

REVERSIBLE AIR HEAT PUMP





AHP 2.0 REVERSIBLE AIR HEAT PUMP



The second-generation AHP 2.0 reversible air heat pump is a precision air-conditioning unit with a heating function. An advanced control algorithm for the fans, compressor and expansion valve maintains the set temperature in the air-conditioned telecommunications cabinet while minimising the consumption of electricity. The control algorithm adjusts the pump operating parameters in real time according to the amount of heat emitted by the active equipment in operation.

Starting up a heat pump, unlike standard air-conditioner cooling solutions, does not require a large inrush current and does not cause interference with the mains supply.

A very important operating parameter to consider when designing a heat pump is the sound level. The introduction of speed-controlled fans has made it possible to reduce the operating sound at night and whenever the pump starts and stops. This is especially important for its use in urban areas.

The AHP reversible heat pump comes in horizontal and vertical versions. In each, the design is optimised to occupy as little space as possible. The ease of connection and installation allows the pump to be used in cabinets or telecommunications containers.

Heating is also done by thermodynamic process and is therefore more economical than using electric heaters. The fact that a single unit performs both cooling and heating functions is also significant. This allows the control to be coordinated and avoids both processes being switched on too frequently.

The heat pump controller has remote communication capability, allowing the operation of the unit and the conditions inside the air-conditioned cabinet to be monitored at all times. In this way, service costs can be reduced and failures can be prevented.

SZD outdoor cabinet with AHP 2.0 in the horizontal version



SZD outdoor cabinet with AHP 2.0 in the vertical version, installed on the side panel

Technical data

| Cooling capacity A35A35 | 2400 W |
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| Cooling capacity A35A50 | 2000 W |
| Heating capacity | 2500 W |
| Power supply | 230 V, 50 Hz |
| Maximum current input – cooling | 3.5 A |
| Maximum current input – heating | 6 A |
| Power consumption A35A35 | 1400 W |
| Operating time | 24/7 |
| Amount of agent R134a | 0.8 kg |
| Maximum pressure | 42 bar |
| External fan | 1200 m³/h |
| Internal fan | 1200 m³/h |
| Sound level of the device | 54 dB |
| Colour | RAL 9005 / RAL 7035 |
| Operating temperature | from -20 to +42 °C |
| Set temperature range | from +10 to +50 °C |
| Weight | 50 kg |
| Protection degree in accordance with EN 60529 | IP 21/55 |
| Communication | Ethernet (local) RJ45 HTTP, FTP, SNMP |

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Cabinet cooling circuit



AHP 2.0 in the horizontal version, installed inside the cooled cabinet

- 1 heat exchanger as a vaporiser
- 2 heat exchanger as a condenser 3 – compressor



in the vertical version, installed on the side panel of the cooled cabinet

Capacity



An example of remote unit monitoring and control





| We reserve the right to modernise and modify our products. Technical modifications shall not affect product functionality. Misprints and errors of content that may be found in this publication may not be used as a basis for complaints. | | ZPAS S.A. |
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