

Product fiche concerning the COMMISSION DELEGATED REGULATIONS

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Air Source Heat Pumps

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| | | |
|--------------------------------------|---------------|-------------------------------|
| Models: | Outdoor Unit: | Aerona ³ HPID13R32 |
| | Indoor Unit: | None |
| Air-to-water heat pump | | Yes |
| Brine-to-water heat pump | | No |
| Low temperature heat pump | | No |
| Equipped with a supplementary heater | | No |
| Heat Pump Combination Heater | | No |
| Parameters shall be declared for | | low-temperature applications |
| Parameters shall be declared for | | Average Climate Conditions |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|-----------------------|--------|-------|------|--|----------|-------|------|
| Rated Heat Output (*) | | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 215 | % |

Declared capacity for heating for part load at indoor Temperature 20°C and outdoor temperature Tj

Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj

| | | | | | | | |
|----------------------------------|------|------|----|---|------|-------|----|
| Tj = -10°C | Pdh | 10.0 | kW | Tj = -10°C | COPd | 2.90 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = -7°C | Pdh | 9.6 | kW | Tj = -7°C | COPd | 3.03 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = +2°C | Pdh | 6.10 | kW | Tj = +2°C | COPd | 6.20 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = +7°C | Pdh | 4.30 | kW | Tj = +7°C | COPd | 8.50 | |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = +12°C | Pdh | 4.10 | kW | Tj = +12°C | COPd | 10.30 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = bivalent temperature | Pdh | 8.96 | kW | Tj = bivalent temperature | COPd | 3.01 | |
| Tj = operation limit temperature | Pdh | 7.70 | kW | Tj = operation limit temperature | COPd | 2.98 | |
| Tj = -15°C (if TOL < -20°C) | Pdh | - | kW | Tj = -15°C (if TOL < -20°C) | COPd | - | |
| Bivalent temperature | Tbiv | -8 | | Operation limit temperature | TOL | -10 | °C |
| | | | | Heating water operating limit temperature | WTOL | | °C |

| Power consumption in modes other than active mode | | | | Supplementary Heater | | | |
|---|-------------------|-------|-------|---------------------------------|------------------|------|-------------------|
| Off Mode | P _{OFF} | 0.10 | kW | Rate heat output | P _{sup} | 0.00 | kW |
| Thermostat-off mode | P _{TO} | 0.04 | kW | | | | |
| Standby mode | P _{SB} | 0.10 | kW | Type of energy input | | | |
| Crankcase heater mode | P _{CK} | 0.00 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | Rated airflow rate, outdoors | - | 4464 | m ³ /h |
| Sound power level indoors/outdoors | L _{WA} | 39/61 | dBA | | | | |
| Annual Energy consumption | Q _{HE} | 3794 | kWh | | | | |
| For heat pump combination heater | | | | Water heating energy efficiency | η_{wh} | - | % |
| Declared load profile | - | - | - | | | | |
| Daily electricity consumption | Q _{elec} | - | kWh/h | | | | |
| Annual electricity consumption | AEC | - | kWh/h | | | | |

Contact Details:

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(*) For heat pumps space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.



| | | |
|--------------------------------------|---------------|---------------------------------|
| Models: | Outdoor Unit: | Aerona ³ HPID13R32 |
| | Indoor Unit: | None |
| Air-to-water heat pump | | Yes |
| Brine-to-water heat pump | | No |
| Low temperature heat pump | | No |
| Equipped with a supplementary heater | | No |
| Heat Pump Combination Heater | | No |
| Parameters shall be declared for | | Medium-temperature applications |
| Parameters shall be declared for | | Average Climate Conditions |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|-------------------|--------|------|---|------------------|-------|-------------------|
| Rated Heat Output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 148 | % |
| Declared capacity for heating for part load at indoor Temperature 20°C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj | | | |
| Tj = -10°C | Pdh | 10.0 | kW | Tj = -10°C | COPd | 2.05 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = -7°C | Pdh | 9.70 | kW | Tj = -7°C | COPd | 2.16 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = +2°C | Pdh | 6.10 | kW | Tj = +2°C | COPd | 3.92 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = +7°C | Pdh | 4.10 | kW | Tj = +7°C | COPd | 5.83 | |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = +12°C | Pdh | 4.10 | kW | Tj = +12°C | COPd | 8.62 | |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = bivalent temperature | Pdh | 8.91 | kW | Tj = bivalent temperature | COPd | 2.12 | |
| Tj = operation limit temperature | Pdh | 7.40 | kW | Tj = operation limit temperature | COPd | 2.04 | |
| Tj = -15°C (if TOL < -20°C) | Pdh | - | kW | Tj = -15°C (if TOL < -20°C) | COPd | - | |
| Bivalent temperature | Tbiv | -8 | °C | Operation limit temperature | TOL | -10 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary Heater | | | |
| Off Mode | P _{OFF} | 0.10 | kW | Rate heat output | P _{sup} | | kW |
| Thermostat-off mode | P _{TO} | 0.04 | kW | | | | |
| Standby mode | P _{SB} | 0.10 | kW | Type of energy input | | | |
| Crankcase heater mode | P _{CK} | 0.00 | kW | | | | |
| Other items | | | | | | | |
| Capacity control | Variable | | | Rated airflow rate, outdoors | - | 4464 | m ³ /h |
| Sound power level indoors/outdoors | L _{WA} | 39/61 | dBA | | | | |
| Annual Energy consumption | Q _{HE} | 5464 | kWh | | | | |
| For heat pump combination heater | | | | Water heating energy efficiency | | | |
| Declared load profile | - | L | - | Reference Hot Water | Θ'_{WH} | 49.99 | °C |
| Daily electricity consumption | Q _{elec} | 4.26 | kWh | | | | |
| Annual electricity consumption | AEC | 903.13 | kWh | | | | |

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.



End of Life Information – Air Source Heat Pumps

General

Grant air source heat pumps incorporate components manufactured from a variety of different materials. However, most of these materials cannot be recycled as they are contaminated by the refrigerant and oil used in the heat pump.

Disassembly

This product may only be disassembled by a suitably qualified (F-gas) refrigeration engineer.

Under no circumstances should the refrigerant be released into the atmosphere.

Recycling

In order for the heat pump to be recycled or disposed of it must be taken to a suitably licensed waste facility. You will need to contact a qualified refrigeration engineer to do this for you.

Disposal

The refrigerant will be removed and returned to the refrigerant manufacturer for recycling or disposal.

The complete heat pump unit, including the compressor and the oil contained within it, must be disposed of at a licensed waste facility, as it still remains contaminated by the refrigerant.



Neil Sawers
Technical Manager