

# Product fiche relating to: The Eco Design for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019

| VortexAir<br><br>Internal Sealed System                | Symbols     | Unit   | VTXBFAIR1526 |
|--|-------------|--------|--------------|
| Condensing boiler                                      |             |        | Yes          |
| Low temperature boiler                                 |             |        | No           |
| B1 Boiler  |             |        | No           |
| Combination heater                                     |             |        | No           |
| Rated heat output                                      | $P_{rated}$ | kW     | 26           |
| <b>At rated heat output and high temp regime</b>       |             |        |              |
| At rated heat output and high temp regime              | $P_4$       | kW     | 26           |
| <b>At 30% of rated heat output and low temp regime</b> |             |        |              |
| At 30% of rated heat output and low temp regime        | $P_1$       | kW     | 7.8          |
| <b>Auxiliary electricity consumption</b>               |             |        |              |
| At Full load   | $El_{max}$  | kW     | 0.130        |
| At part load   | $El_{min}$  | kW     | 0.039        |
| In standby mode  | $P_{SB}$    | kW     | 0            |
| <b>Useful efficiency</b>                               |             |        |              |
| ErP Energy Label Class                                 |             |        | A            |
| Seasonal space heating energy efficiency               | $\eta_s$    | %      | 91.71        |
| At rated heat output and high temperature regime       | $\eta_4$    | %      | 93.6         |
| At 30% of rated heat output and low temperature regime | $\eta_1$    | %      | 96.4         |
| <b>Other items</b>                                     |             |        |              |
| Standby heat loss                                      | $P_{stby}$  | kW     | 0.264        |
| Ignition burner power consumption                      | $P_{ign}$   | kW     | 0            |
| Annual energy consumption                              | $Q_{HE}$    | kWh    | -            |
| Sound power level, indoors                             | $L_{WA}$    | db     | 50.6         |
| Emissions of nitrogen oxides                           | $NO_x$      | mg/kWh | 73           |
| Emissions Class  |             |        | 3            |
| Daily fuel consumption                                 | $Q_{fuel}$  | kWh    | -            |
| Annual fuel consumption                                | $AFC$       | GJ     | -            |

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|                                      |               |                               |
|--------------------------------------|---------------|-------------------------------|
| Models:                              | Outdoor Unit: | Aerona <sup>3</sup> HPID17R32 |
|                                      | 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         |               | Yes                           |
| 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 (*)   | Prated            | 12.8  | kW   | Seasonal space heating energy efficiency  | $\eta_s$         | 182   | %                 |
| 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 = -7°C   | Pdh               | 12.0  | kW   | Tj = -7°C   | COPd             | 3.06  |                   |
| Degradation co-efficient (**)   | Cdh               | 0.99  | -    |   |                  |       |                   |
| Tj = +2°C   | Pdh               | 7.70  | kW   | Tj = +2°C   | COPd             | 4.61  |                   |
| Degradation co-efficient (**)   | Cdh               | 0.99  | -    |   |                  |       |                   |
| Tj = +7°C   | Pdh               | 9.20  | kW   | Tj = +7°C   | COPd             | 6.75  |                   |
| Degradation co-efficient (**)   | Cdh               | 0.99  | -    |   |                  |       |                   |
| Tj = +12°C  | Pdh               | 6.20  | kW   | Tj = +12°C  | COPd             | 9.64  |                   |
| Degradation co-efficient (**)   | Cdh               | 0.99  | -    |   |                  |       |                   |
| Tj = bivalent temperature   | Pdh               | 11.64 | kW   | Tj = bivalent temperature   | COPd             | 3.08  |                   |
| Tj = operation limit temperature  | Pdh               | 11.4  | kW   | Tj = operation limit temperature  | COPd             | 3.24  |                   |
| 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             | 60    | °C                |
| <b>Power consumption in modes other than active mode</b>  |                   |       |      | <b>Supplementary Heater</b>   |                  |       |                   |
| Off Mode  | P <sub>OFF</sub>  | 0.10  | kW   | Rate heat output  | P <sub>sup</sub> | 1.40  | kW                |
| Thermostat-off mode   | P <sub>TO</sub>   | 0.04  | kW   |   |                  |       |                   |
| Standby mode  | P <sub>SB</sub>   | 0.10  | kW   | Type of energy input  | Electric         |       |                   |
| Crankcase heater mode   | P <sub>CK</sub>   | 0.00  | kW   |   |                  |       |                   |
| <b>Other items</b>  |                   |       |      |   |                  |       |                   |
| Capacity control  | Variable          |       |      | Rated airflow rate, outdoors  | -                | 4464  | m <sup>3</sup> /h |
| Sound power level indoors/outdoors  | L <sub>WA</sub>   | 41/61 | dBA  |   |                  |       |                   |
| Annual Energy consumption   | Q <sub>HE</sub>   | 5731  | kWh  |   |                  |       |                   |
| For heat pump combination heater  |                   |       |      | Water heating energy efficiency   | $\eta_{wh}$      |       | %                 |
| Declared load profile   | -                 | -     | -    |   |                  |       |                   |
| Daily electricity consumption   | Q <sub>elec</sub> | -     | kWh  |   |                  |       |                   |
| Annual electricity consumption  | AEC               | -     | kWh  |   |                  |       |                   |

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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 <sup>3</sup> HPID17R32   |
|                                      | 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         |               | Yes                             |
| 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 | 12.2  | kW   | Seasonal space heating energy efficiency | $\eta_s$ | 143   | %    |

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 = -7°C                        | Pdh  | 12.8  | kW | Tj = -7°C                                 | COPd | 2.34 |    |
| Degradation co-efficient (**)    | Cdh  | 0.99  | -  |   |      |      |    |
| Tj = +2°C                        | Pdh  | 7.40  | kW | Tj = +2°C                                 | COPd | 3.61 |    |
| Degradation co-efficient (**)    | Cdh  | 0.99  | -  |   |      |      |    |
| Tj = +7°C                        | Pdh  | 9.10  | kW | Tj = +7°C                                 | COPd | 5.21 |    |
| Degradation co-efficient (**)    | Cdh  | 0.99  | -  |   |      |      |    |
| Tj = +12°C                       | Pdh  | 6.11  | kW | Tj = +12°C                                | COPd | 8.12 |    |
| Degradation co-efficient (**)    | Cdh  | 0.99  | -  |   |      |      |    |
| Tj = bivalent temperature        | Pdh  | 10.76 | kW | Tj = bivalent temperature                 | COPd | 2.12 |    |
| Tj = operation limit temperature | Pdh  | 9.57  | kW | Tj = operation limit temperature          | COPd | 2.15 |    |
| Tj = -15°C (if TOL < -20°C)      | Pdh  | -     | kW | Tj = -15°C (if TOL < -20°C)               | COPd | -    |    |
| Bivalent temperature             | Tbiv | -9    | °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 <sub>OFF</sub>  | 0.10    | kW    | Rate heat output                | P <sub>sup</sub> | 2.63  | kW                |
| Thermostat-off mode                               | P <sub>TO</sub>   | 0.04    | kW    |                                 |                  |       |                   |
| Standby mode                                      | P <sub>SB</sub>   | 0.10    | kW    | Type of energy input            | Electric         |       |                   |
| Crankcase heater mode                             | P <sub>CK</sub>   | 0.00    | kW    |                                 |                  |       |                   |
| Other items                                       |                   |         |       |                                 |                  |       |                   |
| Capacity control                                  | Variable          |         |       | Rated airflow rate, outdoors    | -                | 4464  | m <sup>3</sup> /h |
| Sound power level indoors/outdoors                | L <sub>WA</sub>   | 41/61   | dBA   |                                 |                  |       |                   |
| Annual Energy consumption                         | Q <sub>HE</sub>   | 6931    | kWh   |                                 |                  |       |                   |
| For heat pump combination heater                  |                   |         |       | Water heating energy efficiency | $\eta_{wh}$      | 99    | %                 |
| Declared load profile                             | -                 | L       | -     | Reference Hot Water             | $\Theta'_{WH}$   | 49.42 | °C                |
| Daily electricity consumption                     | Q <sub>elec</sub> | 4.86    | kWh/h |                                 |                  |       |                   |
| Annual electricity consumption                    | AEC               | 1033.86 | kWh/h |                                 |                  |       |                   |

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



## End of Life Information

### General

Grant oil boilers incorporate components manufactured from a variety of different materials. The majority of these materials can be recycled whilst the smaller remainder cannot. Materials that cannot be recycled must be disposed of according to local regulations using appropriate waste collection and/or disposal services.

### Disassembly - Oil Boiler

There is little risk to those involved in the disassembly of this product. Please refer to and follow the Health and Safety Information given in the Installation & Servicing Instructions provided with the boiler. For guidance on the disassembly of the boiler refer to the information given in the Servicing section of the Installation & Servicing Instructions provided with the boiler.

### Disassembly - Heat Pump

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

### Recycling

Many of the materials used in Grant oil boilers can be recycled, these are listed in the table below:

| Component                          | Material                             |
|------------------------------------|--------------------------------------|
| Outer casing panels                | Mild steel (polyester powder coated) |
| Primary heat exchanger and baffles | Mild steel                           |
| Secondary heat exchanger           | Stainless steel                      |
| Secondary heat exchanger spirals   | Aluminium alloy                      |
| Pipework                           | Copper                               |
| Burner body/flange                 | Aluminium alloy                      |
| Burner oil pump                    | Aluminium alloy/steel                |
| Riello oil burner cover            | Plastic                              |
| Electrical wiring                  | Copper/plastic                       |
| Thermostats                        | Copper/plastic                       |
| Printed Circuit boards             | Copper/plastic                       |

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

All materials other than those listed above must be disposed of responsibly as general waste.

