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|---|---|-------------------------|---------------------|-------------|---------------------------------------|
| <i>Test Report No.:</i> | <i>NTR20150031</i> | <i>Page 1 of 43</i> | | | |
| <i>Applicant Name:</i> | Gree Electric Appliances Inc. of Zhuhai | | | | |
| <i>Test item:</i> | Split Air Conditioner | | | | |
| <i>Identification:</i> | GWH12UB-K3DNA4F | <i>Serial No.:</i> | Engineering sample | | |
| <i>Receipt No.:</i> | RZ00324366 | <i>Date of receipt:</i> | 2014.12.10 | | |
| <i>Testing location:</i> | Gree Electric Appliances Inc. of Zhuhai Jinji West Road, Qianshan, Zhuhai, Guangdong 519070, P.R.China | | | | |
| <i>Test specification:</i> | NO 206/2012 NO 626/2011 EN 14825:2013 EN 14511-1,2,3,4:2013 | | | | |
| <i>Test Result:</i> | <i>The test items passed the test specification(s).</i> | | | | |
| <i>Testing Laboratory:</i> | Test laboratory of Gree Electric Appliances Inc. of Zhuhai(GTL) | | | | |
| <i>tested by:</i> | | | <i>reviewed by:</i> | | |
| | 2014.12.10 | YuLi | | 2014.12.20 | |
| | <i>Date</i> | <i>Name/Position</i> | <i>Signature</i> | <i>Date</i> | <i>Name/Position</i> <i>Signature</i> |
| <i>Other Aspects:</i> | | | | | |
| Abbreviations: | <i>P(ass) = passed</i> <i>F(ail) = failed</i> <i>N/A = not applicable</i> <i>N/T =not tested</i> | | | | |
| <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i> | | | | | |



Summary of testing

1. The appliance was tested according to EN 14511.
2. The SEER and SCOP were calculated according to EN14825.
3. All the tests were performed on the model GWH12UB-K3DNA4F as representative.
4. The samples are engineering samples without serial numbers.

Test item particulars.....:

Class of temperature T1
 Type: Split wall-mounted type
 Degree of protection Indoor unit:IP20
 Outdoor unit:IP24
 Supply Connection.....: Type Y attachment

Possible test case verdicts:

- 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)

Testing.....:

Date of receipt of test item.....: 2014.12.10
 Date (s) of performance of tests.....: 2014.12.10-2014.12.20

General remarks

- This appliance is split type air conditioner, which consist of one outdoor unit and one indoor unit.
- The indoor unit is a wall mounted type air conditioner, which is usually not accessible (only for maintenance purpose). It will be mounted 2,5 meters above the floor.
- Cooling and heating modes are applied by reverse cycle method. In the heating mode, defrost operation may be applied.
- The indoor unit is equipped with an infrared wireless battery powered remote control unit.

Model list:

| Model | Compressor model | Indoor fan motor | Outdoor fan motor |
|------------------------|-----------------------|------------------|-------------------|
| GWH12UB-K3DNA4F | QXAT-B121zE070 | FN10Q-ZL | FW30J-ZL |
| | | | |
| | | | |


Note:

Rating labels and marking:

Match table:

| Whole model | Indoor unit | Outdoor unit |
|-----------------|-------------------|-------------------|
| GWH12UB-K3DNA4F | GWH12UB-K3DNA4F/I | GWH12UB-K3DNA4F/O |

Indoor unit:



**SPLIT AIR CONDITIONER
INDOOR UNIT**

Model GWH12UB-K3DNA4F/I

Rated Voltage 220-240V~

Rated Frequency 50Hz

Cooling Capacity 3500W

Heating Capacity 3600W



Air Flow Volume 720m³/h

Sound Pressure Level(H) 38dB(A)

Weight 11.5kg

Manufactured Date

GREE ELECTRIC APPLIANCES,INC.OF ZHUHAI

63260001408

Outdoor unit:



AIR CONDITIONER OUTDOOR UNIT

| Model | GWH12UB-K3DNA4F/O | | |
|---|-------------------|----------------------|------------|
| Rated Voltage | 220-240V~ | Cooling Capacity | 3500W |
| Rated Frequency | 50Hz | Heating Capacity | 3600W |
| Climate Type | T1 | Cooling Power Input | 920W |
| Weight | 44.5kg | Heating Power Input | 970W |
| Isolation | I | Cooling Rated Input | 1550W |
| Refrigerant | R410A | Heating Rated Input | 1680W |
| Refri. Charge | 1.3kg | Sound Pressure Level | 52dB(A) |
| Maximum Allowable Pressure | | | 4.3MPa |
| Operating Pressure (Discharge Side/Suction Side) | | | 4.3/2.5MPa |
| Manufactured Date | | Moisture Protection | IP24 |

Contains fluorinated greenhouse gases covered by the Kyoto Protocol

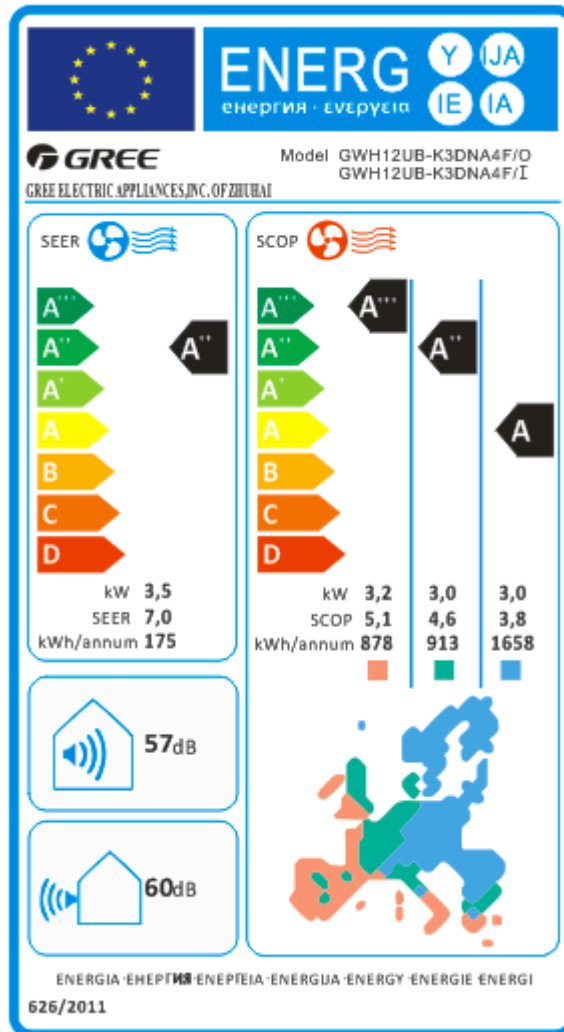
GREE ELECTRIC APPLIANCES,INC. OF ZHUHAI




63260001409

Rating labels and marking:

Energy labelling



| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|--|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| EN 14511-1:2013 | | | |
| 1 | Scope | | P |
| | This standard applies to : <input type="checkbox"/> factory-made units that can be ducted, <input type="checkbox"/> factory-made liquid chilling packages with integral condensers or for use with remote condensers, <input type="checkbox"/> factory-made units of either fixed capacity or variable capacity by any means, and <input type="checkbox"/> air-to-air air conditioners which can also evaporate the condensate on the condenser side. — Packaged units, single split and multisplit systems — Single duct and double duct units | | P |
| | This standard does not apply to : — Installations used for heating and/or cooling of industrial processes — The units having their condenser cooled by air and by the evaporation of external additional water (see EN15218) | | P |
| | In the case of units consisting of several parts, this European Standard applies only to those designed and supplied as a complete package, except for liquid chilling packages with remote condenser. | | P |
| | Part load testing of units is dealt with in EN 14825. | According to EN 14825:2013; see appendix table | P |
| EN 14511-2:2013 | | | |
| 4 | Test condition | | P |
| 4.1 | Environment condition and electrical power supply requirements | | P |
| | Environment condition | table 1 or table 2 | P |
| | Electrical power supply | 220-240V ~ 50Hz | P |
| 4.2 | Rating condition | | P |
| | Standard Rating Condition for heating mode | | P |
| | Indoor heat exchanger; outdoor heat exchanger (°C) | Indoor: 7/6(DB/WB) Outdoor: 20/-(DB/WB) | P |
| | Standard Rating Condition for cooling mode | | P |
| | Indoor heat exchanger; outdoor heat exchanger (°C) | Indoor: 27/19(DB/WB) Outdoor: 35/24(DB/WB) | P |
| | Application rating Condition for heating mode | | N/A |
| | Indoor heat exchanger; outdoor heat exchanger (°C) | | N/A |
| | Application rating Condition for cooling mode | | N/A |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Indoor heat exchanger;outdoor heat exchanger (°C) | | N/A |
| EN 14511-3:2013 | | | |
| 4.1 | Basic principles | | P |
| 4.1.1 | Heating capacity | See appended table | P |
| | Heating capacity determined by measurements on a calorimeter room or by the air enthalpy method | By calorimeter room | P |
| | The heating capacity of air-to-water, water-to-water heat pumps and liquid chilling packages by the directed method | Air-to-air heat pump | N/A |
| | The heating capacity should be corrected for the heat from the fan or pump; | | N/A |
| | The fan or pump at the indoor heat exchanger is an integral part of the unit | The power of the fan is included into the total power input. | N/A |
| | The fan or pump at the indoor heat exchanger is not an integral part of the unit | The fan at the indoor unit is an integral part of the unit. | N/A |
| 4.1.2 | Cooling capacity | | P |
| | Cooling capacity determined by measurements on a calorimeter room or by the air enthalpy method | By calorimeter room | P |
| | The cooling capacity of air-to-water, water-to-water heat pumps and liquid chilling packages by the directed method | | N/A |
| | The cooling capacity should be corrected for the heat from the fan or pump; | | P |
| | The fan or pump at the indoor heat exchanger is an integral part of the unit | The power of the fan is included into the total power input. | P |
| | The fan or pump at the indoor heat exchanger is not an integral part of the unit | The fan at the indoor unit is an integral part of the unit. | N/A |
| 4.1.3 | Heating recovery capacity | No heating recovery | N/A |
| | The heat recovery capacity of air-to-water, water-to-water heat pumps and liquid chilling packages by the directed method | | N/A |
| 4.1.4 | Power input of fans for units without duct connection | The fan motor absorbed power was included into the effective power absorbed by the unit | P |
| 4.1.5 | Power input of fans for units with duct connection | With no duct connection | N/A |
| | Fan is the integral part of unit | | N/A |
| | Fan is not the integral part of unit | | N/A |
| 4.1.6 | Power input of liquid pumps | No liquid pumps | N/A |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.1.7 | Units for use with remote condenser | No remote condenser | N/A |
| 4.2 | Test apparatus | | P |
| 4.2.1 | Arrangement of the test apparatus | | P |
| 4.2.1.1 | General requirement | | P |
| | The test apparatus shall be designed in such a way that all requirements on adjustment of set values, stability criteria and uncertainties of measurement according to this European Standard can be fulfilled. | | P |
| 4.2.1.2 | Test room for the air side | Calorimeter room | P |
| | <p>The size of the test room shall be selected so that any resistance to air flow at the air inlet and air outlet of the tested unit is avoided.</p> <p>Any direct heat radiation by heating units in the test room onto the unit or the temperature measuring point shall be avoided.</p> <p>The velocity of the air flows through the room at the air inlet and air outlet do not exceed 1,5 m/s when the test object is switched off;</p> <p>The air inlet or air outlet orifices be not less than 1 m distant from the surfaces of the test room</p> | <p>The velocity of the air flows through the room at the air inlet and air outlet do not exceed 1,5 m/s when the test object is switched off;</p> <p>The air inlet or air outlet orifices be not less than 1 m distant from the surfaces of the test room</p> | P |
| 4.2.1.3 | Appliance with duct connection | No duct connection | N/A |
| | Ducted air systems shall be sufficiently air tight to ensure that the measured results are not significantly influenced by exchange of air with the surroundings. | | N/A |
| 4.2.1.4 | Appliance with integral pumps | No pumps | N/A |
| | For appliance with integral and adjustable water or brine pumps, the external static pressure will be set at the same time as the temperature difference. | | N/A |
| 4.2.1.5 | Liquid chilling package for use with remote condenser | No liquid chilling package | N/A |
| | Units for use with remote condenser are tested by using a water-cooled condenser, the characteristics of which shall enable the intended operating conditions to be achieved. | | N/A |
| 4.2.2 | Installation and connection of the test object | | P |
| 4.2.2.1 | General | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The test object shall be installed and connected for the test as recommended by the manufacture in his installation and operational manual. The accessories (for example heating element) provided by option are not included in the test. If a back-up heater is provided in option or not, it shall be switched off or disconnected to be excluded from the testing. | Intalled and connected according to installation manual. No electri-heater | P |
| | For single duct units, the discharge duct shall be as short and straight as possibme but not less than 50cm to the wall, | Split type unit without duct | N/A |
| | For double duct units: the requirements apply to both syuction and discharge ducts, unless the appliance is designed to be installed directly on wall. | Without duct | N/A |
| | For multisplit systems, the test shall be performed eith the sustem operatering at a capacity ratio of 1, or as close as possible. | Single split system | N/A |
| | Set the highest room temperature on the unit/system control device in heating mode. | 30 | P |
| | Set the lowest room temperature on the unit/system control device in cooling mode. | 16 | P |
| | If in the instructions, the manufacturer indicates a value for the temperature set on the control device for a given rating condition, then this value shall be used. | | N/A |
| | For unit with open-type compressor the electric motor shall be supplied or sepecified by the manufacturer. The compressor shall be operated at the rotational speed specified by the manufacturer. | Not opentype compressor | N/A |
| | For inverter type control units, if the manufacturer gives instruction for the setting of the frequency for each rating condition, this seting shall be done. | No instruction | N/A |
| 4.2.2.2 | Installation of unit consisting of several parts | | P |
| | a) The refrigerant lines shall be installed in accordance with the manufacturer instructions with a minimum length of 5m and a greater leangth to a maximum of 7,5m if the constaints of the test installation does not possible. | 5m, specified by the manufacturer | P |
| | b) The line shall be installed so that the difference in elevation does not exceed 2,5m. | | P |
| | c) The thermal insulation of the lines shall be applied accordance with the manufacturer's instruction. | | P |
| | d) At least half of the connecting linges shall be exposed outside conditions, with the rest of the lines exposed to the inside conditions. | | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.2.2.3 | Indoor units of multisplit system | Single split system | N/A |
| | When testing a multisplit system in a calorimeter room, the air flow rate and the external static pressure shall be adjusted separately for each one of the ducted indoor units. | | N/A |
| | When testing a multisplit system using the air enthalpy method, the air flow rate and the external static pressure shall be adjusted separately for each indoor unit, ducted or not. | | N/A |
| | In case of equipment with non ducted indoor units tested using the air enthalpy method, the above requirement on ducted indoor units shall apply. | | N/A |
| 4.2.2.4 | Measurements point | | P |
| | Temperature and pressure measuring points shall be arranged in order to obtain mean significant values. | | P |
| | For free air intake temperature measurements, it is required: | | P |
| | —either to have at least one sensor per square meter, with not less than four measuring points and by restricting to 20 the number of sensors equally distributed on the free air surface; | | P |
| | □or to use a sampling device. It shall be completed by four sensors for checking uniformity if the surface area is greater than 1 m ² . | | N/A |
| | For control cabinet air conditioner, the inlet temperature at the evaporator is measured instead of the temperature inside the control cabinet. | | N/A |
| | For units consisting of a heat pump and a storage tank as a factory made unit, water inlet and outlet temperature measurements shall be taken at the inlet and outlet of the tank respectively. | | N/A |
| | For water and brine, the density in formulae (1), (2) and (3) shall be determined in the temperature conditions measured near the volume flow measuring device. | | N/A |
| 4.3 | Uncertainties of measurement | | P |
| | The uncertainties of measurement shall not exceed the values specified in table 1. | | P |
| | <ul style="list-style-type: none"> - dry bulb temperature - wet bulb temperature - volume flow - static pressure difference - electric power - voltage - current - electrical energy | <ul style="list-style-type: none"> ± 0,2 K ± 0,4K ± 5 % ± 5 Pa ($\Delta p \leq 100$ Pa) or ± 5 % ($\Delta p > 100$ Pa) ± 1 % ± 0,5 % ± 0,5 % ± 1 % | |
| 4.4 | Test procedure | | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.4.1 | General | | P |
| 4.4.1.1 | All units | | P |
| | The test condition are given in EN14511-2 | | P |
| | If liquid heat transfer media other than water are used, the specified heat capacity and density of such heat transfer media shall be determined and taken into consideration in the evaluation. | | N/A |
| | Table 4 states permissible deviations of the measured values from the test conditions. | Mean: $T_{em} \pm 0.3K$ AF $\pm 5\%$ Indiv: $T_{em} \pm 1K$ AF $\pm 10\%$ SP $\pm 10\%$ | P |
| 4.4.1.2 | Non ducted units | | P |
| | For non ducted units, the adjustable settings such as louvers and fan speed shall be set for maximum air flow. | | P |
| | For inverter type control units, if the manufacturer indicates a speed of the fan different from the maximum one to set on the control device for a given rating condition, then this speed shall be used. | | P |
| 4.4.1.3 | Units ducted on the indoor heat exchanger | | N/A |
| | The volume flow and pressure difference shall be related to standard air and with dry evaporator. | | N/A |
| | The air flow rate given by the manufacturer shall be converted into standard air conditions. The air flow rate setting shall be made when the fan only is operating, at standard air conditions. | | N/A |
| | The rated air flow rate given by the manufacturer shall be set and resulting external static pressure measured. | | N/A |
| | If the ESP is lower than the minimum value given in Table 2 (or Table 3), the air flow rate is decreased to reach this minimum value. | | N/A |
| | If the ESP is greater than twice the minimum value given in Table 2 (or Table 3), the air flow rate is increased to reach twice this minimum value. | | N/A |
| | If the ESP is greater than the minimum value given in Table 2 (or Table 3) but not greater than twice this minimum value, then keep this ESP. | | N/A |
| 4.4.1.4 | Units ducted on the outdoor heat exchanger | | N/A |
| | The volume flow and the pressure difference shall be related to standard air and with dry heat exchanger. | | N/A |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The air flow rate given by the manufacturer shall be converted into standard air conditions. The air flow rate setting shall be made when the fan only is operating. | | N/A |
| | The rated air flow rate given by the manufacturer shall be set and the resulting external static pressure (ESP) measured. | | N/A |
| | If the ESP is lower than 30 Pa, the air flow rate is decrease to reach this minimum value. | | N/A |
| | If the manufacturer's installation instructions state that the maximum allowable discharge duct length is less than 1m, then the unit can be considered as a free delivery unit and be tested as a non ducted outdoor unit with an ESP of 0 Pa. | | N/A |
| 4.4.2 | Output measurement for water (brine)-to-water (brine) and water (brine)-to-air units | Air-to-air | N/A |
| 4.4.2.1 | Steady state conditions | | N/A |
| | This condition is considered obtained and maintained when all the measured quantities remain constant without having to alter the set values, for a minimum duratuion of 1h, with respect to the tolerances given in table 4. Periodic fluctuations of measured quantities caused by the operation of the regulation and control devices are permissible, on condition the mean value of such fluctuations does not exceed the permissible deviations listed in table 4. | Mean: $T_{em} \pm 0.3K$ AFW $\pm 5\%$ Indiv: $T_{em} \pm 1K$ AFW $\pm 10\%$ SP $\pm 10\%$ | N/A |
| 4.4.2.2 | Measurement of heating capacity, cooling capacity and heat recovery capacity | | N/A |
| | For the output measurement it is necessary to record all the meaningful data continuously. In the case of recording instruments which operate on a cyclic basis, the sequence shall be adjusted such that a complete recording is effected at least once every 30s. | | N/A |
| | The output shall be measured in the steady state condition. The duration of measurement shall be not less than 35min. | | N/A |
| 4.4.3 | Output measurement for cooling capacity of air-to-water and air-to-air units | Air-to-air unit | P |
| 4.4.3.1 | Steady state conditions | | P |
| | This condition is considered obtained and maintained: | | P |
| | When all the measured quantities remain constant without having to alter the set values | | P |
| | For a minimum duration of 1 h, with respect to the tolerances given in Table 4. | | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|---|----------------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Periodic fluctuations of measured quantities caused by the operation of regulation and control devices are permissible, on condition the mean value of such fluctuations does not exceed the permissible deviations listed in table 4. | No period | N/A |
| 4.4.3.2 | Measurement of cooling capacity | | P |
| | Record all the meaningful data continuously | | P |
| | At least once every 30s in case of recording instruments operate on a cyclic basis. | | P |
| | Measured in the steady state condition | | P |
| | Not less than 35min duration | | P |
| 4.4.4 | Output measurement for heating capacity of air-to-air units with the air enthalpy method and of air-to-water units | | P |
| 4.4.4.1 | General | | P |
| | The test procedure consists of three periods: a preconditioning period, an equilibrium period, and data collection period. The duration of the data collection differs depending upon whether the heat pump's operation is steady state or transient. | | P |
| | Annex C gives a flow chart of the procedure and pictorially represents most of the different test sequences that are possible when conducting a heating capacity test. | | P |
| 4.4.4.2 | Preconditioning period | | P |
| | The test room reconditioning apparatus and the heat pump under test shall be operated until the test tolerances specified in Table 4 are attained for at least 10 min. | | P |
| | A defrost cycle may end a preconditioning period. If a defrost cycle does end a preconditioning period, the heat pump shall operate in the heating mode for at least 10 min after defrost termination prior to beginning the equilibrium period. | No defrost cycle happened. | N/A |
| | It is recommended that the preconditioning period end with an automatic or manually-induced defrost cycle when testing at application rating conditions for outdoor air stated in Table 3 and Table 9 of EN14511-2:2013. | | N/A |
| 4.4.4.3 | Equilibrium period | | P |
| | The equilibrium period immediately follows the preconditioning period or the defrost cycle and a recovery period of 10 min that ends a preconditioning period. | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | A complete equilibrium period is one hour in duration. | | P |
| | Except as specified in 4.4.4.7, the heat pump shall operate while meeting the test tolerances specified in Table 4. | | P |
| 4.4.4.4 | Data collection period | | P |
| | The data collection period immediately follows the equilibrium period. | | P |
| | Data shall be sampled at equal intervals that span every 30s or less, accepted during defrost cycles as specified below. | | P |
| | During defrost cycles, plus the first 10 min following defrost termination, data used in evaluating the integrated heating capacity and the integrated power input of the heat pump shall be sampled more frequently, at equal intervals that span every 10s or less. | No defrost cycle happened. | N/A |
| | For heat pumps that automatically cycle off the indoor fan during a defrost, the contribution of the net heating delivered and/or the change in indoor-side dry bulb temperature shall be assigned the value of zero when the indoor fan is off, if using the indoor air enthalpy method. If using the calorimeter test method, the integration of capacity shall continue while the indoor fan is off, | No defrost cycle happened. | N/A |
| | The difference between the leaving and entering temperatures of the heat transfer medium at the indoor heat exchanger shall be measured. | | P |
| 4.4.4.5 | Test procedure: When a defrost cycle ends the preconditioning period | No defrost cycle happened during the heating capacity test. | N/A |
| | If the quantity % AT exceeds 2.5% during the first 35min of the data collection period, the heating capacity test shall be designated a transient test. | | N/A |
| | If the heat pump initiates a defrost cycle during the equilibrium period or during the first 35min of the data collection period, the heating capacity test shall be designated a transient test. | | N/A |
| | If the above conditions do not occur and the test tolerances specified in Table 2 are satisfied during both the equilibrium period and the first 35 min of the data collection period, then the heat capacity test shall be designated a steady-state test. Steady-state tests shall be terminated after 35min of data collection. | | N/A |
| 4.4.4.6 | Test procedure: When a defrost cycle does not end the preconditioning period. | No defrost cycle happened during heat capacity test. | N/A |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.4.4.6.1 | If the heat pump initiates a defrost cycle during the equilibrium period or during the first 35min of the data collection period, the heating capacity test shall be restarted as specified. | | N/A |
| 4.4.4.6.2 | If the quantity %AT exceeds 2.5% any time during the first 35min of the data collection period, then the heating capacity test procedure shall be restarted as specified in 4.4.4.6.3 | | N/A |
| | Prior to the restart, defrost cycle shall occur. This defrost cycle may be manually initiated or delayed until the heat pump initiates an automatic defrost. | | N/A |
| 4.4.4.6.3 | If either 4.4.4.6.1 or 4.4.4.6.2 apply, then the restart shall begin 10min after the defrost cycle terminates with a new equilibrium period of one hour. | | N/A |
| | This second attempt shall follow the requirements of 4.4.4.3 and 4.4.4.4 and the test procedure of 4.4.4.5. | | N/A |
| 4.4.4.6.4 | If the conditions specified in 4.4.4.6.1 or 4.4.4.6.2 do not occur and the test tolerances specified in Table 4 are satisfied during both the equilibrium period and the first 35min of the data collection period, then the heat capacity test shall be designated a steady-state test. Steady-state tests shall be terminated after 35min of data collection. | | N/A |
| 4.4.4.7 | Test procedure for transient tests | | N/A |
| | When, in accordance with 4.4.4.5 a heating capacity test is designated a transient test, the following adjustments shall apply. | | N/A |
| | To constitute a valid transient heating capacity tests, the test tolerances specified in Table 5 shall be achieved during both the equilibrium period and the data collection period. | | N/A |
| | The test tolerance parameters in Table 5 shall be determined throughout the equilibrium and data collection periods. All data collected during each interval, H or D, shall be used to evaluate compliance with the Table 5 test tolerances. | | N/A |
| | The data collection period shall be extended until 3 h have elapsed or until the heat pump completes three complete cycles during the period, whichever occurs first. | | N/A |
| | Applies when the heat pump is in the heating mode, except for the first 10min after termination of a defrost cycle. | | N/A |
| | Applies during a defrost cycle and during the first 10 min after the termination of a defrost cycle when the heat pump is operating in the heating mode. | | N/A |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.4.5 | Output measurement for heating capacity of air-to-air units with the calorimeter room | | N/A |
| 4.4.5.1 | General | | N/A |
| | The test procedure consists of two periods: an equilibrium period, and a data collection period. The duration of the data collection differs depending upon whether the heat pump's operation is steady state or transient. | | N/A |
| 4.4.5.2 | Equilibrium period | | N/A |
| | The test room reconditioning apparatus and the heat pump under test shall be operated until the test tolerances specified in Table 4 are attained for at least 1 h, except if a defrost occurs during this period in which case the test tolerances specified in Table 5 apply. | | N/A |
| | If a defrost occurs during the equilibrium period, then the test procedure described in 4.4.5.5 applies. | | N/A |
| 4.4.5.3 | Data collection period | | N/A |
| | Data shall be sampled at equal intervals that span every 30 s or less, except during defrost cycles as specified below. The duration of measurement shall be not less than 70 min. | | N/A |
| 4.4.5.4 | General Test Procedure | | N/A |
| | If a defrost occurs before the start of the data collection period, or if the quantity $\% \Delta T$ exceeds 2,5 % during the data collection period, the heating capacity test shall be designated a transient test (see 4.4.5.5). Likewise, if the heat pump initiates a defrost cycle during the equilibrium period or during the data collection period, the heating capacity test shall be designated a transient test. | | N/A |
| | If the above conditions do not occur and the test tolerances specified in Table 4 are satisfied during both the equilibrium period and the data collection period, then the heat capacity test shall be designated a steady-state test. Steady-state tests shall be terminated after at least 70 minutes of data collection. | | N/A |
| 4.4.5.5 | Test procedure for transient tests | | N/A |
| | When, in accordance with 4.4.5.4, a heating capacity test is designated a transient test, the following adjustments shall apply. | | N/A |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | To constitute a valid transient heating capacity tests, the test tolerances specified in Table 5 shall be achieved during both the equilibrium period and the data collection period. As noted in Table 5, the test tolerances are specified for two sub-intervals. Interval H consists of data collected during each heating interval, with the exception of the first 10 min after defrost termination. Interval D consists of data collected during each defrost cycle plus the first 10 min of the subsequent heating interval. | | N/A |
| | All data collected during each interval, H or D shall be used to evaluate compliance with the Table 5. Data from two or more H intervals or two or more D intervals shall not be combined and then used in evaluating Table 5 compliance. Compliance is based on evaluating data from each interval separately. | | N/A |
| | The data collection period shall be extended until 3 hours at least have elapsed and until a full number of complete cycles have elapsed, except if the medium time interval for a full cycle is greater than 2h, in which case the data collection period shall be of one full cycle only or 4h, whichever is the shortest. A complete cycle consists of a heating period and a defrost period; from defrost termination to defrost termination. With this procedure, the maximum duration of the data collection period is 4 h. | | N/A |
| | During defrost cycles, plus the first 10 min following defrost termination, data used in evaluating the integrated heating capacity and the integrated power input of the heat pump shall be sampled more frequently, at equal intervals that span every 10 s or less. When using the calorimeter room method, these more frequently sampled data include all measurements required to determine the indoor-side capacity. | | N/A |
| | For heat pumps that automatically turn off the indoor fan during a defrost cycle, the integration of capacity shall continue while the indoor fan is off. | | N/A |
| 4.5 | Test results | | P |
| 4.5.1 | Data to be recorded | | P |
| | Data to be recorded for the capacity tests are given in table 6, and these data shall be the mean values taken over the period. | | P |
| 4.5.2 | Cooling capacity and heat recovery capacity calculation. | | P |
| | The cooling capacity and heat recovery capacities shall be determined from the set of cooling and heat recovery capacities recorded over the data collection period. | | P |
| 4.5.3 | Heating capacity calculation | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.5.3.1 | Steady state capacity test | | P |
| | An average capacity shall be determined from the set of heating capacities recorded over the 35min data collection period. | | P |
| 4.5.3.2 | Transient capacity test | | N/A |
| | For equipment where one or more complete cycle occurs during the data collection period, the following shall apply. | | N/A |
| | The average heating capacity shall be determined using the integrated capacity and the elapsed time corresponding to the total number of complete cycles that occurred over the data collection period. | | N/A |
| | For equipment where no complete cycle occurs during the data collection period, the following shall apply. | | N/A |
| | The average heating capacity shall be determined by using the integrated capacity and the elapsed time corresponding to the total data collection period. | | N/A |
| 4.5.4 | Effective power input calculation | | P |
| 4.5.4.1 | Steady state test | | P |
| | An average electric power input shall be determined from the integrated electrical power over the same data collection period than the one used for the heating/cooling capacity or heat recovery capacity calculation. | | P |
| 4.5.4.2 | Transient with defrost cycle | | N/A |
| | An average electric power input shall be determined on the basis of the integrated electrical power and the time corresponding to the total number of complete cycles during the same data collection period as the one used for the heat capacity calculation. | | N/A |
| 4.5.4.3 | Transient without defrost cycle | | N/A |
| | An average electric power input shall be determined on the basis of the integrated electrical power and the time corresponding to the same data collection period as the one used for the heat capacity calculation. | | N/A |
| 5 | Heat recovery test for air-cooled multisplit systems | | N/A |
| 5.1 | Test installation | | N/A |
| 5.1.1 | General | | |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The heat recovery capacity of the system is determined by measurements in a three room calorimeter or by the air enthalpy method using two or three rooms.The three rooms shall consist of one outdoor and two indoor rooms, one at the heating condition and the other at the cooling condition.The two room air enthalpy method shall have one room at the outdoor condition and the other at the common indoor side condition given in Table 21 of EN 14511-2:2013. | | N/A |
| | The calorimeter room and air enthalpy methods are described in annex A and annex B respectively.Each calorimeter room shall satisfy the requirements of annex A and the test facilities for the air enthalpy method shall satisfy the requirements of annex B. | | N/A |
| 5.1.2 | Three-room calorimeter method | | N/A |
| | If measurements are made by the calorimeter method,then the testing of a heat recovery system shall need a three-room calorimeter test facility.The indoor units in the cooling mode shall be assembled in one room and the indoor units in the heating mode in the other.The outdoor unit shall be installed in the third room. | | N/A |
| 5.1.3 | Three-room air-enthalpy method | | N/A |
| | The indoor units in the cooling mode shall be assembled in one room and the indoor units in the heating mode in another room;the outdoor unit shall be installed in the third room. | | N/A |
| 5.1.4 | Two-room air-enthalpy method | | N/A |
| | All indoor units, either operating in cooling or heating mode, are assembled in one indoor room.The outdoor unit shall be installed in the other room. | | N/A |
| | All units operating in the heating mode shall be connected to a common plenum,all units operating in the cooling mode shall be connected to another common plenum,both in accordance with the requirements established in annex B. | | N/A |
| 5.2 | Test procedure | | N/A |
| | The heat recovery test shall be carried out with all operating indoor units. | | N/A |
| | For ducted indoor units,the individual external static pressure of each indoor unit is set by adjusting a damper located in the duct length connecting the discharge area of the unit to the common plenum. | | N/A |
| 5.3 | Test results | | N/A |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|-------------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Test results are recorded and expressed as specified in 4.5. | | N/A |
| | The references of the indoor units operating in cooling mode and of the indoor units operating in heating mode shall be specified. | | N/A |
| 6 | Test report | | P |
| 6.1 | General information | | P |
| 6.2 | Test report should at least contain: | | P |
| | a) date; b)test institute; c)test location; d)test method; e)test supervisor; f)test object designation: Type;serial number;name of the manufacturer; year of initial installation; g)typen of refrigerant; h)mass of refrigerant; i)properties of fluids; j)reference to this European Standard | See appended test table | P |
| 6.2 | Additional information | | P |
| | Additional information given on the rating plate shall be noted and any other information relevant for the test. Particularly, it shall be strated whether the test is performed on a unit new or not. In the case of a test performed on a unit in use, information relative to the year of installation and heat exchange tubes cleaning shall be given. | New unit use | |
| 6.3 | Rating test results | | P |
| | The rating capcacies, power inputs, COP, EER, internal or external static pressure shall be given together with the rating conditions. | | P |

| EN 14511-4:2013 | | | |
|-----------------|--|--|---|
| 4 | Requirements | | P |
| 4.1 | General | | P |
| | Except where otherwise stated, tests shall be conducted as described in EN 14511-2 and EN 14511-3. | | P |
| 4.2 | Temperature operating range | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|--|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 4.2.1 | Starting test | | P |
| | The unit shall be capable of operating within the limit of use indicated by the manufacturer. | | P |
| | For every condition stated in Table 1, and for both cooling and heating mode where applicable, the unit shall start up and operate for at least 30 min, without being stopped by the safety devices. | The unit start up and operate for more than 30min continuously without stop. | P |
| 4.2.2 | Test at maximum operating conditions(cooling mode) | | P |
| | When operated at conditions stated in Table 2 during 1h,then switch off for 3 min,and then switched on again for 1h,the unit shall meet the following requirements: | | P |
| | ---- the unit shall suffer no damage; | No any damage | P |
| | ---- the unit motor shall operate continuously for the first hour without tripping of the motor overload protective devices; | The unit can operate continuously without any trip. | P |
| | ---- after the shut-down period of 3 min,the unit shall restart automatically no more than 5 min after restarting of the compressor; | After the shut-down period of 3 min, the unit can restart automatically. | P |
| | ---- The unit motor shall operate again continuously for the rest of the second hour without tripping of the motor overloads protective devices. | The unit can operate continuously without any trip. | P |
| 4.2.3 | Freeze-up test | | P |
| 4.2.3.1 | Air-cooled unit | | P |
| | After the unit has operated for 6 h at the conditions stated in Table 3,and after the last freeze up cycle has completed,the following requirements shall be fulfilled: | Condition: indoor 21/15 outdoor 21/15°C Operate for 6 h. | P |
| | ---- no ice shall have accumulated on the evaporator; | | P |
| | ---- no ice shall drip from the unit;; | | P |
| | ---- no water shall drip or be blown off the unit into the room. | | P |
| 4.2.3.2 | Water-cooled units | Air cooled | N/A |
| | After the unit has operated for 6h at the conditions stated in Table 3 the following requirements shall be fulfilled: | | N/A |
| | ---- air flow through the unit shall not have dropped by more than 5%; | | N/A |
| | NOTE It shall be assured that the air flow through the unit is not adjusted during the test by some automatic control device. | | N/A |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | ---- the water temperature difference through the unit shall not have dropped by more than 30%; | | N/A |
| 4.3 | Outside the operating range | | P |
| | If operating outside the temperature range can cause damage to the unit, it shall be provided with safety devices which ensure that the unit suffers no damage when the operating limits of use indicated by the manufacturer are exceeded and remains capable of operating when coming back within these limits. A safety device that does not automatically reset may trip provided that a warning device is fitted. | | P |
| | The manufacturer shall indicate any safety devices provided and their operating conditions according to 7.2.3. | | P |
| 4.4 | Shutting off the heat transfer medium flows | | P |
| | To check the correct operating of the safety devices on the unit, the following faults shall be simulated consecutively, The unit shall have attained steady state in the standard rating conditions according to Tables 3 to 23 of EN14511-2:2013 for 30min before every fault is simulated. Each fault simulated shall be maintained for at least 1h. | | P |
| | a) Shutting off the heat transfer medium flow at the outdoor heat exchanger. | | P |
| | b) Shutting off the heat transfer medium flow at the indoor heat exchanger. | | P |
| | c) Shutting off the heat transfer medium flow at the heat recovery heat exchanger where applicable. | | P |
| | The unit shall suffer no damage and shall remain capable of operating after restoration of the flow rates. A safety device that does not automatically reset may trip provided that a warning device is fitted. | | P |
| | For units with defrosting system, an additional test will be conducted at the test conditions specified in Table 4 by shutting off the heat transfer medium flow at the indoor heat exchanger, at the beginning of the defrosting phase. | | P |
| | ---- the saturated temperature corresponding to the pressure measured at the suction of the compressor shall not have decreased by more than 2K. | | P |
| 4.5 | Complete power supply failure | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|-----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Complete power supply failure lasting approximately 5s shall be simulated.The unit shall have attained steady state conditions before the fault simulation,at the standard rating condition according to Table 3 to 15 of EN 14511-2:2013. | | P |
| | The unit has to restart automatically within 30 min. When the manufacturer states that the unit does not automatically restart, fault detection is necessary. | | P |
| | The unit is checked for any damage sustained during the test and if any safety devices have operated during the test. | | P |
| 4.6 | Condensate draining and enclosure sweat test | | P |
| | In heating mode,draining of condensate,including that formed on the enclosure,shall be made correctly when operating at the standard rating conditions given in Tables 3 to 23 of EN 14511-2:2013. In cooling mode,draining of condensate,including that formed on the enclosure,shall be made correctly when operating at conditions given in Table 5. | | P |
| | During the test of 4h no condensed water shall drip,run or blow off the unit except through the drain. | | P |
| | For indoor units,drain holes shall be provided with suitable pipe connection,the minimum diameter of which shall be 12mm. | | P |
| 4.7 | Defrosting(where applicable) | | P |
| | For air-to-air and air-to-water units, the functioning of any defrosting system shall be verified under any one of the application rating conditions with an outdoor air temperature of 2(1) °C (see Table 3,Tables 12 to 15 and Table 19 of EN 14511-2:2013), where frosting occurs. | | P |
| | At least three successive frosting/defrosting cycles shall be repeated without running in progressively deteriorating average performances. There shall not be growth of ice in and around the drip tray. | | P |
| 4.8 | Other requirements | | P |
| | Components in air handling systems, such as fans, filters, heat exchangers, etc., shall be easily accessible and resistant for cleaning purposes recommended by the manufacturer. | | P |
| 5 | Marking | See the rating labels | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Each unit shall have a durable, permanently fixed rating plate that is easily readable or accessible when the unit is in position for use, bearing at least the following information in addition to information required by safety standards. | Label attached on indoor and outdoor unit | P |
| | In the case of units consisting of several parts which can be made by different matching, only items a) and b) are to be indicated, where item b) applies to each part. | | P |
| | Items c) and d) depended on the considered matching and shall be indicated in the manufacturer's data sheet. | | P |
| | a) manufacturer or supplier; | | P |
| | b) manufacturer's model designation and serial number; | | P |
| | c) the cop and/or EER to three significant figures and the standard rating condition at which it is measured according to tables 3 to 15 of EN14511-2:2013; | | P |
| | d) heating/cooling capacity in kilowatts, with two digits after the decimal comma but not more than 3 significant figures at the test condition given in item c) of clause 5. | | P |
| | e) for control cabinet air conditioners, the sensible cooling capacity in kilowatts, with one digit after the decimal comma but more than 3 significant figures at the test condition given in item c) of clauses. | | P |
| | Further information may be provided with regard to rating only the other rating conditions given in tables 3 to 23 of EN14511-2:2013 are to be used. | | P |
| 6 | Technical data sheet | See appended table 6 for EN14511-4 | P |
| 6.1 | General description | | P |
| 6.2.3 | Sound characteristics | | P |
| | The manufacturer shall provide the sound power level and the corresponding test method according to EN 12102 | Declared on the name plate | P |
| 6.3 | Electrical characteristics | | P |
| | The manufacturer shall specify the electrical the characteristics in accordance with EN 60035-2-40 or EN 60204-1 as applicable and: | | P |
| | — maximum starting current of the unit, as defined in EN 61000-3-11; | 6.7A | P |
| | — total power input and current at the rated point, excluding the starting period; | See the name plate | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | — reactive power or power factor at the rated point, for units with a total power input greater than 10KW; | | N/A |
| | — power input of fan and pump if included in the units; | | P |
| 6.4 | Operating range | | P |
| | The manufacturer shall specify: — limits of use (temperatures and flows); — whether there are devices fitted which do not allow the unit to operate when these limits are exceeded; | Cooling: -18~54 °C Heating (without belt for chassis): -15~24 °C Heating (with belt for chassis): -30~24 °C | P |
| 7 | Instructions | | P |
| 7.1 | General | | P |
| | If not already required by other standards, the manufacturer shall provide the information as described. | | P |
| 7.2 | Physical description | | P |
| 7.2.1 | Refrigerant, air and /or liquid circuits | | P |
| | The manufacturer shall: | | P |
| | Specify the refrigerant, air and liquid circuits preferably providing circuit diagrams, showing every functional unit, control and safety device and specifying their type; | In the manual and the name plate | P |
| | If the unit uses water in the heat exchangers specify the water capacity contained in the unit, and specify either the constructional materials of the heat exchangers or the water quality; | Air to air | P |
| | If used, specify the type of brine and the concentration into any other liquid; | Air to air | P |
| | Specify the type of oil to be used in the compressor | Compressor: QXAT-B121zE070 Oil: FV50S | P |
| 7.2.2 | Additional heating devices, when integral to the unit | No additional heating element | N/A |
| | The manufacturer shall specify the type and location of additional heating devices and their control and safety devices. | | N/A |
| 7.2.3 | Control and safety | | P |
| | The manufacturer shall: | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|---|---------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | State the functions achieved by the control; and safety devices provided with the unit and specify when applicable their provision for adjustment and the method by which the safety devices are reset; | | P |
| | Provide specifications for any control or safety devices necessary to ensure correct operation of the unit but which are not provided with the unit; | | P |
| | Specify any limitation to the use of the rest of the installation. | | P |
| 7.3 | Instructions for installation | | P |
| | The manufacturer shall specify in particular: | | P |
| | —the required location conditions(whether units are to be installed outside or in a weather proof enclosure,or in a heated space); | See the user manual | P |
| | —requirements of physical layout, access and clearance; | See the user manual | P |
| | —Requirements for the electrical, liquid, air and refrigerant connections, to be made on site; | See the user manual | P |
| | —The location of warning and tripping devices; | See the user manual | P |
| | —The installation precautions to be taken to ensure, in particular: -correct circulation of the heat transfer media; -water draining; -cleanliness of heat exchange surfaces; -to minimise noise, vibration or other adverse effects. | See the user manual | P |
| | Special indications for units using soil, sea water, ground water or surface water: specify any materials which are in contact with the water or with the brine. | Air-to-air | N/A |
| 7.4 | Instruction for maintenance | See the user manual | P |
| | The manufacturer shall state: | See the user manual | P |
| | — content and frequency of routine maintenance operations to be performed by the user; | See the user manual | P |
| | — content and frequency of maintenance and inspection operations which shall be performed by a specialist. | See the user manual | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--------------------|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |

Appended table

| Table 4.1 for EN14511-3 cooling and heating capacity | | | P |
|--|---|---------|---------|
| Model | GWH12UB-K3DNA4F | | |
| | Measured parameter | Cooling | Heating |
| Test condition | Inndor room:Dry/Wet (°C) | 27/19 | 20/- |
| | Outdoor room: Dry/Wet (°C) | 35/24 | 7/6 |
| Test method | Calorimeter test method | Yes | Yes |
| Atmospheric pressure | kPa | 100.4 | 100.3 |
| Cooling/Heating power | Rated Power Input | 0.92 | 0.97 |
| | Test Power Input | 1.00 | 1.05 |
| Cooling/Heating Capacity | Declared Rated Capacity(KW) | 3.8 | 3.6 |
| | Tested Sensible Cooling Capacity(KW) | 2.68 | N/A |
| | Tested capacity (KW) | 3.50 | 3.73 |
| | SHR | 76.8 | NA |
| | Tested Capacity divided by clared capacity (limited: $\geq 0, 92$) | 1.00 | 1.04 |
| Compressor frequency | Only for inverter type ($\pm 3\text{Hz}$) | 51 | 40 |
| EER/COP | Declared EER/COP | 3.80 | 3.71 |
| | Tested EER/COP | 3.50 | 3.55 |
| | Test EER/COP divided by declared EER/COP (limited: $\geq 0,90$) | 0.92 | 0.96 |

| Table 6.1 for EN14511-3: General information | | | |
|--|-------------------------|--|---|
| a) | Test Date: (month/year) | 2014.12.10-2014.12.20 | P |
| b) | Test institute | Test laboratory of Gree Electric Appliances Inc. of Zhuhai(GTL) | P |
| c) | Test location | Gree Electric Appliances Inc. of Zhuhai Jinji West Road, Qianshan, Zhuhai, Guangdong 519070, P.R.China | P |
| d) | Test method | Calorimeter test method for energy saving test; Free field over a reflecting plane method for sound power level test | P |
| e) | Test supervisor | Chen zancheng | P |
| f) | Test object designation | (see appended table) | P |
| | - type | GWH12UB-K3DNA4F | P |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|------------------------------|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | -serial number | 63260001408(I);63260001409(O) | P |
| | -name of manufacturer | Gree Electric Appliances Inc. of Zhuhai | P |
| | Year of initial installation | 2014 | P |
| g) | Type of refrigerant | R410A | P |
| h) | Mass of refrigerant | 1,3kg | P |

| Table 6 for EN14511-4: Technical data sheet | |
|---|---|
| General description | |
| -Trade mark,model designation | Trade mark: GREE Model: GWH12UB-K3DNA4F |
| -Power supply (Voltage,Frequency) | 220-240V~ 50Hz |
| -Denomination of the unit | Air-to-air |
| -intended use of the unit | Split type air conditioner |
| -number of separate component units | 2 |
| -Type and mass of refrigerant charge | Same as that stated in table 6.1 for EN14511-3 |
| -overall dimensions of widthXheightXdepth (mmXmmXmm) | Indoor unit: 860x305x170 Outdoor unit: 899x596x378 |
| Weight of each separate component unit (kg) | Indoor unit:11.5kg Outdoor unit:44.5g |
| Performance characteristics | |
| Rating characteristics | GWH12UB-K3DNA4F |
| The cooling capacity(KW) | 3.5 |
| The effective power input(cooling) (KW) | 0.92 |
| EER | 3.8 |
| The heating capacity(KW) | 3.6 |
| The effective power input(heating) (KW) | 0.97 |
| COP | 3.71 |
| The heat recovery capacity and the type of liquid (where applicable) (KW) | N/A |
| Remark: The characteristics apply to a new unit with clean heat exchangers. | |
| Other additional characteristics | |
| Non ducted air-to-air units:flow rates or rotational speed of fans; | Indoor:1400rpm;outdoor:780rpm |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|---|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Non ducted air-ro-water units:flow rates or rotational speed of fans; water flow rate and pressure difference; | Air-to-air units | |
| | Unit intended to discharge into double floor: nominal flow rate and external static for air and water. | Not intended | |
| | Other tyoes of units: nominal flow rates and external static pressure differences for air and water. | Not intended | |
| | Sound characteristics (sound pressure evel) | Indoor/outdoor: 38.0/52.0dB(A) | |
| | Electrical characteristics | | |
| | In accordance with EN60335-2-40 | All the electrical characteristics required of EN60335-2-40 are specified by the manufacturer | |
| | -the maximum starting current of the unit | N/A | |
| | -the total power input and current at the rate point, excluding the starting period. | See the technical data sheet | |
| | -Reactive power factor at the rated point,for units with a total power input greater than 10KW; | N/A | |
| | -the power input of the fan and pump if included in the units. | Indoor fan motor:10W;outdoor fan motor:30W | |
| | Operating range | | |
| | The limits of use(temperature and flows) | Stated in manual | |
| | -whether there are devices fitted which do not allow the unit to operate when these limits are exceeded; | Yes, several protective devices provided in the product. | |
| | -the maximum inlet temperature permitted at the indoor heat exchanger when the unit is not operating(for heating mode requirements) | 27°C | |



| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--------------------|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |

| COMMISSION REGULATION (EU) No 206/2012 | | | | | | | |
|--|--|---|-----------|-----|-----------|-----------|------|
| Article 1 | Subject matter and scope | | | P | | | |
| 1 | This Regulation establishes eco-design requirements for the placing on the market of electric mains-operated air conditioners with a rated capacity of 12 kW for cooling, or heating if the product has no cooling function, and comfort fans with an electric fan power input 125W. | Air conditioner Rated capacity 12 kW | | P | | | |
| 2 | This Regulation shall not apply to: (a) appliances that use non-electric energy sources; (b) air conditioners of which the condenser-side or evaporator-side, or both, do not use air for heat transfer medium. | | | N/A | | | |
| Article 2 | Definitions For the purposes of this Regulation, the definitions in Article 2 of Directive 2009/125/EC of the European Parliament and of the Council shall apply. | | | - | | | |
| Article 3 | Ecodesign requirements and timetable | | | P | | | |
| 1 | The ecodesign requirements for air conditioners and comfort fans are set out in Annex I. | | | P | | | |
| 2 | Each ecodesign requirement shall apply in accordance with the following timetable: | See table 1 | | P | | | |
| single duct and double duct air conditioners | From 1 January 2013: single duct and double duct air conditioners shall correspond to requirements as indicated in Annex I, point 2(a). | Double duct air conditioners | | N/A | | | |
| | | Single duct air conditioner | | | | | |
| | | 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 |
| | | N/A | | N/A | | | |
| 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. | | | | | | |
| | | Indoor sound power level in dB(A) | | | | | |
| | | 65 | | | | | |



| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-------------------------------|------------------------------|----------------------|---|-------------------------------|------------------------------|-----------------------------------|--|-----------------------------------|------------------------------------|--|----------|----------|---|--|--|------|------------------|---|------|------|------|--|------|------|------|------|------|------|---|------|------|------|------|------|------|---|------|------|------|------|------|------|---|
| Clause | Requirement - Test | Result - Remark | | | | Verdict | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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. | Requirements for maximum power consumption in off-mode and standby mode <table border="1"> <tr> <td>Off mode</td> <td colspan="3">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 colspan="3">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 colspan="3">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 colspan="3">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> <tr> <td>Power management</td> <td colspan="3">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: — 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.</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. | | | Power management | 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: — 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. | | | N/A | | | | | | | | | | | | | | | | | | | | | | |
| 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Power management | 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: — 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| except single and double duct air conditioners | From 1 January 2013: (a) air conditioners, except single and double duct air conditioners, shall correspond to requirements as indicated in Annex I, point 2(b) and points 3(a), 3(b), 3(c); (b) single ducts and double ducts shall correspond to requirements as indicated in Annex I, points 3(a), 3(b), 3(d); (c) comfort fans shall correspond to requirements as indicated in Annex I, points 3(a), 3(b), 3(e). | Requirements for minimum energy efficiency <table border="1"> <thead> <tr> <th></th> <th>SEER</th> <th colspan="2">SCOP (Average heating season)</th> </tr> </thead> <tbody> <tr> <td>If GWP of refrigerant > 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> </tbody> </table> | | | | | SEER | SCOP (Average heating season) | | If GWP of refrigerant > 150 | 3,60 | 3,40 | | If GWP of refrigerant ≤ 150 | 3,24 | 3,06 | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | SEER | SCOP (Average heating season) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| If GWP of refrigerant > 150 | 3,60 | 3,40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| If GWP of refrigerant ≤ 150 | 3,24 | 3,06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Requirements for maximum sound power level <table border="1"> <thead> <tr> <th colspan="2">Rated capacity ≤ 6KW</th> <th colspan="2">6 < Rated capacity ≤ 12KW</th> </tr> <tr> <th>Indoor sound power level in dB(A)</th> <th>Outdoor sound power level in dB(A)</th> <th>Indoor sound power level in dB(A)</th> <th>Outdoor sound power level in dB(A)</th> </tr> </thead> <tbody> <tr> <td>60</td> <td>65</td> <td>65</td> <td>70</td> </tr> </tbody> </table> | | | | Rated capacity ≤ 6KW | | 6 < Rated capacity ≤ 12KW | | Indoor sound power level in dB(A) | Outdoor sound power level in dB(A) | Indoor sound power level in dB(A) | Outdoor sound power level in dB(A) | 60 | 65 | 65 | 70 | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated capacity ≤ 6KW | | 6 < Rated capacity ≤ 12KW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Indoor sound power level in dB(A) | Outdoor sound power level in dB(A) | Indoor sound power level in dB(A) | Outdoor sound power level in dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 65 | 65 | 70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | From 1 January 2014: (a) air conditioners shall correspond to ecodesign requirements as indicated in Annex I, point 2(c); (b) single duct and double duct air conditioners shall correspond to requirements as indicated in Annex I, point 2(d). | Requirements for minimum energy efficiency <table border="1"> <thead> <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>EERrated</th> <th>COPrated</th> <th>EERrated</th> <th>COPrated</th> </tr> </thead> <tbody> <tr> <td>If GWP of refrigerant > 150 for < 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 < 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 > 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> </tbody> </table> | | | | | Air conditioners, except double and single duct air conditioners | | Double duct air conditioners | | Single duct air conditioners | | SEER | SCOP(heating season: Average) | EERrated | COPrated | EERrated | COPrated | 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 | P |
| | Air conditioners, except double and single duct air conditioners | | Double duct air conditioners | | Single duct air conditioners | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SEER | SCOP(heating season: Average) | EERrated | COPrated | EERrated | COPrated | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 3 | Compliance with ecodesign requirements shall be measured and calculated in accordance with requirements set out in Annex II. | | P |
| Article 4 | Conformity assessment | | P |
| 1 | The conformity assessment procedure referred to in Article 8 of Directive 2009/125/EC shall be the internal design control set out in Annex IV to that Directive or the management system set out in Annex V to that Directive. | | P |
| 2 | For the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC, the technical documentation file shall contain the results of the calculation set out in Annex II to this Regulation. | | P |
| Article 5 | Verification procedure for market surveillance purposes | | P |
| | Member States shall apply the verification procedure described in Annex III to this Regulation when performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC for compliance with requirements set out in Annex I to this Regulation. | | P |
| Article 6 | Benchmarks | | - |
| | The indicative benchmarks for best-performing air conditioners available on the market at the time of entry into force of this Regulation are set out in Annex IV. | | - |
| Article 7 | Revision | | - |
| | The Commission shall review this Regulation in the light of technological progress and present the result of this review to the Ecodesign Consultation Forum no later than 5 years from the date of the entry into force of this Regulation. The review shall in particular assess the efficiency and sound power level requirements, the approach to promote the use of low-global warming potential (GWP) refrigerants and the scope of the Regulation for air conditioners and possible changes in market share of types of appliances, including air conditioners above 12 kW rated output power. The review shall also assess the appropriateness of the standby and off mode requirements, seasonal calculation and measurement method, including considerations on the development of a possible seasonal calculation and measurement method for all air conditioners in the scope for cooling and heating seasons. | | - |
| Article 8 | Entry into force and application | | P |
| | 1. This Regulation shall enter into force on the 20th day following its publication in the Official Journal of the European Union. 2. It shall apply from 1 January 2013. | | P |
| Annex I | Ecodesign requirements | | P |
| 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 |



| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | | | | | |
|---|--|--|-----------------------------------|------------------------------------|-----------|------|------|
| Clause | Requirement - Test | Result - Remark | | | Verdict | | |
| | <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.</p> | Double duct air conditioners | | Single duct air conditioner | | N/A | |
| | | 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 |
| | 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. | | | | | |
| | Indoor sound power level in dB(A) | | | | | 65 | |
| | 65 | | | | | | |
| | <p>(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. The requirements on sound power shall relate to the standard rating conditions specified in Annex II, Table 2</p> | Requirements for minimum energy efficiency | | | | P | |
| | | | SEER | SCOP (Average heating season) | | | |
| | | If GWP of refrigerant > 150 | 3,60 | 3,40 | | | |
| | | If GWP of refrigerant ≤ 150 | 3,24 | 3,06 | | P | |
| | Requirements for maximum sound power level | | | | | | |
| | Rated capacity ≤ 6KW | | 6 < Rated capacity ≤ 12KW | | | | |
| | Indoor sound power level in dB(A) | Outdoor sound power level in dB(A) | Indoor sound power level in dB(A) | Outdoor sound power level in dB(A) | | | |
| | 60 | 65 | 65 | 70 | | | |



| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|----------|------------------------------|---|--------------|--|--|---|--|------------------|---|-----|------------------------------|--|------|-------------------------------|----------|----------|----------|----------|--|------|------|------|------|------|------|--|------|------|------|------|------|------|---|------|------|------|------|------|------|---|------|------|------|------|------|------|-----|
| Clause | Requirement - Test | Result - Remark | Verdict | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (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. | <table border="1"> <thead> <tr> <th colspan="7">Requirements for minimum energy efficiency</th> </tr> <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>EERrated</th> <th>COPrated</th> <th>EERrated</th> <th>COPrated</th> </tr> </thead> <tbody> <tr> <td>If GWP of refrigerant > 150 for < 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 < 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 > 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> </tbody> </table> | Requirements for minimum energy efficiency | | | | | | | | Air conditioners, except double and single duct air conditioners | | Double duct air conditioners | | Single duct air conditioners | | SEER | SCOP(heating season: Average) | EERrated | COPrated | EERrated | COPrated | 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 | N/A |
| Requirements for minimum energy efficiency | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Air conditioners, except double and single duct air conditioners | | Double duct air conditioners | | Single duct air conditioners | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SEER | SCOP(heating season: Average) | EERrated | COPrated | EERrated | COPrated | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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. | <table border="1"> <thead> <tr> <th colspan="2">Requirements for maximum power consumption in off-mode and standby mode</th> </tr> </thead> <tbody> <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> <tr> <td>Power management</td> <td>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: — 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.</td> </tr> </tbody> </table> | 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 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. | Power management | 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: — 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. | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Power management | 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: — 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: (i) the technical documentation of the product; (ii) free access websites of manufacturers of air conditioners and comfort fans; | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------------------|------|-----------------------------|---------------------------------|--|--|--|--|--|--|--|-----------------------------|--|-----------------------------|--|------|------|-----|-----|-----|-----|------|------|---------|------|---------|------|--|--|--|--|--|--|---|--|--|--|--|--|-----|
| Clause | Requirement - Test | | | Result - Remark | Verdict | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (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 appendix | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (d) Information requirements for single duct and 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 | | | See appendix | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (e) Information requirements for comfort fans. | | | Air conditioner | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annex II | Measurements and calculations | | | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | The measurements and calculations come from EN 14825:2013 | | | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annex III | Verification procedure for market surveillance purposes | | | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annex IV | Benchmarks | | | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th colspan="6">Benchmarks for air conditioners</th> </tr> <tr> <th colspan="2">Air conditioners, excluding double duct and single duct conditioners</th> <th colspan="2">Double duct air conditioner</th> <th colspan="2">Single duct air conditioner</th> </tr> <tr> <th>SEER</th> <th>SCOP</th> <th>EER</th> <th>COP</th> <th>EER</th> <th>COP</th> </tr> </thead> <tbody> <tr> <td>8,50</td> <td>5,10</td> <td>3,00(*)</td> <td>3,15</td> <td>3,15(*)</td> <td>2,60</td> </tr> <tr> <td colspan="6">Benchmark for level of GWP of the refrigerant used in the air conditioner is $GWP \leq 20$.</td> </tr> <tr> <td colspan="6">(*) based on efficiency of evaporatively cooled single duct air conditioners.</td> </tr> </tbody> </table> | | | | Benchmarks for air conditioners | | | | | | Air conditioners, excluding double duct and single duct conditioners | | Double duct air conditioner | | Single duct air conditioner | | SEER | SCOP | EER | COP | EER | COP | 8,50 | 5,10 | 3,00(*) | 3,15 | 3,15(*) | 2,60 | Benchmark for level of GWP of the refrigerant used in the air conditioner is $GWP \leq 20$. | | | | | | (*) based on efficiency of evaporatively cooled single duct air conditioners. | | | | | | N/A |
| Benchmarks for air conditioners | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air conditioners, excluding double duct and single duct conditioners | | Double duct air conditioner | | Single duct air conditioner | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEER | SCOP | EER | COP | EER | COP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8,50 | 5,10 | 3,00(*) | 3,15 | 3,15(*) | 2,60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benchmark for level of GWP of the refrigerant used in the air conditioner is $GWP \leq 20$. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (*) based on efficiency of evaporatively cooled single duct air conditioners. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|--------------------|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |

| COMMISSION DELEGATED REGULATION (EU) No 626/2011 | | | |
|--|---|--|---|
| Article 3 | Responsibilities of suppliers | | P |
| 1 | Suppliers shall take action as described in points (a) to (g) | | - |
| | (a) a printed label is provided for each air conditioner respecting energy efficiency classes as set out in Annex II. The label shall comply with the format and content of information as set out in Annex III. For air conditioners, except single and double duct air conditioners, a printed label must be provided, at least in the packaging of the outdoor unit, for at least one combination of indoor and outdoor units at capacity ratio 1. For other combinations, the information can be alternatively provided on a free access web site | | P |
| | (b) a product fiche, as set out in Annex IV, is made available. For air conditioners, except single and double duct air conditioners, a product fiche must be provided at least in the packaging of the out door unit, for at least one combination of indoor and outdoor units at capacity ratio 1. For other combinations, the information can be alternatively provided on a free access web site | | P |
| | (c) technical documentation as set out in Annex V is made available electronically on request to the authorities of the Member States and to the Commission | | P |
| | (d) any advertisement for a specific model of an air conditioner shall contain the energy efficiency class, if the advertisement discloses energy-related or price information. Where more than one efficiency class is possible, the supplier or the manufacturer, as appropriate, shall declare the energy efficiency class for heating at least in 'Average' heating season. Information in the cases where end-users cannot be expected to see the product displayed is to be provided as set out in Annex VI | | P |
| | (e) any technical promotional material concerning a specific model of an air conditioner which describes its specific technical parameters shall include the energy efficiency class of that model as set out Annex II | | P |
| | (f) instructions for use are made available | | P |

| NO 626/2011 &EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|--|--|--|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | (g) single ducts shall be named 'local air conditioners' in packaging, product documentation and in any advertisement material, whether electronic or in paper. | | N/A |
| 2 | The energy efficiency class shall be determined as set out in Annex VII. | | P |
| 3 | The format of the label for air conditioners except for single and double duct air conditioners shall be as set out in Annex III. | | P |
| 4 | For the air conditioners, except for single and double duct air conditioners, the format of the label set out in Annex III shall be applied according to the following timetable: | | P |
| | (a) as regards air conditioners, except single duct and double duct air conditioners, placed on the market from 1 January 2013, labels with energy efficiency classes A, B, C, D, E, F, G shall be in accordance with point 1.1 of Annex III for reversible air conditioners, with point 2.1 of Annex III for cooling-only air conditioners and with point 3.1 of Annex III for heating-only air conditioners; | Cooling mode:A++ Heating mode: Warmer: A+++ Average:A++ Colder:A | P |
| | (b) as regards air conditioners, except single duct and double duct air conditioners, placed on the market from 1 January 2015, labels with energy efficiency classes A+, A, B, C, D, E, F, shall be in accordance with point 1.2 of Annex III for reversible air conditioners, with point 2.2 of Annex III for cooling-only air conditioners and with point 3.2 of Annex III for heating-only air conditioners; | | N/A |
| | (c) as regards air conditioners, except single duct and double duct air conditioners, placed on the market from 1 January 2017, labels with energy efficiency classes A++, A+, A, B, C, D, E, shall be in accordance with point 1.3 of Annex III for reversible air conditioners, with point 2.3 of Annex III for cooling-only air conditioners and with point 3.3 of Annex III for heating-only air conditioners; | | N/A |
| | (d) as regards air conditioners, except single duct and double duct air conditioners, placed on the market from 1 January 2019, labels with energy efficiency classes A+++, A++, A+, A, B, C, D shall be in accordance with point 1.4 of Annex III for reversible air conditioners, with point 2.4 of Annex III for cooling-only air conditioners and with point 3.4 of Annex III for heating-only air conditioners. | | N/A |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
|---|---|------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 5 | The format of the label for double duct air conditioners placed on the market from 1 January 2013 with energy efficiency classes A+++, A++, A+, A, B, C, D shall be in accordance with point 4.1 of Annex III for reversible double duct air conditioners, with point 4.3 of Annex III for cooling-only double duct air conditioners and with point 4.5 of Annex III for heating-only double duct air conditioners. | | N/A |
| Annex I | Definitions | | |
| | The definition same to EN14825:2013 & NO 206/2012 | | P |
| Annex II | Energy efficiency classes | | P |
| | Energy efficiency classes for air conditioners, except double ducts and single ducts. | See energy lable | P |
| | Energy efficiency classes for double ducts and single ducts. | | N/A |
| Annex II | Energy label | See the page 3 | P |

| | | | |
|---|--------------------|-----------------|---------|
| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
| Clause | Requirement - Test | Result - Remark | Verdict |

Test result of part load according to EN 14825:

Calculation of SEER in cooling mode:

| Full load (Pdesignc): 2600 W; Tdesignc: 35°C | | | | | | |
|---|------------------|-------------------|-----------------------|--------------------------------|------------|------|
| Test item | Indoor DB/WB(°C) | Outdoor DB/WB(°C) | P _{test} (W) | frequency of compressor (±3Hz) | Tested EER | Cd |
| A | 27/19 | 35/- | 3500 | 51 | 3.51 | 0,25 |
| B | | 30/- | 2351 | 32 | 5.49 | 0,25 |
| C | | 25/- | 1629 | 18 | 7.58 | 0,25 |
| D | | 20/- | 1290 | 12 | 12.29 | 0,25 |
| P _{sb} = P _{off} =3.904 W; P _{ck} = 0W; P _{to} = 6.8W | | | | | | |
| Test SEER | | | | | 6.529 | |
| Declared SEER | | | | | 7.0 | |
| Test SEER ≥ Declared SEER * 0.92 | | | | | Pass | |
| The calculation method of SEER according to the clause 6 of EN14825:2013 | | | | | | |
| According table 1 of NO 626/2011, the result efficiency classes: A++ | | | | | | |

Calculation of SCOP in heating mode:

| Full load (Pdesignh):3000W ;Tdesignh: -10°C; Climate: Average ; Tbivalent: -7°C; TOL: -10°C | | | | | | |
|--|---------------|-------------------|-----------------------|--------------------------------|------------|------|
| Test item | Indoor DB(°C) | Outdoor DB/WB(°C) | P _{test} (w) | frequency of compressor (±3Hz) | Tested COP | Cd |
| A | 20/- | -7/-8 | 2546 | 47 | 3.03 | 0,25 |
| B | | 2/1 | 1508 | 25 | 4.5 | 0,25 |
| C | | 7/6 | 1087 | 14 | 5.32 | 0,25 |
| D | | 12/11 | 1026 | 13 | 6.53 | 0,25 |
| E | | TOL | 2419 | 48 | 2.84 | 0,25 |
| F | | Tbivalent | 2546 | / | 3.03 | 0.25 |
| P _{sb} = P _{off} =3.904 W; P _{ck} = 0W; P _{to} = 6.8 W | | | | | | |
| SCOP | | | | | 4.418 | |
| Declared SCOP | | | | | 4.6 | |
| SCOP ≥ Declared SCOP * 0.92 | | | | | Pass | |
| The calculation method of SEER according to the clause 7 of EN14825:2013 | | | | | | |
| According table 1 of NO 626/2011, the result efficiency classes: A++ | | | | | | |

| | | | |
|---|--------------------|-----------------|---------|
| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
| Clause | Requirement - Test | Result - Remark | Verdict |

Calculation of SCOP in heating mode:

| Full load (P_{designh}):3200W ;T_{designh}: 2°C; Climate: Warmer ; T_{bivalent}: 2°C; TOL: 2°C | | | | | | |
|---|---------------|-----------------------|-----------------------|--------------------------------|------------|------|
| Test item | Indoor DB(°C) | Outdoor DB/WB(°C) | P _{test} (W) | frequency of compressor (±3Hz) | Tested COP | Cd |
| A | 20/- | -7/-8 | | | | 0,25 |
| B | | 2/1 | 3241 | 22 | 2.58 | 0,25 |
| C | | 7/6 | 1862 | 14 | 4.79 | 0,25 |
| D | | 12/11 | 1026 | 13 | 6.4 | 0,25 |
| E | | TOL | 3241 | 48 | 2.58 | 0,25 |
| F | | T _{bivalent} | 3241 | | 2.58 | 0.25 |
| P _{sb} = P _{off} =3.904 W; P _{ck} = 0W; P _{to} = 6.8W | | | | | | |
| SCOP | | | | | 5.178 | |
| Declared SCOP | | | | | 5.1 | |
| SCOP≥Declared SCOP*0.92 | | | | | Pass | |
| The calculation method of SEER according to the clause 7 of EN14825:2013 | | | | | | |
| According table 1 of NO 626/2011, the result efficiency classes: A+++ | | | | | | |

Calculation of SCOP in heating mode:

| Full load (P_{designh}):3000W ;T_{designh}: -22°C; Climate: Colder ; T_{bivalent}: -15°C; TOL: -22°C | | | | | | |
|---|---------------|-----------------------|-----------------------|--------------------------------|------------|------|
| Test item | Indoor DB(°C) | Outdoor DB/WB(°C) | P _{test} (W) | frequency of compressor (±3Hz) | Tested COP | Cd |
| A | 20/- | -7/-8 | 1970 | 30 | 3.2 | 0,25 |
| B | | 2/1 | 1034 | 16 | 4.02 | 0,25 |
| C | | 7/6 | 817 | 14 | 4.41 | 0,25 |
| D | | 12/11 | 1026 | P0 | 6.4 | 0,25 |
| E | | TOL | 3098 | 80 | 2.05 | 0,25 |
| F | | T _{bivalent} | 3099 | 80 | 2.29 | 0.25 |
| G | | -15 | 3099 | / | 2.29 | 0.25 |
| P _{sb} = P _{off} =3.904 W; P _{ck} = 0W; P _{to} = 6.8 W | | | | | | |
| SCOP | | | | | 3.515 | |
| Declared SCOP | | | | | 3.8 | |
| SCOP≥Declared SCOP*0.92 | | | | | Pass | |

| | | | |
|---|--------------------|-----------------|---------|
| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
| Clause | Requirement - Test | Result - Remark | Verdict |

| |
|--|
| The calculation method of SEER according to the clause 7 of EN14825:2013 |
| According table 1 of NO 626/2011, the result efficiency classes: A |

Appendix I: information according to clause 3 of NO 206/2012 ANNEX I , for air conditioners, except single duct and double duct air conditioners

| Function (indicate if present) | | | | Only for heating mode, if applicable | | | |
|--|----------|-------|------|---|--------|-------|------|
| Cooling | | Y | | Average(mandatory) | | Y | |
| Heating | | Y | | Warmer(if designed) | | Y | |
| | | | | Colder(if designed) | | Y | |
| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
| Design load | | | | Seasonal efficiency | | | |
| Cooling | Pdesignc | 3.5 | kW | Cooling | SEER | 7.00 | — |
| Heating/average | Pdesignh | 3.0 | kW | Heating/average | SCOP/A | 4.60 | — |
| Heating/warmer | Pdesignh | 3.2 | kW | Heating/warmer | SCOP/W | 5.10 | — |
| Heating/colder | Pdesignh | 3.0 | kW | Heating/colder | SCOP/C | 3.80 | — |
| 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 | | | |
| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
| Tj=35°C | Pdc | 3.5 | kW | Tj=35°C | EERd | 3.6 | — |
| Tj=30°C | Pdc | 2.5 | kW | Tj=30°C | EERd | 5.3 | — |
| Tj=25°C | Pdc | 1.8 | kW | Tj=25°C | EERd | 8.7 | — |
| Tj=20°C | Pdc | 1.1 | kW | Tj=20°C | EERd | 13.3 | — |
| 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 | | | |
| Tj=-7°C | Pdh | 2.8 | kW | Tj=-7°C | COPd | 3.1 | — |
| Tj=2°C | Pdh | 1.6 | kW | Tj=2°C | COPd | 4.6 | — |
| Tj=7°C | Pdh | 1.1 | kW | Tj=7°C | COPd | 5.7 | — |
| Tj=12°C | Pdh | 1.0 | kW | Tj=12°C | COPd | 6.8 | — |
| Tj=bivalent temperature | Pdh | 2.8 | kW | Tj=bivalent temperature | COPd | 3.1 | — |

| | | | |
|---|--------------------|-----------------|---------|
| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | |
| Clause | Requirement - Test | Result - Remark | Verdict |

| | | | | | | | |
|--------------------|-----|-----|----|--------------------|------|-----|---|
| Tj=operating limit | Pdh | 2.7 | kW | Tj=operating limit | COPd | 3.0 | — |
|--------------------|-----|-----|----|--------------------|------|-----|---|

| Function (indicate if present) | | | | Only for heating mode, if applicable | | | |
|---|--------|-------|------|--|--------|-------|------|
| Cooling | Y | | | Average(mandatory) | Y | | |
| Heating | Y | | | Warmer(if designed) | Y | | |
| | | | | Colder(if designed) | Y | | |
| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
| 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 | | | |
| Tj=2°C | Pdh | 3.2 | kW | Tj=2°C | COPd | 2.8 | — |
| Tj=7°C | Pdh | 1.9 | kW | Tj=7°C | COPd | 4.8 | — |
| Tj=12°C | Pdh | 1.1 | kW | Tj=12°C | COPd | 6.2 | — |
| Tj=bivalent temperature | Pdh | 3.2 | kW | Tj=bivalent temperature | COPd | 2.8 | — |
| Tj=operating limit | Pdh | 3.2 | kW | Tj=operating limit | COPd | 2.8 | — |
| Declared capacity (*) for heating/Colder season, at indoor temperature 20 °C and outdoor temperature Tj | | | | Declared coefficient of performance(*)/Colder season, at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj=-7°C | Pdh | 1.8 | kW | Tj=-7°C | COPd | 3.7 | — |
| Tj=2°C | Pdh | 1.1 | kW | Tj=2°C | COPd | 4.3 | — |
| Tj=7°C | Pdh | 0.9 | kW | Tj=7°C | COPd | 4.8 | — |
| Tj=12°C | Pdh | 1.1 | kW | Tj=12°C | COPd | 6.5 | — |
| Tj=bivalent temperature | Pdh | 3.0 | kW | Tj=bivalent temperature | COPd | 2.3 | — |
| Tj=-15°C | Pdh | 3.0 | kW | Tj=-15°C | COPd | 2.3 | — |
| 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 | -15 | °C | Heating/Colder | Tol | -22 | °C |
| Cycling interval capacity | | | | Cycling interval efficiency | | | |
| for cooling | Pcycc | x,x | kW | for cooling | EERcyc | x,x | — |

| NO 626/2011 & EN 14511 and NO 206/2012 & EN 14825: 2013 | | | | | | | |
|---|--------------------|-----|----|--------------------------------------|--------------------|-----|---------|
| Clause | Requirement - Test | | | Result - Remark | | | Verdict |
| for heating | P _{cyh} | x,x | kW | for heating | COP _{cyh} | x,x | — |
| Degradation coefficient cooling (**) | C _{dc} | x,x | — | Degradation coefficient heating (**) | C _{dh} | x,x | — |

| Function (indicate if present) | | | | Only for heating mode, if applicable | | | |
|--|------------------|-------|--|--------------------------------------|-----------------|----------|-----------------------|
| Cooling | Y | | | Average(mandatory) | Y | | |
| Heating | Y | | | Warmer(if designed) | N | | |
| | | | | Colder(if designed) | N | | |
| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
| Electric power input in power modes other than 'active mode' | | | | Annual electricity consumption | | | |
| Off mode | P _{OFF} | 0.005 | kW | Cooling | Q _{CE} | 175 | kWh/a |
| Standby mode | P _{SB} | 0.005 | kW | Heating/Average | Q _{HE} | 913 | kWh/a |
| Thermostat-off mode | P _{TO} | 0.02 | kW | Heating/Warmer | Q _{HE} | 973 | kWh/a |
| Crankcase heater mode | P _{CK} | 0 | kW | Heating/Colder | Q _{HE} | 1658 | kWh/a |
| Capacity control (indicate one of three options) | | | | Other items | | | |
| fixed | N | | | Sound power level (indoor/outdoor) | L _{WA} | 57/60 | dB(A) |
| staged | N | | | Global warming potential | GWP | 2087.5 | kgCO ₂ eq. |
| variable | Y | | | Rated air flow (indoor/outdoor) | — | 680/2400 | m ³ /h |
| Contact details for obtaining more information | | | Gree Electric Appliances Inc. of Zhuhai Jinji West Road, Qianshan, Zhuhai, Guangdong 519070, P.R.China Email: joannani@gree.com.cn | | | | |

(*) 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.

(**) 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.

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'.

| | | | |
|--|--------------------|-----------------|---------|
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| Clause | Requirement - Test | Result - Remark | Verdict |

Appendix II: photo



--End of report--