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

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		Yes
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	ηs	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 = -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	0.99	-				
Tj = +12°C	Pdh	4.10	kW	Tj = +12°C	COPd	10.30	
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	9.14	kW	Tj = bivalent temperature	COPd	3.02	
Tj = operation limit temperature	Pdh	7.69	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}	2.31	kW
Thermostat-off mode	P_{TO}	0.04	kW				
Standby mode	P_{SB}	0.10	kW	Type of energy input	Electric		
Crankcase heater mode	P_{CK}	0.00	kW				
Other items							
Capacity control	Variable			Rated airflow rate, outdoors	-	4464	m³/h
Sound power level indoors/outdoors	L_{WA}	39/61	dBA				
Annual Energy consumption	Q_{HE}	3787	kWh				
For heat pump combination heater				Water heating energy efficiency	ηwh	-	%
Declared load profile	-	-	-				
Daily electricity consumption	Qelec	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

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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	ηs	160	%

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	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	0.99	-				
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}	2.64	kW
Thermostat-off mode	P_{TO}	0.04	kW				
Standby mode	P_{SB}	0.10	kW	Type of energy input	Electric		
Crankcase heater mode	P_{CK}	0.00	kW				
Other items							
Capacity control	Variable			Rated airflow rate, outdoors	-	4464	m³/h
Sound power level indoors/outdoors	L_{WA}	39/61	dBA				
Annual Energy consumption	Q_{HE}	5066	kWh				
For heat pump combination heater				Water heating energy efficiency	ηwh	113.4	%
Declared load profile	-	L	-	Reference Hot Water	Θ'_{WH}	49.99	°C
Daily electricity consumption	Qelec	4.26	kW/h				
Annual electricity consumption	AEC	903.13	kW/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 – 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