

## **TECHNICAL DATA MANUAL**

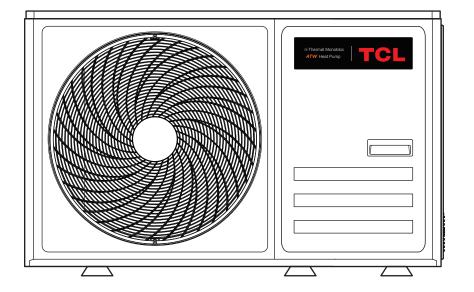
## Air to Water Heat Pump System Tri-Thermal Monobloc

4kW 4kW(heating 3kW) 6kW 6kW(heating 3kW) 8kW 10kW 10kW(heating 3kW) 12kW 12kW(heating 3kW) 14kW 14kW(heating 3kW) 16kW THML-4D/HBp-A THMLd-4D/3HBp-A THML-6D/HBp-A THML-8D/HBp-A THML-8D/3HBp-A THML-8D/3HBp-A THML-10D/HBp-A THML-10D/3HBp-A THML-12D/3HBp-A THMLd-12D/3HBp-A THML-14D/HBp-A THMLd-14D/3HBp-A THML-16D/HBp-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/9HBp-A THMLd-12S/9HBp-A THMLd-14S/HBp-A THMLd-14S/3HBp-A THMLd-14S/9HBp-A THMLd-16S/3HBp-A THMLd-16S/3HBp-A THMLd-16S/9HBp-A THMLd-16S/9HBp-A



			Tech		al parameters						
Model(s):				4k\	N(heating 3kW);4kW						
Air-to-water heat pump				yes							
Nater-to-water heat pump				no							
Brine-to-water heat pump				no							
Low-temperature heat pump				no							
Equipped with a supplementary heater					s(for 4kW(heating 3kW)) (for 4kW)						
Heat pump combination heater				no							
Declared climate condition:				ave	erage						
Parameters are declared for low-tempera	ature applicat	ion.									
Item	Symbol	Value	Unit	Τ	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	5.7	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	182	%			
Declared capacity for heating for part loa outdoor temperature Tj	at indoor temperature 20 °C and				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor			
Γ <sub>j</sub> = – 7°C	Prated	5.1	kW		$T_j = -7^{\circ}C$	COPd	2.82	-			
$\Gamma_j = + 2^{\circ}C$	Pdh	3.1	kW		$T_j = + 2^{\circ}C$	COPd	4.37	-			
Γ <sub>j</sub> = + 7°C	Pdh	2.1	kW		T <sub>j</sub> = + 7°C	COPd	6.57	-			
Γ <sub>i</sub> = + 12°C	Pdh	1.7	kW		T <sub>j</sub> = + 12°C	COPd	8.83	-			
$\Gamma_i$ = bivalent temperature	Pdh	5.1	kW		T <sub>j</sub> = bivalent temperature	COPd	2.82	-			
$\Gamma_i = operation limit temperature$	Pdh	4.6	kW		$T_i$ = operation limit temperature	COPd	2.60	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ iff TOL < - 20^{\circ}C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-7	°C	1	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	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 <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	1.1	kW			
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				<u>.</u>				
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/56	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	2559	kWh		heat exchanger						
For heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ			
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Model(s):				4k\	W(heating 3kW);4kW						
Air-to-water heat pump				yes	yes						
Water-to-water heat pump				no	no						
Brine-to-water heat pump				no							
Low-temperature heat pump				no							
Equipped with a supplementary heater					s(for 4kW(heating 3kW)) (for 4kW)						
Heat pump combination heater				no							
Declared climate condition:				wa	rmer						
Parameters are declared for low-tempera	ature applicat	on.									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	5.3	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	264	%			
Declared capacity for heating for part loa outdoor temperature Tj	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperatur		o for part load at	indoor			
$\Gamma_j = -7^{\circ}C$	Prated	N/A	kW		$T_j = -7^{\circ}C$	COPd	N/A	-			
$T_j = + 2^{\circ}C$	Pdh	5.3	kW		$T_j = + 2^{\circ}C$	COPd	3.39	-			
$\Gamma_j = +7^{\circ}C$	Pdh	3.4	kW		T <sub>j</sub> = + 7°C	COPd	5.81	-			
Γ <sub>j</sub> = + 12°C	Pdh	1.7	kW		T <sub>j</sub> = + 12°C	COPd	8.62	-			
$\Gamma_j$ = bivalent temperature	Pdh	3.4	kW		T <sub>j</sub> = bivalent temperature	COPd	5.81	-			
$\Gamma_j$ = operation limit temperature	Pdh	5.3	kW		T <sub>j</sub> = operation limit temperature	COPd	3.39	-			
For air-to-water heat pumps: T <sub>j</sub> = – 15°C if TOL < – 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C			For air-to-water heat pumps: Operation limit temperature	TOL	2	°C		
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	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 <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.010	kW								
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/56	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	1065	kWh	]	heat exchanger						
or heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ			
Contact details	0 + - +	k cover of th	e manual	-	1			í			

Modol(s):				4144	V(heating 3kW);4kW						
Model(s):				460							
Air-to-water heat pump				yes							
Water-to-water heat pump				no	no						
Brine-to-water heat pump				no							
Low-temperature heat pump				no	(ferr 41-)A((herr 4(in r; 01-)A())						
Equipped with a supplementary heater				-	(for 4kW(heating 3kW)) for 4kW)						
Heat pump combination heater				no							
Declared climate condition:				colo	der						
Parameters are declared for low-temper	ature applicat	ion.									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit			
					Seasonal space heating energy						
Rated heat output (*)	Prated	5.0	kW		efficiency	η <sub>s</sub>	160	%			
Declared capacity for heating for part loa outdoor temperature Tj	id at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor			
$\Gamma_j = -7^{\circ}C$	Prated	3.0	kW	1	T <sub>j</sub> = – 7°C	COPd	3.45	-			
$\Gamma_j = + 2^{\circ}C$	Pdh	1.9	kW	1	$T_j = + 2^{\circ}C$	COPd	5.00	-			
T <sub>j</sub> = + 7°C	Pdh	1.2	kW		T <sub>j</sub> = + 7°C	COPd	5.73	-			
T <sub>j</sub> = + 12°C	Pdh	1.6	kW		T <sub>j</sub> = + 12°C	COPd	7.84	-			
$T_j$ = bivalent temperature	Pdh	4.1	kW		T <sub>j</sub> = bivalent temperature	COPd	2.51	-			
$\Gamma_j$ = operation limit temperature	Pdh	3.3	kW		T <sub>j</sub> = operation limit temperature	COPd	1.72	-			
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	Cdh	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		I		Supplementary heater						
Off mode	P <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	2.7	kW			
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				<u> </u>				
Standby mode	P <sub>SB</sub>	0.010	kW	1	Type of energy input		Electric				
Crankcase heater mode	Рск	0.000	kW	1							
	+		<u>.</u>	•							
Other items	1			-	1	[	1				
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/56	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	3038	kWh		heat exchanger						
For heat pump combination heater:					1						
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual								

			Tech	ical parameters							
Model(s):				4kW(heating 3kW);4kW							
Air-to-water heat pump				yes							
Nater-to-water heat pump				no							
Brine-to-water heat pump				no							
_ow-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-ten	nperature app	blication.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	4.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	131	%				
Declared capacity for heating for part loa butdoor temperature Tj	d at indoor te	mperature 2	0 °C and	Declared coefficient of performance or prin temperature 20 °C and outdoor temperatu		for part load at	indoor				
$\Gamma_j = -7^{\circ}C$	Prated	4.2	kW	$T_j = -7^{\circ}C$	COPd	2.14	-				
$\Gamma_j = + 2^{\circ}C$	Pdh	2.5	kW	$T_j = + 2^{\circ}C$	COPd	3.26	-				
$\Gamma_j = +7^{\circ}C$	Pdh	1.7	kW	$T_j = + 7^{\circ}C$	COPd	4.44	-				
Γ <sub>j</sub> = + 12°C	Pdh	1.4	kW	T <sub>j</sub> = + 12°C	COPd	5.54	-				
$\Gamma_{j}$ = bivalent temperature	Pdh	4.2	kW	T <sub>j</sub> = bivalent temperature	COPd	2.14	-				
$\Gamma_{\rm j}$ = operation limit temperature	Pdh	3.7	kW	T <sub>j</sub> = operation limit temperature	COPd	1.72	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		Į	Supplementary heater	1		1				
Off mode	P <sub>OFF</sub>	0.010	kW	Rated heat output (**)	P <sub>sup</sub>	1.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				<b>.</b>				
Standby mode	P <sub>SB</sub>	0.010	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/56	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2898	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
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Model(s):				4kW	V(heating 3kW);4kW							
Air-to-water heat pump				yes	yes							
Water-to-water heat pump				no								
Brine-to-water heat pump				no								
_ow-temperature heat pump				no								
Equipped with a supplementary heater					(for 4kW(heating 3kW)) or 4kW)							
Heat pump combination heater				no								
Declared climate condition:				wari	mer							
Parameters are declared for medium-ten	perature apr	lication.		1.10								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	5.0	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	165	%				
Declared capacity for heating for part loa butdoor temperature Tj					Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
Γ <sub>j</sub> = – 7°C	Prated	N/A	kW		$T_j = -7^{\circ}C$	COPd	N/A	-				
$T_j = + 2^{\circ}C$	Pdh	5.0	kW		$T_j = + 2^{\circ}C$	COPd	2.31	-				
$\Gamma_j = + 7^{\circ}C$	Pdh	3.2	kW		$T_j = + 7^{\circ}C$	COPd	3.68	-				
T <sub>j</sub> = + 12°C	Pdh	1.5	kW		$T_j = + 12^{\circ}C$	COPd	5.21	-				
$\Gamma_j$ = bivalent temperature	Pdh	3.2	kW		T <sub>j</sub> = bivalent temperature	COPd	3.68	-				
$\Gamma_j$ = operation limit temperature	Pdh	5.0	kW		$T_j$ = operation limit temperature	COPd	2.31	-				
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	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 <sub>OFF</sub>	0.010	kW		Rated heat output (**)	$P_{sup}$	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				•	•				
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1								
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/56	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	1604	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual			-		_				

			lechi		al parameters						
Model(s):				4k\	N(heating 3kW);4kW						
Air-to-water heat pump				yes	3						
Water-to-water heat pump				no							
Brine-to-water heat pump				no							
Low-temperature heat pump				no							
Equipped with a supplementary heater					s(for 4kW(heating 3kW)) (for 4kW)						
Heat pump combination heater				no							
Declared climate condition:				col	der						
Parameters are declared for medium-ten	nperature app	lication.									
Item	Symbol	Value	Unit	Τ	ltem	Symbol	Value	Unit			
Rated heat output (*)	Prated	3.7	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	107	%			
Declared capacity for heating for part loa outdoor temperature Tj	at indoor temperature 20 °C and				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor			
Γ <sub>j</sub> = – 7°C	Prated	2.3	kW		$T_j = -7^{\circ}C$	COPd	2.34	-			
$\Gamma_j = + 2^{\circ}C$	Pdh	1.4	kW		$T_j = + 2^{\circ}C$	COPd	3.22	-			
$\Gamma_j = + 7^{\circ}C$	Pdh	1.6	kW		T <sub>j</sub> = + 7°C	COPd	4.58	-			
Γ <sub>i</sub> = + 12°C	Pdh	1.5	kW		T <sub>j</sub> = + 12°C	COPd	6.33	-			
$\Gamma_i$ = bivalent temperature	Pdh	3.0	kW		T <sub>j</sub> = bivalent temperature	COPd	1.69	-			
$\Gamma_i = operation limit temperature$	Pdh	2.5	kW		$T_i$ = operation limit temperature	COPd	1.17	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	Cdh	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		Į		Supplementary heater						
Off mode	P <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	1.2	kW			
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				<u>I</u>	<b>.</b>			
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric				
Crankcase heater mode	Рск	0.000	kW	1							
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2600	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/56	dB	]	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	3308	kWh		heat exchanger						
For heat pump combination heater:				•	•						
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ			
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			Tech	nic	al parameters							
Model(s):				6k	W(heating 3kW);6kW							
Air-to-water heat pump				ye	5							
Water-to-water heat pump				no								
Brine-to-water heat pump				no								
Low-temperature heat pump				no								
Equipped with a supplementary heater				-	s(for 6kW(heating 3kW))							
Heat pump combination heater				no	(for 6kW)							
Declared climate condition:				av	erage							
Parameters are declared for low-tempera	ture applicati	on.		_								
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit				
Rated heat output (*)	Prated	7.0	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	182.7	%				
Declared capacity for heating for part load butdoor temperature Tj	l at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, 0,	for part load at	indoor				
Γ <sub>j</sub> = – 7°C	Prated	6.2	kW		$T_j = -7^{\circ}C$	COPd	2.74	-				
Γ <sub>j</sub> = + 2°C	Pdh	3.6	kW		$T_j = + 2^{\circ}C$	COPd	4.39	-				
$\Gamma_j = +7^{\circ}C$	Pdh	2.5	kW		$T_j = + 7^{\circ}C$	COPd	6.72	-				
Γ <sub>j</sub> = + 12°C	Pdh	1.4	kW		$T_j = + 12^{\circ}C$	COPd	8.13	-				
Γ <sub>j</sub> = bivalent temperature	Pdh	6.2	kW		T <sub>j</sub> = bivalent temperature	COPd	2.74	-				
$F_j$ = operation limit temperature	Pdh	6.0	kW		T <sub>j</sub> = operation limit temperature	COPd	2.55	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	Cdh	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		I		Supplementary heater	I	I	1				
Off mode	P <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	1.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW					Į				
Standby mode	P <sub>SB</sub>	0.010	°C kW -		Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW									
		<u> </u>	Į	-!	<u> </u>	Į						
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/59	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	3120	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ				
Contact details		k cover of th			l	<u> </u>	<u> </u>	I				
	t pump comb to the supple	bination heat	ers, the rate acity for he	ating		or heating Pdes	ignh, and the ra	ted heat ou				

Model(s):				6k\	W(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	s(for 6kW(heating 3kW))						
Equipped with a supplementary heater					(for 6kW)						
Heat pump combination heater				no							
Declared climate condition:				wa	rmer						
Parameters are declared for low-temper	ature applicat	on.									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	6.0	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	264	%			
Declared capacity for heating for part loa butdoor temperature Tj	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor			
Γ <sub>j</sub> = – 7°C	Prated	N/A	kW		$T_j = -7^{\circ}C$	COPd	N/A	-			
$T_j = + 2^{\circ}C$	Pdh	5.9	kW		$T_j = + 2^{\circ}C$	COPd	3.49	-			
$\Gamma_j = + 7^{\circ}C$	Pdh	3.9	kW		$T_j = + 7^{\circ}C$	COPd	5.71	-			
Γ <sub>j</sub> = + 12°C	Pdh	2.0	kW		T <sub>j</sub> = + 12°C	COPd	8.78	-			
T <sub>j</sub> = bivalent temperature	Pdh	3.9	kW		T <sub>j</sub> = bivalent temperature	COPd	5.71	-			
$\Gamma_{j}$ = operation limit temperature	Pdh	5.9	kW		T <sub>j</sub> = operation limit temperature	COPd	3.49	-			
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C	c	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	Cdh	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		1		Supplementary heater		L	1			
Off mode	P <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	0.1	kW			
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				•				
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1							
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/59	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	1202	kWh		heat exchanger						
For heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	]	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual	-							

Model(s):				6kV	V(heating 3kW);6kW					
Air-to-water heat pump				yes						
Water-to-water heat pump				no						
Brine-to-water heat pump				no						
_ow-temperature heat pump				no	(for 6kW(heating 3kW))					
Equipped with a supplementary heater				-	for 6kW)					
leat pump combination heater				no						
Declared climate condition:				colo	der					
Parameters are declared for low-temper	ature applicat	ion.								
Item	Symbol	Value	Unit	T	Item	Symbol	Value	Unit		
					Seasonal space heating energy					
Rated heat output (*)	Prated	6.0	kW		efficiency	η <sub>s</sub>	166	%		
Declared capacity for heating for part loa butdoor temperature Tj	id at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor		
$\Gamma_j = -7^{\circ}C$	Prated	3.6	kW	1	$T_j = -7^{\circ}C$	COPd	3.51	-		
$\Gamma_j = + 2^{\circ}C$	Pdh	2.2	kW	1	$T_j = + 2^{\circ}C$	COPd	5.36	-		
T <sub>j</sub> = + 7°C	Pdh	1.5	kW		T <sub>j</sub> = + 7°C	COPd	6.66	-		
Γ <sub>j</sub> = + 12°C	Pdh	1.6	kW		T <sub>j</sub> = + 12°C	COPd	7.97	-		
$\Gamma_j$ = bivalent temperature	Pdh	4.9	kW		T <sub>j</sub> = bivalent temperature	COPd	2.39	-		
$\Gamma_j$ = operation limit temperature	Pdh	3.6	kW		T <sub>j</sub> = operation limit temperature	COPd	1.78	-		
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-		
Bivalent temperature	T <sub>biv</sub>	-15	°C	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C		
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-		
Degradation co-efficient (**)	Cdh	0.9	-		Heating water operating limit temperature	WTOL	65	°C		
Power consumption in modes other thar	active mode				Supplementary heater					
Off mode	P <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	2.4	kW		
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	1			ļ	<u> </u>		
Standby mode	P <sub>SB</sub>	0.010	kW	1	Type of energy input		Electric			
Crankcase heater mode	Рск	0.000	kW	1						
	ļ		ļ		<u> </u>					
Other items				-						
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/59	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h		
Annual energy consumption	Q <sub>HE</sub>	3515	kWh		heat exchanger					
For heat pump combination heater:				_						
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%		
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh		
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ		
Contact details	See the bac	k cover of th	e manual				•			

			lech	ical parameters							
Model(s):				6kW(heating 3kW);6kW							
Air-to-water heat pump				yes							
Nater-to-water heat pump				no							
Brine-to-water heat pump				no							
ow-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-ten	nperature app	blication.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	6.0	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	137	%				
Declared capacity for heating for part loa outdoor temperature Tj	d at indoor te	mperature 2	0 °C and	Declared coefficient of performance or prin temperature 20 °C and outdoor temperature		o for part load at	indoor				
$\Gamma_j = -7^{\circ}C$	Prated	5.3	kW	$T_j = -7^{\circ}C$	COPd	2.12	-				
$\Gamma_j = + 2^{\circ}C$	Pdh	3.2	kW	$T_j = + 2^{\circ}C$	COPd	3.43	-				
Γ <sub>j</sub> = + 7°C	Pdh	2.1	kW	$T_j = + 7^{\circ}C$	COPd	4.63	-				
Γ <sub>j</sub> = + 12°C	Pdh	1.4	kW	T <sub>j</sub> = + 12°C	COPd	5.70	-				
$\Gamma_{i}$ = bivalent temperature	Pdh	5.3	kW	T <sub>j</sub> = bivalent temperature	COPd	2.12	-				
$\Gamma_{j}$ = operation limit temperature	Pdh	5.0	kW	$T_j = operation limit temperature$	COPd	1.81	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	Pdh	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode	<u> </u>	ļ	Supplementary heater							
Off mode	P <sub>OFF</sub>	0.010	kW	Rated heat output (**)	P <sub>sup</sub>	1.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				<b>.</b>				
Standby mode	P <sub>SB</sub>	0.010	kW	Type of energy input		Electric					
Crankcase heater mode	Рск	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/59	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	3557	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
	1		e manual		1	1	I				

Model(s):				6kW(heating 3kW);6kW								
Air-to-water heat pump				yes	yes							
Water-to-water heat pump				no								
Brine-to-water heat pump				no								
Low-temperature heat pump				no								
Equipped with a supplementary heater				-	s(for 6kW(heating 3kW))							
Heat pump combination heater				no	(for 6kW)							
Declared climate condition:		lication		wa	rmer							
Parameters are declared for medium-ter	iperature app	nication.										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	5.0	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	167	%				
Declared capacity for heating for part loa butdoor temperature Tj	·				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
$\Gamma_j = -7^{\circ}C$	Prated	N/A	kW		$T_j = -7^{\circ}C$	COPd	N/A	-				
$\Gamma_j = + 2^{\circ}C$	Pdh	5.0	kW		$T_j = + 2^{\circ}C$	COPd	2.37	-				
$\Gamma_j = +7^{\circ}C$	Pdh	3.2	kW		T <sub>j</sub> = + 7°C	COPd	3.72	-				
T <sub>j</sub> = + 12°C	Pdh	1.6	kW		$T_j = + 12^{\circ}C$	COPd	5.41	-				
$T_j$ = bivalent temperature	Pdh	3.2	kW		T <sub>j</sub> = bivalent temperature	COPd	3.72	-				
$\Gamma_j$ = operation limit temperature	Pdh	5.0	kW		$T_j$ = operation limit temperature	COPd	2.37	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	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		I					
Off mode	P <sub>OFF</sub>	0.010	kW		Rated heat output (**)	P <sub>sup</sub>	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW									
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric					
Crankcase heater mode	Рск	0.000	kW									
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/59	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	1580	kWh		heat exchanger							
For heat pump combination heater:	1						I	1				
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual									

			Tech	nic	al parameters							
Model(s):				6k'	W(heating 3kW);6kW							
Air-to-water heat pump				yes	3							
Water-to-water heat pump				no								
Brine-to-water heat pump				no								
Low-temperature heat pump				no								
Equipped with a supplementary heater				-	s(for 6kW(heating 3kW)) (for 6kW)							
Heat pump combination heater				no								
Declared climate condition:				col	der							
Parameters are declared for medium-tem	perature app	lication.		4								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	5.0	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	113	%				
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, ,,	for part load at	indoor				
$T_j = -7^{\circ}C$	Prated	3.1	kW	1	$T_j = -7^{\circ}C$	COPd	2.49	-				
$T_j = + 2^{\circ}C$	Pdh	1.8	kW	1	$T_j = + 2^{\circ}C$	COPd	3.52	-				
$T_j = + 7^{\circ}C$	Pdh	1.2	kW		$T_j = + 7^{\circ}C$	COPd	4.10	-				
T <sub>j</sub> = + 12°C	Pdh	1.4	kW		T <sub>j</sub> = + 12°C	COPd	6.18	-				
T <sub>j</sub> = bivalent temperature	Pdh	4.0	kW		T <sub>j</sub> = bivalent temperature	COPd	1.74	-				
T <sub>j</sub> = operation limit temperature	Pdh	2.5	kW		T <sub>j</sub> = operation limit temperature	COPd	1.17	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	Pdh	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	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 <sub>OFF</sub>	0.010	kW		Rated heat output (**)	$P_{sup}$	2.5	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW					•				
Standby mode	P <sub>SB</sub>	0.010	kW		Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW									
	•			•								
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/59	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4204	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	]	Annual fuel consumption	AFC	N/A	GJ				
			e manual	-								

			Tech	nic	al parameters							
Model(s):				8k	W(heating 3kW);8kW							
Air-to-water heat pump:				ye	5							
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:				av	erage							
Parameters are declared for low-tempera	ture applicat	ion.										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	8	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	200	%				
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
T <sub>j</sub> = – 7°C	$P_{dh}$	7.1	kW		$T_j = -7^{\circ}C$	COPd	3.12	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.7	kW	1	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	4.99	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.0	kW	1	$T_j = + 7^{\circ}C$	COPd	6.81	-				
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	1.7	kW		$T_i = + 12^{\circ}C$	COPd	8.00	-				
, T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	7.1	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	3.12	-				
$T_i = operation limit temperature$	P <sub>dh</sub>	6.5	kW		$T_i$ = operation limit temperature	COPd	2.84	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		<u> </u>		Supplementary heater		<u>ļ</u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	1.5	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			-	l	Į				
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1								
			I	-								
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/60	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	3276	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ				
	-			1	1							

			Tech	nic	al parameters							
Model(s):				8k	W(heating 3kW);8kW							
Air-to-water heat pump:				ye	S							
Water-to-water heat pump:				no								
Brine-to-water heat pump:				no								
Low-temperature heat pump:				no								
Equipped with a supplementary heater:					s(for 8kW(heating 3kW)) (for 8kW)							
Heat pump combination heater:				no								
Declared climate condition:				wa	armer							
Parameters are declared for low-tempera	ture applicat	ion.										
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	8	kW		Seasonal space heating energy efficiency	$\eta_{s}$	278	%				
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	N/A	kW	1	$T_j = -7^{\circ}C$	COPd	N/A	-				
$\Gamma_j = + 2^{\circ}C$	P <sub>dh</sub>	7.7	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.82	-				
Γ <sub>j</sub> = + 7°C	P <sub>dh</sub>	5.0	kW		$T_j = + 7^{\circ}C$	COPd	6.12	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	2.6	kW		T <sub>j</sub> = + 12°C	COPd	9.15	-				
$\Gamma_{j}$ = bivalent temperature	P <sub>dh</sub>	5.0	kW		T <sub>j</sub> = bivalent temperature	COPd	6.12	-				
$\Gamma_j$ = operation limit temperature	P <sub>dh</sub>	7.7	kW		T <sub>j</sub> = operation limit temperature	COPd	3.82	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		•		Supplementary heater			•				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	0.3	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				ł					
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW									
	*		•									
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/60	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	1492	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	le manual		-		•	•				

			rech	nical 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-temperat	ture applicati	on.		I								
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	167	%					
Declared capacity for heating for part loac outdoor temperature Tj	l at indoor te	mperature 2	0 °C and	Declared coefficient of performance or pr temperature 20 °C and outdoor temperat		o for part load at	indoor					
$\Gamma_j = -7^{\circ}C$	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = – 7°C	COPd	3.59	-					
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	2.6	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	5.30	-					
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	1.6	kW	T <sub>j</sub> = + 7°C	COPd	5.98	-					
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	1.9	kW	T <sub>i</sub> = + 12°C	COPd	8.42	-					
, T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	5.7	kW	T <sub>i</sub> = bivalent temperature	COPd	2.61	-					
$T_i = operation limit temperature$	P <sub>dh</sub>	4.0	kW	$T_i = operation limit temperature$	COPd	1.93	-					
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-					
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C					
Power consumption in modes other than a	active mode			Supplementary heater	_ <b>!</b>	Į	1					
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	3.0	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			ļ	ļ					
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric						
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW									
	GR				1							
Other items												
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/ł					
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	_	N/A	m <sup>3</sup> /ł					
Annual energy consumption	Q <sub>HE</sub>	4044	kWh	heat exchanger			,					
For heat pump combination heater:			ļ		1	1	1					
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%					
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWI					
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ					
		k cover of th			1,0							

			Tech	nic	al parameters								
Model(s):				8k	W(heating 3kW);8kW								
Air-to-water heat pump:				yes	8								
Water-to-water heat pump:				no									
Brine-to-water heat pump:				no									
Low-temperature heat pump:				no	no								
Equipped with a supplementary heater:				-	s(for 8kW(heating 3kW)) (for 8kW)								
Heat pump combination heater:				no									
Declared climate condition:				ave	erage								
Parameters are declared for medium-terr	perature app	lication.											
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	7	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	136	%					
Declared capacity for heating for part load outdoor temperature Tj	d at indoor temperature 20 °C and P <sub>dh</sub> 5.8 kW				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, 0,	for part load at	indoor					
$T_j = -7^{\circ}C$	P <sub>dh</sub>	5.8	kW	1	$T_j = -7^{\circ}C$	COPd	2.20	-					
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	3.7	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.37	-					
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	2.4	kW		$T_j = + 7^{\circ}C$	COP <sub>d</sub>	4.57	-					
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	1.6	kW		T <sub>j</sub> = + 12°C	COPd	5.87	-					
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	5.8	kW		T <sub>j</sub> = bivalent temperature	COPd	2.20	-					
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.0	kW		T <sub>j</sub> = operation limit temperature	COPd	1.84	-					
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-					
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C					
Power consumption in modes other than	active mode				Supplementary heater			•					
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	2.0	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW										
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric						
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW										
	•												
Other items													
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h					
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/60	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	3937	kWh		heat exchanger								
For heat pump combination heater:			-										
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%					
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh					
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ					
Contact details	See the bac	k cover of th	e manual	<u> </u>	•			•					

			Tech	nic	al parameters								
Model(s):				8k	W(heating 3kW);8kW								
Air-to-water heat pump:				yes	S								
Water-to-water heat pump:				no									
Brine-to-water heat pump:				no	no								
Low-temperature heat pump:				no	no								
Equipped with a supplementary heater:				yes(for 8kW(heating 3kW)) no(for 8kW)									
Heat pump combination heater:				no									
Declared climate condition:				wa	Irmer								
Parameters are declared for medium-terr	perature app	lication.											
Item	Symbol	Value	Unit		ltem	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	8	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	171	%					
Declared capacity for heating for part load butdoor temperature Tj	at indoor temperature 20 °C and P <sub>dh</sub> N/A kW				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		for part load at	indoor					
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	1	$T_j = -7^{\circ}C$	COPd	N/A	-					
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	7.4	kW	1	$T_j = + 2^{\circ}C$	COPd	2.52	-					
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.9	kW		$T_j = + 7^{\circ}C$	COP <sub>d</sub>	3.60	-					
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	2.2	kW		$T_j = + 12^{\circ}C$	COPd	5.80	-					
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	4.9	kW		T <sub>j</sub> = bivalent temperature	COPd	3.60	-					
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.4	kW		T <sub>j</sub> = operation limit temperature	COPd	2.52	-					
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-					
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C					
Power consumption in modes other than	active mode		•		Supplementary heater			•					
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	0.6	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW										
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric						
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW										
				_									
Other items													
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h					
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/60	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h					
Annual energy consumption	Q <sub>HE</sub>	2347	kWh		heat exchanger								
For heat pump combination heater:													
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%					
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh					
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ					
Contact details	See the bac	k cover of th	ie manual	<u> </u>				•					

			Tech	nic	al parameters							
Model(s):				8k	W(heating 3kW);8kW							
Air-to-water heat pump:				yes	3							
Water-to-water heat pump:				no								
Brine-to-water heat pump:				no								
Low-temperature heat pump:				no								
Equipped with a supplementary heater:				-	s(for 8kW(heating 3kW)) (for 8kW)							
Heat pump combination heater:				no								
Declared climate condition:				col	der							
Parameters are declared for medium-tem	perature app	lication.										
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	6	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	115	%				
Declared capacity for heating for part loac outdoor temperature Tj	d at indoor temperature 20 °C and P <sub>dh</sub> 3.8 kW				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		for part load at	indoor				
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	3.8	kW		$T_j = -7^{\circ}C$	COPd	2.48	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	2.2	kW		$T_j = + 2^{\circ}C$	COPd	3.59	-				
, Т <sub>і</sub> = + 7°С	P <sub>dh</sub>	1.4	kW		т <sub>i</sub> = + 7°С	COPd	4.08	-				
Τ <sub>i</sub> = + 12°C	P <sub>dh</sub>	1.5	kW		$T_i = + 12^{\circ}C$	COPd	6.01	-				
$T_i = bivalent temperature$	P <sub>dh</sub>	4.8	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	1.87	-				
$T_i = operation limit temperature$	P <sub>dh</sub>	3.2	kW		$T_i$ = operation limit temperature	COPd	1.31	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode		Į		Supplementary heater			<u> </u>				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	2.8	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			oup		<u> </u>				
Standby mode	P <sub>SB</sub>	0.014	kW	-	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW		'							
	UN UN			-	<u> </u>							
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/60	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor		N/A	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4891	kWh		heat exchanger			,				
For heat pump combination heater:			<b>I</b>					1				
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ				
2 · · · · · · · · · · · · · · · · · · ·	-			1		-						

			Tech	nical 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:												
Declared climate condition:				average								
Parameters are declared for low-tempera	ture applicati	on.		<u> </u>								
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	9	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	199	%					
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te	mperature 20 °C and		Declared coefficient of performance or put temperature 20 °C and outdoor temperat		for part load at	indoor					
Γ <sub>i</sub> = – 7°C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = – 7°C	COPd	2.99	-					
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	5.0	kW	$T_i = + 2^{\circ}C$	COP <sub>d</sub>	4.97	-					
$T_j = + 7^{\circ}C$	P <sub>dh</sub>	3.1	kW	$T_i = +7^{\circ}C$	COPd	6.78	-					
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	2.0	kW	$T_i = + 12^{\circ}C$	COPd	9.10						
$T_j = bivalent temperature$	P <sub>dh</sub>	8.0	kW	$T_i = bivalent temperature$		2.99						
					COP <sub>d</sub>		-					
$T_j = operation limit temperature$	P <sub>dh</sub>	7.3	kW	$T_j = operation limit temperature$	COPd	2.72	-					
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-					
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C					
Power consumption in modes other than	active mode		-	Supplementary heater								
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	1.7	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				•					
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric						
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW									
			1	<b>├</b> ─- <b> </b>								
Other items												
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m³/h					
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/61	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł					
Annual energy consumption	Q <sub>HE</sub>	3702	kWh	heat exchanger								
For heat pump combination heater:			I	I I	1	1	1					
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%					
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł					
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ					
Contact details	See the bac				1							
(*) For heat pump space heaters and heat												

			Tech	nic	al parameters							
Model(s):				10	kW(heating 3kW);10kW							
Air-to-water heat pump:				ye	S							
Water-to-water heat pump:				no								
Brine-to-water heat pump:				no								
Low-temperature heat pump:				no								
Equipped with a supplementary heater:					s(for 10kW(heating 3kW)) (for 10kW)							
Heat pump combination heater:				no								
Declared climate condition:				wa	armer							
Parameters are declared for low-tempera	ture applicati	on.										
ltem	Symbol	Value	Unit	Τ	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	9	kW		Seasonal space heating energy efficiency	$\eta_{s}$	268	%				
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	N/A	kW		$T_j = -7^{\circ}C$	COPd	N/A	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	8.4	kW		$T_j = + 2^{\circ}C$	COPd	3.67	-				
$T_j = + 7^{\circ}C$	P <sub>dh</sub>	5.5	kW		$T_j = + 7^{\circ}C$	COPd	5.99	-				
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	2.4	kW		$T_i = + 12^{\circ}C$	COPd	8.73	-				
, T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	5.5	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	5.99	-				
$T_i = operation limit temperature$	P <sub>dh</sub>	8.4	kW		$T_i = operation limit temperature$	COPd	3.67	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		ļ		Supplementary heater		<u> </u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	0.6	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	1			Ļ	I				
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1								
	Į		ļ	-	1							
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/61	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	1694	kWh	1	heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ				
	0 11 1	k cover of th					1	1				

			Tech	nic	al parameters							
Model(s):				10	kW(heating 3kW);10kW							
Air-to-water heat pump:				ye	S							
Water-to-water heat pump:				no								
Brine-to-water heat pump:				no								
_ow-temperature heat pump:				no								
Equipped with a supplementary heater:					s(for 10kW(heating 3kW)) (for 10kW)							
Heat pump combination heater:				no								
Declared climate condition:				со	lder							
Parameters are declared for low-tempera	ture applicati	on.										
· · · · · · · · · · · · · · · · · · ·												
Item	Symbol	Value	Unit		ltem	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	8	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	170	%				
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te	emperature 20 °C and			Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	4.7	kW		$T_j = -7^{\circ}C$	COPd	3.50	-				
$\Gamma_i = + 2^{\circ}C$	P <sub>dh</sub>	3.0	kW		$T_j = + 2^{\circ}C$	COPd	5.51	-				
γ Γ <sub>i</sub> = + 7°C	P <sub>dh</sub>	2.0	kW		$T_i = + 7^{\circ}C$	COPd	6.63	-				
Γ <sub>i</sub> = + 12°C	P <sub>dh</sub>	1.9	kW		$T_i = + 12^{\circ}C$	COPd	8.58	-				
$\Gamma_i = bivalent temperature$	P <sub>dh</sub>	6.3	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	2.56	-				
$\Gamma_i = operation limit temperature$	P <sub>dh</sub>	4.6	kW		$T_i = operation limit temperature$	COPd	1.99	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		ļ		Supplementary heater		<u> </u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	3.4	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW					ł				
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW									
			<u> </u>	_								
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/61	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4417	kWh	1	heat exchanger			,				
For heat pump combination heater:			I		1		I	1				
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ				
Contact details		k cover of th		1								
(*) For heat pump space heaters and heat												

			Tech	nica	al parameters							
Model(s):				10k	W(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:				ave	erage							
Parameters are declared for medium-tem	perature app	lication.										
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	8	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	138	%				
Declared capacity for heating for part loac outdoor temperature Tj	a at indoor temperature 20 °C and P <sub>dh</sub> 6.8 kW				Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		for part load at	indoor				
$T_j = -7^{\circ}C$	$P_{dh}$	6.8	kW		$T_j = -7^{\circ}C$	COPd	2.10	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.2	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.44	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	2.6	kW		T <sub>j</sub> = + 7°C	COPd	4.74	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	1.8	kW		T <sub>j</sub> = + 12°C	COPd	6.22	-				
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	6.8	kW		T <sub>j</sub> = bivalent temperature	COPd	2.10	-				
$T_j$ = operation limit temperature	P <sub>dh</sub>	5.2	kW		T <sub>j</sub> = operation limit temperature	COPd	1.83	-				
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode		ļ		Supplementary heater			Į				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	2.8	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW									
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW									
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/61	dB	1	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	4537	kWh		heat exchanger							
For heat pump combination heater:								•				
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ				
	0 11 1	k cover of th			I	l	l	1				

			Tech	nic	al parameters							
Model(s):				10	kW(heating 3kW);10kW							
Air-to-water heat pump:				yes	5							
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:				wa	rmer							
Parameters are declared for medium-tem	perature app	lication.										
Item	Symbol	Value	Unit		ltem	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	8	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	179	%				
Declared capacity for heating for part load outdoor temperature Tj	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, ,,	o for part load at	indoor				
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	N/A	kW	1	$T_j = -7^{\circ}C$	COPd	N/A	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	7.6	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	2.27	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	5.2	kW		$T_j = + 7^{\circ}C$	COPd	3.92	-				
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	2.5	kW		$T_i = + 12^{\circ}C$	COPd	6.17	-				
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	5.2	kW		$T_i$ = bivalent temperature	COPd	3.92	-				
$T_i = operation limit temperature$	P <sub>dh</sub>	7.6	kW		$T_i$ = operation limit temperature	COPd	2.27	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		<u> </u>		Supplementary heater		<u>ļ</u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	0.4	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				<b>I</b>	ł				
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW									
				•								
Other items					F							
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/61	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2353	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ				
	-							•				

			rech	nic	al parameters							
Model(s):				10	kW(heating 3kW);10kW							
Air-to-water heat pump:				yes	5							
Water-to-water heat pump:				no								
Brine-to-water heat pump:				no								
_ow-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:				col	lder							
Parameters are declared for medium-tem	perature app	lication.										
Item	Symbol	Value	Unit		ltem	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	7	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	116	%				
Declared capacity for heating for part load butdoor temperature Tj	l at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature		o for part load at	indoor				
$\Gamma_j = -7^{\circ}C$	$P_{dh}$	4.1	kW		$T_j = -7^{\circ}C$	COPd	2.53	-				
$\Gamma_j = + 2^{\circ}C$	$P_{dh}$	2.6	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.51	-				
Γ <sub>j</sub> = + 7°C	P <sub>dh</sub>	1.7	kW		T <sub>j</sub> = + 7°C	COPd	4.52	-				
Γ <sub>i</sub> = + 12°C	P <sub>dh</sub>	1.7	kW		$T_i = + 12^{\circ}C$	COPd	6.51	-				
$\Gamma_i$ = bivalent temperature	P <sub>dh</sub>	5.5	kW	_	$T_i = bivalent temperature$	COPd	1.92	-				
$\Gamma_i = operation limit temperature$	P <sub>dh</sub>	2.8	kW	_	$T_i$ = operation limit temperature	COPd	1.24	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	_	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode		<u> </u>		Supplementary heater		<u>ļ</u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	4.2	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				<b>I</b>	ł				
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW									
				•								
Other items							1	T				
Capacity control		variable	1		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m³/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	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	5613	kWh		heat exchanger							
For heat pump combination heater:												
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	$Q_{elec}$	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ				
			1	1	1		1	·				

			Tech	nical 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-tempera	ture applicati	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	188	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor te	mperature 2	0 °C and	Declared coefficient of performance or prin temperature 20 °C and outdoor temperatu		for part load at	indoor				
$T_j = -7^{\circ}C$	$P_{dh}$	10,7	kW	$T_j = -7^{\circ}C$	COPd	2.90	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	7.0	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	4.53	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7°C	COPd	6.66	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = + 12°C	COPd	8.92	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.90	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	11.4	kW	T <sub>j</sub> = operation limit temperature	COPd	2.63	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-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 <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode			Supplementary heater	•						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.6	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/ł				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/l				
Annual energy consumption	Q <sub>HE</sub>	5261	kWh	heat exchanger							
For heat pump combination heater:			-								
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kW				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual				•				

			rech	nical 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-tempera	ture applicati	ion.									
			1	1 1		I					
ltem	Symbol	Value	Unit	ltem	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	11	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	253	%				
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	d at indoor te	mperature 2	0 °C and	Declared coefficient of performance or temperature 20 °C and outdoor temperat		o for part load at	indoor				
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COP <sub>d</sub>	N/A	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	11.1	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.62	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = + 7°C	COPd	5.64	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 12°C	COPd	8.33	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	5.64	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	11.1	kW	$T_j$ = operation limit temperature	COPd	3.62	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COP <sub>d</sub>	N/A	-				
Bivalent temperature	T <sub>biv</sub>	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 <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperatu	re WTOL	65	°C				
Power consumption in modes other than	active mode		•	Supplementary heater	•		•				
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				•				
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items				1 1		I	1				
Capacity control		variable	I	For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/ł				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps Rated brine or water flow rate, outdoor	-	N/A	m³/l				
Annual energy consumption	Q <sub>HE</sub>	2326	kWh	heat exchanger							
For heat pump combination heater:						•					
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kW				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual								

			Tech	nical 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-tempera	ture applicati	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	11	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	163	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and	Declared coefficient of performance or pri temperature 20 °C and outdoor temperatu		o for part load at	indoor				
$\Gamma_j = -7^{\circ}C$	P <sub>dh</sub>	7.2	kW	$T_j = -7^{\circ}C$	COPd	3.51	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.1	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	5.05	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.2	kW	$T_j = + 7^{\circ}C$	COPd	6.18	-				
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = + 12°C	COPd	8.19	-				
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	9.3	kW	T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	2.59	-				
T <sub>i</sub> = operation limit temperature	P <sub>dh</sub>	7.1	kW	T <sub>i</sub> = operation limit temperature	COPd	2.08	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		ļ	Supplementary heater	<u> </u>	<u> </u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	3.9	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			Ļ	I				
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW								
	Į		ļ	<u> </u>	<u>.</u>						
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/ł				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /l				
Annual energy consumption	Q <sub>HE</sub>	6746	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
			I	1 1	1	1	1				

			Tech	nic	al parameters						
Model(s):				12	kW(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:					s(for 12kW(heating 3kW)) (for 12kW)						
Heat pump combination heater:				no							
Declared climate condition:				av	erage						
Parameters are declared for medium-terr	perature app	lication.									
Item	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	12	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	136	%			
Declared capacity for heating for part load putdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, ,,	o for part load at	indoor			
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	10.7	kW		$T_j = -7^{\circ}C$	COP <sub>d</sub>	2.12	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	6.6	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.29	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.4	kW		$T_j = + 7^{\circ}C$	COPd	4.74	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.0	kW		$T_j = + 12^{\circ}C$	COPd	7.28	-			
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	10.7	kW		T <sub>j</sub> = bivalent temperature	COPd	2.12	-			
$\Gamma_i$ = operation limit temperature	P <sub>dh</sub>	9.9	kW		$T_j$ = operation limit temperature	COPd	1.82	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COP <sub>d</sub>	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		<u>.</u>		Supplementary heater			ļ			
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	2.1	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	1			<u>.</u>				
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1							
					•						
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	7224	kWh	]	heat exchanger						
For heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual		1						

			Tech	nic	al parameters						
Model(s):				12	kW(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:					s(for 12kW(heating 3kW)) (for 12kW)						
Heat pump combination heater:				no							
Declared climate condition:				wa	rmer						
Parameters are declared for medium-tem	perature app	lication.									
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	12	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	174	%			
Declared capacity for heating for part load putdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, ,,	o for part load at	indoor			
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	N/A	kW	1	$T_j = -7^{\circ}C$	COPd	N/A	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	12.1	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	2.27	-			
Γ <sub>j</sub> = + 7°C	P <sub>dh</sub>	8.0	kW		$T_j = + 7^{\circ}C$	COPd	3.76	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.3	kW		$T_j = + 12^{\circ}C$	COPd	5.95	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW		T <sub>j</sub> = bivalent temperature	COPd	3.76	-			
$\Gamma_j$ = operation limit temperature	P <sub>dh</sub>	12.1	kW		$T_j$ = operation limit temperature	COPd	2.27	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		•		Supplementary heater			•			
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	1			•	•			
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items				-	<u>г</u>						
Capacity control		variable	1		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	3761	kWh		heat exchanger						
For heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual	-	•		•	•			

			Tech	nic	al parameters						
Model(s):				12	kW(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:					s(for 12kW(heating 3kW)) (for 12kW)						
Heat pump combination heater:				no							
Declared climate condition:				col	der						
Parameters are declared for medium-tem	perature app	lication.									
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	10	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	119	%			
Declared capacity for heating for part loac outdoor temperature T <sub>j</sub>	l at indoor te	mperature 2	0 °C and		Declared coefficient of performance or prim temperature 20 °C and outdoor temperature	, ,,	o for part load at	indoor			
T <sub>j</sub> = – 7°C	$P_{dh}$	6.7	kW		$T_j = -7^{\circ}C$	COPd	2.58	-			
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.0	kW	1	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.68	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	2.9	kW	1	$T_j = + 7^{\circ}C$	COPd	4.57	-			
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	3.3	kW		T <sub>j</sub> = + 12°C	COPd	6.59	-			
, T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	8.5	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	1.84	-			
$T_i = operation limit temperature$	P <sub>dh</sub>	4.6	kW		$T_i$ = operation limit temperature	COPd	1.21	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		Į		Supplementary heater			Į			
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	5.4	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	1		-	1	ļ			
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1							
	UK.		ļ	4	ļ	<u> </u>					
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	_	N/A	m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	8470	kWh	1	heat exchanger						
For heat pump combination heater:			ł								
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł			
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ			
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			Tech	nical parameters							
Model(s):				14kW(heating 3kW);14kW							
Air-to-water heat pump:				yes							
Nater-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-tempera	ture applicati	on.									
ltem	Symbol	Value	Unit	ltem	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	182	%				
Declared capacity for heating for part load butdoor temperature T <sub>j</sub>	d at indoor te	mperature 2	0 °C and	Declared capacity for heating for part $\ensuremath{k}$ temperature $\ensuremath{T}_j$	ad at indoor tempe	rature 20 °C and	d outdoor				
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	12.4	kW	$T_j = -7^{\circ}C$	COPd	2.80	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	7.5	kW	$T_j = + 2^{\circ}C$	COPd	4.38	-				
Γ <sub>j</sub> = + 7°C	P <sub>dh</sub>	5.2	kW	$T_i = + 7^{\circ}C$	COPd	6.53	-				
, Γ <sub>i</sub> = + 12°C	P <sub>dh</sub>	4.5	kW	$T_i = + 12^{\circ}C$	COPd	8.58	-				
$\Gamma_i = bivalent temperature$	P <sub>dh</sub>	12.4	kW	T <sub>i</sub> = bivalent temperature	COPd	2.80	-				
$T_i = operation limit temperature$	P <sub>dh</sub>	12.8	kW	$T_i = operation limit temperature$	COPd	2.51	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}$ (if TOL < - 20°C)		N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperation	ire WTOL	65	°C				
Power consumption in modes other than	active mode			Supplementary heater			<u>I</u>				
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	1.2	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			1	ļ				
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
			Į	<u>                                     </u>	l						
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pump Rated brine or water flow rate, outdoor	5: -	N/A	m³/ł				
Annual energy consumption	Q <sub>HE</sub>	6238	kWh	heat exchanger							
For heat pump combination heater:			I	1 1	<u> </u>	1	I				
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
		k cover of th									

			Tech	nıca	l parameters						
Model(s):				14kV	V(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:					for 14kW(heating 3kW)) or 14kW)						
Heat pump combination heater:				no							
Declared climate condition:				warr	mer						
Parameters are declared for low-tempera	ture applicat	ion.		<u> </u>							
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	12	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	248	%			
Declared capacity for heating for part load outdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and		Declared capacity for heating for part load a temperature $T_j$	at indoor tempe	rature 20 °C and	d outdoor			
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	N/A	kW		$T_j = -7^{\circ}C$	$COP_d$	N/A	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	12.3	kW	1	$T_j = + 2^{\circ}C$	COPd	3.40	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	8.0	kW		T <sub>j</sub> = + 7°C	COPd	5.60	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.2	kW	_	T <sub>j</sub> = + 12°C	COPd	7.94	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	_	T <sub>j</sub> = bivalent temperature	COPd	5.60	-			
$\Gamma_i$ = operation limit temperature	P <sub>dh</sub>	12.3	kW		T <sub>j</sub> = operation limit temperature	COPd	3.40	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode				Supplementary heater		•				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW					Į			
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1							
	Į										
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/ł			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł			
Annual energy consumption	Q <sub>HE</sub>	2638	kWh		heat exchanger						
For heat pump combination heater:								•			
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł			
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ			
		k cover of th		1			I	1			

				-	al parameters						
Model(s):				14k	W(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:					(for 14kW(heating 3kW)) for 14kW)						
Heat pump combination heater:				no							
Declared climate condition:				col	der						
Parameters are declared for low-temperate	ture applicati	on.									
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	13	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	156	%			
Declared capacity for heating for part load butdoor temperature T <sub>j</sub>	l at indoor te	mperature 2	0 °C and		Declared capacity for heating for part load a temperature $T_j$	at indoor tempe	rature 20 °C and	d outdoor			
$T_j = -7^{\circ}C$	$P_{dh}$	8.2	kW		$T_j = -7^{\circ}C$	COPd	3.35	-			
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.6	kW		T <sub>j</sub> = + 2°C	COP <sub>d</sub>	4.72	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.4	kW		$T_j = + 7^{\circ}C$	COPd	6.10	-			
Γ <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.8	kW		T <sub>i</sub> = + 12°C	COPd	8.00	-			
$\Gamma_i$ = bivalent temperature	P <sub>dh</sub>	10.6	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	2.55	-			
$\Gamma_i = operation limit temperature$	P <sub>dh</sub>	7.9	kW		$T_i$ = operation limit temperature	COPd	2.10	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode			-	Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	_	Rated heat output (**)	P <sub>sup</sub>	5.1	kW			
Thermostat-off mode		0.014	kW	_		' sup	5.1	N V V			
	P <sub>TO</sub>			_	Type of energy input		Electric				
Standby mode	P <sub>SB</sub>	0.014	kW	_	Type of energy input		Electric				
Crankcase heater mode	Р <sub>СК</sub>	0.000	kW		ļ						
Other items											
					For air-to-water heat pumps: Rated air						
Capacity control		variable			flow rate, outdoors	-	5500	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	1	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	_	N/A	m³/ł			
Annual energy consumption	Q <sub>HE</sub>	8111	kWh		heat exchanger						
For heat pump combination heater:			ł	-1				1			
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh		Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł			
Annual electricity consumption	AEC	N/A	kWh		Annual fuel consumption	AFC	N/A	GJ			
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			Tech	nic	al parameters						
Model(s):				14	<w(heating 3kw);14kw<="" td=""><td></td><td></td><td></td></w(heating>						
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:					s(for 14kW(heating 3kW)) (for 14kW)						
Heat pump combination heater:				no							
Declared climate condition:				ave	erage						
Parameters are declared for medium-tem	perature app	lication.									
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	12	kW		Seasonal space heating energy efficiency	$\eta_s$	134	%			
Declared capacity for heating for part load butdoor temperature T <sub>j</sub>	d at indoor te	mperature 2	0 °C and		Declared capacity for heating for part load a temperature $T_{j}$	at indoor tempe	rature 20 °C and	d outdoor			
$\Gamma_j = -7^{\circ}C$	P <sub>dh</sub>	10.9	kW		$T_j = -7^{\circ}C$	$COP_{d}$	1.99	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	6.9	kW		T <sub>j</sub> = + 2°C	COPd	3.26	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.5	kW		T <sub>j</sub> = + 7°C	COPd	4.79	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.0	kW		$T_j = + 12^{\circ}C$	COP <sub>d</sub>	7.25	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.9	kW		T <sub>j</sub> = bivalent temperature	COPd	1.99	-			
$\Gamma_j$ = operation limit temperature	P <sub>dh</sub>	10.3	kW		T <sub>j</sub> = operation limit temperature	COPd	1.81	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		•		Supplementary heater			•			
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	1.7	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	1			•				
Standby mode	P <sub>SB</sub>	0.014	kW	1	Type of energy input		Electric				
Crankcase heater mode	Р <sub>СК</sub>	0.000	kW								
Other items					I						
Capacity control		variable	Γ		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	7427	kWh		heat exchanger						
For heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	$\eta_{\text{wh}}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual				ı	1			

			rech	ical 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-tem	perature app	lication.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	170	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and	Declared capacity for heating for part load temperature $T_{j}$	at indoor tempe	rature 20 °C and	d outdoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	13.1	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	2.25	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	9.0	kW	$T_j = + 7^{\circ}C$	COPd	3.61	-				
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	4.1	kW	T <sub>j</sub> = + 12°C	COPd	5.94	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.0	kW	T <sub>i</sub> = bivalent temperature	COPd	3.61	-				
$T_i = operation limit temperature$	P <sub>dh</sub>	13.1	kW	T <sub>i</sub> = operation limit temperature	COPd	2.25	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode			Supplementary heater		<u> </u>	ļ				
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	0.9	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			Ļ	I				
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/ł				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł				
Annual energy consumption	Q <sub>HE</sub>	4323	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kW				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the her	k cover of th	e manual	L	1	L	1				

			Tech	nical 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-tem	perature app	lication.		I			
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	P <sub>rated</sub>	11	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	117	%
Declared capacity for heating for part load putdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and	Declared capacity for heating for part load temperature $T_{j}$	d at indoor tempe	rature 20 °C and	d outdoor
T <sub>i</sub> = – 7°C	P <sub>dh</sub>	7.2	kW	$T_j = -7^{\circ}C$	COPd	2.56	-
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.2	kW	$T_j = + 2^{\circ}C$	COPd	3.62	-
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.1	kW	$T_i = +7^{\circ}C$	COPd	4.77	-
Τ <sub>i</sub> = + 12°C	P <sub>dh</sub>	3.6	kW	T <sub>i</sub> = + 12°C	COPd	6.40	-
$T_i = bivalent temperature$	P <sub>dh</sub>	8.9	kW	T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	1.82	-
$T_i = operation limit temperature$	P <sub>dh</sub>	4.4	kW	$T_i = operation limit temperature$	COPd	1.16	
For air-to-water heat pumps: $T_i = -15^{\circ}C$	' dh		KVV	For air-to-water heat pumps: $T_i = -15^{\circ}C$		1.10	_
(if TOL < $-20^{\circ}$ C)	P <sub>dh</sub>	N/A	kW	(if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T <sub>biv</sub>	-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 <sub>cyc</sub>	N/A	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than	active mode			Supplementary heater	•		
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	6.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			•	
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW				
			Į	ł - ł	_ <b>_</b>		
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	_	N/A	m³/ł
Annual energy consumption	Q <sub>HE</sub>	8975	kWh	heat exchanger			
For heat pump combination heater:	·				•		•
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the bac			<u> </u>		1	
(*) For heat pump space heaters and hea				d boot output Drotod is actual to the design los	l for booting Ddo	ianh and the re	atod boot (

			Tech	ical 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-tempera	ture applicati	on.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P <sub>rated</sub>	15	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	179	%
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor te	mperature 2	0 °C and	Declared capacity for heating for part load temperature $T_{j}$	at indoor tempe	rature 20 °C and	d outdoor
$T_j = -7^{\circ}C$	P <sub>dh</sub>	13.4	kW	$T_j = -7^{\circ}C$	COPd	2.66	-
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	8.0	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	4.33	-
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	5.4	kW	$T_j = + 7^{\circ}C$	COPd	6.48	-
T <sub>i</sub> = + 12°C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 12°C	COPd	8.96	-
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	13.4	kW	T <sub>i</sub> = bivalent temperature	COPd	2.66	-
$T_i = operation limit temperature$	P <sub>dh</sub>	13.4	kW	T <sub>i</sub> = operation limit temperature	COPd	2.46	-
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	COP <sub>d</sub>	N/A	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than	active mode		ļ	Supplementary heater	<u>_</u>	<u>ļ</u>	Į
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	1.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.024	kW			l	ļ
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric	
Crankcase heater mode	Рск	0.000	kW				
	- OK				<u> </u>		
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł
Annual energy consumption	Q <sub>HE</sub>	6863	kWh	heat exchanger			
For heat pump combination heater:							•
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWI
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
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			Tech	nica	al parameters						
Model(s):				16k	W(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:					(for 16kW(heating 3kW)) for 16kW)						
Heat pump combination heater:				no							
Declared climate condition:				war	rmer						
Parameters are declared for low-tempera	ture applicat	ion.									
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	13	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	239	%			
Declared capacity for heating for part load outdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and		Declared capacity for heating for part load a temperature $T_{j}$	at indoor tempe	rature 20 °C and	d outdoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW		$T_j = -7^{\circ}C$	$COP_{d}$	N/A	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	13.3	kW		$T_j = + 2^{\circ}C$	COPd	3.33	-			
Γ <sub>j</sub> = + 7°C	P <sub>dh</sub>	8.5	kW		$T_j = +7^{\circ}C$	COPd	5.19	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.8	kW		T <sub>j</sub> = + 12°C	COPd	7.95	-			
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	8.5	kW		T <sub>j</sub> = bivalent temperature	COPd	5.19	-			
$\Gamma_i$ = operation limit temperature	P <sub>dh</sub>	13.3	kW		T <sub>i</sub> = operation limit temperature	COPd	3.33	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode				Supplementary heater		•				
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				<u>ļ</u>	Į			
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW	1							
	Į			-	ļ						
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/ł			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł			
Annual energy consumption	Q <sub>HE</sub>	2934	kWh	1	heat exchanger						
For heat pump combination heater:				•				•			
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł			
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ			
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				-	al parameters							
Model(s):				16k	W(heating 3kW);16kW							
Air-to-water heat pump:				yes								
Nater-to-water heat pump:				no								
Brine-to-water heat pump:				no	no							
Low-temperature heat pump:				no								
Equipped with a supplementary heater:					(for 16kW(heating 3kW)) for 16kW)							
Heat pump combination heater:				no								
Declared climate condition:				col	der							
Parameters are declared for low-tempera	ture applicati	on.										
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	14	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	156	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and		Declared capacity for heating for part load a temperature $T_j$	at indoor tempe	rature 20 °C and	d outdoor				
$\Gamma_j = -7^{\circ}C$	P <sub>dh</sub>	9.1	kW		T <sub>j</sub> = – 7°C	COPd	3.30	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	5.0	kW	1	$T_j = + 2^{\circ}C$	COPd	4.87	-				
$\Gamma_j = + 7^{\circ}C$	P <sub>dh</sub>	4.2	kW	1	T <sub>i</sub> = + 7°C	COPd	6.50	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.7	kW		T <sub>i</sub> = + 12°C	COPd	7.59	-				
$\Gamma_i$ = bivalent temperature	P <sub>dh</sub>	11.3	kW		T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	2.28	_				
$T_i = operation limit temperature$	P <sub>dh</sub>	9.8	kW		T <sub>i</sub> = operation limit temperature	COPd	1.89	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than	active mode		ļ		Supplementary heater		ļ					
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	P <sub>sup</sub>	4.2	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	-			ļ	Į				
Standby mode	P <sub>SB</sub>	0.014	kW	-	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW									
	on			-	<u> </u>							
Other items												
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł				
Annual energy consumption	Q <sub>HE</sub>	8618	kWh	1	heat exchanger							
For heat pump combination heater:								•				
Declared load profile		N/A			Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWł				
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ				
			e manual				1	I				

			Tech	nic	al parameters						
Model(s):				16	kW(heating 3kW);16kW						
Air-to-water heat pump:				yes	S						
Water-to-water heat pump:				no							
Brine-to-water heat pump:				no							
Low-temperature heat pump:				no							
Equipped with a supplementary heater:					s(for 16kW(heating 3kW)) (for 16kW)						
Heat pump combination heater:				no							
Declared climate condition:				ave	erage						
Parameters are declared for medium-tem	perature app	lication.									
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	13	kW		Seasonal space heating energy efficiency	η <sub>s</sub>	136	%			
Declared capacity for heating for part load putdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and		Declared capacity for heating for part load a temperature $T_{j}$	at indoor tempe	rature 20 °C and	d outdoor			
Γ <sub>j</sub> = – 7°C	P <sub>dh</sub>	11.3	kW		$T_j = -7^{\circ}C$	COP <sub>d</sub>	2.04	-			
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	7.3	kW		$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.31	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.8	kW		$T_j = + 7^{\circ}C$	COPd	4.81	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.0	kW		T <sub>j</sub> = + 12°C	COPd	7.35	-			
$T_i = bivalent temperature$	P <sub>dh</sub>	11.3	kW		T <sub>j</sub> = bivalent temperature	COPd	2.04	-			
$\Gamma_i$ = operation limit temperature	P <sub>dh</sub>	11.2	kW		$T_j$ = operation limit temperature	COPd	1.72	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW		For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW		Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-		Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than	active mode		•		Supplementary heater		•	•			
Off mode	P <sub>OFF</sub>	0.014	kW		Rated heat output (**)	$P_{sup}$	1.8	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW		Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
	•		·	<u> </u>	· · · · · · · · · · · · · · · · · · ·						
Other items											
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB		For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/ł			
Annual energy consumption	Q <sub>HE</sub>	7593	kWh	]	heat exchanger						
For heat pump combination heater:											
Declared load profile		N/A			Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	1	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	1	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual		1	L	1	1			

			rech	nical 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-tem	perature app	lication.					
	<u> </u>						
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	171	%
Declared capacity for heating for part load putdoor temperature $T_{j}$	d at indoor te	mperature 2	0 °C and	Declared capacity for heating for part load temperature $T_{j}$	d at indoor tempe	rature 20 °C and	d outdoor
Γ <sub>i</sub> = – 7°C	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	13.2	kW	$T_i = + 2^{\circ}C$	COPd	2.30	-
Γ <sub>j</sub> = + 7°C	P <sub>dh</sub>	9.0	kW	$T_j = +7^{\circ}C$	COPd	3.68	-
$T_i = + 12^{\circ}C$	P <sub>dh</sub>	4.1	kW	T <sub>i</sub> = + 12°C	COPd	5.80	-
$\Gamma_i = bivalent temperature$	P <sub>dh</sub>	9.0	kW	T <sub>i</sub> = bivalent temperature	COP <sub>d</sub>	3.68	-
$\Gamma_i = operation limit temperature$	P <sub>dh</sub>	13.2	kW	$T_i = operation limit temperature$	COPd	2.30	_
For air-to-water heat pumps: $T_i = -15^{\circ}C$	' dh	10.2	KVV	For air-to-water heat pumps: $T_i = -15^{\circ}C$		2.00	-
if TOL < $-20^{\circ}$ C)	P <sub>dh</sub>	N/A	kW	(if TOL < – 20°C)	COPd	N/A	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than	active mode			Supplementary heater			
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	0.8	kW
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				•
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW				
	ł		1	<u>↓                                      </u>	4		
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m <sup>3</sup> /l
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /I
Annual energy consumption	Q <sub>HE</sub>	4329	kWh	heat exchanger			
For heat pump combination heater:							
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kW
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
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			Iech	nical 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-tem	perature app	lication.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	121	%
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor te	mperature 2	0 °C and	Declared capacity for heating for part load temperature $T_{j}$	at indoor tempe	rature 20 °C and	d outdoor
$T_j = -7^{\circ}C$	$P_{dh}$	7.7	kW	T <sub>j</sub> = – 7°C	COPd	2.61	-
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.5	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.78	-
$T_j = + 7^{\circ}C$	P <sub>dh</sub>	3.2	kW	$T_j = + 7^{\circ}C$	COPd	4.87	-
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = + 12°C	COPd	6.39	-
$T_i = bivalent temperature$	P <sub>dh</sub>	9.6	kW	T <sub>j</sub> = bivalent temperature	COPd	1.84	-
$T_j$ = operation limit temperature	P <sub>dh</sub>	5.1	kW	$T_j = operation limit temperature$	COPd	1.04	-
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than	active mode			Supplementary heater	4		4
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	6.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		1		
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/ł
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/l
Annual energy consumption	Q <sub>HE</sub>	9389	kWh	heat exchanger			
For heat pump combination heater:							
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%
Daily electricity consumption	$Q_{elec}$	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kW
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Contact details	See the bac	k cover of th	e manual	1 1	1		I

			Techni	cal parameters							
Model(s):				3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW	/); 3-PH 12kW(h	eating 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(he no(for 3-PH 12kW)	eating 6kW);3-P	H 12kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				average	9						
Parameters are declared for low-temperat	ure application	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	$\eta_s$	187	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	at indoor ter	nperature 2	0 °C and	Declared coefficient of performance or prima temperature 20 °C and outdoor temperature		for part load at	indoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	10.7	kW	$T_j = -7^{\circ}C$	COPd	2.90	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	7.0	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	4.53	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7°C	COPd	6.65	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.2	kW	$T_j = + 12^{\circ}C$	COPd	8.92	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.7	kW	T <sub>j</sub> = bivalent temperature	COPd	2.90	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	11.4	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	2.63	-				
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-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 <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	$C_{dh}$	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.6	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	5256	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th									

			Techni	ical parameters							
Model(s):				3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW	/); 3-PH 12kW(h	eating 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(he no(for 3-PH 12kW)	eating 6kW);3-P	PH 12kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				warmer							
Parameters are declared for low-temperat	ture application	on.		•							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	11	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	253	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor ter	mperature 20	) °C and	Declared coefficient of performance or prima temperature 20 °C and outdoor temperature		for part load at	indoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	11.1	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.62	-				
$T_j = + 7^{\circ}C$	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7°C	COP <sub>d</sub>	5.64	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 12°C	COPd	8.34	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = bivalent temperature	COPd	5.64	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	11.1	kW	T <sub>j</sub> = operation limit temperature	COPd	3.62	-				
For air-to-water heat pumps: T <sub>j</sub> = − 15°C (if TOL < − 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2325	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th		· · · · · · · · · · · · · · · · · · ·							

			Techni	cal parameters							
Model(s):				3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW	/); 3-PH 12kW(h	eating 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(he no(for 3-PH 12kW)	ating 6kW);3-P	PH 12kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				colder							
Parameters are declared for low-temperat	ure application	on.									
				· ·							
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	11	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	163	%				
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	at indoor ten	nperature 20	ງ °C and	Declared coefficient of performance or prima temperature 20 °C and outdoor temperature	, ,,	for part load at	indoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	7.2	kW	$T_j = -7^{\circ}C$	COP <sub>d</sub>	3.51	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	4.2	kW	$T_j = + 2^{\circ}C$	COPd	5.06	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.2	kW	$T_j = + 7^{\circ}C$	COPd	6.20	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.6	kW	$T_j = + 12^{\circ}C$	COPd	8.19	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.3	kW	T <sub>j</sub> = bivalent temperature	COPd	2.59	-				
$T_j$ = operation limit temperature	P <sub>dh</sub>	7.1	kW	$T_j$ = operation limit temperature	COP <sub>d</sub>	2.08	-				
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	$COP_{d}$	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	3.9	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	6738	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th									

			Techni	cal parameters							
Model(s):				3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW	/); 3-PH 12kW(h	eating 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(he no(for 3-PH 12kW)	eating 6kW);3-P	PH 12kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				average	•						
Parameters are declared for medium-tem	perature appl	lication.									
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	$\eta_s$	138	%				
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	l at indoor ter	nperature 20	) °C and	Declared coefficient of performance or prima temperature 20 °C and outdoor temperature		for part load at	indoor				
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	10.7	kW	$T_j = -7^{\circ}C$	COPd	2.13	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	6.6	kW	$T_j = + 2^{\circ}C$	COPd	3.33	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.4	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	4.88	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.0	kW	$T_j = + 12^{\circ}C$	COPd	7.67	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.7	kW	$T_j$ = bivalent temperature	COPd	2.13	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	10.0	kW	$T_j$ = operation limit temperature	COP <sub>d</sub>	1.82	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	2.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	7085	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual								

			Techni	cal parameters							
Model(s):				3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW	/); 3-PH 12kW(h	eating 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(he no(for 3-PH 12kW)	eating 6kW);3-F	PH 12kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				warmer							
Parameters are declared for medium-tem	perature appl	lication.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	175	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	at indoor ter	nperature 20	0 °C and	Declared coefficient of performance or prima temperature 20 °C and outdoor temperature		for part load at	indoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	12.1	kW	$T_j = + 2^{\circ}C$	COPd	2.27	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 7°C	COPd	3.85	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 12°C	COPd	5.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COPd	3.85	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	12.1	kW	T <sub>j</sub> = operation limit temperature	COPd	2.27	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	3733	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	ne manual	· · ·							

			Techni	cal parameters						
Model(s):				3-PH 12kW(heating 9kW);3-PH 12kW(heating 6kW	/); 3-PH 12kW(h	eating 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(he no(for 3-PH 12kW)	eating 6kW);3-P	H 12kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				colder						
Parameters are declared for medium-tem	perature app	lication.								
		<b>M</b> - <b>I</b>		Num	0	Mala				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	10	kW	Seasonal space heating energy efficiency	$\eta_s$	119	%			
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	l at indoor ter	nperature 20	0 °C and	Declared coefficient of performance or prima temperature 20 °C and outdoor temperature		for part load at	indoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	6.7	kW	$T_j = -7^{\circ}C$	COPd	2.58	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	4.0	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.68	-			
$T_j = +7^{\circ}C$	P <sub>dh</sub>	2.9	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	4.57	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.3	kW	$T_j = + 12^{\circ}C$	COP <sub>d</sub>	6.59	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.5	kW	$T_j$ = bivalent temperature	COPd	1.89	-			
$T_j$ = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COPd	1.21	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater			-			
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	5.3	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW							
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/64	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	8459	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
-		k cover of th	· .							

			Techni	cal parameters							
Model(s):				3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW	/); 3-PH 14kW(h	eating 3kW);3-I	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(he no(for 3-PH 14kW)	ating 6kW);3-P	H 14kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				average	1						
Parameters are declared for low-temperat	ture application	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	182	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor ter	mperature 20	) °C and	Declared capacity for heating for part load at temperature $\mathbf{T}_{\mathbf{j}}$	indoor tempera	ature 20 °C and	d outdoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	12.4	kW	$T_j = -7^{\circ}C$	COPd	2.80	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	7.5	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	4.40	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7°C	COP <sub>d</sub>	6.38	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.9	kW	$T_j = + 12^{\circ}C$	COPd	9.16	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.4	kW	T <sub>j</sub> = bivalent temperature	COPd	2.80	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	12.9	kW	T <sub>j</sub> = operation limit temperature	COPd	2.63	-				
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	1.1	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	6237	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual	· · ·							

			Techni	cal parameters							
Model(s):				3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW	/); 3-PH 14kW(h	eating 3kW);3-I	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(he no(for 3-PH 14kW)	ating 6kW);3-P	'H 14kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				warmer							
Parameters are declared for low-temperat	ture application	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
nem	Symbol	value	Unit	Seasonal space heating energy	Symbol	value	Unit				
Rated heat output (*)	P <sub>rated</sub>	12	kW	efficiency	η <sub>s</sub>	248	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor ter	nperature 20	) °C and	Declared capacity for heating for part load at temperature $T_{j}$	indoor tempera	ature 20 °C and	d outdoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-				
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	12.3	kW	$T_j = + 2^{\circ}C$	COPd	3.41	-				
$T_j = +7^{\circ}C$	P <sub>dh</sub>	8.0	kW	$T_j = + 7^{\circ}C$	COPd	5.61	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.2	kW	$T_j = + 12^{\circ}C$	COPd	7.94	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	5.61	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	3.41	-				
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-				
Bivalent temperature	T <sub>biv</sub>	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 <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>СК</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2638	kWh	heat exchanger							
For heat pump combination heater:	-		-	· · ·		-					
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual			û					

			Techni	cal parameters						
Model(s):				3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW	/); 3-PH 14kW(h	eating 3kW);3-I	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(he no(for 3-PH 14kW)	ating 6kW);3-P	PH 14kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				colder						
Parameters are declared for low-tempera	ture application	on.								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	13	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	156	%			
Declared capacity for heating for part load outdoor temperature T <sub>i</sub>	at indoor ter	nperature 20	) °C and	Declared capacity for heating for part load at temperature T <sub>i</sub>	indoor tempera	ature 20 °C and	d outdoor			
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	8.3	kW	T <sub>j</sub> = - 7°C	COPd	3.36	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	4.7	kW	$T_i = + 2^{\circ}C$	COP <sub>d</sub>	4.73	_			
$T_i = +7^{\circ}C$	P <sub>dh</sub>	3.4	kW	, T <sub>i</sub> = + 7°C	COP <sub>d</sub>	6.11	_			
$T_i = + 12^{\circ}C$	P <sub>dh</sub>	3.8	kW	$T_i = + 12^{\circ}C$	COPd	7.98	_			
T <sub>i</sub> = bivalent temperature	P <sub>dh</sub>	10.7	kW	, T <sub>i</sub> = bivalent temperature	COPd	2.61	_			
$T_i = operation limit temperature$	P <sub>dh</sub>	7.9	kW	$T_i = operation limit temperature$	COPd	2.10	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	5.1	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		·					
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	8082	kWh	heat exchanger						
For heat pump combination heater:				· · ·			•			
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	l, aguar of th					1			

			Techni	cal parameters						
Model(s):				3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW	/); 3-PH 14kW(h	eating 3kW);3-F	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(he no(for 3-PH 14kW)	ating 6kW);3-P	H 14kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				average	•					
Parameters are declared for medium-tem	perature app	lication.								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	$\eta_{s}$	135	%			
Declared capacity for heating for part load outdoor temperature $T_{j}$	at indoor ter	nperature 20	) °C and	Declared capacity for heating for part load at temperature $T_{j}$	indoor tempera	ature 20 °C and	d outdoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	10.9	kW	$T_j = -7^{\circ}C$	COPd	2.03	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	7.1	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.35	-			
$T_j = + 7^{\circ}C$	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = + 7°C	COP <sub>d</sub>	4.67	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.0	kW	$T_j = + 12^{\circ}C$	COPd	7.27	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.9	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.03	-			
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.79	-			
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-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 <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	2.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW							
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	7384	kWh	heat exchanger						
For heat pump combination heater:				•						
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual							

			Techni	cal parameters						
Model(s):				3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW	'); 3-PH 14kW(h	eating 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(he no(for 3-PH 14kW)	ating 6kW);3-P	PH 14kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				warmer						
Parameters are declared for medium-tem	perature appl	lication.								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	170	%			
Declared capacity for heating for part load outdoor temperature $T_{j}$	at indoor ter	nperature 20	) °C and	Declared capacity for heating for part load at temperature $\mathbf{T}_{j}$	indoor tempera	ature 20 °C and	d outdoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-			
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	13.1	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	2.25	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	9.0	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	3.61	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.1	kW	$T_j = + 12^{\circ}C$	COPd	5.94	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = bivalent temperature	COPd	3.61	-			
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	13.1	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	2.25	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.9	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW							
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	4320	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual	· · · · · · · · · · · · · · · · · · ·						

			Techni	cal parameters						
Model(s):				3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW	'); 3-PH 14kW(h	eating 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(he no(for 3-PH 14kW)	ating 6kW);3-P	PH 14kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				colder						
Parameters are declared for medium-tem	perature app	lication.		- -						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	11	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	117	%			
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor ter	mperature 20	) °C and	Declared capacity for heating for part load at temperature $\mathbf{T}_{\mathbf{j}}$	indoor tempera	ature 20 °C and	d outdoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	7.2	kW	$T_j = -7^{\circ}C$	COPd	2.56	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	4.3	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.62	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.1	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	4.77	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.6	kW	$T_j = + 12^{\circ}C$	COPd	6.40	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.9	kW	T <sub>j</sub> = bivalent temperature	COPd	1.82	-			
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = operation limit temperature	COPd	1.16	-			
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	6.6	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW							
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	5500	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/66	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	8967	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th		<u> </u>						

			Techni	cal parameters							
Model(s):				3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW	/); 3-PH 16kW(h	neating 3kW);3-I	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(he no(for 3-PH 16kW)	eating 6kW);3-F	PH 16kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				average	)						
Parameters are declared for low-temperat	ture application	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	15	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	at indoor ter	nperature 20	) °C and	Declared capacity for heating for part load at temperature $T_{j}$	t indoor tempera	ature 20 °C and	d outdoor				
T <sub>j</sub> = – 7°C	$P_{dh}$	13.4	kW	$T_j = -7^{\circ}C$	COPd	2.60	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	8.0	kW	$T_j = + 2^{\circ}C$	COPd	4.39	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	5.4	kW	T <sub>j</sub> = + 7°C	COPd	6.44	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 12°C	COPd	8.92	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	13.4	kW	T <sub>j</sub> = bivalent temperature	COPd	2.60	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	13.4	kW	T <sub>j</sub> = operation limit temperature	COPd	2.44	-				
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode		-	Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	1.6	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	6838	kWh	heat exchanger							
For heat pump combination heater:				•							
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th		1 1 1							

			Techni	cal parameters							
Model(s):				3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW	/); 3-PH 16kW(h	neating 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(he no(for 3-PH 16kW)	eating 6kW);3-F	PH 16kW(heatir	ng 3kW))				
Heat pump combination heater:				no							
Declared climate condition:				warmer							
Parameters are declared for low-temperat	ture application	on.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	P <sub>rated</sub>	13	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	239	%				
Declared capacity for heating for part load outdoor temperature $T_{j}$	l at indoor ter	mperature 20	) °C and	Declared capacity for heating for part load at temperature $T_{j}$	t indoor tempera	ature 20 °C and	d outdoor				
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-				
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	13.3	kW	$T_j = + 2^{\circ}C$	COPd	3.33	-				
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	8.6	kW	T <sub>j</sub> = + 7°C	COP <sub>d</sub>	5.20	-				
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = + 12°C	COPd	7.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.6	kW	T <sub>j</sub> = bivalent temperature	COPd	5.20	-				
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	13.3	kW	T <sub>j</sub> = operation limit temperature	COPd	3.33	-				
For air-to-water heat pumps: T <sub>j</sub> = − 15°C (if TOL < − 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	$COP_d$	N/A	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C				
Power consumption in modes other than a	active mode			Supplementary heater							
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW								
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric					
Crankcase heater mode	Р <sub>ск</sub>	0.000	kW								
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h				
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2933	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%				
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh				
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ				
Contact details	See the bac	k cover of th	e manual								

			Techni	cal parameters						
Model(s):				3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW	'); 3-PH 16kW(h	eating 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(he no(for 3-PH 16kW)	ating 6kW);3-P	PH 16kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				colder						
Parameters are declared for low-tempera	ture application	on.								
			<u>г</u>				T			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	$\eta_s$	156	%			
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	l at indoor ter	mperature 20	) °C and	Declared capacity for heating for part load at temperature T <sub>j</sub>	indoor tempera	ature 20 °C and	1 outdoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	9.1	kW	$T_j = -7^{\circ}C$	COPd	3.32	-			
$T_j = + 2^{\circ}C$	P <sub>dh</sub>	5.0	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	4.88	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.2	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	6.50	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 12°C	COPd	7.59	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.28	-			
$T_j$ = operation limit temperature	P <sub>dh</sub>	9.8	kW	$T_j$ = operation limit temperature	COP <sub>d</sub>	1.89	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	4.2	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW				•			
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	Р <sub>СК</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	8597	kWh	heat exchanger						
For heat pump combination heater:	-		-	· · ·			-			
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details	0 +	k cover of th	1							

			Techni	cal parameters						
Model(s):				3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW	'); 3-PH 16kW(h	eating 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(he no(for 3-PH 16kW)	ating 6kW);3-P	PH 16kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				average	1					
Parameters are declared for medium-tem	perature appl	lication.		- -						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	13	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	136	%			
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	at indoor ter	mperature 20	) °C and	Declared capacity for heating for part load at temperature $T_{j}$	indoor tempera	ature 20 °C and	d outdoor			
T <sub>j</sub> = – 7°C	P <sub>dh</sub>	11.3	kW	$T_j = -7^{\circ}C$	COP <sub>d</sub>	2.04	-			
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	7.3	kW	$T_j = + 2^{\circ}C$	COP <sub>d</sub>	3.33	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	4.8	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	4.81	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.0	kW	$T_j = + 12^{\circ}C$	COPd	7.36	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.3	kW	$T_j$ = bivalent temperature	COPd	2.04	-			
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	11.3	kW	$T_j$ = operation limit temperature	COP <sub>d</sub>	1.78	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20°C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COP <sub>d</sub>	N/A	-			
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	1.7	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW							
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	7571	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details	See the bac	k cover of th	e manual				-			

			Techni	cal parameters						
Model(s):				3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW	/); 3-PH 16kW(h	eating 3kW);3-I	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(he no(for 3-PH 16kW)	ating 6kW);3-F	PH 16kW(heatir	ng 3kW))			
Heat pump combination heater:				no						
Declared climate condition:				warmer						
Parameters are declared for medium-tem	perature appl	lication.								
			T				_			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	P <sub>rated</sub>	14	kW	Seasonal space heating energy efficiency	$\eta_s$	171	%			
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	at indoor ter	nperature 20	) °C and	Declared capacity for heating for part load at temperature $T_{j}$	indoor tempera	ature 20 °C and	d outdoor			
$T_j = -7^{\circ}C$	P <sub>dh</sub>	N/A	kW	$T_j = -7^{\circ}C$	COPd	N/A	-			
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	13.2	kW	$T_j = + 2^{\circ}C$	COPd	2.32	-			
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	9.1	kW	$T_j = + 7^{\circ}C$	COP <sub>d</sub>	3.70	-			
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	4.1	kW	$T_j = + 12^{\circ}C$	COPd	5.80	-			
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.1	kW	T <sub>j</sub> = bivalent temperature	COPd	3.70	-			
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	13.2	kW	T <sub>j</sub> = operation limit temperature	COPd	2.32	-			
For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < - 20^{\circ}C)	P <sub>dh</sub>	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-			
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-			
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than a	active mode			Supplementary heater						
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	0.8	kW			
Thermostat-off mode	P <sub>TO</sub>	0.024	kW							
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h			
Annual energy consumption	Q <sub>HE</sub>	4321	kWh	heat exchanger			1			
For heat pump combination heater:							·			
Declared load profile		N/A		Water heating energy efficiency	$\eta_{wh}$	N/A	%			
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh			
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ			
Contact details		k cover of th					1			

			Techni	ical parameters								
Model(s):				3-PH 16kW(heating 9kW);3-PH 16kW(heating 6kW	); 3-PH 16kW(h	eating 3kW);3-I	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-temp	perature appl	ication.										
			1			[						
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	12	kW	Seasonal space heating energy efficiency	$\eta_s$	121	%					
Declared capacity for heating for part load outdoor temperature T <sub>j</sub>	at indoor ter	nperature 20	0 °C and	Declared capacity for heating for part load at temperature T <sub>j</sub>	indoor tempera	ature 20 °C and	d outdoor					
$T_j = -7^{\circ}C$	P <sub>dh</sub>	7.8	kW	$T_j = -7^{\circ}C$	COPd	2.64	-					
T <sub>j</sub> = + 2°C	P <sub>dh</sub>	4.5	kW	$T_j = + 2^{\circ}C$	COPd	3.78	-					
T <sub>j</sub> = + 7°C	P <sub>dh</sub>	3.2	kW	T <sub>j</sub> = + 7°C	COPd	4.87	-					
T <sub>j</sub> = + 12°C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 12°C	COPd	6.40	-					
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.6	kW	$T_j$ = bivalent temperature	COPd	1.85	-					
$T_j$ = operation limit temperature	P <sub>dh</sub>	5.1	kW	$T_j$ = operation limit temperature	COP <sub>d</sub>	1.04	-					
For air-to-water heat pumps: T <sub>j</sub> = – 15°C (if TOL < – 20°C)	$P_{dh}$	N/A	kW	For air-to-water heat pumps: $T_j = -15^{\circ}C$ (if TOL < $-20^{\circ}C$ )	COPd	N/A	-					
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	N/A	kW	Cycling interval efficiency	COP <sub>cyc</sub>	N/A	-					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	WTOL	65	°C					
Power consumption in modes other than a	active mode			Supplementary heater								
Off mode	P <sub>OFF</sub>	0.014	kW	Rated heat output (**)	$P_{sup}$	6.9	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW									
Standby mode	P <sub>SB</sub>	0.014	kW	Type of energy input		Electric						
Crankcase heater mode	P <sub>CK</sub>	0.000	kW									
Other items												
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6000	m³/h					
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	N/A	m³/h					
Annual energy consumption	Q <sub>HE</sub>	9356	kWh	heat exchanger								
For heat pump combination heater:							<u></u>					
Declared load profile		N/A		Water heating energy efficiency	η <sub>wh</sub>	N/A	%					
Daily electricity consumption	Q <sub>elec</sub>	N/A	kWh	Daily fuel consumption	Q <sub>fuel</sub>	N/A	kWh					
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ					
Contact details	See the bac	k cover of th		<u> </u>								

Model(s):				4kW(heating 3kW);4kW										
Outdoor side heat exchanger of ch	hiller			Air	to water									
indoor side heat exchanger chiller				Wa	ater									
Туре:				cor	mpressor driven vapour compression									
Driver af compressor				Ele	ectric motor									
ltem	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 p temperature Tj	art load at	given ou	itdoor		Declared energy efficiency ratio for cooling for part load at gi temperature Tj	ven outdo	or	4						
Tj = + 35°C	P <sub>dc</sub>	4.6	kW		Tj = +35°C	EERd	3.38	-						
Tj = + 30°C	P <sub>dc</sub>	3.5	kW		Tj = + 30°C	EERd	4.60	-						
Tj = + 25°C	P <sub>dc</sub>	2.2	kW		Tj = + 25°C	EERd	6.23	-						
Tj = + 20°C	P <sub>dc</sub>	1.0	kW		Tj = + 20°C	EERd	7.69	-						
	<u> </u>		·		·			1						
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-											
		Po	wer consump	otior	n in modes other than "active mode"									
Off mode	P <sub>OFF</sub>	0.010	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW						
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.010	kW						
	·		<u> </u>		Other items	. <u> </u>	1	1						
Capacity control		variable	е		For air-to-water comfort chillers: air flow rate, outdoor measured	-	2600	m³/h						
Sound power level, indoors/ outdoors	LWA	-/56	dB											
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h						
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)											
Standard rating conditions used	Low temp	perature a	application	Į	+			4						
Contact details	See the t	back cove	er of the manu	ual										
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the c	lefault degrad	latic	on coefficient of chillers shall be 0.9.									

Model(s):				4kW(heating 3kW);4kW										
Outdoor side heat exchanger of chille	r			Air	to water									
indoor side heat exchanger chiller				Wa	Water									
Туре:				con	compressor driven vapour compression									
Driver af compressor				Ele	ctric motor									
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit						
Rated cooling capacity	Prated,c	4.5	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	305	%						
Declared capacity for cooling for part temperature Tj	load at giv	en outdo	or	_	Declared energy efficiency ratio for cooling for part load at gi Tj	ven outdoo	or tempera	ature						
Tj = + 35°C	P <sub>dc</sub>	4.5	kW	_	Tj = +35°C	EERd	5.64	-						
Tj = + 30°C	P <sub>dc</sub>	P <sub>dc</sub> 3.4 kW			Tj = + 30°C	EERd	7.47	-						
Tj = + 25°C	P <sub>dc</sub>	2.3	kW		Tj = + 25°C	EERd	8.97	-						
Tj = + 20°C	P <sub>dc</sub>	1.0	kW		Tj = + 20°C	EERd	8.81	-						
	1	1	1		1									
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-											
		Pov	wer consump	tion	in modes other than "active mode"									
Off mode	P <sub>OFF</sub>	0.010	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW						
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.010	kW						
					Other items									
Capacity control		variable	е		For air-to-water comfort chillers: air flow rate, outdoor measured	-	2600	m³/h						
Sound power level, indoors/ outdoors	LWA	-/56	dB											
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h						
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)											
Standard rating conditions used	Medium t	emperati	ure applicatio	n	•			•						
Contact details	See the b	back cove	er of the man	ual										
(*)If C <sub>dc</sub> is not determined by measure (**)From 26 September 2018.	ement then	the defa	ult degradatio	on c	oefficient of chillers shall be 0.9.									

Model(s):				6kW(heating 3kW);6kW										
Outdoor side heat exchanger of ch	niller			Air	to water									
indoor side heat exchanger chiller				Wa	iter									
Туре:				cor	compressor driven vapour compression									
Driver af compressor				Ele	ectric motor									
ltem	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 p temperature Tj	art load at	given ou	itdoor		Declared energy efficiency ratio for cooling for part load at git temperature Tj	ven outdo	or	4						
Tj = + 35°C	P <sub>dc</sub>	6.1	kW		Tj = +35°C	EERd	3.22	-						
Tj = + 30°C	P <sub>dc</sub>	4.7	kW		Tj = + 30°C	EERd	4.68	-						
Tj = + 25°C	P <sub>dc</sub>	2.8	kW		Tj = + 25°C	EERd	6.25	-						
Tj = + 20°C	P <sub>dc</sub>	1.2	kW		Tj = + 20°C	EERd	6.07	-						
					1			<u>.</u>						
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-											
		Po	wer consump	otior	in modes other than "active mode"									
Off mode	P <sub>OFF</sub>	0.010	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW						
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.010	kW						
					Other items		<u></u>							
Capacity control		variable	е		For air-to-water comfort chillers: air flow rate, outdoor measured	-	2800	m³/h						
Sound power level, indoors/ outdoors	LWA	-/59	dB											
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h						
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)											
Standard rating conditions used	Low temp	perature a	application		•		<u></u>	+						
Contact details	See the t	back cove	er of the manu	Jal										
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the d	lefault degrad	latic	on coefficient of chillers shall be 0.9.									

	-												
Model(s):				6kW(heating 3kW);6kW									
Outdoor side heat exchanger of chille	r			Air	to water								
indoor side heat exchanger chiller				Wa	Water								
Туре:				cor	compressor driven vapour compression								
Driver af compressor				Ele	ctric motor								
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	Prated,c	6.1	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	319	%					
Declared capacity for cooling for part temperature Tj	load at giv	en outdo	or		Declared energy efficiency ratio for cooling for part load at gi Tj	ven outdoo	or tempera	ature					
Tj = + 35°C	P <sub>dc</sub>	6.1	kW		Tj = +35°C	EERd	5.19	-					
Tj = + 30°C	P <sub>dc</sub>	P <sub>dc</sub> 4.4 kW			Tj = + 30°C	EERd	7.22	-					
Tj = + 25°C	P <sub>dc</sub>	2.9	kW		Tj = + 25°C	EERd	10.09	-					
Tj = + 20°C	P <sub>dc</sub>	1.3	kW		Tj = + 20°C	EERd	8.82	-					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
		Pov	wer consump	tion	in modes other than "active mode"								
Off mode	P <sub>OFF</sub>	0.010	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.010	kW					
					Other items	<u> </u>		-					
Capacity control		variabl	e		For air-to-water comfort chillers: air flow rate, outdoor measured	-	2800	m³/h					
Sound power level, indoors/ outdoors	LWA	-/59	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Medium t	emperati	ure applicatio	n	•			•					
Contact details	See the b	back cove	er of the man	ual									
(*)If C <sub>dc</sub> is not determined by measure (**)From 26 September 2018.	ement then	the defa	ult degradati	on c	oefficient of chillers shall be 0.9.								

		•										
Model(s):				8kV	V(heating 3kW);8kW							
Outdoor side heat exchanger of ch	niller:			Air to water								
indoor side heat exchanger chiller:	:			Wa	ter							
Туре:				com	npressor driven vapour compressio	n						
Driver af compressor:				Ele	ctric motor							
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit				
Rated cooling capacity	P <sub>rated,c</sub>	7	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	214	%				
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	or part loa	ad at				
Tj = + 35°C	P <sub>dc</sub>	7.0	kW		Tj = +35°C	$EER_{d}$	3.38	-				
Tj = + 30°C	P <sub>dc</sub>	5.7	kW		Tj = + 30°C	EER <sub>d</sub>	4.60	-				
Tj = + 25°C	P <sub>dc</sub>	3.7	kW		Tj = + 25°C	$EER_{d}$	6.23	-				
Tj = + 20°C	P <sub>dc</sub>	1.7	kW		Tj = + 20°C	EER <sub>d</sub>	7.69	-				
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-									
	Power	. consumt	tion in modes	s oth	er than "active mode"							
Off mode	P <sub>OFF</sub>	0.014	kW		Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	$P_{SB}$	0.014	kW				
	<u> </u>		Other it	ems	5							
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4000	m³/h				
Sound power level, indoors/ outdoors	LWA	-/60	dB									
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h				
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)									
Standard rating conditions used	Low temp	perature a	application									
Contact details	See the b	ack cove	r of the manua	al								
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.							

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Model(s):				8kV	V(heating 3kW);8kW								
Outdoor side heat exchanger of ch	niller:			Air to water									
indoor side heat exchanger chiller:	:			Water									
Туре:				compressor driven vapour compression									
Driver af compressor:				Ele	ctric motor								
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit					
Rated cooling capacity	P <sub>rated,c</sub>	8	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub> 318 %							
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	for part load at						
Tj = + 35°C	P <sub>dc</sub>	8.0	kW		Tj = +35°C	$EER_{d}$	4.95	-					
Tj = + 30°C	P <sub>dc</sub>	6.4	kW		Tj = + 30°C	$EER_{d}$	6.61	-					
Tj = + 25°C	P <sub>dc</sub>	4.3	kW		Tj = + 25°C	$EER_{d}$	9.06	-					
Tj = + 20°C	P <sub>dc</sub>	1.8	kW		Tj = + 20°C	$EER_{d}$	13.14	-					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
	Power	consump	tion in modes	s oth	er than "active mode"								
Off mode	P <sub>OFF</sub>	0.014	kW		Crankcase heater mode	P <sub>CK</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
	. <b>.</b>		Other it	ems	5								
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4000	m³/h					
Sound power level, indoors/ outdoors	LWA	-/60	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)		mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Medium t	emperatu	ire application										
Contact details	See the b	ack cove	r of the manua	al									
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement th	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.								

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Model(s):				10k	W(heating 3kW);10kW			lue Unit					
Outdoor side heat exchanger of ch	niller:			Air to water									
indoor side heat exchanger chiller:	:			Wa	ter								
Туре:				con	npressor driven vapour compressio	n							
Driver af compressor:				Ele	ctric motor								
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	P <sub>rated,c</sub>	8	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	212	%					
Declared capacity for cooling for p temperature Tj	art load at	given out	tdoor		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	or part loa	ad at					
Tj = + 35°C	P <sub>dc</sub>	8.1	kW		Tj = +35°C	$EER_{d}$	3.16	-					
Tj = + 30°C	P <sub>dc</sub>	6.6	kW		Tj = + 30°C	$EER_{d}$	4.38	-					
Tj = + 25°C	P <sub>dc</sub>	4.3	kW		Tj = + 25°C	$EER_{d}$	6.18	-					
Tj = + 20°C	P <sub>dc</sub>	1.9	kW		Tj = + 20°C	EER <sub>d</sub>	8.17	-					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
	Power	<sup>.</sup> consumr	otion in modes	s oth	er than "active mode"								
Off mode	$P_{OFF}$	0.014	kW		Crankcase heater mode	P <sub>CK</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
			Other it	ems	5								
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4500	m³/h					
Sound power level, indoors/ outdoors	LWA	-/61	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Low temp	perature a	application										
Contact details	See the t	ack cove	er of the manua	al									
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement th	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.								

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Model(s):				10k	W(heating 3kW);10kW								
Outdoor side heat exchanger of ch	niller:			Air	to water								
indoor side heat exchanger chiller:	:			Wa	ter								
Туре:				com	compressor driven vapour compression								
Driver af compressor:				Ele	ctric motor								
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit					
Rated cooling capacity	P <sub>rated,c</sub>	10	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	307	%					
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	or part loa	ad at					
Tj = + 35°C	P <sub>dc</sub>	9.5	kW		Tj = +35°C	$EER_{d}$	4.56	-					
Tj = + 30°C	P <sub>dc</sub>	7.7	kW		Tj = + 30°C	EER <sub>d</sub>	6.33	-					
Tj = + 25°C	P <sub>dc</sub>	4.9	kW		Tj = + 25°C	$EER_{d}$	8.48	-					
Tj = + 20°C	P <sub>dc</sub>	2.3	kW		Tj = + 20°C	EER <sub>d</sub>	13.19	-					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
	Power	. consumt	tion in modes	s oth	er than "active mode"								
Off mode	$P_{OFF}$	0.014	kW		Crankcase heater mode	P <sub>CK</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
	<u>.                                    </u>		Other it	ems	5								
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4500	m³/h					
Sound power level, indoors/ outdoors	LWA	-/61	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)		mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Medium t	emperatu	ire application										
Contact details	See the b	ack cove	r of the manua	al									
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.								

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Model(s):				12k	W(heating 3kW);12kW								
Outdoor side heat exchanger of ch	niller:			Air to water									
indoor side heat exchanger chiller:	:			Water									
Туре:				compressor driven vapour compression									
Driver af compressor:				Ele	ctric motor								
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	P <sub>rated,c</sub>	12	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	201	%					
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	or part loa	ad at					
Tj = + 35°C	P <sub>dc</sub>	11.6	kW		Tj = +35°C	$EER_{d}$	2.80	-					
Tj = + 30°C	P <sub>dc</sub>	8.7	kW		Tj = + 30°C	$EER_{d}$	4.34	-					
Tj = + 25°C	P <sub>dc</sub>	5.8	kW		Tj = + 25°C	$EER_{d}$	6.02	-					
Tj = + 20°C	P <sub>dc</sub>	2.6	kW		Tj = + 20°C	$EER_{d}$	6.46	-					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
	Power	. consump	tion in modes	s oth	er than "active mode"								
Off mode	$P_{OFF}$	0.020	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.020	kW					
			Other it	ems	3			•					
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m³/h					
Sound power level, indoors/ outdoors	LWA	-/64	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Low temp	perature a	application										
Contact details	See the b	ack cove	r of the manua	al									
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.								

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Model(s):				12k	W(heating 3kW);12kW								
Outdoor side heat exchanger of ch	niller:			Air to water									
indoor side heat exchanger chiller:	:			Water									
Туре:				com	npressor driven vapour compressio	n							
Driver af compressor:				Ele	ctric motor								
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	P <sub>rated,c</sub>	12	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	η <sub>s,c</sub> 295 %						
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	or part load at						
Tj = + 35°C	P <sub>dc</sub>	12.0	kW		Tj = +35°C	$EER_{d}$	3.96	-					
Tj = + 30°C	P <sub>dc</sub>	9.3	kW		Tj = + 30°C	EER <sub>d</sub>	6.16	-					
Tj = + 25°C	P <sub>dc</sub>	5.6	kW		Tj = + 25°C	$EER_{d}$	9.03	-					
Tj = + 20°C	P <sub>dc</sub>	3.5	kW		Tj = + 20°C	$EER_{d}$	10.04	-					
Degradation co-efficient of chiller	T		<del></del>										
(*)	C <sub>dc</sub>	0.9	-										
	Power	consump	tion in modes	s oth	er than "active mode"	•							
Off mode	P <sub>OFF</sub>	0.020	kW		Crankcase heater mode	Р <sub>СК</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.020	kW					
			Other it	ems	5 ·								
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m³/h					
Sound power level, indoors/ outdoors	LWA	-/64	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)		mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Medium t	emperatu	ire application										
Contact details	See the b	ack cove	r of the manua	al									
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.								

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Model(s):				14k	W(heating 3kW);14kW			lue Unit					
Outdoor side heat exchanger of ch	niller:			Air to water									
indoor side heat exchanger chiller:	:			Wa	ter								
Туре:				con	npressor driven vapour compressio	n							
Driver af compressor:				Ele	ctric motor								
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	P <sub>rated,c</sub>	13	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	200	%					
Declared capacity for cooling for p temperature Tj	art load at	given out	tdoor		Declared energy efficiency ratio fo given outdoor temperature Tj	r cooling f	or part loa	ad at					
Tj = + 35°C	P <sub>dc</sub>	12.7	kW		Tj = +35°C	$EER_{d}$	2.59	-					
Tj = + 30°C	P <sub>dc</sub>	9.5	kW		Tj = + 30°C	EER <sub>d</sub>	4.33	-					
Tj = + 25°C	P <sub>dc</sub>	6.3	kW		Tj = + 25°C	EER <sub>d</sub>	6.08	-					
Tj = + 20°C	P <sub>dc</sub>	3.0	kW		Tj = + 20°C	$EER_{d}$	6.64	-					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
	Power	. consumt	otion in modes	s oth	er than "active mode"								
Off mode	P <sub>OFF</sub>	0.020	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	1_	Standby mode	P <sub>SB</sub>	0.020	kW					
			Other it	ems	3								
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m³/h					
Sound power level, indoors/ outdoors	LWA	-/66	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)		mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Low temp	perature a	application										
Contact details	See the t	ack cove	er of the manua	al									
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement th	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.								

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Model(s):				14kW(heating 3kW);14kW						
Outdoor side heat exchanger of ch	niller:			Air to water						
indoor side heat exchanger chiller:	:			Wa	ter					
Туре:				corr	npressor driven vapour compressio	n				
Driver af compressor:				Ele	ctric motor					
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit		
Rated cooling capacity	P <sub>rated,c</sub>	14	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	281	%		
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj					
Tj = + 35°C	$P_{dc}$	P <sub>dc</sub> 13.6 kW			Tj = +35°C	$EER_{d}$	3.73	-		
Tj = + 30°C	P <sub>dc</sub>	10.4	kW		Tj = + 30°C	$EER_{d}$	5.75	-		
Tj = + 25°C	P <sub>dc</sub>	6.6	kW		Tj = + 25°C	$EER_{d}$	8.58	-		
Tj = + 20°C	P <sub>dc</sub>	3.5	kW		Tj = + 20°C	EER <sub>d</sub>	9.96	-		
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9								
	Power	. consumt	tion in modes	s oth	er than "active mode"					
Off mode	P <sub>OFF</sub>	0.020	kW		Crankcase heater mode	P <sub>CK</sub>	0.000	kW		
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	$P_{SB}$	0.020	kW		
			Other it	ems	5					
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m³/h		
Sound power level, indoors/ outdoors	LWA	-/66	dB							
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h		
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)							
Standard rating conditions used	Medium t	emperatu	re application							
Contact details	See the b	ack cove	r of the manua	al						
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement t	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.					

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Model(s):				16kW(heating 3kW);16kW							
Outdoor side heat exchanger of ch	niller:			Air to water							
indoor side heat exchanger chiller:	:			Wa	ter						
Туре:				con	npressor driven vapour compressio	n					
Driver af compressor:				Electric motor							
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit			
Rated cooling capacity	P <sub>rated,c</sub>	14	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	192	%			
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj						
Tj = + 35°C	P <sub>dc</sub>	P <sub>dc</sub> 14.3 kW			Tj = +35°C	$EER_{d}$	2.51	-			
Tj = + 30°C	P <sub>dc</sub>	10.6	kW		Tj = + 30°C	EER <sub>d</sub>	3.70	-			
Tj = + 25°C	P <sub>dc</sub>	6.8	kW		Tj = + 25°C	$EER_{d}$	5.87	-			
Tj = + 20°C	P <sub>dc</sub>	3.5	kW		Tj = + 20°C	EER <sub>d</sub>	7.23	-			
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-								
	Power	<sup>,</sup> consump	tion in modes	s oth	er than "active mode"						
Off mode	P <sub>OFF</sub>	0.020	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW			
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	P <sub>SB</sub>	0.020	kW			
	<u> </u>		Other it	ems	5			-			
Capacity control		variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m³/h			
Sound power level, indoors/ outdoors	LWA	-/68	dB								
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h			
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)								
Standard rating conditions used	Low temp	perature a	application								
Contact details	See the t	ack cove	r of the manua	al							
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement th	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.						

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Model(s):				16kW(heating 3kW);16kW						
Outdoor side heat exchanger of ch	niller:			Air to water						
indoor side heat exchanger chiller:	:			Wa	ter					
Туре:				com	npressor driven vapour compressio	n				
Driver af compressor:				Ele	ctric motor					
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Rated heat output (*)	P <sub>rated,c</sub>	15	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	280	%		
Declared capacity for cooling for p temperature Tj	art load at	given out	door		Declared energy efficiency ratio for cooling for part load at given outdoor temperature Tj					
Tj = + 35°C	P <sub>dc</sub>	P <sub>dc</sub> 15.4 kW			Tj = +35°C	$EER_{d}$	3.50	-		
Tj = + 30°C	P <sub>dc</sub>	11.6	kW		Tj = + 30°C	$EER_{d}$	5.45	-		
Tj = + 25°C	P <sub>dc</sub>	7.3	kW		Tj = + 25°C	$EER_{d}$	8.35	-		
Tj = + 20°C	P <sub>dc</sub>	4.6	kW		Tj = + 20°C	EER <sub>d</sub>	11.68	-		
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9								
	Power	<sup>,</sup> consump	tion in modes	s oth	er than "active mode"					
Off mode	P <sub>OFF</sub>	0.020	kW		Crankcase heater mode	P <sub>CK</sub>	0.000	kW		
Thermostat-off mode	P <sub>TO</sub>	0.010	kW		Standby mode	$P_{SB}$	0.020	kW		
	<u> </u>		Other it	ems	5					
Capacity control		variable	e		For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m³/h		
Sound power level, indoors/ outdoors	LWA	-/68	dB							
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h		
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)							
Standard rating conditions used	Medium t	emperatu	ire application	1						
Contact details	See the t	ack cove	r of the manua	al						
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	surement tl	hen the de	efault degrada	ation	coefficient of chillers shall be 0.9.					

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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 ch	iller			Air	Air to water								
indoor side heat exchanger chiller				Wa	Water								
Туре:				cor	compressor driven vapour compression								
Driver af compressor				Ele	Electric motor								
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit					
Rated cooling capacity	Prated,c	12	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	197	%					
Declared capacity for cooling for patent	art load at	given o	utdoor		Declared energy efficiency ratio for cooling for part load at git temperature Tj	ven outdo	or	<u> </u>					
Tj = + 35°C	P <sub>dc</sub>	11.7	kW		Tj = +35°C	EERd	2.64	-					
Tj = + 30°C	P <sub>dc</sub>	8.8	kW		Tj = + 30°C	EERd	4.09	-					
Tj = + 25°C	P <sub>dc</sub>	5.9	kW		Tj = + 25°C	EERd	5.58	-					
Tj = + 20°C	P <sub>dc</sub>	4.1	kW		Tj = + 20°C	EERd	8.01	-					
		•			1		•	•					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
		Po	wer consump	otion	in modes other than "active mode"								
Off mode	P <sub>OFF</sub>	0.014	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
					Other items								
Capacity control		varia	ble		For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m³/h					
Sound power level, indoors/ outdoors	LWA	-/64	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Low temp	perature	application										
Contact details	See the b	back co	ver of the ma	inua	I								
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	urement tl	hen the	default degra	adat	ion coefficient of chillers shall be 0.9.								

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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	Air to water								
indoor side heat exchanger chiller				Wa	Water								
Туре:				con	compressor driven vapour compression								
Driver af compressor				Ele	Electric motor								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	Prated,c	12	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	276	%					
Declared capacity for cooling for part lo temperature Tj	ad at give	n outdo	oor		Declared energy efficiency ratio for cooling for part load at gi temperature Tj	ven outdo	or						
Tj = + 35°C	P <sub>dc</sub>	12.0	kW		Tj = +35°C	EERd	3.91	-					
Tj = + 30°C	P <sub>dc</sub>	9.3	kW		Tj = + 30°C	EERd	5.67	-					
Tj = + 25°C	P <sub>dc</sub>	5.7	kW		Tj = + 25°C	EERd	7.98	-					
$Tj = +20^{\circ}C$	P <sub>dc</sub>	5.1	kW		Tj = + 20°C	EERd	11.37	-					
				1	Γ	-							
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
		Powe	er consumptio	on in	n in modes other than "active mode"								
Off mode	P <sub>OFF</sub>	0.014	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
				C	Other items								
Capacity control		variat	ble		For air-to-water comfort chillers: air flow rate, outdoor measured	-	5000	m³/h					
Sound power level, indoors/ outdoors	LWA	-/64	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Medium	tempera	ature applicat	ion									
Contact details	See the b	back cov	ver of the ma	inua									
(*)If C <sub>dc</sub> is not determined by measuren (**)From 26 September 2018.	nent then	the defa	ault degradat	ion c	coefficient of chillers shall be 0.9.								

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Model(s):				3-P 3-P	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW								
Outdoor side heat exchanger of ch	iller			Air	Air to water								
indoor side heat exchanger chiller				Wa	Water								
Туре:				con	compressor driven vapour compression								
Driver af compressor				Ele	Electric motor								
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit					
Rated cooling capacity	Prated,c	13	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	188	%					
Declared capacity for cooling for pa temperature Tj	art load at	given o	utdoor		Declared energy efficiency ratio for cooling for part load at gittemperature Tj	ven outdo	or	•					
Tj = + 35°C	P <sub>dc</sub>	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 <sub>dc</sub>	6.1	kW		Tj = + 25°C	EERd	5.76	-					
Tj = + 20°C	P <sub>dc</sub>	2.8	kW		Tj = + 20°C	EERd	6.05	-					
		1											
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
		Po	wer consump	otion	in modes other than "active mode"	_	-	_					
Off mode	$P_{OFF}$	0.014	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
					Other items								
Capacity control		varial	ble		For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m³/h					
Sound power level, indoors/ outdoors	LWA	-/66	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Low temp	oerature	e application		•		•						
Contact details	See the t	back co	ver of the ma	inua	I								
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	urement th	nen the	default degra	adati	on coefficient of chillers shall be 0.9.								

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Model(s):				3-P 3-P	3-PH 14kW(heating 9kW);3-PH 14kW(heating 6kW); 3-PH 14kW(heating 3kW);3-PH 14kW								
Outdoor side heat exchanger of ch	iller			Air	Air to water								
indoor side heat exchanger chiller				Wa	Water								
Туре:				con	compressor driven vapour compression								
Driver af compressor				Ele	Electric motor								
ltem	Symbol	Value	Unit		ltem	Symbol	Value	Unit					
Rated cooling capacity	Prated,c	14	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	269	%					
Declared capacity for cooling for pa temperature Tj	art load at	given o	utdoor		Declared energy efficiency ratio for cooling for part load at gi temperature Tj	ven outdo	or						
Tj = + 35°C	P <sub>dc</sub>	13.5	kW		Tj = +35°C	EERd	3.72	-					
Tj = + 30°C	P <sub>dc</sub>	10.3	kW		Tj = + 30°C	EERd	5.51	-					
Tj = + 25°C	P <sub>dc</sub>	6.5	kW		Tj = + 25°C	EERd	8.11	-					
Tj = + 20°C	P <sub>dc</sub>	3.4	kW		Tj = + 20°C	EERd	9.49	-					
	<u> </u>	. <u> </u>		<u> </u>									
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
		Po	wer consump	otion	in modes other than "active mode"								
Off mode	P <sub>OFF</sub>	0.014	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
			·		Other items								
Capacity control		varial	ble		For air-to-water comfort chillers: air flow rate, outdoor measured	-	5500	m³/h					
Sound power level, indoors/ outdoors	LWA	-/66	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Medium f	tempera	ature applicat	ion	•								
Contact details	See the t	oack co	ver of the ma	inua	I								
(*)If C <sub>dc</sub> is not determined by meas (**)From 26 September 2018.	urement th	nen the	default degra	adati	ion coefficient of chillers shall be 0.9.								

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	r			Air	Air to water								
indoor side heat exchanger chiller				Wa	Water								
Туре:				con	compressor driven vapour compression								
Driver af compressor				Ele	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 I temperature Tj	oad at giv	en outd	loor		Declared energy efficiency ratio for cooling for part load at given temperature Tj	ven outdo	or	4					
Tj = + 35°C	P <sub>dc</sub>	13.8	kW		Tj = +35°C	EERd	2.41	-					
Tj = + 30°C	P <sub>dc</sub>	10.9	kW		Tj = + 30°C	EERd	3.65	-					
Tj = + 25°C	P <sub>dc</sub>	6.9	kW		Tj = + 25°C	EERd	5.60	-					
Tj = + 20°C	P <sub>dc</sub>	3.6	kW		Tj = + 20°C	EERd	7.08	-					
			·					1					
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-										
		Pow	er consumpti	on ir	n modes other than "active mode"								
Off mode	P <sub>OFF</sub>	0.014	kW		Crankcase heater mode	Р <sub>ск</sub>	0.000	kW					
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW					
				(	Other items								
Capacity control		varial	ble		For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m³/h					
Sound power level, indoors/ outdoors	LWA	-/68	dB										
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h					
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)										
Standard rating conditions used	Low temp	perature	e application		+			+					
Contact details	See the t	back co	ver of the ma	inua	I								
(*)If $C_{dc}$ is not determined by measure	ment then	the def	fault degrada	tion	coefficient of chillers shall be 0.9.								

(\*\*)From 26 September 2018.

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	Air to water							
indoor side heat exchanger chiller				Wa	Water							
Туре:				cor	compressor driven vapour compression							
Driver af compressor				Ele	Electric motor							
ltem	Symbol	Value	Unit		Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	16	kW		Seasonal space cooling energy efficiency	η <sub>s,c</sub>	263	%				
Declared capacity for cooling for part I temperature Tj	oad at giv	en outd	oor		Declared energy efficiency ratio for cooling for part load at gi temperature Tj	ven outdo	or					
Tj = + 35°C	P <sub>dc</sub>	15.5	kW		Tj = +35°C	EERd	3.35	-				
Tj = + 30°C	P <sub>dc</sub>	11.6	kW		$Tj = + 30^{\circ}C$	EERd	4.90	-				
Tj = + 25°C	P <sub>dc</sub>	7.5	kW		Tj = + 25°C	EERd	7.91	-				
Tj = + 20°C	P <sub>dc</sub>	5.1	kW		$Tj = +20^{\circ}C$	EERd	11.29	-				
			1	1								
Degradation co-efficient of chiller (*)	C <sub>dc</sub>	0.9	-									
		Pow	er consumpti	on ii	n modes other than "active mode"							
Off mode	$P_{OFF}$	0.014	kW		Crankcase heater mode	Р <sub>СК</sub>	0.000	kW				
Thermostat-off mode	P <sub>TO</sub>	0.024	kW		Standby mode	P <sub>SB</sub>	0.014	kW				
					Other items							
Capacity control		variab	ble		For air-to-water comfort chillers: air flow rate, outdoor measured	-	6000	m³/h				
Sound power level, indoors/ outdoors	LWA	-/68	dB									
Emissions of nitrogen oxide (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV		For water/brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	N/A	m³/h				
GWP of the refrigerant	-	675	kg CO <sub>2 eq</sub> (100 years)									
Standard rating conditions used	Medium	tempera	ature applicat	ion	•							
Contact details	See the b	back co	ver of the ma	inua	I							
(*)If C <sub>dc</sub> is not determined by measure (**)From 26 September 2018.	ment then	the def	fault degrada	tion	coefficient of chillers shall be 0.9.							