

Air to water heat pump Test Report

Report Number 141218031GZU-002

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Manufacturing Name / Address China palm Air conditioning & equipment Co., Ltd
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Nanhai,Foshan, Guangdong, P.R.China

Product Air to water heat pump

Description The product covered by this report is a air to water heat pump for
space heating

Model(s) (if applicable) AHP-9AC-410DC

Model Similarity NA

Rated voltage (V) 230

Rated input frequency (Hz) 50

Rated cooling power (W) 1780

Rated heating power (W) 1500

Rated cooling capacity (kW) 8.14

Rated heating capacity (kW) 8.95

Date of receipt of sample(s) December 21, 2014

Date of test From 2014/12/22 to 2015/1/8

Test standard(s) or criteria(s) EN 14511:2011+ EN 14825:2013

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Product Information

| | |
|---|--|
| Model number of Unit Under Tested | AHP-9AC-410DC |
| Air-conditioner Type | Reverse Cycle |
| Power Supply | Single Phase |
| Refrigerant | R410A |
| Air Distribution | Non-ducted |
| Unit Mounting (applicable to non ducted indoor units) | N/A (ie ducted or non split type system) |
| Heat Source (Heating Mode) | Air |
| Heat Sink (Cooling Mode) | Water-cooled |
| Does this air conditioner have a variable output | Yes |
| Type of compressor | Inverter |
| Maximum continuous frequency for cooling (applicable to inverter driven compressor only) (Hz) | 40 |
| Maximum continuous frequency for heating (applicable to inverter driven compressor only) (Hz) | 80 |

Critical Components

| Name | Manufacturer/tradem | Type/model | Technical data |
|------------------|--|---------------|------------------|
| Compressor | GUANGDONG MEIZHI COMPRESSOR CO.,LTD | DA150S1C-20FZ | 220V/50HZ ,1150W |
| Fan | Foshan Nanhai Junfeng Motor Co.,Ltd | YDK-80-6B-2 | 220V/50Hz,80W |
| Capacitor of fan | Zhongshan Kovey Electric Co.ltd | CCB61 | 5uF/450V |

Information requirements

| | | | | | | | |
|---|----------|-------|------|--|--------|-------|-----------|
| Function (indicate if present) | | | | If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'. | | | |
| cooling | Y | | | Average (mandatory) | Y | | |
| heating | Y | | | Warmer (if designated) | N | | |
| | | | | Colder (if designated) | N | | |
| Item | symbol | value | unit | Item | symbol | value | unit |
| Design load | | | | Seasonal efficiency | | | |
| cooling | Pdesignc | NA | kW | cooling | SEER | NA | — |
| heating/Average | Pdesignh | 5.654 | kW | heating/Average | SCOP/A | 4.162 | — |
| heating/Warmer | Pdesignh | NA | kW | heating/Warmer | SCOP/W | NA | — |
| heating/Colder | Pdesignh | NA | kW | heating/Colder | SCOP/C | NA | — |
| 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 | 4.614 | kW | Tj = -7 °C | COPd | 2.96 | — |
| Tj = 2 °C | Pdh | 5.185 | kW | Tj = 2 °C | COPd | 4.01 | — |
| Tj = 7 °C | Pdh | 6.035 | kW | Tj = 7 °C | COPd | 5.45 | — |
| Tj = 12 °C | Pdh | 6.083 | kW | Tj = 12 °C | COPd | 6.43 | — |
| Tj = bivalent temperature | Pdh | 4.784 | kW | Tj = bivalent temperature | COPd | 3.05 | — |
| Tj = operating limit | Pdh | 4.116 | kW | Tj = operating limit | COPd | 2.65 | — |
| Bivalent temperature | | | | Operating limit temperature | | | |
| heating/Average | Tbiv | -6 | °C | heating/Average | Tol | -10 | °C |
| heating/Warmer | Tbiv | NA | °C | heating/Warmer | Tol | NA | °C |
| heating/Colder | Tbiv | NA | °C | heating/Colder | Tol | NA | °C |
| Electric power input in power modes other than 'active mode' | | | | Annual electricity consumption | | | |
| off mode | POFF | NA | kW | cooling | QCE | NA | kWh/a |
| standby mode | PSB | NA | kW | heating/Average | QHE | 1902 | kWh/a |
| thermostat-off mode | PTO | 0.006 | kW | heating/Warmer | QHE | NA | kWh/a |
| crankcase heater mode | PCK | NA | kW | heating/Colder | QHE | NA | kWh/a |
| Capacity control (indicate one of three options) | | | | Other items | | | |
| fixed | N | | | Sound power level (indoor/outdoor) | LWA | NA | dB(A) |
| staged | N | | | Global warming potential | GWP | NA | kgCO2 eq. |
| variable | Y | | | Rated air flow (indoor/outdoor) | — | NA | m3/h |