----|----|----|-----|----|---|----|----|----|----|----|-----|----|---|-----|----|----|----|----|-----|----|---|-----|----|----|----|----|-----|----|---|-----|----|----|---|----|-----|----|---|-----|----|----|---|----|-----|----|---|-----|----|----|---|----|-----|-----|---|-----|----|----|---|----|-----|-----|---|-----|----|----|---|----|---|-----|---|-----|--|--|--|----|---|-----|---|-----|--|--|--|----|---|-----|---|-----|--|--|--|----|---|-----|----|-----|--|--|--|----|---|-----|----|-----|--|--|--|----|---|-----|----|-----|--|--|--|----|---|-----|-----|-----|--|--|--|----|---|-----|-----|-----|--|--|--|----|---|-----|-----|-----|--|--|--|----|---|-----|-----|-----|--|--|--|----|----|-----|-----|-----|--|--|--|----|----|-----|-----|-----|--|--|--|----|----|-----|-----|-----|--|--|--|----|----|-----|-----|-----|--|--|--|----|----|-----|-----|----|--|--|--|----|----|----|-----|----|----------|--|-------|----------|--|-------|-------|-------|---|
| 6              | The comfort fan efficiency shall be determined on the basis of the nominal air flow rate of the unit divided by the nominal electric power input of the unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | N/A            |              |         |                |        |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                | <div>Table 1</div> <div>Cooling and heating season bins (j = bin index, Tj = outdoor temperature, hj = hours per annum per bin) where 'db' = dry bulb temperature</div> <table><tr><th colspan="3">COOLING SEASON</th><th colspan="5">HEATING SEASON</th></tr><tr><th>j</th><th>Tj</th><th>hj</th><th>j</th><th>Tj</th><th colspan="3">hj</th></tr><tr><th>#</th><th>°C</th><th>h/annum</th><th>#</th><th>°C</th><th colspan="3">h/annum</th></tr><tr><th></th><th>db</th><th></th><th></th><th>db</th><th>Average</th><th>Warmer</th><th>Colder</th></tr><tr><td>1</td><td>17</td><td>205</td><td>1 to 8</td><td>- 30 to - 23</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2</td><td>18</td><td>227</td><td>9</td><td>- 22</td><td>0</td><td>0</td><td>1</td></tr><tr><td>3</td><td>19</td><td>225</td><td>10</td><td>- 21</td><td>0</td><td>0</td><td>6</td></tr><tr><td>4</td><td>20</td><td>225</td><td>11</td><td>- 20</td><td>0</td><td>0</td><td>13</td></tr><tr><td>5</td><td>21</td><td>216</td><td>12</td><td>- 19</td><td>0</td><td>0</td><td>17</td></tr><tr><td>6</td><td>22</td><td>215</td><td>13</td><td>- 18</td><td>0</td><td>0</td><td>19</td></tr><tr><td>7</td><td>23</td><td>218</td><td>14</td><td>- 17</td><td>0</td><td>0</td><td>26</td></tr><tr><td>8</td><td>24</td><td>197</td><td>15</td><td>- 16</td><td>0</td><td>0</td><td>39</td></tr><tr><td>9</td><td>25</td><td>178</td><td>16</td><td>- 15</td><td>0</td><td>0</td><td>41</td></tr><tr><td>10</td><td>26</td><td>158</td><td>17</td><td>- 14</td><td>0</td><td>0</td><td>35</td></tr><tr><td>11</td><td>27</td><td>137</td><td>18</td><td>- 13</td><td>0</td><td>0</td><td>52</td></tr><tr><td>12</td><td>28</td><td>109</td><td>19</td><td>- 12</td><td>0</td><td>0</td><td>37</td></tr><tr><td>13</td><td>29</td><td>88</td><td>20</td><td>- 11</td><td>0</td><td>0</td><td>41</td></tr><tr><td>14</td><td>30</td><td>63</td><td>21</td><td>- 10</td><td>1</td><td>0</td><td>43</td></tr><tr><td>15</td><td>31</td><td>39</td><td>22</td><td>- 9</td><td>25</td><td>0</td><td>54</td></tr><tr><td>16</td><td>32</td><td>31</td><td>23</td><td>- 8</td><td>23</td><td>0</td><td>90</td></tr><tr><td>17</td><td>33</td><td>24</td><td>24</td><td>- 7</td><td>24</td><td>0</td><td>125</td></tr><tr><td>18</td><td>34</td><td>17</td><td>25</td><td>- 6</td><td>27</td><td>0</td><td>169</td></tr><tr><td>19</td><td>35</td><td>13</td><td>26</td><td>- 5</td><td>68</td><td>0</td><td>195</td></tr><tr><td>20</td><td>36</td><td>9</td><td>27</td><td>- 4</td><td>91</td><td>0</td><td>278</td></tr><tr><td>21</td><td>37</td><td>4</td><td>28</td><td>- 3</td><td>89</td><td>0</td><td>306</td></tr><tr><td>22</td><td>38</td><td>3</td><td>29</td><td>- 2</td><td>165</td><td>0</td><td>454</td></tr><tr><td>23</td><td>39</td><td>1</td><td>30</td><td>- 1</td><td>173</td><td>0</td><td>385</td></tr><tr><td>24</td><td>40</td><td>0</td><td>31</td><td>0</td><td>240</td><td>0</td><td>490</td></tr><tr><td></td><td></td><td></td><td>32</td><td>1</td><td>280</td><td>0</td><td>533</td></tr><tr><td></td><td></td><td></td><td>33</td><td>2</td><td>320</td><td>3</td><td>380</td></tr><tr><td></td><td></td><td></td><td>34</td><td>3</td><td>357</td><td>22</td><td>228</td></tr><tr><td></td><td></td><td></td><td>35</td><td>4</td><td>356</td><td>63</td><td>261</td></tr><tr><td></td><td></td><td></td><td>36</td><td>5</td><td>303</td><td>63</td><td>279</td></tr><tr><td></td><td></td><td></td><td>37</td><td>6</td><td>330</td><td>175</td><td>229</td></tr><tr><td></td><td></td><td></td><td>38</td><td>7</td><td>326</td><td>162</td><td>269</td></tr><tr><td></td><td></td><td></td><td>39</td><td>8</td><td>348</td><td>259</td><td>233</td></tr><tr><td></td><td></td><td></td><td>40</td><td>9</td><td>335</td><td>360</td><td>230</td></tr><tr><td></td><td></td><td></td><td>41</td><td>10</td><td>315</td><td>428</td><td>243</td></tr><tr><td></td><td></td><td></td><td>42</td><td>11</td><td>215</td><td>430</td><td>191</td></tr><tr><td></td><td></td><td></td><td>43</td><td>12</td><td>169</td><td>503</td><td>146</td></tr><tr><td></td><td></td><td></td><td>44</td><td>13</td><td>151</td><td>444</td><td>150</td></tr><tr><td></td><td></td><td></td><td>45</td><td>14</td><td>105</td><td>384</td><td>97</td></tr><tr><td></td><td></td><td></td><td>46</td><td>15</td><td>74</td><td>294</td><td>61</td></tr><tr><td colspan="2">Total h.</td><td>2 602</td><td colspan="2">Total h.</td><td>4 910</td><td>3 590</td><td>6 446</td></tr></table> |               | COOLING SEASON |              |         | HEATING SEASON |        |  |  |  | j | Tj | hj | j | Tj | hj |  |  | # | °C | h/annum | # | °C | h/annum |  |  |  | db |  |  | db | Average | Warmer | Colder | 1 | 17 | 205 | 1 to 8 | - 30 to - 23 | 0 | 0 | 0 | 2 | 18 | 227 | 9 | - 22 | 0 | 0 | 1 | 3 | 19 | 225 | 10 | - 21 | 0 | 0 | 6 | 4 | 20 | 225 | 11 | - 20 | 0 | 0 | 13 | 5 | 21 | 216 | 12 | - 19 | 0 | 0 | 17 | 6 | 22 | 215 | 13 | - 18 | 0 | 0 | 19 | 7 | 23 | 218 | 14 | - 17 | 0 | 0 | 26 | 8 | 24 | 197 | 15 | - 16 | 0 | 0 | 39 | 9 | 25 | 178 | 16 | - 15 | 0 | 0 | 41 | 10 | 26 | 158 | 17 | - 14 | 0 | 0 | 35 | 11 | 27 | 137 | 18 | - 13 | 0 | 0 | 52 | 12 | 28 | 109 | 19 | - 12 | 0 | 0 | 37 | 13 | 29 | 88 | 20 | - 11 | 0 | 0 | 41 | 14 | 30 | 63 | 21 | - 10 | 1 | 0 | 43 | 15 | 31 | 39 | 22 | - 9 | 25 | 0 | 54 | 16 | 32 | 31 | 23 | - 8 | 23 | 0 | 90 | 17 | 33 | 24 | 24 | - 7 | 24 | 0 | 125 | 18 | 34 | 17 | 25 | - 6 | 27 | 0 | 169 | 19 | 35 | 13 | 26 | - 5 | 68 | 0 | 195 | 20 | 36 | 9 | 27 | - 4 | 91 | 0 | 278 | 21 | 37 | 4 | 28 | - 3 | 89 | 0 | 306 | 22 | 38 | 3 | 29 | - 2 | 165 | 0 | 454 | 23 | 39 | 1 | 30 | - 1 | 173 | 0 | 385 | 24 | 40 | 0 | 31 | 0 | 240 | 0 | 490 |  |  |  | 32 | 1 | 280 | 0 | 533 |  |  |  | 33 | 2 | 320 | 3 | 380 |  |  |  | 34 | 3 | 357 | 22 | 228 |  |  |  | 35 | 4 | 356 | 63 | 261 |  |  |  | 36 | 5 | 303 | 63 | 279 |  |  |  | 37 | 6 | 330 | 175 | 229 |  |  |  | 38 | 7 | 326 | 162 | 269 |  |  |  | 39 | 8 | 348 | 259 | 233 |  |  |  | 40 | 9 | 335 | 360 | 230 |  |  |  | 41 | 10 | 315 | 428 | 243 |  |  |  | 42 | 11 | 215 | 430 | 191 |  |  |  | 43 | 12 | 169 | 503 | 146 |  |  |  | 44 | 13 | 151 | 444 | 150 |  |  |  | 45 | 14 | 105 | 384 | 97 |  |  |  | 46 | 15 | 74 | 294 | 61 | Total h. |  | 2 602 | Total h. |  | 4 910 | 3 590 | 6 446 | — |
| COOLING SEASON |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | HEATING SEASON |              |         |                |        |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| j              | Tj                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | hj            | j              | Tj           | hj      |                |        |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| #              | °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | h/annum       | #              | °C           | h/annum |                |        |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                | db                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                | db           | Average | Warmer         | Colder |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 1              | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 205           | 1 to 8         | - 30 to - 23 | 0       | 0              | 0      |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 2              | 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 227           | 9              | - 22         | 0       | 0              | 1      |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 3              | 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 225           | 10             | - 21         | 0       | 0              | 6      |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 4              | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 225           | 11             | - 20         | 0       | 0              | 13     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 5              | 21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 216           | 12             | - 19         | 0       | 0              | 17     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 6              | 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 215           | 13             | - 18         | 0       | 0              | 19     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 7              | 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 218           | 14             | - 17         | 0       | 0              | 26     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 8              | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 197           | 15             | - 16         | 0       | 0              | 39     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 9              | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 178           | 16             | - 15         | 0       | 0              | 41     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 10             | 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 158           | 17             | - 14         | 0       | 0              | 35     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 11             | 27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 137           | 18             | - 13         | 0       | 0              | 52     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 12             | 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 109           | 19             | - 12         | 0       | 0              | 37     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 13             | 29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 88            | 20             | - 11         | 0       | 0              | 41     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 14             | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 63            | 21             | - 10         | 1       | 0              | 43     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 15             | 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 39            | 22             | - 9          | 25      | 0              | 54     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 16             | 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 31            | 23             | - 8          | 23      | 0              | 90     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 17             | 33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 24            | 24             | - 7          | 24      | 0              | 125    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 18             | 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 17            | 25             | - 6          | 27      | 0              | 169    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 19             | 35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13            | 26             | - 5          | 68      | 0              | 195    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 20             | 36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 9             | 27             | - 4          | 91      | 0              | 278    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 21             | 37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4             | 28             | - 3          | 89      | 0              | 306    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 22             | 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3             | 29             | - 2          | 165     | 0              | 454    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 23             | 39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1             | 30             | - 1          | 173     | 0              | 385    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| 24             | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0             | 31             | 0            | 240     | 0              | 490    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 32             | 1            | 280     | 0              | 533    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 33             | 2            | 320     | 3              | 380    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 34             | 3            | 357     | 22             | 228    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 35             | 4            | 356     | 63             | 261    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 36             | 5            | 303     | 63             | 279    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 37             | 6            | 330     | 175            | 229    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 38             | 7            | 326     | 162            | 269    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 39             | 8            | 348     | 259            | 233    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 40             | 9            | 335     | 360            | 230    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 41             | 10           | 315     | 428            | 243    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 42             | 11           | 215     | 430            | 191    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 43             | 12           | 169     | 503            | 146    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 44             | 13           | 151     | 444            | 150    |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 45             | 14           | 105     | 384            | 97     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 46             | 15           | 74      | 294            | 61     |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |
| Total h.       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 602         | Total h.       |              | 4 910   | 3 590          | 6 446  |  |  |  |   |    |    |   |    |    |  |  |   |    |         |   |    |         |  |  |  |    |  |  |    |         |        |        |   |    |     |        |              |   |   |   |   |    |     |   |      |   |   |   |   |    |     |    |      |   |   |   |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |   |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |     |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |      |   |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |    |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |    |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |    |   |     |    |    |   |    |     |     |   |     |    |    |   |    |     |     |   |     |    |    |   |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |   |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |    |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |   |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |     |  |  |  |    |    |     |     |    |  |  |  |    |    |    |     |    |          |  |       |          |  |       |       |       |   |

COMMISSION REGULATION (EU) No 206/2012

| Cl.                                                       | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Result-Remark                                   | Verdict                                              |                                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|----------------------------------|------------------------------|----------------------------------------------------------|-----------------------|-----------------|--------------------------------------------|------------------|-----------------|---------|------------------------------------------------------|--------------------------------|-----------------|------------------|-----------------|------------------------------------------------|------------------------------------|--------|----------|----------------|------------------------------|--------|--------|-----------------------------------------------------------|------------------------------------|----------|-----------|-----|-------|---|-------|--------------|---------|-------|-----|---|---|-----|--------|-------|-----|---|---|-----|--------|-------|-----|---|---|-----|--|---|
|                                                           | <div>Table 2</div> <div>Standard rating conditions, temperatures in 'dry bulb' air temperature<br/>(‘wet bulb’ indicated in brackets)</div> <table><tr><th>Appliance</th><th>Function</th><th>Indoor air temperature (°C)</th><th>Outdoor air temperature (°C)</th></tr><tr><td rowspan="2">air conditioners, excluding single duct air conditioners</td><td>cooling</td><td>27 (19)</td><td>35 (24)</td></tr><tr><td>heating</td><td>20 (max. 15)</td><td>7(6)</td></tr><tr><td rowspan="2">single duct air conditioner</td><td>cooling</td><td>35 (24)</td><td>35 (24) (*)</td></tr><tr><td>heating</td><td>20 (12)</td><td>20 (12) (*)</td></tr></table> <div>(*) In case of single duct air conditioners the condenser (evaporator) when cooling (heating) is not supplied with outdoor air, but indoor air.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Appliance                                       | Function                                             | Indoor air temperature (°C)      | Outdoor air temperature (°C) | air conditioners, excluding single duct air conditioners | cooling               | 27 (19)         | 35 (24)                                    | heating          | 20 (max. 15)    | 7(6)    | single duct air conditioner                          | cooling                        | 35 (24)         | 35 (24) (*)      | heating         | 20 (12)                                        | 20 (12) (*)                        |        | —        |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| Appliance                                                 | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Indoor air temperature (°C)                     | Outdoor air temperature (°C)                         |                                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| air conditioners, excluding single duct air conditioners  | cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 27 (19)                                         | 35 (24)                                              |                                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           | heating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 (max. 15)                                    | 7(6)                                                 |                                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| single duct air conditioner                               | cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 35 (24)                                         | 35 (24) (*)                                          |                                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           | heating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 (12)                                         | 20 (12) (*)                                          |                                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           | <div>Table 3</div> <div>Reference design conditions, temperatures in 'dry bulb' air temperature<br/>(‘wet bulb’ indicated in brackets)</div> <table><tr><th>Function/season</th><th>Indoor air temperature (°C)</th><th>Outdoor air temperature (°C)</th><th>Bivalent temperature (°C)</th><th>Operating limit temperature (°C)</th></tr><tr><td></td><td>T<sub>in</sub></td><td>T<sub>designc</sub>/T<sub>designh</sub></td><td>T<sub>biv</sub></td><td>T<sub>ol</sub></td></tr><tr><td>cooling</td><td>27 (19)</td><td>T<sub>designc</sub> = 35 (24)</td><td>n.a.</td><td>n.a.</td></tr><tr><td>heating/Average</td><td rowspan="3">20 (15)</td><td>T<sub>designh</sub> = - 10 (- 11)</td><td>max. 2</td><td>max. - 7</td></tr><tr><td>heating/Warmer</td><td>T<sub>designh</sub> = 2 (1)</td><td>max. 7</td><td>max. 2</td></tr><tr><td>heating/Colder</td><td>T<sub>designh</sub> = - 22 (- 23)</td><td>max. - 7</td><td>max. - 15</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                  | Function/season                                 | Indoor air temperature (°C)                          | Outdoor air temperature (°C)     | Bivalent temperature (°C)    | Operating limit temperature (°C)                         |                       | T <sub>in</sub> | T <sub>designc</sub> /T <sub>designh</sub> | T <sub>biv</sub> | T <sub>ol</sub> | cooling | 27 (19)                                              | T <sub>designc</sub> = 35 (24) | n.a.            | n.a.             | heating/Average | 20 (15)                                        | T <sub>designh</sub> = - 10 (- 11) | max. 2 | max. - 7 | heating/Warmer | T <sub>designh</sub> = 2 (1) | max. 7 | max. 2 | heating/Colder                                            | T <sub>designh</sub> = - 22 (- 23) | max. - 7 | max. - 15 |     | —     |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| Function/season                                           | Indoor air temperature (°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Outdoor air temperature (°C)                    | Bivalent temperature (°C)                            | Operating limit temperature (°C) |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           | T <sub>in</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | T <sub>designc</sub> /T <sub>designh</sub>      | T <sub>biv</sub>                                     | T <sub>ol</sub>                  |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| cooling                                                   | 27 (19)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | T <sub>designc</sub> = 35 (24)                  | n.a.                                                 | n.a.                             |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| heating/Average                                           | 20 (15)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | T <sub>designh</sub> = - 10 (- 11)              | max. 2                                               | max. - 7                         |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| heating/Warmer                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | T <sub>designh</sub> = 2 (1)                    | max. 7                                               | max. 2                           |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| heating/Colder                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | T <sub>designh</sub> = - 22 (- 23)              | max. - 7                                             | max. - 15                        |                              |                                                          |                       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           | <div>Table 4</div> <div>Operational hours per type of appliance per functional mode to be used for calculation of electricity consumption</div> <table><tr><th>Type of appliance/functionality (if applicable)</th><th>Unit</th><th>Heating season</th><th>On mode</th><th>Thermostat-off mode</th><th>Standby mode</th><th>Off mode</th><th>Crankcase heater mode</th></tr><tr><td></td><td></td><td></td><td>cooling: H<sub>CE</sub><br/>heating: H<sub>HE</sub></td><td>H<sub>TO</sub></td><td>H<sub>SB</sub></td><td>H<sub>OFF</sub></td><td>H<sub>CK</sub></td></tr></table> <div>Air conditioners, except single and double duct air conditioner</div> <table><tr><td>Cooling mode, if appliance offers cooling only</td><td>h/annum</td><td></td><td>350</td><td>221</td><td>2 142</td><td>5 088</td><td>7 760</td></tr><tr><td rowspan="4">Cooling and heating modes, if appliance offers both modes</td><td>Cooling mode</td><td>h/annum</td><td>350</td><td>221</td><td>2 142</td><td>0</td><td>2 672</td></tr><tr><td rowspan="3">Heating mode</td><td>Average</td><td>1 400</td><td>179</td><td>0</td><td>0</td><td>179</td></tr><tr><td>Warmer</td><td>1 400</td><td>755</td><td>0</td><td>0</td><td>755</td></tr><tr><td>Colder</td><td>2 100</td><td>131</td><td>0</td><td>0</td><td>131</td></tr></table> | Type of appliance/functionality (if applicable) | Unit                                                 | Heating season                   | On mode                      | Thermostat-off mode                                      | Standby mode          | Off mode        | Crankcase heater mode                      |                  |                 |         | cooling: H <sub>CE</sub><br>heating: H <sub>HE</sub> | H <sub>TO</sub>                | H <sub>SB</sub> | H <sub>OFF</sub> | H <sub>CK</sub> | Cooling mode, if appliance offers cooling only | h/annum                            |        | 350      | 221            | 2 142                        | 5 088  | 7 760  | Cooling and heating modes, if appliance offers both modes | Cooling mode                       | h/annum  | 350       | 221 | 2 142 | 0 | 2 672 | Heating mode | Average | 1 400 | 179 | 0 | 0 | 179 | Warmer | 1 400 | 755 | 0 | 0 | 755 | Colder | 2 100 | 131 | 0 | 0 | 131 |  | — |
| Type of appliance/functionality (if applicable)           | Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Heating season                                  | On mode                                              | Thermostat-off mode              | Standby mode                 | Off mode                                                 | Crankcase heater mode |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                 | cooling: H <sub>CE</sub><br>heating: H <sub>HE</sub> | H <sub>TO</sub>                  | H <sub>SB</sub>              | H <sub>OFF</sub>                                         | H <sub>CK</sub>       |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| Cooling mode, if appliance offers cooling only            | h/annum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 | 350                                                  | 221                              | 2 142                        | 5 088                                                    | 7 760                 |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
| Cooling and heating modes, if appliance offers both modes | Cooling mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | h/annum                                         | 350                                                  | 221                              | 2 142                        | 0                                                        | 2 672                 |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           | Heating mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Average                                         | 1 400                                                | 179                              | 0                            | 0                                                        | 179                   |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Warmer                                          | 1 400                                                | 755                              | 0                            | 0                                                        | 755                   |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |
|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Colder                                          | 2 100                                                | 131                              | 0                            | 0                                                        | 131                   |                 |                                            |                  |                 |         |                                                      |                                |                 |                  |                 |                                                |                                    |        |          |                |                              |        |        |                                                           |                                    |          |           |     |       |   |       |              |         |       |     |   |   |     |        |       |     |   |   |     |        |       |     |   |   |     |  |   |

| COMMISSION REGULATION (EU) No 206/2012                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                        |                     |                                                 |           |                       |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------|---------------------|-------------------------------------------------|-----------|-----------------------|-----------------------------|---------------------|--------------|----------|-----------------------|--|--|--|------------------------------------------------|----------|----------|-----------|----------|------------------------------------------------|---------|---------|-------|-----------------------------------------------------------|--------------|----------|-------|--------|-------|-----|-----|-------|--------------|----------|-------|-----|-----|-------|-------|-----|------------------------------------------------|--|----------|--|---|-----|-----|-----|-----|-----------------------------|--|--|--|--|--|--|--|--------------|--|----------|--|---|-----|-----|-----|-----|--------------|--|----------|--|---|-----|-----|-----|-----|---|
| Cl.                                                       | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                        |                     | Result-Remark                                   |           |                       | Verdict                     |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           | <table><tr><td>Type of appliance/functionality (if applicable)</td><td>Unit</td><td>Heating season</td><td>On mode</td><td>Thermostat-off mode</td><td>Standby mode</td><td>Off mode</td><td>Crankcase heater mode</td></tr><tr><td></td><td></td><td></td><td>cooling: <math>H_{CE}</math><br/>heating: <math>H_{HE}</math></td><td><math>H_{TO}</math></td><td><math>H_{SB}</math></td><td><math>H_{OFF}</math></td><td><math>H_{CK}</math></td></tr><tr><td rowspan="3">Heating mode, if appliance offers heating only</td><td rowspan="3">h/annum</td><td>Average</td><td>1 400</td><td>179</td><td>0</td><td>3 672</td><td>3 851</td></tr><tr><td>Warmer</td><td>1 400</td><td>755</td><td>0</td><td>4 345</td><td>4 476</td></tr><tr><td>Colder</td><td>2 100</td><td>131</td><td>0</td><td>2 189</td><td>2 944</td></tr></table>                                                                                                                                                                                                         |                |                                        |                     | Type of appliance/functionality (if applicable) | Unit      | Heating season        | On mode                     | Thermostat-off mode | Standby mode | Off mode | Crankcase heater mode |  |  |  | cooling: $H_{CE}$<br>heating: $H_{HE}$         | $H_{TO}$ | $H_{SB}$ | $H_{OFF}$ | $H_{CK}$ | Heating mode, if appliance offers heating only | h/annum | Average | 1 400 | 179                                                       | 0            | 3 672    | 3 851 | Warmer | 1 400 | 755 | 0   | 4 345 | 4 476        | Colder   | 2 100 | 131 | 0   | 2 189 | 2 944 |     |                                                |  | —        |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Type of appliance/functionality (if applicable)           | Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Heating season | On mode                                | Thermostat-off mode | Standby mode                                    | Off mode  | Crankcase heater mode |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | cooling: $H_{CE}$<br>heating: $H_{HE}$ | $H_{TO}$            | $H_{SB}$                                        | $H_{OFF}$ | $H_{CK}$              |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Heating mode, if appliance offers heating only            | h/annum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Average        | 1 400                                  | 179                 | 0                                               | 3 672     | 3 851                 |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Warmer         | 1 400                                  | 755                 | 0                                               | 4 345     | 4 476                 |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Colder         | 2 100                                  | 131                 | 0                                               | 2 189     | 2 944                 |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           | <table><tr><td colspan="8">Double duct air conditioner</td></tr><tr><td colspan="2">Cooling mode, if appliance offers cooling only</td><td>h/60 min</td><td></td><td>1</td><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr><tr><td rowspan="2">Cooling and heating modes, if appliance offers both modes</td><td>Cooling mode</td><td>h/60 min</td><td></td><td>1</td><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr><tr><td>Heating mode</td><td>h/60 min</td><td></td><td>1</td><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr><tr><td colspan="2">Heating mode, if appliance offers heating only</td><td>h/60 min</td><td></td><td>1</td><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr><tr><td colspan="8">Single duct air conditioner</td></tr><tr><td colspan="2">Cooling mode</td><td>h/60 min</td><td></td><td>1</td><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr><tr><td colspan="2">Heating mode</td><td>h/60 min</td><td></td><td>1</td><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr></table> |                |                                        |                     |                                                 |           |                       | Double duct air conditioner |                     |              |          |                       |  |  |  | Cooling mode, if appliance offers cooling only |          | h/60 min |           | 1        | n/a                                            | n/a     | n/a     | n/a   | Cooling and heating modes, if appliance offers both modes | Cooling mode | h/60 min |       | 1      | n/a   | n/a | n/a | n/a   | Heating mode | h/60 min |       | 1   | n/a | n/a   | n/a   | n/a | Heating mode, if appliance offers heating only |  | h/60 min |  | 1 | n/a | n/a | n/a | n/a | Single duct air conditioner |  |  |  |  |  |  |  | Cooling mode |  | h/60 min |  | 1 | n/a | n/a | n/a | n/a | Heating mode |  | h/60 min |  | 1 | n/a | n/a | n/a | n/a | — |
| Double duct air conditioner                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                        |                     |                                                 |           |                       |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Cooling mode, if appliance offers cooling only            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | h/60 min       |                                        | 1                   | n/a                                             | n/a       | n/a                   | n/a                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Cooling and heating modes, if appliance offers both modes | Cooling mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | h/60 min       |                                        | 1                   | n/a                                             | n/a       | n/a                   | n/a                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           | Heating mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | h/60 min       |                                        | 1                   | n/a                                             | n/a       | n/a                   | n/a                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Heating mode, if appliance offers heating only            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | h/60 min       |                                        | 1                   | n/a                                             | n/a       | n/a                   | n/a                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Single duct air conditioner                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                        |                     |                                                 |           |                       |                             |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Cooling mode                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | h/60 min       |                                        | 1                   | n/a                                             | n/a       | n/a                   | n/a                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| Heating mode                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | h/60 min       |                                        | 1                   | n/a                                             | n/a       | n/a                   | n/a                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| ANNEX III                                                 | Verification procedure for market surveillance purposes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                        |                     |                                                 |           |                       | —                           |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
|                                                           | When performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC, the authorities of the Member States shall apply the following verification procedure for the requirements set out in Annex I.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                        |                     |                                                 |           |                       | —                           |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| 1                                                         | The authorities of the Member State shall test one single unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                        |                     |                                                 |           |                       | N/A                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |
| 2                                                         | 2. The air conditioner model, except single and double duct air conditioners, shall be considered to comply with the requirements set out in Annex I, as applicable, to this Regulation, if its seasonal energy efficiency ratio (SEER), or seasonal coefficient for performance (SCOP), if applicable, is not less than the declared value minus 8 % at the declared capacity of the unit. The SEER and SCOP values shall be established in accordance with Annex II.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                        |                     |                                                 |           |                       | N/A                         |                     |              |          |                       |  |  |  |                                                |          |          |           |          |                                                |         |         |       |                                                           |              |          |       |        |       |     |     |       |              |          |       |     |     |       |       |     |                                                |  |          |  |   |     |     |     |     |                             |  |  |  |  |  |  |  |              |  |          |  |   |     |     |     |     |              |  |          |  |   |     |     |     |     |   |

| COMMISSION REGULATION (EU) No 206/2012 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |         |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Result-Remark | Verdict |
|                                        | The model of a single and double duct air conditioner shall be considered to comply with the requirements set out in Annex I, as applicable, to this Regulation, if the results for off-mode and standby-mode conditions do not exceed the limit values by more than 10 %, and if the energy efficiency ratio (EER rated), or coefficient for performance (COP rated), if applicable, is not less than the declared value minus 10 %. The EER and COP values shall be established in accordance with Annex II.                                                  |               | N/A     |
|                                        | The air conditioner model shall be considered to comply with the requirements set out in this Regulation, as applicable, if the maximum sound power level does not exceed more than 2 dB(A) of the declared value.                                                                                                                                                                                                                                                                                                                                              |               | N/A     |
| 3                                      | If the result referred to in point 2 is not achieved, the market surveillance authority shall randomly select three additional units of the same model for testing.                                                                                                                                                                                                                                                                                                                                                                                             |               | N/A     |
| 4                                      | The air conditioner model, except single and double duct air conditioners, shall be considered to comply with the requirements set out in Annex I, as applicable, to this Regulation, if the average of the three units for the seasonal energy efficiency ratio (SEER), or seasonal coefficient of performance (SCOP), if applicable, is not less than the declared value minus 8 % at the declared capacity of the unit. The SEER and SCOP values shall be established in accordance with Annex II.                                                           |               | N/A     |
|                                        | The model of a single and double duct air conditioner shall be considered to comply with the requirements set out in Annex I, as applicable, to this Regulation, if the average of the results of the three units for off-mode and standby- mode conditions do not exceed the limit values by more than 10 %, and if the average of the energy efficiency ratio (EER rated), or coefficient of performance (COP rated), if applicable, is not less than the declared value minus 10 %. The EER and COP values shall be established in accordance with Annex II. |               | N/A     |
|                                        | The air conditioner model shall be considered to comply with the requirements set out in this Regulation, as applicable, if the average of the maximum sound power level does not exceed more than 2 dB(A) of the declared value.                                                                                                                                                                                                                                                                                                                               |               | N/A     |
| 5                                      | If the results referred to in point 4 are not achieved, the model shall be considered not to comply with this Regulation.                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | N/A     |

| COMMISSION REGULATION (EU) No 206/2012 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |         |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                    | Result-Remark | Verdict |
|                                        | For the purposes of checking conformity with the requirements of this Regulation, Member States shall apply the procedures referred to in Annex II, and harmonised standards the reference numbers of which have been published in the Official Journal of the European Union, or other reliable, accurate and reproducible calculation and measurement methods, which take into account the generally recognised state-of-the-art. |               | N/A     |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |         |

| Table 1:<br>Information requirements for air conditioners, except double duct and single duct air conditioners.                                    |          |       |      |                                                                                                                                                                                                      |        |       | P    |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|------|
| (the number of decimals in the box indicates the precision of reporting) Information to identify the model(s) to which the information relates to: |          |       |      |                                                                                                                                                                                                      |        |       |      |
| Function (indicate if present)                                                                                                                     |          |       |      | If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'. |        |       |      |
| Cooling                                                                                                                                            |          | Y     |      | Average (mandatory)                                                                                                                                                                                  |        | Y     |      |
| Heating                                                                                                                                            |          | Y     |      | Warmer (if designated)                                                                                                                                                                               |        | Y     |      |
|                                                                                                                                                    |          |       |      | Colder (if designated)                                                                                                                                                                               |        | N     |      |
| Item                                                                                                                                               | symbol   | value | unit | item                                                                                                                                                                                                 | symbol | value | unit |
| Design load                                                                                                                                        |          |       |      | Seasonal efficiency                                                                                                                                                                                  |        |       |      |
| Cooling                                                                                                                                            | Pdesignc | 3,4   | kW   | Cooling                                                                                                                                                                                              | SEER   | 6,2   | —    |
| Heating/Average                                                                                                                                    | Pdesignh | 2,4   | kW   | Heating/Average                                                                                                                                                                                      | SCOP/A | 4,0   | —    |
| Heating/Warmer                                                                                                                                     | Pdesignh | 3,1   | kW   | Heating/Warmer                                                                                                                                                                                       | SCOP/W | 5,1   | —    |
| Heating/Colder                                                                                                                                     | Pdesignh | —     | kW   | Heating/Colder                                                                                                                                                                                       | SCOP/C | —     | —    |
| Declared capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature Tj                                                      |          |       |      | Declared energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature Tj                                                                                                     |        |       |      |
| Function (indicate if present)                                                                                                                     |          |       |      | If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'. |        |       |      |
| Cooling                                                                                                                                            |          | Y     |      | Average (mandatory)                                                                                                                                                                                  |        | Y     |      |
| Heating                                                                                                                                            |          | Y     |      | Warmer (if designated)                                                                                                                                                                               |        | Y     |      |
|                                                                                                                                                    |          |       |      | Colder (if designated)                                                                                                                                                                               |        | N     |      |
| Item                                                                                                                                               | symbol   | value | unit | item                                                                                                                                                                                                 | symbol | value | unit |
| Tj = 35 °C                                                                                                                                         | Pdc      | 3,42  | kW   | Tj = 35 °C                                                                                                                                                                                           | EERdc  | 2,45  | —    |
| Tj = 30 °C                                                                                                                                         | Pdc      | 2,34  | kW   | Tj = 30 °C                                                                                                                                                                                           | EERdc  | 4,48  | —    |
| Tj = 25 °C                                                                                                                                         | Pdc      | 1,51  | kW   | Tj = 25 °C                                                                                                                                                                                           | EERdc  | 7,49  | —    |
| Tj = 20 °C                                                                                                                                         | Pdc      | 0,99  | kW   | Tj = 20 °C                                                                                                                                                                                           | EERdc  | 13,97 | —    |
| Declared capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor temperature Tj                                           |          |       |      | Declared coefficient of performance (*)/Average season, at indoor temperature 20 °C and outdoor temperature Tj                                                                                       |        |       |      |
| Item                                                                                                                                               | symbol   | value | unit | item                                                                                                                                                                                                 | symbol | value | unit |
| Tj = – 7 °C                                                                                                                                        | Pdh      | 2,25  | kW   | Tj = – 7 °C                                                                                                                                                                                          | COPdc  | 2,79  | —    |
| Tj = 2 °C                                                                                                                                          | Pdh      | 1,22  | kW   | Tj = 2 °C                                                                                                                                                                                            | COPdc  | 3,97  | —    |
| Tj = 7 °C                                                                                                                                          | Pdh      | 0,89  | kW   | Tj = 7 °C                                                                                                                                                                                            | COPdc  | 4,86  | —    |
| Tj = 12 °C                                                                                                                                         | Pdh      | 0,85  | kW   | Tj = 12 °C                                                                                                                                                                                           | COPdc  | 6,06  | —    |
| Tj = operating limit                                                                                                                               | Pdh      | 2,41  | kW   | Tj = operating limit                                                                                                                                                                                 | COPdc  | 2,49  | —    |

|                                                                                                         |               |              |             |                                                                                                               |               |              |             |
|---------------------------------------------------------------------------------------------------------|---------------|--------------|-------------|---------------------------------------------------------------------------------------------------------------|---------------|--------------|-------------|
| Tj = bivalent temperature                                                                               | Pdh           | 2,25         | kW          | Tj = bivalent temperature                                                                                     | COPdc         | 2,79         | —           |
| Declared capacity (*) for heating/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj |               |              |             | Declared coefficient of performance (*)/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj |               |              |             |
| <b>Item</b>                                                                                             | <b>symbol</b> | <b>value</b> | <b>unit</b> | <b>item</b>                                                                                                   | <b>symbol</b> | <b>value</b> | <b>unit</b> |
| Tj = 2 °C                                                                                               | Pdh           | 3,17         | kW          | Tj = 2 °C                                                                                                     | COPdc         | 2,68         | —           |
| Tj = 7 °C                                                                                               | Pdh           | 2,03         | kW          | Tj = 7 °C                                                                                                     | COPdc         | 4,87         | —           |
| Tj = 12 °C                                                                                              | Pdh           | 0,92         | kW          | Tj = 12 °C                                                                                                    | COPdc         | 6,09         | —           |
| Tj = bivalent temperature                                                                               | Pdh           | 3,17         | kW          | Tj = bivalent temperature                                                                                     | COPdc         | 2,68         | —           |
| Tj = operating limit                                                                                    | Pdh           | 3,17         | kW          | Tj = operating limit                                                                                          | COPdc         | 2,68         | —           |
| 3.14                                                                                                    |               |              |             | Declared coefficient of performance (*)/Colder season, at indoor temperature 20 °C and outdoor temperature Tj |               |              |             |
| 2.30                                                                                                    | <b>symbol</b> | <b>value</b> | <b>unit</b> | <b>item</b>                                                                                                   | <b>symbol</b> | <b>value</b> | <b>unit</b> |
| 1.00                                                                                                    | Pdh           | —            | kW          | Tj = - 7 °C                                                                                                   | COPdc         | —            | —           |
| 3.14                                                                                                    | Pdh           | —            | kW          | Tj = 2 °C                                                                                                     | COPdc         | —            | —           |
| 3.14                                                                                                    | Pdh           | —            | kW          | Tj = 7 °C                                                                                                     | COPdc         | —            | —           |
| Tj = 12 °C                                                                                              | Pdh           | —            | kW          | Tj = 12 °C                                                                                                    | COPdc         | —            | —           |
| Tj = bivalent temperature                                                                               | Pdh           | —            | kW          | Tj = bivalent temperature                                                                                     | COPdc         | —            | —           |
| Tj = operating limit                                                                                    | Pdh           | —            | kW          | Tj = operating limit                                                                                          | COPdc         | —            | —           |
| Tj = -15 °C                                                                                             | Pdh           | —            | kW          | Tj = -15 °C                                                                                                   | COPdc         | —            | —           |
| Bivalent temperature                                                                                    |               |              |             | Operating limit temperature                                                                                   |               |              |             |
| heating/Average                                                                                         | Tbiv          | -7           | °C          | heating/Average                                                                                               | Tol           | -10          | °C          |
| heating/Warmer                                                                                          | Tbiv          | 2            | °C          | heating/Warmer                                                                                                | Tol           | 2            | °C          |
| heating/Colder                                                                                          | Tbiv          | —            | °C          | heating/Colder                                                                                                | Tol           | —            | °C          |
| Cycling interval capacity                                                                               |               |              |             | Cycling interval efficiency                                                                                   |               |              |             |
| for cooling                                                                                             | Pcycc         | —            | kW          | for cooling                                                                                                   | EERcyc        | —            | —           |
| for heating                                                                                             | Ppsych        | —            | kW          | for heating                                                                                                   | COPcyc        | —            | —           |
| Degradation co-efficient cooling (**)                                                                   | Cdc           | 0,25         | —           | Degradation co-efficient heating (**)                                                                         | Cdh           | 0,25         | —           |
| Electric power input in power modes other than 'active mode'                                            |               |              |             | Annual electricity consumption                                                                                |               |              |             |
| off mode                                                                                                | POFF          | —            | kW          | for cooling                                                                                                   | QCE           | 192          | kWh/a       |
| standby mode (cooling /                                                                                 | PSB           | 0,24         | W           | Heating/Average                                                                                               | QHE           | 840          | kWh/a       |

|                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                |               |      |                                                                                                                                                                                                      |                                      |       |                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------|------------------------------|
| heating)                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                |               |      |                                                                                                                                                                                                      |                                      |       |                              |
| thermostat-off mode<br>(cooling / heating)                                                                                                                                                                                                                                                                                                                                    | P <sub>TO</sub>                                                                                                | 29,8/<br>11,2 | W    | Heating/Warmer                                                                                                                                                                                       | Q <sub>HE</sub>                      | 851   | kWh/<br>a                    |
| crankcase heater mode                                                                                                                                                                                                                                                                                                                                                         | P <sub>CK</sub>                                                                                                | —             | kW   | Heating/Colder                                                                                                                                                                                       | Q <sub>HE</sub>                      | —     | kWh/<br>a                    |
| Capacity control (indicate one of three options)                                                                                                                                                                                                                                                                                                                              |                                                                                                                |               |      | Other items                                                                                                                                                                                          |                                      |       |                              |
| Function (indicate if present)                                                                                                                                                                                                                                                                                                                                                |                                                                                                                |               |      | If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'. |                                      |       |                              |
| Cooling                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                | Y             |      | Average (mandatory)                                                                                                                                                                                  |                                      | Y     |                              |
| Heating                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                | Y             |      | Warmer (if designated)                                                                                                                                                                               |                                      | Y     |                              |
|                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                |               |      | Colder (if designated)                                                                                                                                                                               |                                      | N     |                              |
| Item                                                                                                                                                                                                                                                                                                                                                                          | symbol                                                                                                         | value         | unit | item                                                                                                                                                                                                 | symbol                               | value | unit                         |
| Fixed                                                                                                                                                                                                                                                                                                                                                                         | N                                                                                                              |               |      | Sound power level<br>(indoor/outdoor)                                                                                                                                                                | level<br>(indoor/<br>outdoor)<br>LWA | 54/61 | dB(A)                        |
| staged                                                                                                                                                                                                                                                                                                                                                                        | N                                                                                                              |               |      | Global warming<br>potential                                                                                                                                                                          | GWP                                  | 675   | kgC<br>O <sub>2</sub><br>eq. |
| variable                                                                                                                                                                                                                                                                                                                                                                      | Y                                                                                                              |               |      | Rated air flow<br>(indoor/outdoor)                                                                                                                                                                   | —                                    | 600   | m <sup>3</sup> /h            |
| Contact details<br>for obtaining<br>more information                                                                                                                                                                                                                                                                                                                          | AUX AIR CONDITIONER CO., LTD.<br>1166 North Mingguang Road, Jiangshan, Yinzhou, Ningbo, 315191 Zhejiang, China |               |      |                                                                                                                                                                                                      |                                      |       |                              |
| (*) For staged capacity units, two values divided by a slash ('/') will be declared in each box in the section 'Declared capacity of the unit' and 'declared EER/COP' of the unit.<br>(**) If default Cd = 0,25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.                         |                                                                                                                |               |      |                                                                                                                                                                                                      |                                      |       |                              |
| In as much as is relevant in view of the functionality, the manufacturer shall supply the information as requested in the above Table 1 in the technical documentation of the product. For units with capacity control marked 'staged', two values for the highest and lowest, noted 'hi/lo' divided by a slash ('/') will be declared in each box under 'Declared capacity'. |                                                                                                                |               |      |                                                                                                                                                                                                      |                                      |       |                              |

| Table 2: Information requirements for single duct and double duct air conditioners                |                                |       |      | N/A |
|---------------------------------------------------------------------------------------------------|--------------------------------|-------|------|-----|
| Information to identify the model(s) to which the information relates to [fill in as necessary] : |                                |       |      |     |
| Description                                                                                       | Symbol                         | Value | Unit |     |
| Rated capacity for cooling                                                                        | P <sub>rated</sub> for cooling |       | kW   |     |
| Rated capacity for heating                                                                        | P <sub>rated</sub> for heating |       | kW   |     |
| Rated power input for cooling                                                                     | P <sub>EER</sub>               |       | kW   |     |

|                                                                                                        |                              |       |                        |
|--------------------------------------------------------------------------------------------------------|------------------------------|-------|------------------------|
| Rated power input for heating                                                                          | $P_{COP}$                    |       | kW                     |
| Rated Energy efficiency ratio                                                                          | $EER_d$                      |       | —                      |
| Rated Coefficient of performance                                                                       | $COP_d$                      |       | —                      |
| Information to identify the model(s) to which the information relates to [fill in as necessary]:       |                              |       |                        |
| Description                                                                                            | Symbol                       | Value | Unit                   |
| Power consumption in thermostat-off mode                                                               | $P_{TO}$                     |       | W                      |
| Power consumption in standby mode                                                                      | $P_{SB}$                     |       | W                      |
| Electricity consumption of single/double duct appliances (indicate for cooling and heating separately) | DD: $Q_{DD}$<br>SD: $Q_{SD}$ |       | DD: kWh/a<br>SD: kWh/h |
| Sound power level                                                                                      | $L_{WA}$                     |       | dB(A)                  |
| Global warming potential                                                                               | $GWP$                        |       | kgCO <sub>2</sub> eq.  |
| Contact details for obtaining more information                                                         |                              |       |                        |



|   |        |       |       |       |
|---|--------|-------|-------|-------|
| F | 2249,7 | 806,3 | 2,790 | 80 Hz |
|---|--------|-------|-------|-------|

**Test condition (Heating function(Warmer)) :**

Voltage: 230 V / Frequency: 50 Hz / Harmonic distortion: 1,0 % ;

Tj (bivalent temperature): 2°C; operating limit (TOL): 2°C.

**Table 7 — Part load conditions for reference SCOP, reference SCOPon and reference SCOPnet calculation of air-to-air units for the reference heating season "W" = warmer**

|   | W                                      |                      | Outdoor air dry bulb (wet bulb) temperatures<br>°C | Indoor air dry bulb temperature<br>°C |
|---|----------------------------------------|----------------------|----------------------------------------------------|---------------------------------------|
|   | Part load ratio                        | Part load ratio<br>% |                                                    |                                       |
| A | (not applicable)                       |                      |                                                    |                                       |
| B | $(+2-16)/(T_{designh} - 16)$           | 100                  | 2(1)                                               | 20                                    |
| C | $(+7-16)/(T_{designh} - 16)$           | 64                   | 7(6)                                               | 20                                    |
| D | $(+12-16)/(T_{designh} - 16)$          | 29                   | 12(11)                                             | 20                                    |
| E | $(TOL-16)/(T_{designh} - 16)$          |                      | TOL                                                | 20                                    |
| F | $(T_{bivalent}-16)/(T_{designh} - 16)$ |                      | Tbivalent                                          | 20                                    |

| Test condition | Heating capacity(W) | heating power input(W) | COP   | Remark(<br>For variable capacity units, the frequency settings for the same part load conditions.) |
|----------------|---------------------|------------------------|-------|----------------------------------------------------------------------------------------------------|
| B              | 3170,0              | 1182,8                 | 2,680 | 90 Hz                                                                                              |
| C              | 2033,0              | 417,5                  | 4,869 | 42 Hz                                                                                              |
| D              | 917,7               | 150,8                  | 6,086 | 16 Hz                                                                                              |
| E              | 3170,0              | 1182,8                 | 2,680 | 90 Hz                                                                                              |
| F              | 3170,0              | 1182,8                 | 2,680 | 90 Hz                                                                                              |

The SEER, SCOP and Sound power level:

| SEER on         | SCOP on (Average)         | SCOP on (Warmer)         | Sound power level (dB(A)) |
|-----------------|---------------------------|--------------------------|---------------------------|
| 6,44            | 4,01                      | 5,21                     | 51,4 / 58,0 (IU / OU)     |
| SEER            | SCOP (Average)            | SCOP (Warmer)            | /                         |
| 6,20            | 4,00                      | 5,10                     | /                         |
| Q <sub>CE</sub> | Q <sub>HE</sub> (Average) | Q <sub>HE</sub> (Warmer) | /                         |
| 192             | 840                       | 851                      | /                         |

| Information of efficiency for Declared value and Measured value |                |                |
|-----------------------------------------------------------------|----------------|----------------|
| Item                                                            | Declared value | Measured value |
| SEER                                                            | 6,2            | 6,20           |
| Q <sub>CE</sub>                                                 | 192            | 192            |
| <b>Average (mandatory)</b>                                      |                |                |
| SCOP                                                            | 4,0            | 4,00           |
| Q <sub>HE</sub>                                                 | 840            | 840            |
| <b>Warmer</b>                                                   |                |                |
| SCOP                                                            | 5,1            | 5,10           |
| Q <sub>HE</sub>                                                 | 851            | 851            |

| Requirements for minimum energy efficiency and maximum sound power level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                           | P |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------|---|
| From 1 January 2013, air conditioners, except single and double duct air conditioners, shall correspond to minimum energy efficiency and maximum sound power level requirements as indicated in Tables 4 and 5 below, calculated in accordance with Annex II. The requirements on energy efficiency shall take into account the reference design conditions specified in Annex II, Table 3 using the 'Average' heating season where applicable. The requirements on sound power shall relate to the standard rating conditions specified in Annex II, Table 2 : |      |                           |   |
| SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SCOP | Sound power level (dB(A)) |   |
| 3,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3,40 | 60 / 65 (IU / OU)         |   |
| Requirements for minimum energy efficiency and maximum sound power level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                           | P |
| From 1 January 2014, air conditioners shall correspond to requirements as indicated in the table below, calculated in accordance with Annex II. The requirements on energy efficiency for air conditioners, excluding single and double duct air conditioners, shall relate to the reference design conditions specified in Annex II, Table 3 using the 'Average' heating season where applicable.                                                                                                                                                              |      |                           |   |
| SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SCOP | Sound power level (dB(A)) |   |
| 4,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3,80 | 60 / 65 (IU / OU)         |   |

| Verification table                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    |                                                                 | N/A |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------|-----|
| <p>1. The air conditioner model, except single and double duct air conditioners, shall be considered to comply with the requirements set out in Annex I, as applicable, to this Regulation, if its seasonal energy efficiency ratio (SEER), or seasonal coefficient for performance (SCOP), if applicable, is not less than the declared value minus 8 % at the declared capacity of the unit. The SEER and SCOP values shall be established in accordance with Annex II.</p> <p>2. The air conditioner model shall be considered to comply with the requirements set out in this Regulation, as applicable, if the maximum sound power level does not exceed more than 2 dB(A) of the declared value.</p> |                                    |                                                                 |     |
| Tested SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Declared SEER                      | Verification                                                    |     |
| —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | —                                  | Tested SEER > Declared SEER x 92%                               |     |
| Tested SCOP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Declared SCOP                      | Verification                                                    |     |
| —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | —                                  | Tested SCOP > Declared SCOP x 92%                               |     |
| Tested sound power level (dB(A))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Declared Sound power level (dB(A)) | Verification                                                    |     |
| —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | —                                  | Tested sound power level < Declared Sound power level + 2 dB(A) |     |

| COMMISSION REGULATION (EU) No 626/2011 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|------|------|------|-------------|-------------|-----|--------------------|--------------------|----|--------------------|--------------------|---|--------------------|--------------------|---|--------------------|--------------------|---|--------------------|--------------------|---|--------------------|--------------------|---|--------------------|--------------------|---|--------------------|--------------------|---|-------------|-------------|---|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Result-Remark      | Verdict                 |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| ANNEX II                               | Energy efficiency classes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    | —                       |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| 1                                      | The energy efficiency of air conditioners shall be determined on the basis of measurements and calculations set out Annex VII.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    | P                       |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
|                                        | Both the SEER and SCOP shall take into account the reference design conditions and the operational hours per relevant mode of operation, and the SCOP shall relate to the heating season ‘average’, as laid down in Annex VII. The rated energy efficiency ratio (EER rated) and the rated coefficient of performance (COP rated) shall relate to standard rating conditions, as laid down in Annex VII.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | P                       |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| 2                                      | <div>Table 1</div> <div>Energy efficiency classes for air conditioners, except double ducts and single ducts</div> <table><tr><th>Energy Efficiency Class</th><th>SEER</th><th>SCOP</th></tr><tr><td>A+++</td><td>SEER ≥ 8,50</td><td>SCOP ≥ 5,10</td></tr><tr><td>A++</td><td>6,10 ≤ SEER &lt; 8,50</td><td>4,60 ≤ SCOP &lt; 5,10</td></tr><tr><td>A+</td><td>5,60 ≤ SEER &lt; 6,10</td><td>4,00 ≤ SCOP &lt; 4,60</td></tr><tr><td>A</td><td>5,10 ≤ SEER &lt; 5,60</td><td>3,40 ≤ SCOP &lt; 4,00</td></tr><tr><td>B</td><td>4,60 ≤ SEER &lt; 5,10</td><td>3,10 ≤ SCOP &lt; 3,40</td></tr><tr><td>C</td><td>4,10 ≤ SEER &lt; 4,60</td><td>2,80 ≤ SCOP &lt; 3,10</td></tr><tr><td>D</td><td>3,60 ≤ SEER &lt; 4,10</td><td>2,50 ≤ SCOP &lt; 2,80</td></tr><tr><td>E</td><td>3,10 ≤ SEER &lt; 3,60</td><td>2,20 ≤ SCOP &lt; 2,50</td></tr><tr><td>F</td><td>2,60 ≤ SEER &lt; 3,10</td><td>1,90 ≤ SCOP &lt; 2,20</td></tr><tr><td>G</td><td>SEER &lt; 2,60</td><td>SCOP &lt; 1,90</td></tr></table> |                    | Energy Efficiency Class | SEER | SCOP | A+++ | SEER ≥ 8,50 | SCOP ≥ 5,10 | A++ | 6,10 ≤ SEER < 8,50 | 4,60 ≤ SCOP < 5,10 | A+ | 5,60 ≤ SEER < 6,10 | 4,00 ≤ SCOP < 4,60 | A | 5,10 ≤ SEER < 5,60 | 3,40 ≤ SCOP < 4,00 | B | 4,60 ≤ SEER < 5,10 | 3,10 ≤ SCOP < 3,40 | C | 4,10 ≤ SEER < 4,60 | 2,80 ≤ SCOP < 3,10 | D | 3,60 ≤ SEER < 4,10 | 2,50 ≤ SCOP < 2,80 | E | 3,10 ≤ SEER < 3,60 | 2,20 ≤ SCOP < 2,50 | F | 2,60 ≤ SEER < 3,10 | 1,90 ≤ SCOP < 2,20 | G | SEER < 2,60 | SCOP < 1,90 | P |
| Energy Efficiency Class                | SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SCOP               |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| A+++                                   | SEER ≥ 8,50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SCOP ≥ 5,10        |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| A++                                    | 6,10 ≤ SEER < 8,50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4,60 ≤ SCOP < 5,10 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| A+                                     | 5,60 ≤ SEER < 6,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4,00 ≤ SCOP < 4,60 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| A                                      | 5,10 ≤ SEER < 5,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3,40 ≤ SCOP < 4,00 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| B                                      | 4,60 ≤ SEER < 5,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3,10 ≤ SCOP < 3,40 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| C                                      | 4,10 ≤ SEER < 4,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2,80 ≤ SCOP < 3,10 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| D                                      | 3,60 ≤ SEER < 4,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2,50 ≤ SCOP < 2,80 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| E                                      | 3,10 ≤ SEER < 3,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2,20 ≤ SCOP < 2,50 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| F                                      | 2,60 ≤ SEER < 3,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1,90 ≤ SCOP < 2,20 |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |
| G                                      | SEER < 2,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SCOP < 1,90        |                         |      |      |      |             |             |     |                    |                    |    |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |                    |                    |   |             |             |   |

| COMMISSION REGULATION (EU) No 626/2011 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                      |                      |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|-------------------------|--------------|--|--------------|--|----------------------|----------------------|----------------------|----------------------|------|--------|--------|--------|--------|-----|-------------------|-------------------|-------------------|-------------------|----|-------------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|-------------------|---|--------|--------|--------|--------|-----|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      | Result-Remark        |                      | Verdict                 |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | <div>Table 2</div> <div>Energy efficiency classes for double ducts and single ducts</div> <table><tr><th rowspan="2">Energy Efficiency Class</th><th colspan="2">Double ducts</th><th colspan="2">Single ducts</th></tr><tr><th>EER<sub>rated</sub></th><th>COP<sub>rated</sub></th><th>EER<sub>rated</sub></th><th>COP<sub>rated</sub></th></tr><tr><td>A+++</td><td>≥ 4,10</td><td>≥ 4,60</td><td>≥ 4,10</td><td>≥ 3,60</td></tr><tr><td>A++</td><td>3,60 ≤ EER &lt; 4,10</td><td>4,10 ≤ COP &lt; 4,60</td><td>3,60 ≤ EER &lt; 4,10</td><td>3,10 ≤ COP &lt; 3,60</td></tr><tr><td>A+</td><td>3,10 ≤ EER &lt; 3,60</td><td>3,60 ≤ COP &lt; 4,10</td><td>3,10 ≤ EER &lt; 3,60</td><td>2,60 ≤ COP &lt; 3,10</td></tr><tr><td>A</td><td>2,60 ≤ EER &lt; 3,10</td><td>3,10 ≤ COP &lt; 3,60</td><td>2,60 ≤ EER &lt; 3,10</td><td>2,30 ≤ COP &lt; 2,60</td></tr><tr><td>B</td><td>2,40 ≤ EER &lt; 2,60</td><td>2,60 ≤ COP &lt; 3,10</td><td>2,40 ≤ EER &lt; 2,60</td><td>2,00 ≤ COP &lt; 2,30</td></tr><tr><td>C</td><td>2,10 ≤ EER &lt; 2,40</td><td>2,40 ≤ COP &lt; 2,60</td><td>2,10 ≤ EER &lt; 2,40</td><td>1,80 ≤ COP &lt; 2,00</td></tr><tr><td>D</td><td>1,80 ≤ EER &lt; 2,10</td><td>2,00 ≤ COP &lt; 2,40</td><td>1,80 ≤ EER &lt; 2,10</td><td>1,60 ≤ COP &lt; 1,80</td></tr><tr><td>E</td><td>1,60 ≤ EER &lt; 1,80</td><td>1,80 ≤ COP &lt; 2,00</td><td>1,60 ≤ EER &lt; 1,80</td><td>1,40 ≤ COP &lt; 1,60</td></tr><tr><td>F</td><td>1,40 ≤ EER &lt; 1,60</td><td>1,60 ≤ COP &lt; 1,80</td><td>1,40 ≤ EER &lt; 1,60</td><td>1,20 ≤ COP &lt; 1,40</td></tr><tr><td>G</td><td>&lt; 1,40</td><td>&lt; 1,60</td><td>&lt; 1,40</td><td>&lt; 1,20</td></tr></table> |                      |                      |                      | Energy Efficiency Class | Double ducts |  | Single ducts |  | EER <sub>rated</sub> | COP <sub>rated</sub> | EER <sub>rated</sub> | COP <sub>rated</sub> | A+++ | ≥ 4,10 | ≥ 4,60 | ≥ 4,10 | ≥ 3,60 | A++ | 3,60 ≤ EER < 4,10 | 4,10 ≤ COP < 4,60 | 3,60 ≤ EER < 4,10 | 3,10 ≤ COP < 3,60 | A+ | 3,10 ≤ EER < 3,60 | 3,60 ≤ COP < 4,10 | 3,10 ≤ EER < 3,60 | 2,60 ≤ COP < 3,10 | A | 2,60 ≤ EER < 3,10 | 3,10 ≤ COP < 3,60 | 2,60 ≤ EER < 3,10 | 2,30 ≤ COP < 2,60 | B | 2,40 ≤ EER < 2,60 | 2,60 ≤ COP < 3,10 | 2,40 ≤ EER < 2,60 | 2,00 ≤ COP < 2,30 | C | 2,10 ≤ EER < 2,40 | 2,40 ≤ COP < 2,60 | 2,10 ≤ EER < 2,40 | 1,80 ≤ COP < 2,00 | D | 1,80 ≤ EER < 2,10 | 2,00 ≤ COP < 2,40 | 1,80 ≤ EER < 2,10 | 1,60 ≤ COP < 1,80 | E | 1,60 ≤ EER < 1,80 | 1,80 ≤ COP < 2,00 | 1,60 ≤ EER < 1,80 | 1,40 ≤ COP < 1,60 | F | 1,40 ≤ EER < 1,60 | 1,60 ≤ COP < 1,80 | 1,40 ≤ EER < 1,60 | 1,20 ≤ COP < 1,40 | G | < 1,40 | < 1,60 | < 1,40 | < 1,20 | N/A |
| Energy Efficiency Class                | Double ducts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      | Single ducts         |                      |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | EER <sub>rated</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COP <sub>rated</sub> | EER <sub>rated</sub> | COP <sub>rated</sub> |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| A+++                                   | ≥ 4,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ≥ 4,60               | ≥ 4,10               | ≥ 3,60               |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| A++                                    | 3,60 ≤ EER < 4,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4,10 ≤ COP < 4,60    | 3,60 ≤ EER < 4,10    | 3,10 ≤ COP < 3,60    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| A+                                     | 3,10 ≤ EER < 3,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3,60 ≤ COP < 4,10    | 3,10 ≤ EER < 3,60    | 2,60 ≤ COP < 3,10    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| A                                      | 2,60 ≤ EER < 3,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3,10 ≤ COP < 3,60    | 2,60 ≤ EER < 3,10    | 2,30 ≤ COP < 2,60    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| B                                      | 2,40 ≤ EER < 2,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2,60 ≤ COP < 3,10    | 2,40 ≤ EER < 2,60    | 2,00 ≤ COP < 2,30    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| C                                      | 2,10 ≤ EER < 2,40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2,40 ≤ COP < 2,60    | 2,10 ≤ EER < 2,40    | 1,80 ≤ COP < 2,00    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| D                                      | 1,80 ≤ EER < 2,10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2,00 ≤ COP < 2,40    | 1,80 ≤ EER < 2,10    | 1,60 ≤ COP < 1,80    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| E                                      | 1,60 ≤ EER < 1,80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1,80 ≤ COP < 2,00    | 1,60 ≤ EER < 1,80    | 1,40 ≤ COP < 1,60    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| F                                      | 1,40 ≤ EER < 1,60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1,60 ≤ COP < 1,80    | 1,40 ≤ EER < 1,60    | 1,20 ≤ COP < 1,40    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| G                                      | < 1,40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | < 1,60               | < 1,40               | < 1,20               |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
| ANNEX IV                               | Product fiche                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |                      |                      | —                       |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | 1. The information in the product fiche shall be given in the order specified below:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                      | P                    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | (a) supplier's name or trade mark;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                      | P                    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | (b) model identifier of the indoor air conditioner or of the indoor and outdoor elements of the air conditioner;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                      | P                    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | (c) without prejudice to any requirements under the Union eco-label scheme, where a model has been granted a 'European Union eco-label' under Regulation (EC) No 66/2010, a copy of the eco-label may be added;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                      | N/A                  |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | (d) inside and outside sound power levels at standard rating conditions, on cooling and/or heating modes;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                      | P                    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | (e) the name and GWP of the refrigerant used and a standard text as follows:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                      | P                    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |
|                                        | 'Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to [xxx]. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be [xxx] times higher than 1 kg of CO <sup>2</sup> , over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                      | P                    |                         |              |  |              |  |                      |                      |                      |                      |      |        |        |        |        |     |                   |                   |                   |                   |    |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |                   |                   |                   |                   |   |        |        |        |        |     |

| COMMISSION REGULATION (EU) No 626/2011 |                                                                                                                                                                                                                                                                                                                                                                                                          |               |         |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                         | Result-Remark | Verdict |
| 2                                      | Additionally, the following information shall be included in the product fiche on air conditioners on the cooling mode, when efficiency is declared on the basis of the seasonal energy efficiency ratio (SEER):                                                                                                                                                                                         |               | P       |
|                                        | (a) the SEER and the energy efficiency class of the model (model of a unit or of a combination of units) determined in accordance with definitions and test procedures in Annex I and VII for the cooling mode as well as with the class limits defined in Annex II;                                                                                                                                     |               | P       |
|                                        | (b) the indicative annual electricity consumption Q <sub>CE</sub> in kWh/a during the cooling season, determined in accordance with definitions and test procedures in Annex I and VII, respectively. It shall be described as: 'Energy consumption "XYZ" kWh per year, based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located';     |               | P       |
|                                        | (c) the design load P <sub>designc</sub> in kW of the appliance in cooling mode determined in accordance with definitions and test procedures in Annex I and VII, respectively;                                                                                                                                                                                                                          |               | P       |
| 3                                      | Additionally, the following notes define the information to be included in the fiche on the heating mode, when efficiency is declared on the basis of seasonal coefficient of performance (SCOP):                                                                                                                                                                                                        |               | P       |
|                                        | (a) the SCOP and the energy efficiency class of the model, or combination, in heating mode determined in accordance with definitions and test procedures in Annex I and VII, respectively, as well as with the class limits defined in Annex II;                                                                                                                                                         |               | P       |
|                                        | (b) the indicative annual electricity consumption for an average heating season Q <sub>HE</sub> in kWh/a, determined in accordance with definitions and test procedures in Annex I and VII, respectively. It shall be described as: 'Energy consumption "XYZ" kWh per year, based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located'; |               | P       |
|                                        | (c) other designated heating seasons for which the unit is declared fit for purpose, with options of warmer (optional) or colder (optional) seasons, as defined in Annex I;                                                                                                                                                                                                                              |               | P       |
|                                        | (d) the design load P <sub>designh</sub> in kW of the appliance in heating mode determined in accordance with definitions and test procedures in Annex I and VII;                                                                                                                                                                                                                                        |               | P       |
|                                        | (e) the declared capacity and an indication of the back up heating capacity assumed for the calculation of SCOP at reference design conditions.                                                                                                                                                                                                                                                          |               | P       |
| 4                                      | Additionally, the following notes define the information to be included in the fiche of air conditioners, when efficiency is declared on the basis of energy efficiency ratio (EER rated) or coefficient of performance (COP rated):                                                                                                                                                                     |               | N/A     |

| COMMISSION REGULATION (EU) No 626/2011 |                                                                                                                                                                                                                                                                                                                                                                                              |               |         |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                             | Result-Remark | Verdict |
|                                        | (a) the energy efficiency class of the model, determined in accordance with definitions and test procedures in Annex I and VII, as well as the class limits defined in Annex II;                                                                                                                                                                                                             |               | N/A     |
|                                        | (b) for double ducts, the indicative hourly electricity consumption Q <sub>DD</sub> in kWh/60 minutes determined in accordance with definitions and test procedures in Annex I and VII. It shall be described as: 'Energy consumption "X,Y" kWh per 60 minutes, based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located'; |               | N/A     |
|                                        | (c) for single ducts, the indicative hourly electricity consumption Q <sub>SD</sub> in kWh/60 minutes determined in accordance with definitions and test procedures in Annex I and VII. It shall be described as: 'Energy consumption "X,Y" kWh per 60 minutes, based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located'; |               | N/A     |
|                                        | (d) the cooling capacity P rated in kW of the appliance determined in accordance with definitions and test procedures in Annex I and VII;                                                                                                                                                                                                                                                    |               | N/A     |
|                                        | (e) the heating capacity P rated in kW of the appliance determined in accordance with definitions and test procedures in Annex I and VII.                                                                                                                                                                                                                                                    |               | N/A     |
| 5                                      | One fiche may cover a number of appliance models supplied by the same supplier.                                                                                                                                                                                                                                                                                                              |               | N/A     |
| 6                                      | The information contained in the fiche may be given in the form of a copy of the label, either in colour or in black and white. Where this is the case, the information listed in points 1-4 not already displayed on the label shall also be provided.                                                                                                                                      |               | N/A     |
| ANNEX V                                | Technical documentation                                                                                                                                                                                                                                                                                                                                                                      |               | —       |
|                                        | The technical documentation referred to in Article 3 (1)(c) shall include at least the following items:                                                                                                                                                                                                                                                                                      |               | P       |
|                                        | (a) the name and address of the supplier;                                                                                                                                                                                                                                                                                                                                                    |               | P       |
|                                        | (b) a general description of the appliance model, sufficient for it to be unequivocally and easily identified. Single ducts shall be referred to as 'local air conditioners';                                                                                                                                                                                                                |               | P       |
|                                        | (c) where appropriate, the references for the harmonised standards applied;                                                                                                                                                                                                                                                                                                                  |               | P       |
|                                        | (d) where appropriate, the other calculation methods, measurement standards and specifications used;                                                                                                                                                                                                                                                                                         |               | N/A     |
|                                        | (e) identification and signature of the person empowered to bind the supplier;                                                                                                                                                                                                                                                                                                               |               | P       |
|                                        | (f) where appropriate the technical parameters for measurements, established in accordance with Annex VII:                                                                                                                                                                                                                                                                                   |               | P       |
|                                        | (i) overall dimensions;                                                                                                                                                                                                                                                                                                                                                                      |               | P       |

| COMMISSION REGULATION (EU) No 626/2011 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |         |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Cl.                                    | Requirement-Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Result-Remark | Verdict |
|                                        | (ii) specification of the type of the air conditioner;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | P       |
|                                        | (iii) specification whether the appliance is designed for cooling or heating only or for both;                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               | P       |
|                                        | (iv) the energy efficiency class of the model as defined in Annex II;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               | P       |
|                                        | (v) The energy efficiency ratio (EER rated) and coefficient of performance (COP rated) for single and double duct air conditioners or seasonal energy efficiency ratio (SEER) and seasonal coefficient of performance (SCOP) for other air conditioners;                                                                                                                                                                                                                                                                                                     |               | P       |
|                                        | (vi) The heating season for which the appliance is declared fit for purpose;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | P       |
|                                        | (vii) Sound power levels expressed in dB(A) re1 pW, rounded to the nearest integer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | P       |
|                                        | (viii) the name and GWP of refrigerant used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | P       |
|                                        | (g) the results of calculations performed in accordance with Annex VII. Suppliers may include additional information at the end of the above list.                                                                                                                                                                                                                                                                                                                                                                                                           |               | P       |
|                                        | Where the information included in the technical documentation file for a particular air conditioner model has been obtained by calculation on the basis of design, or extrapolation from other equivalent appliances, or both, the documentation shall include details of such calculations or extrapolations, or both, and of tests undertaken by suppliers to verify the accuracy of the calculations undertaken. The information shall also include a list of all other equivalent appliance models where the information was obtained on the same basis. |               | P       |
| ANNEX VI                               | Information to be provided in the cases where end-users cannot be expected to see the product displayed                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | —       |
| 1                                      | 1. The information referred to in Article 4(b) shall be provided in the following order:                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | P       |
|                                        | (a) The energy efficiency class of the model as defined in Annex II;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               | P       |
|                                        | (b) for air conditioners other than single ducts and double ducts:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               | P       |
|                                        | (i) the seasonal energy efficiency ratio (SEER) and/or seasonal coefficient of performance (SCOP);                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               | P       |
|                                        | (ii) the design load (in kW);                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | P       |
|                                        | (iii) the annual electricity consumption;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               | P       |
|                                        | (iv) the cooling and/or each heating ('Average, Colder, Warmer') season the appliance is declared fit for purpose;                                                                                                                                                                                                                                                                                                                                                                                                                                           |               | P       |
|                                        | (c) for single duct and double duct air conditioners:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               | N/A     |
|                                        | (i) the energy efficiency ratio (EER) and/or coefficient of performance (COP);                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               | N/A     |
|                                        | (ii) the rated capacity (kW);                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | N/A     |
|                                        | (iii) for double ducts, the hourly electricity consumption for cooling and/or heating;                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | N/A     |

| <b>COMMISSION REGULATION (EU) No 626/2011</b> |                                                                                                                                               |               |         |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Cl.                                           | Requirement-Test                                                                                                                              | Result-Remark | Verdict |
|                                               | (iv) for single ducts, the hourly electricity consumption for cooling and/or heating;                                                         |               | N/A     |
|                                               | (d) Sound power levels expressed in dB(A) re1 pW, rounded to the nearest integer;                                                             |               | P       |
|                                               | (e) Name and GWP of refrigerant used.                                                                                                         |               | P       |
| 2                                             | Where other information contained in the product information fiche is also provided, it shall be in the form and order specified in Annex IV. |               | P       |
| 3                                             | The size and font in which all the information referred in this Annex is printed or shown shall be legible.                                   |               | P       |

## Photo documents:

**Products General – indoor unit**



**Products General – outdoor unit**



**Products General –compressor**



- - - End of Report - - -