HANTECH

TECHNICAL DATA MANUAL

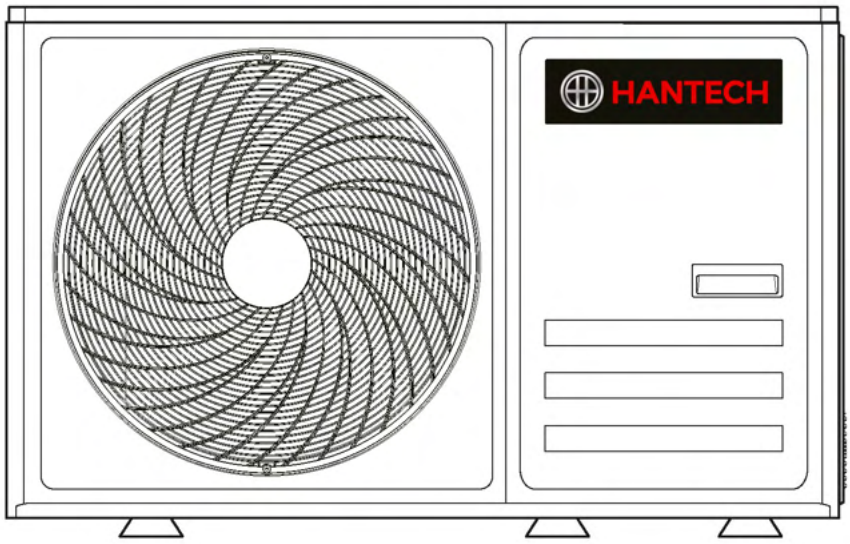
Air to Water Heat Pump System Tri-Thermal Monobloc

4kW
4kW(heating 3kW)
6kW
6kW(heating 3kW)
8kW
8kW(heating 3kW)
10kW
10kW(heating 3kW)
12kW
12kW(heating 3kW)
14kW
14kW(heating 3kW)
16kW
16kW(heating 3kW)

THML-4D/HBp-A
THMLd-4D/3HBp-A
THML-6D/HBp-A
THMLd-6D/3HBp-A
THML-8D/HBp-A
THMLd-8D/3HBp-A
THML-10D/HBp-A
THMLd-10D/3HBp-A
THML-12D/HBp-A
THMLd-12D/3HBp-A
THML-14D/HBp-A
THMLd-14D/3HBp-A
THML-16D/HBp-A
THMLd-16D/3HBp-A

3-PH 12kW
3-PH 12kW(heating 3kW)
3-PH 12kW(heating 6kW)
3-PH 12kW(heating 9kW)
3-PH 14kW
3-PH 14kW(heating 3kW)
3-PH 14kW(heating 6kW)
3-PH 14kW(heating 9kW)
3-PH 16kW
3-PH 16kW(heating 3kW)
3-PH 16kW(heating 6kW)
3-PH 16kW(heating 9kW)

THML-12S/HBp-A
THMLd-12S/3HBp-A
THMLd-12S/6HBp-A
THMLd-12S/9HBp-A
THML-14S/HBp-A
THMLd-14S/3HBp-A
THMLd-14S/6HBp-A
THMLd-14S/9HBp-A
THML-16S/HBp-A
THMLd-16S/3HBp-A
THMLd-16S/6HBp-A
THMLd-16S/9HBp-A



IMPORTANT NOTE:
Thank you very much for purchasing our product.
Before using your unit, please read this manual carefully and keep it for future reference.

Technical parameters

Model(s):	4kW(heating 3kW);4kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 4kW(heating 3kW)) no(for 4kW)
Heat pump combination heater	no
Declared climate condition:	average
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.7	kW	**Seasonal space heating energy efficiency**	η_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			
T_j = – 7°C	Prated	5.1	kW	T_j = – 7°C	COPd	2.82	-
T_j = + 2°C	Pdh	3.1	kW	T_j = + 2°C	COPd	4.37	-
T_j = + 7°C	Pdh	2.1	kW	T_j = + 7°C	COPd	6.57	-
T_j = + 12°C	Pdh	1.7	kW	T_j = + 12°C	COPd	8.83	-
T_j = bivalent temperature	Pdh	5.1	kW	T_j = bivalent temperature	COPd	2.82	-
T_j = operation limit temperature	Pdh	4.6	kW	T_j = operation limit temperature	COPd	2.60	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	1.1	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2559	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	4kW(heating 3kW);4kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 4kW(heating 3kW)) no(for 4kW)
Heat pump combination heater	no
Declared climate condition:	warmer
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.3	kW	**Seasonal space heating energy efficiency**	η_s	264	%
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			
T_j = – 7°C	Prated	N/A	kW	T_j = – 7°C	COPd	N/A	-
T_j = + 2°C	Pdh	5.3	kW	T_j = + 2°C	COPd	3.39	-
T_j = + 7°C	Pdh	3.4	kW	T_j = + 7°C	COPd	5.81	-
T_j = + 12°C	Pdh	1.7	kW	T_j = + 12°C	COPd	8.62	-
T_j = bivalent temperature	Pdh	3.4	kW	T_j = bivalent temperature	COPd	5.81	-
T_j = operation limit temperature	Pdh	5.3	kW	T_j = operation limit temperature	COPd	3.39	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	1065	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	4kW(heating 3kW);4kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 4kW(heating 3kW)) no(for 4kW)
Heat pump combination heater	no
Declared climate condition:	colder

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.0	kW	**Seasonal space heating energy efficiency**	η_s	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			
T_j = – 7°C	Prated	3.0	kW	T_j = – 7°C	COPd	3.45	-
T_j = + 2°C	Pdh	1.9	kW	T_j = + 2°C	COPd	5.00	-
T_j = + 7°C	Pdh	1.2	kW	T_j = + 7°C	COPd	5.73	-
T_j = + 12°C	Pdh	1.6	kW	T_j = + 12°C	COPd	7.84	-
T_j = bivalent temperature	Pdh	4.1	kW	T_j = bivalent temperature	COPd	2.51	-
T_j = operation limit temperature	Pdh	3.3	kW	T_j = operation limit temperature	COPd	1.72	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	2.7	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3038	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	4kW(heating 3kW);4kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 4kW(heating 3kW)) no(for 4kW)
Heat pump combination heater	no
Declared climate condition:	average
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4.7	kW	**Seasonal space heating energy efficiency**	η_s	131	%
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			
T_j = – 7°C	Prated	4.2	kW	T_j = – 7°C	COPd	2.14	-
T_j = + 2°C	Pdh	2.5	kW	T_j = + 2°C	COPd	3.26	-
T_j = + 7°C	Pdh	1.7	kW	T_j = + 7°C	COPd	4.44	-
T_j = + 12°C	Pdh	1.4	kW	T_j = + 12°C	COPd	5.54	-
T_j = bivalent temperature	Pdh	4.2	kW	T_j = bivalent temperature	COPd	2.14	-
T_j = operation limit temperature	Pdh	3.7	kW	T_j = operation limit temperature	COPd	1.72	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	1.0	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2898	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	4kW(heating 3kW);4kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 4kW(heating 3kW)) no(for 4kW)
Heat pump combination heater	no
Declared climate condition:	warmer
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.0	kW	**Seasonal space heating energy efficiency**	η_s	165	%
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			
T_j = – 7°C	Prated	N/A	kW	T_j = – 7°C	COPd	N/A	-
T_j = + 2°C	Pdh	5.0	kW	T_j = + 2°C	COPd	2.31	-
T_j = + 7°C	Pdh	3.2	kW	T_j = + 7°C	COPd	3.68	-
T_j = + 12°C	Pdh	1.5	kW	T_j = + 12°C	COPd	5.21	-
T_j = bivalent temperature	Pdh	3.2	kW	T_j = bivalent temperature	COPd	3.68	-
T_j = operation limit temperature	Pdh	5.0	kW	T_j = operation limit temperature	COPd	2.31	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	1604	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	4kW(heating 3kW);4kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 4kW(heating 3kW)) no(for 4kW)
Heat pump combination heater	no
Declared climate condition:	colder
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	3.7	kW	**Seasonal space heating energy efficiency**	η_s	107	%
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			
T_j = – 7°C	Prated	2.3	kW	T_j = – 7°C	COPd	2.34	-
T_j = + 2°C	Pdh	1.4	kW	T_j = + 2°C	COPd	3.22	-
T_j = + 7°C	Pdh	1.6	kW	T_j = + 7°C	COPd	4.58	-
T_j = + 12°C	Pdh	1.5	kW	T_j = + 12°C	COPd	6.33	-
T_j = bivalent temperature	Pdh	3.0	kW	T_j = bivalent temperature	COPd	1.69	-
T_j = operation limit temperature	Pdh	2.5	kW	T_j = operation limit temperature	COPd	1.17	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	1.2	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3308	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	6kW(heating 3kW);6kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 6kW(heating 3kW)) no(for 6kW)
Heat pump combination heater	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	Prated	6.2	kW
T_j = + 2°C	Pdh	3.6	kW
T_j = + 7°C	Pdh	2.5	kW
T_j = + 12°C	Pdh	1.4	kW
T_j = bivalent temperature	Pdh	6.2	kW
T_j = operation limit temperature	Pdh	6.0	kW
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW
Degradation co-efficient (**)	Cdh	0.9	-
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.010	kW
Thermostat-off mode	P_{TO}	0.010	kW
Standby mode	P_{SB}	0.010	kW
Crankcase heater mode	P_{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	182.7	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	COPd	2.74	-
T_j = + 2°C	COPd	4.39	-
T_j = + 7°C	COPd	6.72	-
T_j = + 12°C	COPd	8.13	-
T_j = bivalent temperature	COPd	2.74	-
T_j = operation limit temperature	COPd	2.55	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	N/A	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	1.0	kW
Type of energy input	Electric		

Other items

Capacity control	variable		
Sound power level, indoors/ outdoors	L_{WA}	-/59	dB
Annual energy consumption	Q_{HE}	3120	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m^3/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h

For heat pump combination heater:

Declared load profile	N/A		
Daily electricity consumption	Q_{elec}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh

Water heating energy efficiency	η_{wh}	N/A	%
Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual fuel consumption	AFC	N/A	GJ

Contact details	See the back cover of the manual

(*) For heat pump 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.

Technical parameters

Model(s):	6kW(heating 3kW);6kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 6kW(heating 3kW)) no(for 6kW)
Heat pump combination heater	no
Declared climate condition:	warmer
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.0	kW	**Seasonal space heating energy efficiency**	η_s	264	%
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			
T_j = – 7°C	Prated	N/A	kW	T_j = – 7°C	COPd	N/A	-
T_j = + 2°C	Pdh	5.9	kW	T_j = + 2°C	COPd	3.49	-
T_j = + 7°C	Pdh	3.9	kW	T_j = + 7°C	COPd	5.71	-
T_j = + 12°C	Pdh	2.0	kW	T_j = + 12°C	COPd	8.78	-
T_j = bivalent temperature	Pdh	3.9	kW	T_j = bivalent temperature	COPd	5.71	-
T_j = operation limit temperature	Pdh	5.9	kW	T_j = operation limit temperature	COPd	3.49	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	0.1	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/59	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	1202	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	6kW(heating 3kW);6kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 6kW(heating 3kW)) no(for 6kW)
Heat pump combination heater	no
Declared climate condition:	colder
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.0	kW	**Seasonal space heating energy efficiency**	η_s	166	%
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			
T_j = – 7°C	Prated	3.6	kW	T_j = – 7°C	COPd	3.51	-
T_j = + 2°C	Pdh	2.2	kW	T_j = + 2°C	COPd	5.36	-
T_j = + 7°C	Pdh	1.5	kW	T_j = + 7°C	COPd	6.66	-
T_j = + 12°C	Pdh	1.6	kW	T_j = + 12°C	COPd	7.97	-
T_j = bivalent temperature	Pdh	4.9	kW	T_j = bivalent temperature	COPd	2.39	-
T_j = operation limit temperature	Pdh	3.6	kW	T_j = operation limit temperature	COPd	1.78	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	2.4	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/59	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3515	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	6kW(heating 3kW);6kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 6kW(heating 3kW)) no(for 6kW)
Heat pump combination heater	no
Declared climate condition:	average
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.0	kW	**Seasonal space heating energy efficiency**	η_s	137	%
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			
T_j = – 7°C	Prated	5.3	kW	T_j = – 7°C	COPd	2.12	-
T_j = + 2°C	Pdh	3.2	kW	T_j = + 2°C	COPd	3.43	-
T_j = + 7°C	Pdh	2.1	kW	T_j = + 7°C	COPd	4.63	-
T_j = + 12°C	Pdh	1.4	kW	T_j = + 12°C	COPd	5.70	-
T_j = bivalent temperature	Pdh	5.3	kW	T_j = bivalent temperature	COPd	2.12	-
T_j = operation limit temperature	Pdh	5.0	kW	T_j = operation limit temperature	COPd	1.81	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	1.0	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/59	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3557	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	6kW(heating 3kW);6kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 6kW(heating 3kW)) no(for 6kW)
Heat pump combination heater	no
Declared climate condition:	warmer
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.0	kW	**Seasonal space heating energy efficiency**	η_s	167	%
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			
T_j = – 7°C	Prated	N/A	kW	T_j = – 7°C	COPd	N/A	-
T_j = + 2°C	Pdh	5.0	kW	T_j = + 2°C	COPd	2.37	-
T_j = + 7°C	Pdh	3.2	kW	T_j = + 7°C	COPd	3.72	-
T_j = + 12°C	Pdh	1.6	kW	T_j = + 12°C	COPd	5.41	-
T_j = bivalent temperature	Pdh	3.2	kW	T_j = bivalent temperature	COPd	3.72	-
T_j = operation limit temperature	Pdh	5.0	kW	T_j = operation limit temperature	COPd	2.37	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.010	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.010	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.010	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/59	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	1580	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	6kW(heating 3kW);6kW
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes(for 6kW(heating 3kW)) no(for 6kW)
Heat pump combination heater	no
Declared climate condition:	colder
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	Prated	3.1	kW
T_j = + 2°C	Pdh	1.8	kW
T_j = + 7°C	Pdh	1.2	kW
T_j = + 12°C	Pdh	1.4	kW
T_j = bivalent temperature	Pdh	4.0	kW
T_j = operation limit temperature	Pdh	2.5	kW
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW
Bivalent temperature	T_{biv}	-15	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW
Degradation co-efficient (**)	Cdh	0.9	-
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.010	kW
Thermostat-off mode	P_{TO}	0.010	kW
Standby mode	P_{SB}	0.010	kW
Crankcase heater mode	P_{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	113	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	COPd	2.49	-
T_j = + 2°C	COPd	3.52	-
T_j = + 7°C	COPd	4.10	-
T_j = + 12°C	COPd	6.18	-
T_j = bivalent temperature	COPd	1.74	-
T_j = operation limit temperature	COPd	1.17	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COPd	N/A	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}	N/A	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	2.5	kW
Type of energy input	Electric		

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L_{WA}	-/59	dB
Annual energy consumption	Q_{HE}	4204	kWh
For heat pump combination heater:			
Declared load profile	N/A		
Daily electricity consumption	Q_{elec}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m^3/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Water heating energy efficiency	η_{wh}	N/A	%
Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual fuel consumption	AFC	N/A	GJ

Contact details	See the back cover of the manual

(*) For heat pump 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.

Technical parameters

Model(s):	8kW(heating 3kW);8kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 8kW(heating 3kW)) no(for 8kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	8	kW	**Seasonal space heating energy efficiency**	η_s	200	%
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			
T_j = – 7°C	P_{dh}	7.1	kW	T_j = – 7°C	COP_d	3.12	-
T_j = + 2°C	P_{dh}	4.7	kW	T_j = + 2°C	COP_d	4.99	-
T_j = + 7°C	P_{dh}	3.0	kW	T_j = + 7°C	COP_d	6.81	-
T_j = + 12°C	P_{dh}	1.7	kW	T_j = + 12°C	COP_d	8.00	-
T_j = bivalent temperature	P_{dh}	7.1	kW	T_j = bivalent temperature	COP_d	3.12	-
T_j = operation limit temperature	P_{dh}	6.5	kW	T_j = operation limit temperature	COP_d	2.84	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.5	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3276	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	8kW(heating 3kW);8kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 8kW(heating 3kW)) no(for 8kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	8	kW	**Seasonal space heating energy efficiency**	η_s	278	%
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			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	7.7	kW	T_j = + 2°C	COP_d	3.82	-
T_j = + 7°C	P_{dh}	5.0	kW	T_j = + 7°C	COP_d	6.12	-
T_j = + 12°C	P_{dh}	2.6	kW	T_j = + 12°C	COP_d	9.15	-
T_j = bivalent temperature	P_{dh}	5.0	kW	T_j = bivalent temperature	COP_d	6.12	-
T_j = operation limit temperature	P_{dh}	7.7	kW	T_j = operation limit temperature	COP_d	3.82	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.3	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	1492	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	8kW(heating 3kW);8kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 8kW(heating 3kW)) no(for 8kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	7	kW	**Seasonal space heating energy efficiency**	η_s	167	%
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			
T_j = – 7°C	P_{dh}	4.4	kW	T_j = – 7°C	COP_d	3.59	-
T_j = + 2°C	P_{dh}	2.6	kW	T_j = + 2°C	COP_d	5.30	-
T_j = + 7°C	P_{dh}	1.6	kW	T_j = + 7°C	COP_d	5.98	-
T_j = + 12°C	P_{dh}	1.9	kW	T_j = + 12°C	COP_d	8.42	-
T_j = bivalent temperature	P_{dh}	5.7	kW	T_j = bivalent temperature	COP_d	2.61	-
T_j = operation limit temperature	P_{dh}	4.0	kW	T_j = operation limit temperature	COP_d	1.93	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	3.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4044	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	8kW(heating 3kW);8kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 8kW(heating 3kW)) no(for 8kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	7	kW	**Seasonal space heating energy efficiency**	η_s	136	%
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			
T_j = – 7°C	P_{dh}	5.8	kW	T_j = – 7°C	COP_d	2.20	-
T_j = + 2°C	P_{dh}	3.7	kW	T_j = + 2°C	COP_d	3.37	-
T_j = + 7°C	P_{dh}	2.4	kW	T_j = + 7°C	COP_d	4.57	-
T_j = + 12°C	P_{dh}	1.6	kW	T_j = + 12°C	COP_d	5.87	-
T_j = bivalent temperature	P_{dh}	5.8	kW	T_j = bivalent temperature	COP_d	2.20	-
T_j = operation limit temperature	P_{dh}	5.0	kW	T_j = operation limit temperature	COP_d	1.84	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	2.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3937	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	8kW(heating 3kW);8kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 8kW(heating 3kW)) no(for 8kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	8	kW	**Seasonal space heating energy efficiency**	η_s	171	%
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			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	7.4	kW	T_j = + 2°C	COP_d	2.52	-
T_j = + 7°C	P_{dh}	4.9	kW	T_j = + 7°C	COP_d	3.60	-
T_j = + 12°C	P_{dh}	2.2	kW	T_j = + 12°C	COP_d	5.80	-
T_j = bivalent temperature	P_{dh}	4.9	kW	T_j = bivalent temperature	COP_d	3.60	-
T_j = operation limit temperature	P_{dh}	7.4	kW	T_j = operation limit temperature	COP_d	2.52	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2347	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	8kW(heating 3kW);8kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 8kW(heating 3kW)) no(for 8kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	6	kW	**Seasonal space heating energy efficiency**	η_s	115	%
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			
T_j = – 7°C	P_{dh}	3.8	kW	T_j = – 7°C	COP_d	2.48	-
T_j = + 2°C	P_{dh}	2.2	kW	T_j = + 2°C	COP_d	3.59	-
T_j = + 7°C	P_{dh}	1.4	kW	T_j = + 7°C	COP_d	4.08	-
T_j = + 12°C	P_{dh}	1.5	kW	T_j = + 12°C	COP_d	6.01	-
T_j = bivalent temperature	P_{dh}	4.8	kW	T_j = bivalent temperature	COP_d	1.87	-
T_j = operation limit temperature	P_{dh}	3.2	kW	T_j = operation limit temperature	COP_d	1.31	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	2.8	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4891	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	10kW(heating 3kW);10kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 10kW(heating 3kW)) no(for 10kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	9	kW	**Seasonal space heating energy efficiency**	η_s	199	%
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			
T_j = – 7°C	P_{dh}	8.0	kW	T_j = – 7°C	COP_d	2.99	-
T_j = + 2°C	P_{dh}	5.0	kW	T_j = + 2°C	COP_d	4.97	-
T_j = + 7°C	P_{dh}	3.1	kW	T_j = + 7°C	COP_d	6.78	-
T_j = + 12°C	P_{dh}	2.0	kW	T_j = + 12°C	COP_d	9.10	-
T_j = bivalent temperature	P_{dh}	8.0	kW	T_j = bivalent temperature	COP_d	2.99	-
T_j = operation limit temperature	P_{dh}	7.3	kW	T_j = operation limit temperature	COP_d	2.72	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.7	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3702	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	10kW(heating 3kW);10kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 10kW(heating 3kW)) no(for 10kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	9	kW	**Seasonal space heating energy efficiency**	η_s	268	%
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			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	8.4	kW	T_j = + 2°C	COP_d	3.67	-
T_j = + 7°C	P_{dh}	5.5	kW	T_j = + 7°C	COP_d	5.99	-
T_j = + 12°C	P_{dh}	2.4	kW	T_j = + 12°C	COP_d	8.73	-
T_j = bivalent temperature	P_{dh}	5.5	kW	T_j = bivalent temperature	COP_d	5.99	-
T_j = operation limit temperature	P_{dh}	8.4	kW	T_j = operation limit temperature	COP_d	3.67	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	1694	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	10kW(heating 3kW);10kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 10kW(heating 3kW)) no(for 10kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	8	kW	**Seasonal space heating energy efficiency**	η_s	170	%
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			
T_j = – 7°C	P_{dh}	4.7	kW	T_j = – 7°C	COP_d	3.50	-
T_j = + 2°C	P_{dh}	3.0	kW	T_j = + 2°C	COP_d	5.51	-
T_j = + 7°C	P_{dh}	2.0	kW	T_j = + 7°C	COP_d	6.63	-
T_j = + 12°C	P_{dh}	1.9	kW	T_j = + 12°C	COP_d	8.58	-
T_j = bivalent temperature	P_{dh}	6.3	kW	T_j = bivalent temperature	COP_d	2.56	-
T_j = operation limit temperature	P_{dh}	4.6	kW	T_j = operation limit temperature	COP_d	1.99	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	3.4	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4417	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	10kW(heating 3kW);10kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 10kW(heating 3kW)) no(for 10kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	8	kW	**Seasonal space heating energy efficiency**	η_s	138	%
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			
T_j = – 7°C	P_{dh}	6.8	kW	T_j = – 7°C	COP_d	2.10	-
T_j = + 2°C	P_{dh}	4.2	kW	T_j = + 2°C	COP_d	3.44	-
T_j = + 7°C	P_{dh}	2.6	kW	T_j = + 7°C	COP_d	4.74	-
T_j = + 12°C	P_{dh}	1.8	kW	T_j = + 12°C	COP_d	6.22	-
T_j = bivalent temperature	P_{dh}	6.8	kW	T_j = bivalent temperature	COP_d	2.10	-
T_j = operation limit temperature	P_{dh}	5.2	kW	T_j = operation limit temperature	COP_d	1.83	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	2.8	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4537	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	10kW(heating 3kW);10kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 10kW(heating 3kW)) no(for 10kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	8	kW	**Seasonal space heating energy efficiency**	η_s	179	%
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			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	7.6	kW	T_j = + 2°C	COP_d	2.27	-
T_j = + 7°C	P_{dh}	5.2	kW	T_j = + 7°C	COP_d	3.92	-
T_j = + 12°C	P_{dh}	2.5	kW	T_j = + 12°C	COP_d	6.17	-
T_j = bivalent temperature	P_{dh}	5.2	kW	T_j = bivalent temperature	COP_d	3.92	-
T_j = operation limit temperature	P_{dh}	7.6	kW	T_j = operation limit temperature	COP_d	2.27	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.4	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2353	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	10kW(heating 3kW);10kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 10kW(heating 3kW)) no(for 10kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	7	kW	**Seasonal space heating energy efficiency**	η_s	116	%
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			
T_j = – 7°C	P_{dh}	4.1	kW	T_j = – 7°C	COP_d	2.53	-
T_j = + 2°C	P_{dh}	2.6	kW	T_j = + 2°C	COP_d	3.51	-
T_j = + 7°C	P_{dh}	1.7	kW	T_j = + 7°C	COP_d	4.52	-
T_j = + 12°C	P_{dh}	1.7	kW	T_j = + 12°C	COP_d	6.51	-
T_j = bivalent temperature	P_{dh}	5.5	kW	T_j = bivalent temperature	COP_d	1.92	-
T_j = operation limit temperature	P_{dh}	2.8	kW	T_j = operation limit temperature	COP_d	1.24	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	4.2	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	5613	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	12kW(heating 3kW);12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 12kW(heating 3kW)) no(for 12kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	188	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	10,7	kW	T_j = – 7°C	COP_d	2.90	-
T_j = + 2°C	P_{dh}	7.0	kW	T_j = + 2°C	COP_d	4.53	-
T_j = + 7°C	P_{dh}	4.6	kW	T_j = + 7°C	COP_d	6.66	-
T_j = + 12°C	P_{dh}	4.2	kW	T_j = + 12°C	COP_d	8.92	-
T_j = bivalent temperature	P_{dh}	10.7	kW	T_j = bivalent temperature	COP_d	2.90	-
T_j = operation limit temperature	P_{dh}	11.4	kW	T_j = operation limit temperature	COP_d	2.63	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	5261	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	12kW(heating 3kW);12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 12kW(heating 3kW)) no(for 12kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	11	kW	**Seasonal space heating energy efficiency**	η_s	253	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	11.1	kW	T_j = + 2°C	COP_d	3.62	-
T_j = + 7°C	P_{dh}	7.1	kW	T_j = + 7°C	COP_d	5.64	-
T_j = + 12°C	P_{dh}	4.7	kW	T_j = + 12°C	COP_d	8.33	-
T_j = bivalent temperature	P_{dh}	7.1	kW	T_j = bivalent temperature	COP_d	5.64	-
T_j = operation limit temperature	P_{dh}	11.1	kW	T_j = operation limit temperature	COP_d	3.62	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2326	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	12kW(heating 3kW);12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 12kW(heating 3kW)) no(for 12kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	11	kW	**Seasonal space heating energy efficiency**	η_s	163	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	7.2	kW	T_j = – 7°C	COP_d	3.51	-
T_j = + 2°C	P_{dh}	4.1	kW	T_j = + 2°C	COP_d	5.05	-
T_j = + 7°C	P_{dh}	3.2	kW	T_j = + 7°C	COP_d	6.18	-
T_j = + 12°C	P_{dh}	3.6	kW	T_j = + 12°C	COP_d	8.19	-
T_j = bivalent temperature	P_{dh}	9.3	kW	T_j = bivalent temperature	COP_d	2.59	-
T_j = operation limit temperature	P_{dh}	7.1	kW	T_j = operation limit temperature	COP_d	2.08	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	3.9	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	6746	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	12kW(heating 3kW);12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 12kW(heating 3kW)) no(for 12kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	136	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	10.7	kW	T_j = – 7°C	COP_d	2.12	-
T_j = + 2°C	P_{dh}	6.6	kW	T_j = + 2°C	COP_d	3.29	-
T_j = + 7°C	P_{dh}	4.4	kW	T_j = + 7°C	COP_d	4.74	-
T_j = + 12°C	P_{dh}	4.0	kW	T_j = + 12°C	COP_d	7.28	-
T_j = bivalent temperature	P_{dh}	10.7	kW	T_j = bivalent temperature	COP_d	2.12	-
T_j = operation limit temperature	P_{dh}	9.9	kW	T_j = operation limit temperature	COP_d	1.82	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	2.1	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	7224	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	12kW(heating 3kW);12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 12kW(heating 3kW)) no(for 12kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	174	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	12.1	kW	T_j = + 2°C	COP_d	2.27	-
T_j = + 7°C	P_{dh}	8.0	kW	T_j = + 7°C	COP_d	3.76	-
T_j = + 12°C	P_{dh}	4.3	kW	T_j = + 12°C	COP_d	5.95	-
T_j = bivalent temperature	P_{dh}	8.0	kW	T_j = bivalent temperature	COP_d	3.76	-
T_j = operation limit temperature	P_{dh}	12.1	kW	T_j = operation limit temperature	COP_d	2.27	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3761	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	12kW(heating 3kW);12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 12kW(heating 3kW)) no(for 12kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	10	kW	**Seasonal space heating energy efficiency**	η_s	119	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	6.7	kW	T_j = – 7°C	COP_d	2.58	-
T_j = + 2°C	P_{dh}	4.0	kW	T_j = + 2°C	COP_d	3.68	-
T_j = + 7°C	P_{dh}	2.9	kW	T_j = + 7°C	COP_d	4.57	-
T_j = + 12°C	P_{dh}	3.3	kW	T_j = + 12°C	COP_d	6.59	-
T_j = bivalent temperature	P_{dh}	8.5	kW	T_j = bivalent temperature	COP_d	1.84	-
T_j = operation limit temperature	P_{dh}	4.6	kW	T_j = operation limit temperature	COP_d	1.21	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	5.4	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8470	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	14kW(heating 3kW);14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 14kW(heating 3kW)) no(for 14kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	182	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	12.4	kW	T_j = – 7°C	COP_d	2.80	-
T_j = + 2°C	P_{dh}	7.5	kW	T_j = + 2°C	COP_d	4.38	-
T_j = + 7°C	P_{dh}	5.2	kW	T_j = + 7°C	COP_d	6.53	-
T_j = + 12°C	P_{dh}	4.5	kW	T_j = + 12°C	COP_d	8.58	-
T_j = bivalent temperature	P_{dh}	12.4	kW	T_j = bivalent temperature	COP_d	2.80	-
T_j = operation limit temperature	P_{dh}	12.8	kW	T_j = operation limit temperature	COP_d	2.51	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.2	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	6238	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	14kW(heating 3kW);14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 14kW(heating 3kW)) no(for 14kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	248	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	12.3	kW	T_j = + 2°C	COP_d	3.40	-
T_j = + 7°C	P_{dh}	8.0	kW	T_j = + 7°C	COP_d	5.60	-
T_j = + 12°C	P_{dh}	4.2	kW	T_j = + 12°C	COP_d	7.94	-
T_j = bivalent temperature	P_{dh}	8.0	kW	T_j = bivalent temperature	COP_d	5.60	-
T_j = operation limit temperature	P_{dh}	12.3	kW	T_j = operation limit temperature	COP_d	3.40	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2638	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	14kW(heating 3kW);14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 14kW(heating 3kW)) no(for 14kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13	kW	**Seasonal space heating energy efficiency**	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	8.2	kW	T_j = – 7°C	COP_d	3.35	-
T_j = + 2°C	P_{dh}	4.6	kW	T_j = + 2°C	COP_d	4.72	-
T_j = + 7°C	P_{dh}	3.4	kW	T_j = + 7°C	COP_d	6.10	-
T_j = + 12°C	P_{dh}	3.8	kW	T_j = + 12°C	COP_d	8.00	-
T_j = bivalent temperature	P_{dh}	10.6	kW	T_j = bivalent temperature	COP_d	2.55	-
T_j = operation limit temperature	P_{dh}	7.9	kW	T_j = operation limit temperature	COP_d	2.10	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	5.1	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8111	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	14kW(heating 3kW);14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 14kW(heating 3kW)) no(for 14kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	134	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	10.9	kW	T_j = – 7°C	COP_d	1.99	-
T_j = + 2°C	P_{dh}	6.9	kW	T_j = + 2°C	COP_d	3.26	-
T_j = + 7°C	P_{dh}	4.5	kW	T_j = + 7°C	COP_d	4.79	-
T_j = + 12°C	P_{dh}	4.0	kW	T_j = + 12°C	COP_d	7.25	-
T_j = bivalent temperature	P_{dh}	10.9	kW	T_j = bivalent temperature	COP_d	1.99	-
T_j = operation limit temperature	P_{dh}	10.3	kW	T_j = operation limit temperature	COP_d	1.81	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.7	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	7427	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	14kW(heating 3kW);14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 14kW(heating 3kW)) no(for 14kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	170	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	13.1	kW	T_j = + 2°C	COP_d	2.25	-
T_j = + 7°C	P_{dh}	9.0	kW	T_j = + 7°C	COP_d	3.61	-
T_j = + 12°C	P_{dh}	4.1	kW	T_j = + 12°C	COP_d	5.94	-
T_j = bivalent temperature	P_{dh}	9.0	kW	T_j = bivalent temperature	COP_d	3.61	-
T_j = operation limit temperature	P_{dh}	13.1	kW	T_j = operation limit temperature	COP_d	2.25	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.9	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4323	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	14kW(heating 3kW);14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 14kW(heating 3kW)) no(for 14kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	11	kW	**Seasonal space heating energy efficiency**	η_s	117	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	7.2	kW	T_j = – 7°C	COP_d	2.56	-
T_j = + 2°C	P_{dh}	4.2	kW	T_j = + 2°C	COP_d	3.62	-
T_j = + 7°C	P_{dh}	3.1	kW	T_j = + 7°C	COP_d	4.77	-
T_j = + 12°C	P_{dh}	3.6	kW	T_j = + 12°C	COP_d	6.40	-
T_j = bivalent temperature	P_{dh}	8.9	kW	T_j = bivalent temperature	COP_d	1.82	-
T_j = operation limit temperature	P_{dh}	4.4	kW	T_j = operation limit temperature	COP_d	1.16	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	6.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8975	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	16kW(heating 3kW);16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 16kW(heating 3kW)) no(for 16kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	15	kW	**Seasonal space heating energy efficiency**	η_s	179	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	13.4	kW	T_j = – 7°C	COP_d	2.66	-
T_j = + 2°C	P_{dh}	8.0	kW	T_j = + 2°C	COP_d	4.33	-
T_j = + 7°C	P_{dh}	5.4	kW	T_j = + 7°C	COP_d	6.48	-
T_j = + 12°C	P_{dh}	4.6	kW	T_j = + 12°C	COP_d	8.96	-
T_j = bivalent temperature	P_{dh}	13.4	kW	T_j = bivalent temperature	COP_d	2.66	-
T_j = operation limit temperature	P_{dh}	13.4	kW	T_j = operation limit temperature	COP_d	2.46	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	6863	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	16kW(heating 3kW);16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 16kW(heating 3kW)) no(for 16kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13	kW	**Seasonal space heating energy efficiency**	η_s	239	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	13.3	kW	T_j = + 2°C	COP_d	3.33	-
T_j = + 7°C	P_{dh}	8.5	kW	T_j = + 7°C	COP_d	5.19	-
T_j = + 12°C	P_{dh}	4.8	kW	T_j = + 12°C	COP_d	7.95	-
T_j = bivalent temperature	P_{dh}	8.5	kW	T_j = bivalent temperature	COP_d	5.19	-
T_j = operation limit temperature	P_{dh}	13.3	kW	T_j = operation limit temperature	COP_d	3.33	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2934	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	16kW(heating 3kW);16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 16kW(heating 3kW)) no(for 16kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	9.1	kW	T_j = – 7°C	COP_d	3.30	-
T_j = + 2°C	P_{dh}	5.0	kW	T_j = + 2°C	COP_d	4.87	-
T_j = + 7°C	P_{dh}	4.2	kW	T_j = + 7°C	COP_d	6.50	-
T_j = + 12°C	P_{dh}	3.7	kW	T_j = + 12°C	COP_d	7.59	-
T_j = bivalent temperature	P_{dh}	11.3	kW	T_j = bivalent temperature	COP_d	2.28	-
T_j = operation limit temperature	P_{dh}	9.8	kW	T_j = operation limit temperature	COP_d	1.89	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	4.2	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8618	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	16kW(heating 3kW);16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 16kW(heating 3kW)) no(for 16kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13	kW	**Seasonal space heating energy efficiency**	η_s	136	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	11.3	kW	T_j = – 7°C	COP_d	2.04	-
T_j = + 2°C	P_{dh}	7.3	kW	T_j = + 2°C	COP_d	3.31	-
T_j = + 7°C	P_{dh}	4.8	kW	T_j = + 7°C	COP_d	4.81	-
T_j = + 12°C	P_{dh}	4.0	kW	T_j = + 12°C	COP_d	7.35	-
T_j = bivalent temperature	P_{dh}	11.3	kW	T_j = bivalent temperature	COP_d	2.04	-
T_j = operation limit temperature	P_{dh}	11.2	kW	T_j = operation limit temperature	COP_d	1.72	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.8	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	7593	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	16kW(heating 3kW);16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 16kW(heating 3kW)) no(for 16kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	171	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	13.2	kW	T_j = + 2°C	COP_d	2.30	-
T_j = + 7°C	P_{dh}	9.0	kW	T_j = + 7°C	COP_d	3.68	-
T_j = + 12°C	P_{dh}	4.1	kW	T_j = + 12°C	COP_d	5.80	-
T_j = bivalent temperature	P_{dh}	9.0	kW	T_j = bivalent temperature	COP_d	3.68	-
T_j = operation limit temperature	P_{dh}	13.2	kW	T_j = operation limit temperature	COP_d	2.30	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.8	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4329	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	16kW(heating 3kW);16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 16kW(heating 3kW)) no(for 16kW)
Heat pump combination heater:	no
Declared climate condition:	colder

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	121	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	7.7	kW	T_j = – 7°C	COP_d	2.61	-
T_j = + 2°C	P_{dh}	4.5	kW	T_j = + 2°C	COP_d	3.78	-
T_j = + 7°C	P_{dh}	3.2	kW	T_j = + 7°C	COP_d	4.87	-
T_j = + 12°C	P_{dh}	3.6	kW	T_j = + 12°C	COP_d	6.39	-
T_j = bivalent temperature	P_{dh}	9.6	kW	T_j = bivalent temperature	COP_d	1.84	-
T_j = operation limit temperature	P_{dh}	5.1	kW	T_j = operation limit temperature	COP_d	1.04	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	6.9	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	9389	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW);3-PH 12kW(heating 3kW)) no(for 3-PH 12kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	187	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	10.7	kW	T_j = – 7°C	COP_d	2.90	-
T_j = + 2°C	P_{dh}	7.0	kW	T_j = + 2°C	COP_d	4.53	-
T_j = + 7°C	P_{dh}	4.6	kW	T_j = + 7°C	COP_d	6.65	-
T_j = + 12°C	P_{dh}	4.2	kW	T_j = + 12°C	COP_d	8.92	-
T_j = bivalent temperature	P_{dh}	10.7	kW	T_j = bivalent temperature	COP_d	2.90	-
T_j = operation limit temperature	P_{dh}	11.4	kW	T_j = operation limit temperature	COP_d	2.63	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	5256	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW);3-PH 12kW(heating 3kW)) no(for 3-PH 12kW)
Heat pump combination heater:	no
Declared climate condition:	warmer
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	11	kW	**Seasonal space heating energy efficiency**	η_s	253	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	11.1	kW	T_j = + 2°C	COP_d	3.62	-
T_j = + 7°C	P_{dh}	7.2	kW	T_j = + 7°C	COP_d	5.64	-
T_j = + 12°C	P_{dh}	4.7	kW	T_j = + 12°C	COP_d	8.34	-
T_j = bivalent temperature	P_{dh}	7.2	kW	T_j = bivalent temperature	COP_d	5.64	-
T_j = operation limit temperature	P_{dh}	11.1	kW	T_j = operation limit temperature	COP_d	3.62	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2325	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW);3-PH 12kW(heating 3kW)) no(for 3-PH 12kW)
Heat pump combination heater:	no
Declared climate condition:	colder
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	11	kW	**Seasonal space heating energy efficiency**	η_s	163	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	7.2	kW	T_j = – 7°C	COP_d	3.51	-
T_j = + 2°C	P_{dh}	4.2	kW	T_j = + 2°C	COP_d	5.06	-
T_j = + 7°C	P_{dh}	3.2	kW	T_j = + 7°C	COP_d	6.20	-
T_j = + 12°C	P_{dh}	3.6	kW	T_j = + 12°C	COP_d	8.19	-
T_j = bivalent temperature	P_{dh}	9.3	kW	T_j = bivalent temperature	COP_d	2.59	-
T_j = operation limit temperature	P_{dh}	7.1	kW	T_j = operation limit temperature	COP_d	2.08	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	3.9	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	6738	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW);3-PH 12kW(heating 3kW)) no(for 3-PH 12kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	138	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	10.7	kW	T_j = – 7°C	COP_d	2.13	-
T_j = + 2°C	P_{dh}	6.6	kW	T_j = + 2°C	COP_d	3.33	-
T_j = + 7°C	P_{dh}	4.4	kW	T_j = + 7°C	COP_d	4.88	-
T_j = + 12°C	P_{dh}	4.0	kW	T_j = + 12°C	COP_d	7.67	-
T_j = bivalent temperature	P_{dh}	10.7	kW	T_j = bivalent temperature	COP_d	2.13	-
T_j = operation limit temperature	P_{dh}	10.0	kW	T_j = operation limit temperature	COP_d	1.82	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	2.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	7085	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW);3-PH 12kW(heating 3kW)) no(for 3-PH 12kW)
Heat pump combination heater:	no
Declared climate condition:	warmer
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	175	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	12.1	kW	T_j = + 2°C	COP_d	2.27	-
T_j = + 7°C	P_{dh}	8.0	kW	T_j = + 7°C	COP_d	3.85	-
T_j = + 12°C	P_{dh}	4.3	kW	T_j = + 12°C	COP_d	5.95	-
T_j = bivalent temperature	P_{dh}	8.0	kW	T_j = bivalent temperature	COP_d	3.85	-
T_j = operation limit temperature	P_{dh}	12.1	kW	T_j = operation limit temperature	COP_d	2.27	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	3733	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW);3-PH 12kW(heating 3kW)) no(for 3-PH 12kW)
Heat pump combination heater:	no
Declared climate condition:	colder
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	10	kW	**Seasonal space heating energy efficiency**	η_s	119	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = – 7°C	P_{dh}	6.7	kW	T_j = – 7°C	COP_d	2.58	-
T_j = + 2°C	P_{dh}	4.0	kW	T_j = + 2°C	COP_d	3.68	-
T_j = + 7°C	P_{dh}	2.9	kW	T_j = + 7°C	COP_d	4.57	-
T_j = + 12°C	P_{dh}	3.3	kW	T_j = + 12°C	COP_d	6.59	-
T_j = bivalent temperature	P_{dh}	8.5	kW	T_j = bivalent temperature	COP_d	1.89	-
T_j = operation limit temperature	P_{dh}	4.7	kW	T_j = operation limit temperature	COP_d	1.21	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	5.3	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8459	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW);3-PH 14kW(heating 3kW)) no(for 3-PH 14kW)
Heat pump combination heater:	no
Declared climate condition:	average
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	182	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	12.4	kW	T_j = – 7°C	COP_d	2.80	-
T_j = + 2°C	P_{dh}	7.5	kW	T_j = + 2°C	COP_d	4.40	-
T_j = + 7°C	P_{dh}	5.1	kW	T_j = + 7°C	COP_d	6.38	-
T_j = + 12°C	P_{dh}	4.9	kW	T_j = + 12°C	COP_d	9.16	-
T_j = bivalent temperature	P_{dh}	12.4	kW	T_j = bivalent temperature	COP_d	2.80	-
T_j = operation limit temperature	P_{dh}	12.9	kW	T_j = operation limit temperature	COP_d	2.63	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.1	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	6237	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW);3-PH 14kW(heating 3kW)) no(for 3-PH 14kW)
Heat pump combination heater:	no
Declared climate condition:	warmer
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	248	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	12.3	kW	T_j = + 2°C	COP_d	3.41	-
T_j = + 7°C	P_{dh}	8.0	kW	T_j = + 7°C	COP_d	5.61	-
T_j = + 12°C	P_{dh}	4.2	kW	T_j = + 12°C	COP_d	7.94	-
T_j = bivalent temperature	P_{dh}	8.0	kW	T_j = bivalent temperature	COP_d	5.61	-
T_j = operation limit temperature	P_{dh}	12.3	kW	T_j = operation limit temperature	COP_d	3.41	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2638	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW);3-PH 14kW(heating 3kW)) no(for 3-PH 14kW)
Heat pump combination heater:	no
Declared climate condition:	colder
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13	kW	**Seasonal space heating energy efficiency**	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	8.3	kW	T_j = – 7°C	COP_d	3.36	-
T_j = + 2°C	P_{dh}	4.7	kW	T_j = + 2°C	COP_d	4.73	-
T_j = + 7°C	P_{dh}	3.4	kW	T_j = + 7°C	COP_d	6.11	-
T_j = + 12°C	P_{dh}	3.8	kW	T_j = + 12°C	COP_d	7.98	-
T_j = bivalent temperature	P_{dh}	10.7	kW	T_j = bivalent temperature	COP_d	2.61	-
T_j = operation limit temperature	P_{dh}	7.9	kW	T_j = operation limit temperature	COP_d	2.10	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	5.1	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8082	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW);3-PH 14kW(heating 3kW)) no(for 3-PH 14kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	135	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	10.9	kW	T_j = – 7°C	COP_d	2.03	-
T_j = + 2°C	P_{dh}	7.1	kW	T_j = + 2°C	COP_d	3.35	-
T_j = + 7°C	P_{dh}	4.8	kW	T_j = + 7°C	COP_d	4.67	-
T_j = + 12°C	P_{dh}	4.0	kW	T_j = + 12°C	COP_d	7.27	-
T_j = bivalent temperature	P_{dh}	10.9	kW	T_j = bivalent temperature	COP_d	2.03	-
T_j = operation limit temperature	P_{dh}	10.0	kW	T_j = operation limit temperature	COP_d	1.79	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	2.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	7384	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW);3-PH 14kW(heating 3kW)) no(for 3-PH 14kW)
Heat pump combination heater:	no
Declared climate condition:	warmer
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	170	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	13.1	kW	T_j = + 2°C	COP_d	2.25	-
T_j = + 7°C	P_{dh}	9.0	kW	T_j = + 7°C	COP_d	3.61	-
T_j = + 12°C	P_{dh}	4.1	kW	T_j = + 12°C	COP_d	5.94	-
T_j = bivalent temperature	P_{dh}	9.0	kW	T_j = bivalent temperature	COP_d	3.61	-
T_j = operation limit temperature	P_{dh}	13.1	kW	T_j = operation limit temperature	COP_d	2.25	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.9	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4320	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW);3-PH 14kW(heating 3kW)) no(for 3-PH 14kW)
Heat pump combination heater:	no
Declared climate condition:	colder
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	11	kW	**Seasonal space heating energy efficiency**	η_s	117	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	7.2	kW	T_j = – 7°C	COP_d	2.56	-
T_j = + 2°C	P_{dh}	4.3	kW	T_j = + 2°C	COP_d	3.62	-
T_j = + 7°C	P_{dh}	3.1	kW	T_j = + 7°C	COP_d	4.77	-
T_j = + 12°C	P_{dh}	3.6	kW	T_j = + 12°C	COP_d	6.40	-
T_j = bivalent temperature	P_{dh}	8.9	kW	T_j = bivalent temperature	COP_d	1.82	-
T_j = operation limit temperature	P_{dh}	4.4	kW	T_j = operation limit temperature	COP_d	1.16	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	6.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8967	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW);3-PH 16kW(heating 3kW)) no(for 3-PH 16kW)
Heat pump combination heater:	no
Declared climate condition:	average

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	15	kW	**Seasonal space heating energy efficiency**	η_s	179	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	13.4	kW	T_j = – 7°C	COP_d	2.60	-
T_j = + 2°C	P_{dh}	8.0	kW	T_j = + 2°C	COP_d	4.39	-
T_j = + 7°C	P_{dh}	5.4	kW	T_j = + 7°C	COP_d	6.44	-
T_j = + 12°C	P_{dh}	4.6	kW	T_j = + 12°C	COP_d	8.92	-
T_j = bivalent temperature	P_{dh}	13.4	kW	T_j = bivalent temperature	COP_d	2.60	-
T_j = operation limit temperature	P_{dh}	13.4	kW	T_j = operation limit temperature	COP_d	2.44	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.6	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	6838	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW);3-PH 16kW(heating 3kW)) no(for 3-PH 16kW)
Heat pump combination heater:	no
Declared climate condition:	warmer

Parameters are declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13	kW	**Seasonal space heating energy efficiency**	η_s	239	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	13.3	kW	T_j = + 2°C	COP_d	3.33	-
T_j = + 7°C	P_{dh}	8.6	kW	T_j = + 7°C	COP_d	5.20	-
T_j = + 12°C	P_{dh}	4.8	kW	T_j = + 12°C	COP_d	7.95	-
T_j = bivalent temperature	P_{dh}	8.6	kW	T_j = bivalent temperature	COP_d	5.20	-
T_j = operation limit temperature	P_{dh}	13.3	kW	T_j = operation limit temperature	COP_d	3.33	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.0	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items

Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	2933	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW);3-PH 16kW(heating 3kW)) no(for 3-PH 16kW)
Heat pump combination heater:	no
Declared climate condition:	colder
Parameters are declared for low-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	9.1	kW	T_j = – 7°C	COP_d	3.32	-
T_j = + 2°C	P_{dh}	5.0	kW	T_j = + 2°C	COP_d	4.88	-
T_j = + 7°C	P_{dh}	4.2	kW	T_j = + 7°C	COP_d	6.50	-
T_j = + 12°C	P_{dh}	3.7	kW	T_j = + 12°C	COP_d	7.59	-
T_j = bivalent temperature	P_{dh}	11.3	kW	T_j = bivalent temperature	COP_d	2.28	-
T_j = operation limit temperature	P_{dh}	9.8	kW	T_j = operation limit temperature	COP_d	1.89	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	4.2	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	8597	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW);3-PH 16kW(heating 3kW)) no(for 3-PH 16kW)
Heat pump combination heater:	no
Declared climate condition:	average
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13	kW	**Seasonal space heating energy efficiency**	η_s	136	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	11.3	kW	T_j = – 7°C	COP_d	2.04	-
T_j = + 2°C	P_{dh}	7.3	kW	T_j = + 2°C	COP_d	3.33	-
T_j = + 7°C	P_{dh}	4.8	kW	T_j = + 7°C	COP_d	4.81	-
T_j = + 12°C	P_{dh}	4.0	kW	T_j = + 12°C	COP_d	7.36	-
T_j = bivalent temperature	P_{dh}	11.3	kW	T_j = bivalent temperature	COP_d	2.04	-
T_j = operation limit temperature	P_{dh}	11.3	kW	T_j = operation limit temperature	COP_d	1.78	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	1.7	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	7571	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW);3-PH 16kW(heating 3kW)) no(for 3-PH 16kW)
Heat pump combination heater:	no
Declared climate condition:	warmer
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	14	kW	**Seasonal space heating energy efficiency**	η_s	171	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	N/A	kW	T_j = – 7°C	COP_d	N/A	-
T_j = + 2°C	P_{dh}	13.2	kW	T_j = + 2°C	COP_d	2.32	-
T_j = + 7°C	P_{dh}	9.1	kW	T_j = + 7°C	COP_d	3.70	-
T_j = + 12°C	P_{dh}	4.1	kW	T_j = + 12°C	COP_d	5.80	-
T_j = bivalent temperature	P_{dh}	9.1	kW	T_j = bivalent temperature	COP_d	3.70	-
T_j = operation limit temperature	P_{dh}	13.2	kW	T_j = operation limit temperature	COP_d	2.32	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	0.8	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	4321	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Technical parameters

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	yes(for 3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW);3-PH 16kW(heating 3kW)) no(for 3-PH 16kW)
Heat pump combination heater:	no
Declared climate condition:	colder
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	12	kW	**Seasonal space heating energy efficiency**	η_s	121	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j				Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
T_j = – 7°C	P_{dh}	7.8	kW	T_j = – 7°C	COP_d	2.64	-
T_j = + 2°C	P_{dh}	4.5	kW	T_j = + 2°C	COP_d	3.78	-
T_j = + 7°C	P_{dh}	3.2	kW	T_j = + 7°C	COP_d	4.87	-
T_j = + 12°C	P_{dh}	3.7	kW	T_j = + 12°C	COP_d	6.40	-
T_j = bivalent temperature	P_{dh}	9.6	kW	T_j = bivalent temperature	COP_d	1.85	-
T_j = operation limit temperature	P_{dh}	5.1	kW	T_j = operation limit temperature	COP_d	1.04	-
For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	P_{dh}	N/A	kW	For air-to-water heat pumps: T_j = – 15°C (if TOL < – 20°C)	COP_d	N/A	-
Bivalent temperature	T_{biv}	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P_{cych}	N/A	kW	Cycling interval efficiency	COP_{cyc}	N/A	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.014	kW	Rated heat output (**)	P_{sup}	6.9	kW
Thermostat-off mode	P_{TO}	0.024	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.014	kW				
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	N/A	m^3/h
Annual energy consumption	Q_{HE}	9356	kWh				
For heat pump combination heater:							
Declared load profile	N/A			**Water heating energy efficiency**	η_{wh}	N/A	%
Daily electricity consumption	Q_{elec}	N/A	kWh	Daily fuel consumption	Q_{fuel}	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the back cover of the manual						

(*) For heat pump 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.

Information requirements for comfort chillers

Model(s):	4kW(heating 3kW);4kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	4.6	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	216	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	4.6	kW	Tj = +35°C	EERd	3.38	-
Tj = + 30°C	P_{dc}	3.5	kW	Tj = + 30°C	EERd	4.60	-
Tj = + 25°C	P_{dc}	2.2	kW	Tj = + 25°C	EERd	6.23	-
Tj = + 20°C	P_{dc}	1.0	kW	Tj = + 20°C	EERd	7.69	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.010	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.010	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2600	m^3/h
Sound power level, indoors/ outdoors	LWA	-/56	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	4kW(heating 3kW);4kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	4.5	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	305	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	4.5	kW	Tj = +35°C	EERd	5.64	-
Tj = + 30°C	P_{dc}	3.4	kW	Tj = + 30°C	EERd	7.47	-
Tj = + 25°C	P_{dc}	2.3	kW	Tj = + 25°C	EERd	8.97	-
Tj = + 20°C	P_{dc}	1.0	kW	Tj = + 20°C	EERd	8.81	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.010	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.010	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2600	m^3/h
Sound power level, indoors/ outdoors	LWA	-/56	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	6kW(heating 3kW);6kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	6.1	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	207	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	6.1	kW	Tj = +35°C	EERd	3.22	-
Tj = + 30°C	P_{dc}	4.7	kW	Tj = + 30°C	EERd	4.68	-
Tj = + 25°C	P_{dc}	2.8	kW	Tj = + 25°C	EERd	6.25	-
Tj = + 20°C	P_{dc}	1.2	kW	Tj = + 20°C	EERd	6.07	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.010	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.010	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2800	m^3/h
Sound power level, indoors/ outdoors	LWA	-/59	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	6kW(heating 3kW);6kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	6.1	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	319	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	6.1	kW	Tj = +35°C	EERd	5.19	-
Tj = + 30°C	P_{dc}	4.4	kW	Tj = + 30°C	EERd	7.22	-
Tj = + 25°C	P_{dc}	2.9	kW	Tj = + 25°C	EERd	10.09	-
Tj = + 20°C	P_{dc}	1.3	kW	Tj = + 20°C	EERd	8.82	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.010	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.010	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2800	m^3/h
Sound power level, indoors/ outdoors	LWA	-/59	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	8kW(heating 3kW);8kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	7	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	214	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	7.0	kW	Tj = +35°C	EER_d	3.38	-
Tj = + 30°C	P_{dc}	5.7	kW	Tj = + 30°C	EER_d	4.60	-
Tj = + 25°C	P_{dc}	3.7	kW	Tj = + 25°C	EER_d	6.23	-
Tj = + 20°C	P_{dc}	1.7	kW	Tj = + 20°C	EER_d	7.69	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/60	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	8kW(heating 3kW);8kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	8	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	318	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	8.0	kW	Tj = +35°C	EER_d	4.95	-
Tj = + 30°C	P_{dc}	6.4	kW	Tj = + 30°C	EER_d	6.61	-
Tj = + 25°C	P_{dc}	4.3	kW	Tj = + 25°C	EER_d	9.06	-
Tj = + 20°C	P_{dc}	1.8	kW	Tj = + 20°C	EER_d	13.14	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/60	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	10kW(heating 3kW);10kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	8	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	212	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	8.1	kW	Tj = +35°C	EER_d	3.16	-
Tj = + 30°C	P_{dc}	6.6	kW	Tj = + 30°C	EER_d	4.38	-
Tj = + 25°C	P_{dc}	4.3	kW	Tj = + 25°C	EER_d	6.18	-
Tj = + 20°C	P_{dc}	1.9	kW	Tj = + 20°C	EER_d	8.17	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4500	m^3/h
Sound power level, indoors/ outdoors	LWA	-/61	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	10kW(heating 3kW);10kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	10	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	307	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	9.5	kW	Tj = +35°C	EER_d	4.56	-
Tj = + 30°C	P_{dc}	7.7	kW	Tj = + 30°C	EER_d	6.33	-
Tj = + 25°C	P_{dc}	4.9	kW	Tj = + 25°C	EER_d	8.48	-
Tj = + 20°C	P_{dc}	2.3	kW	Tj = + 20°C	EER_d	13.19	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4500	m^3/h
Sound power level, indoors/ outdoors	LWA	-/61	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	12kW(heating 3kW);12kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	12	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	201	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	11.6	kW	Tj = +35°C	EER_d	2.80	-
Tj = + 30°C	P_{dc}	8.7	kW	Tj = + 30°C	EER_d	4.34	-
Tj = + 25°C	P_{dc}	5.8	kW	Tj = + 25°C	EER_d	6.02	-
Tj = + 20°C	P_{dc}	2.6	kW	Tj = + 20°C	EER_d	6.46	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/64	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	12kW(heating 3kW);12kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	12	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	295	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	12.0	kW	Tj = +35°C	EER_d	3.96	-
Tj = + 30°C	P_{dc}	9.3	kW	Tj = + 30°C	EER_d	6.16	-
Tj = + 25°C	P_{dc}	5.6	kW	Tj = + 25°C	EER_d	9.03	-
Tj = + 20°C	P_{dc}	3.5	kW	Tj = + 20°C	EER_d	10.04	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/64	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	14kW(heating 3kW);14kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	13	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	200	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	12.7	kW	Tj = +35°C	EER_d	2.59	-
Tj = + 30°C	P_{dc}	9.5	kW	Tj = + 30°C	EER_d	4.33	-
Tj = + 25°C	P_{dc}	6.3	kW	Tj = + 25°C	EER_d	6.08	-
Tj = + 20°C	P_{dc}	3.0	kW	Tj = + 20°C	EER_d	6.64	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m^3/h
Sound power level, indoors/ outdoors	LWA	-/66	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	14kW(heating 3kW);14kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	14	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	281	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	13.6	kW	Tj = +35°C	EER_d	3.73	-
Tj = + 30°C	P_{dc}	10.4	kW	Tj = + 30°C	EER_d	5.75	-
Tj = + 25°C	P_{dc}	6.6	kW	Tj = + 25°C	EER_d	8.58	-
Tj = + 20°C	P_{dc}	3.5	kW	Tj = + 20°C	EER_d	9.96	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m^3/h
Sound power level, indoors/ outdoors	LWA	-/66	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	16kW(heating 3kW);16kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	14	kW		**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	192	%
Declared capacity for cooling for part load at given outdoor temperature Tj					Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	14.3	kW		Tj = +35°C	EER_d	2.51	-
Tj = + 30°C	P_{dc}	10.6	kW		Tj = + 30°C	EER_d	3.70	-
Tj = + 25°C	P_{dc}	6.8	kW		Tj = + 25°C	EER_d	5.87	-
Tj = + 20°C	P_{dc}	3.5	kW		Tj = + 20°C	EER_d	7.23	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-					
Power consumption in modes other than "active mode"								
Off mode	P_{OFF}	0.020	kW		Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW		Standby mode	P_{SB}	0.020	kW
Other items								
Capacity control	variable				For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/68	dB		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)					
Standard rating conditions used	Low temperature application							
Contact details	See the back cover of the manual							

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	16kW(heating 3kW);16kW
Outdoor side heat exchanger of chiller:	Air to water
indoor side heat exchanger chiller:	Water
Type:	compressor driven vapour compression
Driver af compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	$P_{rated,c}$	15	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	280	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	15.4	kW	Tj = +35°C	EER_d	3.50	-
Tj = + 30°C	P_{dc}	11.6	kW	Tj = + 30°C	EER_d	5.45	-
Tj = + 25°C	P_{dc}	7.3	kW	Tj = + 25°C	EER_d	8.35	-
Tj = + 20°C	P_{dc}	4.6	kW	Tj = + 20°C	EER_d	11.68	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/68	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	12	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	197	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	11.7	kW	Tj = +35°C	EERd	2.64	-
Tj = + 30°C	P_{dc}	8.8	kW	Tj = + 30°C	EERd	4.09	-
Tj = + 25°C	P_{dc}	5.9	kW	Tj = + 25°C	EERd	5.58	-
Tj = + 20°C	P_{dc}	4.1	kW	Tj = + 20°C	EERd	8.01	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/64	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW); 3-PH 12kW(heating 3kW);3-PH 12kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	12	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	276	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	12.0	kW	Tj = +35°C	EERd	3.91	-
Tj = + 30°C	P_{dc}	9.3	kW	Tj = + 30°C	EERd	5.67	-
Tj = + 25°C	P_{dc}	5.7	kW	Tj = + 25°C	EERd	7.98	-
Tj = + 20°C	P_{dc}	5.1	kW	Tj = + 20°C	EERd	11.37	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/64	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\,eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	13	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	188	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	12.7	kW	Tj = +35°C	EERd	2.36	-
Tj = + 30°C	P_{dc}	9.5	kW	Tj = + 30°C	EERd	4.07	-
Tj = + 25°C	P_{dc}	6.1	kW	Tj = + 25°C	EERd	5.76	-
Tj = + 20°C	P_{dc}	2.8	kW	Tj = + 20°C	EERd	6.05	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m^3/h
Sound power level, indoors/ outdoors	LWA	-/66	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	14	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	269	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	13.5	kW	Tj = +35°C	EERd	3.72	-
Tj = + 30°C	P_{dc}	10.3	kW	Tj = + 30°C	EERd	5.51	-
Tj = + 25°C	P_{dc}	6.5	kW	Tj = + 25°C	EERd	8.11	-
Tj = + 20°C	P_{dc}	3.4	kW	Tj = + 20°C	EERd	9.49	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m^3/h
Sound power level, indoors/ outdoors	LWA	-/66	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	14	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	186	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	13.8	kW	Tj = +35°C	EERd	2.41	-
Tj = + 30°C	P_{dc}	10.9	kW	Tj = + 30°C	EERd	3.65	-
Tj = + 25°C	P_{dc}	6.9	kW	Tj = + 25°C	EERd	5.60	-
Tj = + 20°C	P_{dc}	3.6	kW	Tj = + 20°C	EERd	7.08	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/68	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Low temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.

Information requirements for comfort chillers

Model(s):	3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW); 3-PH 16kW(heating 3kW);3-PH 16kW
Outdoor side heat exchanger of chiller	Air to water
indoor side heat exchanger chiller	Water
Type:	compressor driven vapour compression
Driver af compressor	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	**Seasonal space cooling energy efficiency**	$\eta_{s,c}$	263	%
Declared capacity for cooling for part load at given outdoor temperature Tj				Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj			
Tj = + 35°C	P_{dc}	15.5	kW	Tj = +35°C	EERd	3.35	-
Tj = + 30°C	P_{dc}	11.6	kW	Tj = + 30°C	EERd	4.90	-
Tj = + 25°C	P_{dc}	7.5	kW	Tj = + 25°C	EERd	7.91	-
Tj = + 20°C	P_{dc}	5.1	kW	Tj = + 20°C	EERd	11.29	-
Degradation co-efficient of chiller (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m^3/h
Sound power level, indoors/ outdoors	LWA	-/68	dB	For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m^3/h
Emissions of nitrogen oxide (if applicable)	NO_x(**)	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100 years)				
Standard rating conditions used	Medium temperature application						
Contact details	See the back cover of the manual						

(*)If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.
(**)From 26 September 2018.