

The technical documentation

Models:

ASD-12BI2+ASGE-12BI2

Reference to harmonised standards: [EN 14825:2016](#); [EN 14511-2:2013](#); [EN 14511-3:2013](#); [EN 12102-1:2017](#);

Specific precautions that shall be taken when the model is assembled, installed, maintained or tested:

PROHIBITED

- (1) The air conditioner should be grounded to avoid electric shock. Do not connect the ground wire to gas pipe, water pipe, lightning arrester or telephone wire.
- (2) The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- (3) The appliance shall be stored in a room without continuously operating open flames (for example an operating gas appliance) and ignition sources (for example an operating electric heater).
- (4) According to federal/state/local laws and regulations, all packages and transportation materials, including nails, metal or wooden parts, and plastic packing material, must be treated in a safe way.

WARNING

- (1) Please install according to this instruction manual. Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.
- (2) Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.
- (3) Servicing shall only be performed as recommended by the equipment manufacturer.
- (4) The appliance shall be installed in accordance with national wiring regulations.
- (5) The fixed wires connecting to the appliance must be configured with all-pole disconnection device under voltage grade III according to wiring rules.
- (6) Air conditioner should be stored with protective measures against mechanical damage caused by accident.
- (7) If the installation space for air conditioner pipe is too small, adopt a protective measure to prevent the pipe from physical damage.
- (8) During installation, use the specialized accessories and components, otherwise water leakage, electric shock or fire hazard may occur.
- (9) Please install the air conditioner in a secure place that can withstand the weight of air conditioner. Insecure installation may cause the air conditioner falling down and lead to injury.
- (10) Be sure to adopt independent power circuit. If the power cord is damaged, it must be repaired by the manufacturer, service agent or other professional agents.

- (11) The air conditioner can be cleaned only after it is turned off and power-disconnected, otherwise electric shock may occur.
- (12) The air conditioner is not intended to be cleaned or maintained by children without supervision.
- (13) Do not alter the setting of pressure sensor or other protective devices. If the protective devices are short-circuited or changed against rules, fire hazard or even explosion may occur.
- (14) Do not operate the air conditioner with wet hands. Do not wash or sprinkle water on the air conditioner, otherwise malfunction or electric shock will occur.
- (15) Do not dry the filter with naked flame or an air blower; otherwise the filter will be out of shape.
- (16) If the unit is to be installed in a small space, please adopt protective measures to prevent the concentration of refrigerant from exceeding the allowable safety limit; excessive refrigerant leakage may lead to explosion.
- (17) When installing or re-installing the air conditioner, please keep the refrigerant circuit away from substances other than the specified refrigerant, such as air. Any presence of foreign substances will cause abnormal pressure change or even explosion, resulting in injury.
- (18) Only professionals are allowed to carry on daily maintenance.
- (19) Before contacting any wire, make sure power is cut off.
- (20) Do not let any inflammable objects near the unit.
- (21) Do not use organic solvent to clean the air conditioner.
- (22) If you need to replace a component, please ask a professional to repair with a component supplied by the original manufacturer so as to ensure the unit's quality.
- (23) Improper operation may get the unit broken, hit by electric shock or cause fire.
- (24) Do not make the air conditioner wet or electric shock may be lead; Ensure that the air conditioner will not be cleaned by water rinsing under any circumstance.

Measured technical parameters & The calculations performed with the measured parameters

| Information requirements | | | | | | | |
|--|----------------------|-------|------|--|-----------|-------|------|
| (the number of decimals in the box indicates the precision of reporting) | | | | | | | |
| Information to identify the model(s) to which the information relates to: | | | | | | | |
| Function (indicate to which function information applies) | | | | If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'. | | | |
| cooling | Y | | | Average (mandatory) | Y | | |
| heating | Y | | | Warmer (if designated) | N | | |
| | | | | Colder (if designated) | N | | |
| Item | symbol | value | unit | Item | symbol | value | unit |
| Design load | | | | Seasonal efficiency | | | |
| cooling | Pdesig _{nc} | 3.5 | kW | cooling | Test SEER | 6.507 | — |
| heating/Average | Pdesig _{nh} | 3.0 | kW | heating/Average | SCOP(A) | 4.004 | — |
| heating/Warmer | Pdesig _{nh} | - | kW | heating/Warmer | SCOP(W) | - | — |
| heating/Colder | Pdesig _{nh} | - | kW | heating/Colder | SCOP(C) | - | — |
| Tested capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature T _j | | | | Tested energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature T _j | | | |
| T _j = 35 °C | P _{tc} | 3.5 | kW | T _j = 35 °C | EER | 3.40 | — |
| T _j = 30 °C | P _{tc} | 2.55 | kW | T _j = 30 °C | EER | 4.85 | — |
| T _j = 25 °C | P _{tc} | 1.61 | kW | T _j = 25 °C | EER | 8.00 | — |
| T _j = 20 °C | P _{tc} | 1.15 | kW | T _j = 20 °C | EER | 11.00 | — |
| Tested capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor temperature T _j | | | | Tested coefficient of performance (*)/Average season, at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{th} | 2.74 | kW | T _j = - 7 °C | COP | 2.09 | — |
| T _j = 2 °C | P _{th} | 1.55 | kW | T _j = 2 °C | COP | 3.85 | — |

| | | | | | | | |
|---|-------|------|----|---|--------|------|----|
| Tj = 7 °C | Pth | 1.09 | kW | Tj = 7 °C | COP | 5.25 | — |
| Tj = 12 °C | Pth | 1.15 | kW | Tj = 12 °C | COP | 5.91 | — |
| Tj = bivalent temperature | Pth | 2.74 | kW | Tj = bivalent temperature | COP | 2.90 | — |
| Tj = operating limit | Pth | 2.44 | kW | Tj = operating limit | COP | 2.31 | — |
| Tested capacity (*) for heating/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj | | | | Tested coefficient of performance (*)/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj = 2 °C | Pth | - | kW | Tj = 2 °C | COP | - | — |
| Tj = 7 °C | Pth | - | kW | Tj = 7 °C | COP | - | — |
| Tj = 12 °C | Pth | - | kW | Tj = 12 °C | COP | - | — |
| Tj = bivalent temperature | Pth | - | kW | Tj = bivalent temperature | COP | - | — |
| Tj = operating limit | Pth | - | kW | Tj = operating limit | COP | - | — |
| Tested capacity (*) for heating/Colder season, at indoor temperature 20 °C and outdoor temperature Tj | | | | Tested coefficient of performance (*)/Colder season, at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj = - 7 °C | Pth | - | kW | Tj = - 7 °C | COP | - | — |
| Tj = 2 °C | Pth | - | kW | Tj = 2 °C | COP | - | — |
| Tj = 7 °C | Pth | - | kW | Tj = 7 °C | COP | - | — |
| Tj = 12 °C | Pth | - | kW | Tj = 12 °C | COP | - | — |
| Tj = bivalent temperature | Pth | - | kW | Tj = bivalent temperature | COP | - | — |
| Tj = operating limit | Pth | - | kW | Tj = operating limit | COP | - | — |
| Tj = - 15 °C | Pth | - | kW | Tj = - 15 °C | COP | - | — |
| Bivalent temperature | | | | Operating limit temperature | | | |
| heating/Average | Tbiv | -7 | °C | heating/Average | Tol | -10 | °C |
| heating/Warmer | Tbiv | - | °C | heating/Warmer | Tol | - | °C |
| heating/Colder | Tbiv | - | °C | heating/Colder | Tol | - | °C |
| Power consumption of cycling | | | | Efficiency of cycling | | | |
| cooling | Pcycc | - | kW | cooling | EERcyc | - | — |
| heating | Pcyh | - | kW | heating | COPcyc | - | — |
| Degradation co-efficient cooling (**) | Cdc | 0.25 | — | Degradation co-efficient heating (**) | Cdh | 0.25 | — |

| Electric power input in power modes other than 'active mode' | | | | Seasonal electricity consumption | | | |
|--|------------------|-----------------|----|------------------------------------|-----------------|----------|-----------------------|
| off mode | P _{OFF} | 0.00273 | kW | cooling | Q _{CE} | 188 | kWh/a |
| standby mode | P _{SB} | 0.00273 | kW | heating/Average | Q _{HE} | 1049 | kWh/a |
| thermostat-off mode | P _{TO} | 0.00402/0.01224 | kW | heating/Warmer | Q _{HE} | -- | kWh/a |
| crankcase heater mode | P _{CK} | 0 | kW | heating/Colder | Q _{HE} | -- | kWh/a |
| Capacity control (indicate one of three options) | | | | Other items | | | |
| fixed | N | | | Sound power level (indoor/outdoor) | LWA | 56/56 | dB(A) |
| staged | N | | | Global warming potential | GWP | 675 | kgCO ₂ eq. |
| variable | Y | | | Rated air flow (indoor/outdoor) | — | 600/1800 | m ³ /h |