

TEST REPORT COMMISSION REGULATION (EU) No 206/2012 of 6 March 2012

implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air conditioners and comfort fans COMMISSION REGULATION (EU) No 626/2011

of 4 May 2011

supplementing Regulation(EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of air conditioners

Report Reference No...... AHEE241200380651

Tested by (name + signature)....: Jarvan Deng

Approved by (+ signature): Hunter Lin

Testing Laboratory....: SGS-CSTC standards Technical Services Co., Ltd. Anhui Branch

Fanhua Road, Economic & Technological Development Area,

Hefei, 230601 Anhui, China

Address No.568, South Rixian Road, Binhai Economic Development Zone,

Cixi, Ningbo, Zhejiang, 315300, P.R. China

Test specification:

Standard.....: COMMISSION REGULATION (EU) No 206/2012, (EU) No

626/2011, COMMISSION DELEGATED REGULATION(EU)

2023/2048

Non-standard test method...... None

Test Report Form No. EEC_(EU) No 206/2012&626/2011 B

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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.





 Test item description
 : Solar Air Conditione

 Trade Mark

 Manufacturer
 : Same as applicant

 Model/Type reference
 : DGWA21-ACDCBLW-09KR2(EU)

 (IU: DGA21-ACDCBLW-09KR2(EU);
 OU: DWA21-ACDCBLW-09KR2(EU))

 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 amended by Commission Regulation (EU) 2016/2282,

COMMISSION REGULATION (EU) No 626/2011 amended by Commission Delegated Regulation (EU) 2017/254, COMMISSION DELEGATED REGULATION(EU) 2023/2048

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

The tests were performed on model DGWA21-ACDCBLW-09KR2(EU).

The test result which covering all models was classed as A++ of cooling, A+ for heating(average).

Testing location:

Refer to p.1

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

DGWA21-ACDCBLW-09KR2 (EU)			
Solar Air Condi	tioner		
Product Type	DGWA21-ACDCBLW-09KR2 (EU)		
Indoor Unit Type	DGA21-ACDCBLW-09KR2 (EU)		
Outdoor Unit Type	DWA21-ACDCBLW-09KR2 (EU)		
Electric Shock Prevention	Class I		
Rated Voltage	AC208-240V; DC80V-380V		
Rated Frequency	AC:50/60Hz		
Cooling Capacity(35°C)	2700W		
Cooling Power Input (35℃)	620W		
Heating Capacity(7°C/-10°C)	3100W/2500W		
Heating Power Input (7℃/-10℃)	680W/880W		
Cooling Current (35°C)	2. 72A		
Heating Current(7℃/-10℃)	2. 98A/3. 86A		
Air Flow Volume	650m3/h		
Max. Power Input	1700W		
Max. Current Input (AC)	7. 5A		
Sound Pressure Noise Level	42.5dB(A)		
Sound Power Noise Level	56dB(A)		
Refrigerant	R32/(GWP: 675)		
Refrigerant Quantity	Refer to outdoor nameplate		
Max. Discharge Pressure	4.3MPa		
Max. Suction Pressure	1.5MPa		
Indoor max operating pressure of heat			
exchanger	4.3MPa		
Indoor Unit Net Weight	9. 5kg		

Ningbo Deye Domestic Electrical Appliance Technology Co., Ltd. No. 568, South Rixian Road, Binhai Economic Development Zone, Cixi, NINGBO, Zhejiang 315300





Solar Air Condi	tioner
Outdoor Unit Type	DWA21-ACDCBLW-09KR2 (EU)
Water-proof Class	IPX4
Rated Voltage	AC:208-240V;DC:80-380V
Rated Frequency	AC 50/60Hz
Cooling Power Input	620W
Cooling Current Input	2. 72A
Heating Power Input(7℃/-10℃)	680W/880W
Heating Current Input(7℃/-10℃)	2. 98A/3. 86A
Max. Input Power	1700W
Max. Input Current (AC)	7. 5A
Max. Input Current (DC)	14. 00A
Sound Pressure Noise Level	51dB(A)
Sound Power Noise Level	60dB(A)
Refrigerant	R32/(GWP: 675)
Refrigerant Quantity	0.60 kg/0.405tC02eq
Max. Discharge Pressure	4.3MPa
Max. Suction Pressure	1.5MPa
Outdoor max operating pressure of heat exchanger	4. 3MPa
Outdoor Unit Net Weight	30. 5kg

Ningbo Deye Domestic Electrical Appliance Technology Co., Ltd. No. 568, South Rixian Road, Binhai Economic Development Zone, Cixi, NINGBO, Zhejiang 315300







General remarks:

The test results presented in this report relate only to the object tested.

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"(see Enclosure #)" refers to additional information appended to the report.

Date (s) of performance of tests 2025-01-05 to 2025-01-20

Throughout this report a comma is used as the decimal separator.

General product information:

Split-type air-conditioners for household use, the refrigerant was R32.

The appliances have cooling and heating functions.

[&]quot;(see appended table)" refers to a table appended to the report.



COMMISSION REGULATION (EU) No 206/2012 CI. Result-Remark Verdict Requirement-Test ANNEX I Ecodesign requirements DEFINITIONS APPLICABLE FOR THE Ρ PURPOSES OF THE ANNEXES 2 REQUIREMENTS FOR MINIMUM ENERGY Р EFFICIENCY, MAXIMUM POWER CONSUMPTION IN OFF-MODE AND STANDBY MODE AND FOR MAXIMUM SOUND POWER **LEVEL** (a) From 1 January 2013, single duct and double N/A 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. Table 1 Requirements for minimum energy efficiency Double duct air conditioners Single duct air conditioners EER_{rated} COP_{rated} EER_{rated} COP_{rated} 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 Table 2 Requirements for maximum power consumption in off-mode and standby mode for single duct and double duct air conditioners and comfort fans Off mode Power consumption of equipment in any off-mode condition shall not exceed 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 Equipment shall, except where this is inappropriate for the intended use, mode 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. Table 3 Requirements for maximum sound power level Indoor sound power level in dB(A) 65



COMMISSION REGULATION (EU) No 206/2012 CI. Requirement-Test Result-Remark Verdict From 1 January 2013, air conditioners, except Р (b) GWP of refrigerant > 150 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 The requirements on sound power shall relate to Ρ Rated capacity ≤6 kW the standard rating conditions specified in Annex II, Table 2 Table 4 Requirements for minimum energy efficiency SCOP SHER (Average heating season) If GWP of refrigerant > 150 3,40 3,60 If GWP of refrigerant ≤ 150 3.24 3.06 Table 5 Requirements for maximum sound power level Rated capacity ≤ 6 kW 6 < Rated capacity ≤12 kW Indoor sound power level in Outdoor sound power level in Indoor sound power level in Outdoor sound power level in dB(A) dB(A) dB(A) 65 65 70 From 1 January 2014, air conditioners shall Р (c) 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.



COMMISSION REGULATION (EU) No 206/2012 CI. Result-Remark Verdict Requirement-Test Table 6 Requirements for minimum energy efficiency Air conditioners, except double Double duct air conditioners Single duct air conditioners and single duct air conditioners SCOP (heating SEER EER_{rated} COP_{rated} EER_{rated} COPrated season: Average) If GWP of refrigerant 4,60 3,80 2,60 2,60 2,60 2,04 > 150 for < 6 kW If GWP of refrigerant 4,14 3,42 2,34 2,34 2,34 1,84 ≤ 150 for < 6 kW If GWP of refrigerant 4.30 3.80 2.60 2.60 2,60 2.04 > 150 for 6-12 kW If GWP of refrigerant 3.87 2.34 3.42 2.34 2.34 1,84 ≤ 150 for 6-12 kW From 1 January 2014, single duct and double duct (d) N/A air conditioners and comfort fans shall correspond to requirements as indicated in Table 7 below, calculated in accordance with Annex II. Table 7 Requirements for maximum power consumption in off-mode and standby mode 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 Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which mode 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 CI. Result-Remark Verdict Requirement-Test When equipment is not providing the main function, or when other energy-Power management 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: standby mode, or off mode, 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. The power management function shall be activated before delivery. PRODUCT INFORMATION REQUIREMENTS 3. Ρ (a) From 1 January 2013, as regards air Ρ conditioners and comfort fans, the information set out in points below and calculated in accordance with Annex II shall be provided on: (i) the technical documentation of the product; Р (ii) free access websites of manufacturers of air Р conditioners and comfort fans; (b) The manufacturer of air conditioners and Р 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. (c) Information requirements for air conditioners, See attached table 1 Ρ except double duct and single duct air conditioners. (d) Information requirements for single duct and N/A double duct air conditioners. Single duct air conditioners shall be named 'local air conditioners' in packaging, product documentation and in any advertisement material, whether electronic or in paper. Manufacturer shall provide information as detailed in the table 2. (e) Information requirements for comfort fans. N/A Manufacturer shall provide information as detailed in the table 3 ANNEX II Measurements and calculations



COMMISSION REGULATION (EU) No 206/2012 CI. Requirement-Test Result-Remark Verdict For the purposes of compliance and verification of EN 14825: 2022; Р 1 compliance with the requirements of this EN14511-2: 2022: Regulation, measurements and calculations shall EN14511-3: 2022: be made using harmonised standards the reference EN 12102-1: 2022 used numbers of which have been published in the Official Journal of European Union, 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. The determination of the seasonal energy 2 Ρ consumption and efficiency for seasonal energy efficiency ratio (SEER) and seasonal coefficient of performance (SCOP) shall take into account: (a) European cooling and heating season(s), as Ρ defined in Table 1 below; (b) reference design conditions, as defined in Table Ρ 3 below; (c) electric energy consumption for all relevant Ρ modes of operation, using time periods as defined in Table 4 below: (d) effects of the degradation of the energy Р efficiency caused by on/off cycling (if applicable) depending on the type of control of the cooling and/or heating capacity; (e) corrections on the seasonal coefficients of Ρ performance in conditions where the heating load can not be met by the heating capacity; (f) the contribution of a back-up heater (if Р applicable) in the calculation of the seasonal efficiency of a unit in heating mode. Where the information relating to a specific model, 3 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). The rated energy efficiency ratio (EER rated) and, N/A 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. 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.





COMMISSION REGULATION (EU) No 206/2012 CI. Result-Remark Verdict Requirement-Test Table 2 Standard rating conditions, temperatures in 'dry bulb' air temperature ('wet bulb' indicated in brackets) Indoor air temperature Outdoor air temperature Appliance (°C) cooling 27 (19) 35 (24) air conditioners, excluding single duct air conditioners heating 20 (max. 15) 7(6) 35 (24) cooling 35 (24) (*) single duct air conditioner 20 (12) 20 (12) (*) heating (*) In case of single duct air conditioners the condenser (evaporator) when cooling (heating) is not supplied with outdoor air, but indoor Table 3 Reference design conditions, temperatures in 'dry bulb' air temperature ('wet bulb' indicated in brackets) Indoor air temperature Outdoor air temperature Bivalent temperature Operating limit temperature Function/season (°C) (°C) Tin Tdesignc/Tdesignh Tbiv Tol cooling 27 (19) Tdesignc = 35 (24) n.a. n.a. Tdesignh = - 10 (- 11) max. - 7 heating/Average max. 2 heating/Warmer Tdesignh = 2 (1)max. 7 max. 2 20 (15) heating/Colder Tdesignh = - 22 (- 23) max. - 7 max. - 15 Operational hours per type of appliance per functional mode to be used for calculation of electricity consumption Type of appliance/functionality Standby Heating Thermostat-Unit Off mode On mode (if applicable) heater mode season off mode mode cooling: H_{CE} heating: H_{HE} H_{OFF} H_{TO} H_{SB} $\boldsymbol{H}_{\text{CK}}$ Air conditioners, except single and double duct air conditioner Cooling mode, if appliance 221 2 142 5 088 350 7 760 h/annum offers cooling only Cooling h/annum 350 221 2 1 4 2 0 2 6 7 2 mode Cooling and heating modes, if 179 0 0 179 1 400 Average appliance offers both Heating h/annum Warmer 1 400 755 0 0 755 modes mode Colder 2 100 131 0 0 131



COMMISSION REGULATION (EU) No 206/2012 CI. Result-Remark Verdict Requirement-Test Type of appliance/functionality Heating Thermostat-Standby Crankcase Unit Off mode heater mode (if applicable) season off mode mode cooling: H_{CE} H_{SB} Hoff Нск H_{TO} heating: H_H Average 1 400 179 3 672 Heating mode, if appliance h/annum Warmer 1 400 755 0 4 3 4 5 4 4 7 6 offers heating only ٥ Colder 2 100 2 1 8 9 2 9 4 4 131 Double duct air conditioner Cooling mode, if appliance h/60 min 1 n/a n/a n/a n/a offers cooling only Cooling and Cooling h/60 min 1 n/a n/a n/a n/a heating mode modes, if appliance Heating offers both h/60 min 1 n/a n/a mode modes Heating mode, if appliance h/60 min n/a n/a n/a n/a offers heating only Single duct air conditioner Cooling mode h/60 min 1 n/a n/a n/a n/a h/60 min 1 n/a n/a Heating mode 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 N/A single unit. 2. The air conditioner model, except single and 2 N/A 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.



COMMISSION REGULATION (EU) No 206/2012 CI. Requirement-Test Result-Remark Verdict The model of a single and double duct air N/A 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 standbymode 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. The air conditioner model shall be considered to N/A 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. If the result referred to in point 2 is not achieved, the 3 N/A market surveillance authority shall randomly select three additional units of the same model for testing. 4 The air conditioner model, except single and double N/A 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. The model of a single and double duct air N/A 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. The air conditioner model shall be considered to N/A 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. If the results referred to in point 4 are not achieved, N/A 5 the model shall be considered not to comply with this Regulation.





CI. 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.





Table 1: Ρ Information requirements for air conditioners, except double duct and single duct air conditioners. (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'. Υ Υ Cooling Average (mandatory) Υ Warmer (if designated) Ν Heating Colder (if designated) Ν unit Item symbol value item symbol value unit **Design load** Seasonal efficiency Cooling Cooling **Pdesignc** 2.7 kW SEER 6.2 Heating/Average Pdesignh 2,5 kW Heating/Average SCOP/A 4,1 kW SCOP/W Heating/Warmer Pdesignh Heating/Warmer kW SCOP/C Heating/Colder Pdesignh Heating/Colder Declared capacity (*) for cooling, at indoor Declared energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature Tj 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'. Υ Cooling Average (mandatory) Υ Υ Warmer (if designated) Ν Heating Colder (if designated) Ν item symbol Item symbol value unit value unit Tj = 35 °CPdc kW $T_j = 35 \,^{\circ}C$ 2,70 **EERdc** 4,35 Ti = 30 °CPdc 2,00 kW Ti = 30 °C**EERdc** 5,80 Tj = 25 °C Pdc kW $T_j = 25 °C$ **EERdc** 1,30 8,90 $T_i = 20 \, ^{\circ}C$ Pdc 0.60 kW $T_i = 20 \, ^{\circ}C$ **EERdc** 13,50 Declared coefficient of performance (*)/Average Declared capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor season, at indoor temperature 20 °C and outdoor temperature Tj temperature Tj Item symbol value unit item symbol value unit $T_i = -7$ °C Pdh 2,25 kW Tj = -7 °C**COPdc** 3,10 Tj = 2 °CPdh 1,35 kW $T_i = 2 °C$ **COPdc** 4,25 Ti = 7 °CPdh 0,88 kW Tj = 7 °CCOPdc 5,05 Tj = 12 °C Pdh kW 0,50 $T_i = 12 °C$ **COPdc** 4,50 Tj = operating Pdh kW Tj = operating limit **COPdc** 2,50 2,80 limit



Pdh kW Tj = bivalent $T_j = bivalent$ COPdc 2,25 3,10 temperature temperature Declared capacity (*) for heating/Warmer season, Declared coefficient of performance (*)/Warmer at indoor temperature 20 °C and outdoor season, at indoor temperature 20 °C and outdoor temperature Tj temperature Tj symbol unit item symbol value **Item** value unit $T_i = 2 °C$ Pdh kW $T_i = 2 °C$ **COPdc** Tj = 7 °C Pdh kW Tj = 7 °C**COPdc** Tj = 12 °C Pdh kW Tj = 12 °C **COPdc** Tj = operating Pdh kW Tj = operating limit COPdc limit Ti = bivalent Pdh kW Ti = bivalent **COPdc** temperature temperature Declared coefficient of performance (*)/Colder season, at indoor temperature 20 °C and outdoor temperature 3.14 2.30 unit item value symbol value symbol unit kW Tj = -7 °C **COPdc** 1.00 Pdh 3.14 Pdh kW Ti = 2 °C COPdc 3.14 Pdh kW Tj = 7 °C**COPdc** Ti = 12 °CPdh kW $T_i = 12 °C$ **COPdc** Pdh kW Ti = operating Tj = operating limit COPdc limit Tj = bivalent Pdh kW Tj = bivalent COPdc temperature temperature $T_i = -15 \,^{\circ}C$ Pdh kW $T_i = -15 \,^{\circ}C$ **COPdc** Bivalent temperature Operating limit temperature °C heating/Average Tbiv -7 heating/Average Tol -10 °C °C °C heating/Warmer Tbiv heating/Warmer Tol Tbiv °C Tol °C heating/Colder heating/Colder Cycling interval capacity Cycling interval efficiency kW for cooling **Pcycc** for cooling **EERcyc** for heating **Pcych** kW for heating **COPcyc** Cdh Degradation co-Cdc 0,25 Degradation co-0,25 efficient cooling efficient heating (**) Electric power input in power modes other than Annual electricity consumption 'active mode' Poff off mode kW for cooling QCE 151 kWh/ а PsB W standby mode 15/15 Heating/Average QHE 836 kWh/ (cooling / а heating)



thermostat-off mode (cooling / heating)	Рто	8/8	W	Heating/Warmer	QнE	_	kWh/ a
crankcase heater mode	Рск	_	kW	Heating/Colder	QHE	_	kWh/ a
Capacity control (ir	ndicate one of	three option	ns)	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	Υ		
Heating Y		Warmer (if designated)		N	N		
				Colder (if designated)		N	
Item	symbol	value	unit	item	symbol	value	unit
Fixed	N		Sound power level (indoor/outdoor)	level (indoor/ outdoor) LWA	56/60	dB(A)	
staged	N		Global warming potential	GWP	675	kgC O2 eq.	
variable	Y		Rated air flow (indoor/outdoor)	_	650	m3/h	
Contact details for obtaining more information Ningbo Deye Domestic Electrical Appliance Technology Co., Ltd. No.568, South Rixian Road, Binhai Economic Development Zone, Cixi, Ningbo, Zhejiang, 315300, P.R. 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.

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'.

^(**) 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.



N/A Table 2: Information requirements for single duct and double duct air conditioners Information to identify the model(s) to which the information relates to [fill in as necessary]: Value Description Symbol Unit Rated capacity for cooling Prated for cooling kW Prated for heating Rated capacity for heating kW PEER Rated power input for cooling kW Rated power input for heating **P**COP kW **EERd** Rated Energy efficiency ratio Rated Coefficient of COPd performance Information to identify the model(s) to which the information relates to [fill in as necessary]: Description Symbol Value Unit Рто W Power consumption in thermostat-off mode Power consumption in standby PsB W mode DD: QDD Electricity consumption of DD: kWh/a single/double duct appliances SD: QSD SD: kWh/h (indicate for cooling and heating separately) Sound power level LWA dB(A) GWPGlobal warming potential kgCO 2 eq. Contact details for obtaining more information





Test data according to EN 14825:2022

Test condition (Cooling function):

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

Table 2 — Part load conditions for reference SEER and reference SEER $_{\rm on}$ calculation of air-to-air units

	Part load ratio	Part load ratio	Outdoor air dry bulb temperature	Indoor air dry bulb (wet bulb) temperatures
		%	°C	°C
Α	(35-16)/(Tdesignc -16)	100	35	27(19)
В	(30-16)/(Tdesignc -16)	74	30	27(19)
С	(25-16)/(Tdesignc -16)	47	25	27(19)
D	(20-16)/(Tdesignc -16)	21	20	27(19)

Test condition	Cooling capacity(W)	Cooling power input(W)	EER	Remark (For variable capacity units, the frequency settings for the same part load conditions.)
Α	2700,0	620,7	4,35	40 Hz
В	2000,0	344,8	5,80	30 Hz
С	1300,0	146,1	8,90	18 Hz
D	600,0	44,4	13,50	14 Hz

Test condition (Heating function(Average)):

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

Tj (bivalent temperature): <u>-7℃</u>; operating limit (TOL): <u>-10℃</u>.

Table 6 — Part load conditions for reference SCOP, reference SCOP_{on} and reference SCOP_{net} calculation of air-to-air units for the reference heating season "A" = average

	A	A		Indoor air dry bulb
	Part load ratio	Part load ratio	(wet bulb) temperatures	temperature
		%	°C	°C
Α	(-7-16)/(Tdesignh -16)	88	-7(-8)	20
В	(+2-16)/(Tdesignh -16)	54	2(1)	20
С	(+7-16)/(Tdesignh -16)	35	7(6)	20
D	(+12-16)/(Tdesignh -16)	15	12(11)	20
E	(TOL-16)/(Tdesignh -16)		TOL	20
F	(Tbivalent-16)/(Tdesignh	-16)	Tbivalent	20

Test condition	Heating capacity(W)	heating power input(W)	СОР	Remark (For variable capacity units, the frequency settings for the same part load conditions.)
Α	2250	725,81	3,10	60 Hz
В	1350	317,65	4,25	27 Hz
С	880	174,26	5,05	16 Hz
D	500	111,11	4,50	14 Hz
E	2500	892,86	2,80	74 Hz
F	2250	725,81	3,10	60 Hz



The SEER, SCOP and Sound power level: SEER on SCOP on (Average) SCOP on SCOP on Sound power level (Warmer) (Colder) (dB(A)) 8,08 4,20 55 / 58 (IU / OU) **SEER** SCOP (Average) SCOP (Warmer) SCOP (Colder) 6,27 4,19 \mathbf{Q}_{CE} **Q_{HE} (Warmer)** / **QHE** (Average) **QHE** (Colder) 151 835 /





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:

Requirements for minimum energy efficiency and maximum sound power level			Р
3,60	3,40	60 / 65 (IU / OU)	
SEER	SCOP	Sound power level (dB(A))	

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

- 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.
- 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.

	•	` ,
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)



	COM	MISSION REGULATION (EU)) No 626/2011		
CI.	Requirement-Test	Result-Remark Result-Remark			
ANNEX II	Energy efficiency classes			_	
1		y of air conditioners shall be asis of measurements and Annex VII.		Р	
	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.				
2	Table 1				
	Energy efficiency classes for air conditioners, except double ducts and single ducts				
	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		
	В	4,60 ≤ SEER < 5,10	3,10 ≤ SCOP < 3,40		
	С	4,10 ≤ SEER < 4,60	2,80 ≤ SCOP < 3,10		
	D	3,60 ≤ SEER < 4,10	2,50 ≤ SCOP < 2,80		
	Е	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 CI. Result-Remark Verdict Requirement-Test N/A Table 2 Energy efficiency classes for double ducts and single ducts Energy Efficiency Class Double ducts Single ducts $\mathrm{EER}_{\mathrm{rated}}$ COPrated EER_{rated} COPrated A+++ $\ge 4,10$ $\ge 4,60$ $\geq 4,10$ $\ge 3,60$ A++ $3,60 \le EER < 4,10$ $4.10 \le COP < 4.60$ $3,60 \le EER < 4,10$ $3.10 \le COP < 3.60$ A+ $3,10 \le EER < 3,60$ $3,60 \le COP < 4,10$ $3,10 \le EER < 3,60$ $2,60 \le COP < 3,10$ Α $2,60 \le EER < 3,10$ $3,10 \le COP < 3,60$ $2,60 \le EER < 3,10$ $2,30 \le COP < 2,60$ В $2,40 \le EER < 2,60$ $2,60 \le COP < 3,10$ $2,40 \le EER < 2,60$ $2,00 \le COP < 2,30$ C $2,10 \le EER < 2,40$ $2,40 \le COP < 2,60$ $2,10 \le EER < 2,40$ $1.80 \le COP < 2.00$ $1.80 \le EER < 2,10$ D $2.00 \le COP < 2.40$ $1.80 \le EER < 2.10$ $1,60 \le COP < 1,80$ Е $1,60 \le EER < 1,80$ $1,80 \le COP < 2,00$ $1,60 \le EER < 1,80$ $1,40 \le COP < 1,60$ $1,40 \le EER < 1,60$ $1.60 \le COP < 1.80$ $1,40 \le EER < 1,60$ $1.20 \le COP \le 1.40$ G < 1,40 < 1,40 < 1.60 < 1.20 ANNEX IV Product fiche 1. The information in the product fiche shall be given Ρ in the order specified below: (a) supplier's name or trade mark; Ρ (b) model identifier of the indoor air conditioner or of Ρ the indoor and outdoor elements of the air conditioner: (c) without prejudice to any requirements under the N/A 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; (d) inside and outside sound power levels at Ρ standard rating conditions, on cooling and/or heating (e) the name and GWP of the refrigerant used and a Ρ standard text as follows: 'Refrigerant leakage contributes to climate change. Ρ 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 CO², 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.'



COMMISSION REGULATION (EU) No 626/2011 CI. Requirement-Test Result-Remark Verdict Additionally, the following information shall be 2 Р 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): (a) the SEER and the energy efficiency class of the Ρ 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; (b) the indicative annual electricity consumption Q Ρ CE 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'; (c) the design load Pdesignc in kW of the appliance Р in cooling mode determined in accordance with definitions and test procedures in Annex I and VII, respectively: Additionally, the following notes define the Р information to be included in the fiche on the heating mode, when efficiency is declared on the basis of seasonal coefficient of performance (SCOP): (a) the SCOP and the energy efficiency class of the Ρ 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; (b) the indicative annual electricity consumption for Ρ an average heating season Q HE 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'; (c) other designated heating seasons for which the N/A unit is declared fit for purpose, with options of warmer (optional) or colder (optional) seasons, as defined in Annex I; (d) the design load Pdesignh in kW of the appliance Ρ in heating mode determined in accordance with definitions and test procedures in Annex I and VII; (e) the declared capacity and an indication of the Ρ back up heating capacity assumed for the calculation of SCOP at reference design conditions. Additionally, the following notes define the N/A 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):



COMMISSION REGULATION (EU) No 626/2011 CI. Requirement-Test Result-Remark Verdict (a) the energy efficiency class of the model, N/A determined in accordance with definitions and test procedures in Annex I and VII, as well as the class limits defined in Annex II; (b) for double ducts, the indicative hourly electricity N/A consumption Q DD 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'; (c) for single ducts, the indicative hourly electricity N/A consumption Q SD 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': (d) the cooling capacity P rated in kW of the N/A appliance determined in accordance with definitions and test procedures in Annex I and VII; (e) the heating capacity P rated in kW of the N/A appliance determined in accordance with definitions and test procedures in Annex I and VII. One fiche may cover a number of appliance models 5 N/A supplied by the same supplier. 6 The information contained in the fiche may be given N/A 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. ANNEX V Technical documentation The technical documentation referred to in Article 3 Р (1)(c) shall include at least the following items: (a) the name and address of the supplier; Ρ (b) a general description of the appliance model, Р sufficient for it to be unequivocally and easily identified. Single ducts shall be referred to as 'local air conditioners': (c) where appropriate, the references for the Ρ harmonised standards applied; (d) where appropriate, the other calculation methods, N/A measurement standards and specifications used; (e) identification and signature of the person Ρ empowered to bind the supplier; (f) where appropriate the technical parameters for Ρ measurements, established in accordance with Annex VII: (i) overall dimensions; Р (ii) specification of the type of the air conditioner; Ρ



COMMISSION REGULATION (EU) No 626/2011 CI. Requirement-Test Result-Remark Verdict (iii) specification whether the appliance is designed Р for cooling or heating only or for both; (iv) the energy efficiency class of the model as Р defined in Annex II; (v) The energy efficiency ratio (EER rated) and Ρ 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; (vi) The heating season for which the appliance is Ρ declared fit for purpose; (vii) Sound power levels expressed in dB(A) re1 pW. Р rounded to the nearest integer; (viii) the name and GWP of refrigerant used. Ρ (g) the results of calculations performed in Ρ accordance with Annex VII. Suppliers may include additional information at the end of the above list. Where the information included in the technical Р 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. 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 Р provided in the following order: (a) The energy efficiency class of the model as Ρ defined in Annex II; (b) for air conditioners other than single ducts and Ρ double ducts: (i) the seasonal energy efficiency ratio (SEER) Ρ and/or seasonal coefficient of performance (SCOP); (ii) the design load (in kW); Р (iii) the annual electricity consumption; Ρ (iv) the cooling and/or each heating ('Average, Р Colder, Warmer') season the appliance is declared fit for purpose; (c) for single duct and double duct air conditioners: N/A (i) the energy efficiency ratio (EER) and/or coefficient N/A of performance (COP); (ii) the rated capacity (kW); N/A (iii) for double ducts, the hourly electricity N/A consumption for cooling and/or heating; (iv) for single ducts, the hourly electricity N/A consumption for cooling and/or heating;





COMMISSION REGULATION (EU) No 626/2011 CI. Requirement-Test Result-Remark Verdict (d) Sound power levels expressed in dB(A) re1 pW, Ρ rounded to the nearest integer; (e) Name and GWP of refrigerant used. Ρ Where other information contained in the product 2 Ρ information fiche is also provided, it shall be in the form and order specified in Annex IV. The size and font in which all the information 3 Ρ referred in this Annex is printed or shown shall be





Photo documents:



Products General - outdoor unit









--- End of Report ---