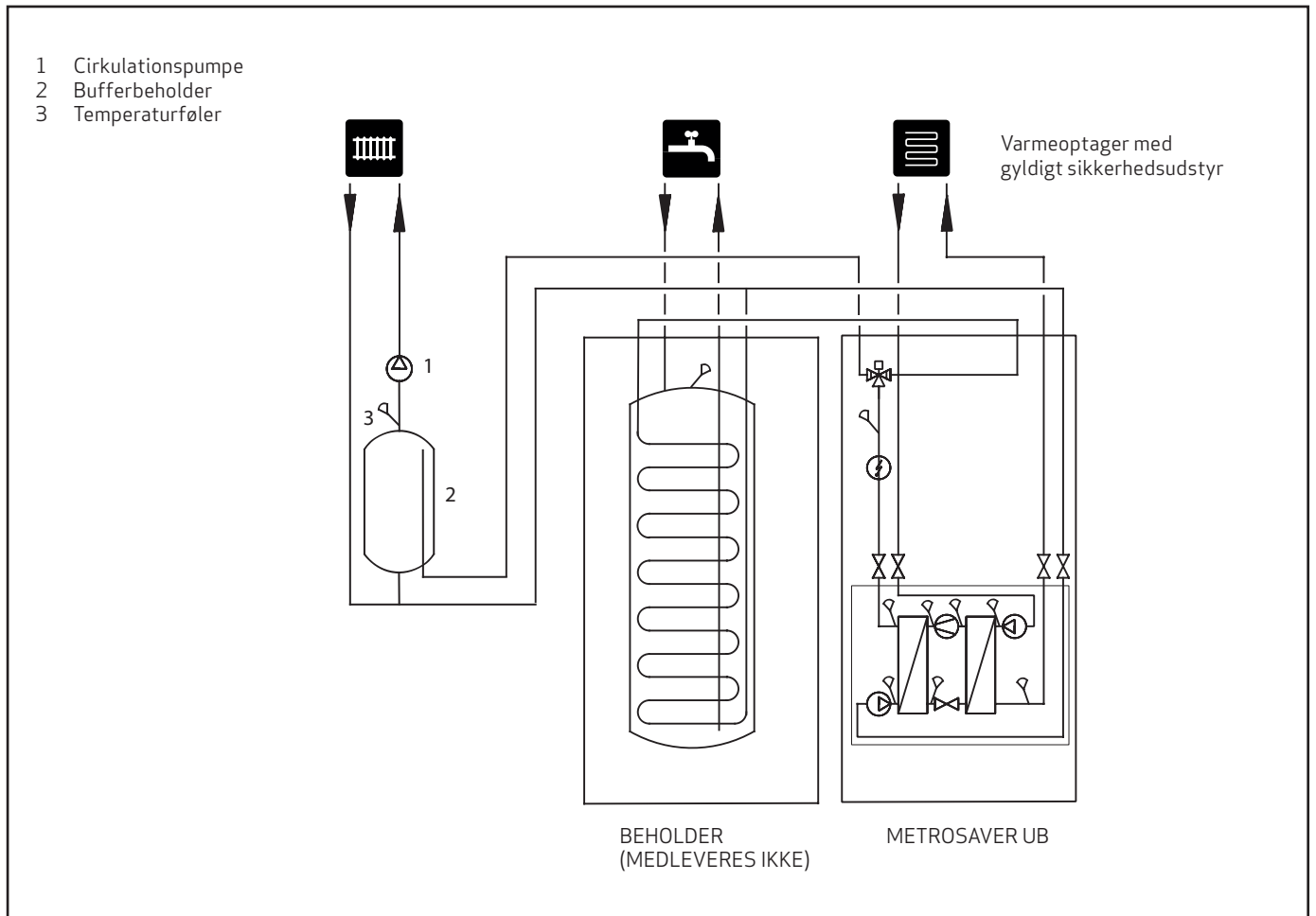


METROSAVER UB


Datablad



Supplier's name:	METRO THERM A/S		
Model:	Metrosaver UB 8 + Metsosaver 300		
Temperature application	35	55	°C
Declared load profile for water heating	XXL		
Seasonal space heating energy efficiency class, average climate:	A+++	A++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	9	8	kW
Annual energy consumption for space heating, average climate	3797	4433	kWh
Annual electricity consumption for water heating, average climate	1995		kWh
Seasonal space heating energy efficiency, average climate:	188	141	%
Water heating energy efficiency, average climate:	108		%
Sound power level LWA indoors	45		dB
Rated heat output, cold climate:	9	8	kW
Rated heat output, warm climate:	9	8	kW
Annual energy consumption for space heating, cold climate	4393	5142	kWh
Annual electricity consumption for water heating, cold climate	1995		kWh
Annual energy consumption for space heating, warm climate	2463	2864	kWh
Annual electricity consumption for water heating, warm climate	1995		kWh
Seasonal space heating energy efficiency, cold climate:	194	145	%
Water heating energy efficiency, cold climate:	108		%
Seasonal space heating energy efficiency, warm climate:	187	141	%
Water heating energy efficiency, warm climate:	108		%
Sound power level LWA outdoors	-		dB

Data for package fiche


Controller class	VII		
Controller contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	191	145	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A++	%
Seasonal space heating energy efficiency of package, cold climate:	198	149	%
Seasonal space heating energy efficiency of package, warm climate:	191	145	%

Model(s):		Metrosaver UB 8 + Metrosaver 300									
Type of heat source/sink:		Brine-to-water									
Low-temperature heat pump:		No									
Equipped with supplementary heater:		Yes									
Heat pump combination heater:		Yes									
Climate condition:		Average									
Temperature application:		Medium temperature (55 °C)									
Applied standards: EN14825 and EN16147											
Rated heat output		Prated	8,0	kW	Seasonal space heating energy efficiency		η_s	141	%		
<i>Declared capacity for part load at outdoor temperature Tj</i>				<i>Declared coefficient of performance for part load at outdoor temperature Tj</i>							
Tj = -7 °C	Pdh	6,2	kW	Tj = -7 °C	COPd	3,28	-				
Tj = +2 °C	Pdh	6,9	kW	Tj = +2 °C	COPd	3,81	-				
Tj = +7 °C	Pdh	7,2	kW	Tj = +7 °C	COPd	4,13	-				
Tj = +12 °C	Pdh	7,6	kW	Tj = +12 °C	COPd	4,41	-				
Tj = biv	Pdh	6,4	kW	Tj = biv	COPd	3,44	-				
Tj = TOL	Pdh	5,9	kW	Tj = TOL	COPd	3,07	-				
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-				
Bivalent temperature				T _{biv}	-4,9	°C	Operation limit temperature				
Cycling interval capacity for heating				P _{cyh}		kW	Cycling interval efficiency		COP _{cyh}	-	
Degradation co-efficient				Cdh	0,99	-	temperature		WTOL	65	°C
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>							
Off mode	P _{OFF}	0,002	kW	Rated heat output		P _{sup}	2,1	kW			
Thermostat-off mode	P _{TO}	0,01	kW	Type of energy input						Electric	
Standby mode	P _{SB}	0,007	kW								
Crankcase heater mode	P _{CK}	0,014	kW								
<i>Other items</i>											
Capacity control				fixed		Rated air flow rate, outdoors				m ³ /h	
Sound power level, indoors/outdoors				L _{WA}	45/-	dB	Rated water flow rate, indoor heat exchanger		0,64	m ³ /h	
Annual energy consumption				Q _{HE}	4433	kWh	Rated brine or water flow rate, outdoor heat exchanger		1,20	m ³ /h	
<i>For heat pump combination heater:</i>											
Declared load profile		XL		Water heating energy efficiency		η_{wh}	108	%			
Daily electricity consumption				Q _{elec}	9,09	kWh	Daily fuel consumption		Q _{fuel}	kWh	
Annual electricity consumption				AEC	1995	kWh	Annual fuel consumption		AFC	GJ	
Approved by:											
Contact details		METRO THERM A/S Rundinsvej 55 DK-3200 Helsingør www.metrotherm.dk									

Supplier's name:	METRO THERM A/S		
Model:	Metrosaver UB 10 + Metrosaver 300		
Temperature application	35	55	°C
Declared load profile for water heating	XXL		
Seasonal space heating energy efficiency class, average climate:	A+++	A++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	12	10	kW
Annual energy consumption for space heating, average climate	4906	5345	kWh
Annual electricity consumption for water heating, average climate	1945		kWh
Seasonal space heating energy efficiency, average climate:	194	147	%
Water heating energy efficiency, average climate:	111		%
Sound power level LWA indoors	45		dB
Rated heat output, cold climate:	12	10	kW
Rated heat output, warm climate:	12	10	kW
Annual energy consumption for space heating, cold climate	5695	6214	kWh
Annual electricity consumption for water heating, cold climate	1945		kWh
Annual energy consumption for space heating, warm climate	3173	3462	kWh
Annual electricity consumption for water heating, warm climate	1945		kWh
Seasonal space heating energy efficiency, cold climate:	200	151	%
Water heating energy efficiency, cold climate:	111		%
Seasonal space heating energy efficiency, warm climate:	194	146	%
Water heating energy efficiency, warm climate:	111		%
Sound power level LWA outdoors	-		dB

Data for package fiche


Controller class	VII		
Controller contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	198	150	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	203	154	%
Seasonal space heating energy efficiency of package, warm climate:	198	150	%

Model(s):		Metrosaver UB 10 + Metrosaver 300										
Type of heat source/sink:		Brine-to-water										
Low-temperature heat pump:		No										
Equipped with supplementary heater:		Yes										
Heat pump combination heater:		Yes										
Climate condition:		Average										
Temperature application:		Medium temperature (55 °C)										
Applied standards: EN14825 and EN16147												
Rated heat output		Prated	10,0	kW	Seasonal space heating energy efficiency		η_s	147	%			
<i>Declared capacity for part load at outdoor temperature Tj</i>				<i>Declared coefficient of performance for part load at outdoor temperature Tj</i>								
Tj = -7 °C	Pdh	7,9	kW	Tj = -7 °C	COPd	3,40	-					
Tj = +2 °C	Pdh	8,7	kW	Tj = +2 °C	COPd	3,91	-					
Tj = +7 °C	Pdh	9,2	kW	Tj = +7 °C	COPd	4,25	-					
Tj = +12 °C	Pdh	9,6	kW	Tj = +12 °C	COPd	4,58	-					
Tj = biv	Pdh	8,2	kW	Tj = biv	COPd	3,52	-					
Tj = TOL	Pdh	7,6	kW	Tj = TOL	COPd	3,19	-					
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-					
Bivalent temperature				T _{biv}	-5,2	°C	Operation limit temperature			TOL	-10	°C
Cycling interval capacity for heating				P _{ych}		kW	Cycling interval efficiency			COP _{cyc}		-
Degradation co-efficient				Cdh	1,00	-	temperature			WTOL	65	°C
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>								
Off mode	P _{OFF}	0,002	kW	Rated heat output		P _{sup}	2,4	kW				
Thermostat-off mode	P _{TO}	0,01	kW									
Standby mode	P _{SB}	0,007	kW	Type of energy input		Electric						
Crankcase heater mode	P _{CK}	0,014	kW									
<i>Other items</i>												
Capacity control				fixed								
Sound power level, indoors/outdoors				L _{WA}	45/-	dB	Rated air flow rate, outdoors					m³/h
Annual energy consumption				Q _{HE}	5345	kWh	Rated water flow rate, indoor heat exchanger			0,82		m³/h
							Rated brine or water flow rate, outdoor heat exchanger			1,56		m³/h
<i>For heat pump combination heater:</i>												
Declared load profile		XXL		Water heating energy efficiency		η_{wh}	111	%				
Daily electricity consumption				Q _{elec}	8,86	kWh	Daily fuel consumption		Q _{fuel}			kWh
Annual electricity consumption				AEC	1945	kWh	Annual fuel consumption		AFC			GJ
Approved by:												
Contact details		METRO THERM A/S Rundinsvej 55 DK-3200 Helsingø www.metrotherm.dk										

Supplier's name:	METRO THERM A/S		
Model:	Metrosaver UB 12 + Metrosaver 300		
Temperature application	35	55	°C
Declared load profile for water heating	XXL		
Seasonal space heating energy efficiency class, average climate:	A+++	A++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	14	14	kW
Annual energy consumption for space heating, average climate	6042	7785	kWh
Annual electricity consumption for water heating, average climate	2121		kWh
Seasonal space heating energy efficiency, average climate:	183	141	%
Water heating energy efficiency, average climate:	102		%
Sound power level LWA indoors	45		dB
Rated heat output, cold climate:	14	14	kW
Rated heat output, warm climate:	14	14	kW
Annual energy consumption for space heating, cold climate	6993	9049	kWh
Annual electricity consumption for water heating, cold climate	2121		kWh
Annual energy consumption for space heating, warm climate	3949	5120	kWh
Annual electricity consumption for water heating, warm climate	2121		kWh
Seasonal space heating energy efficiency, cold climate:	189	145	%
Water heating energy efficiency, cold climate:	102		%
Seasonal space heating energy efficiency, warm climate:	181	138	%
Water heating energy efficiency, warm climate:	102		%
Sound power level LWA outdoors	-		dB

Data for package fiche


Controller class	VII		
Controller contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	187	144	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A++	%
Seasonal space heating energy efficiency of package, cold climate:	193	148	%
Seasonal space heating energy efficiency of package, warm climate:	185	142	%

Model(s):		Metrosaver UB 12 + Metrosaver 300										
Type of heat source/sink:		Brine-to-water										
Low-temperature heat pump:		No										
Equipped with supplementary heater:		Yes										
Heat pump combination heater:		Yes										
Climate condition:		Average										
Temperature application:		Medium temperature (55 °C)										
Applied standards: EN14825 and EN16147												
Rated heat output		Prated	14,0	kW	Seasonal space heating energy efficiency		η_s	141	%			
<i>Declared capacity for part load at outdoor temperature Tj</i>				<i>Declared coefficient of performance for part load at outdoor temperature Tj</i>								
Tj = -7 °C	Pdh	10,8	kW	Tj = -7 °C	COPd	3,30	-					
Tj = +2 °C	Pdh	11,1	kW	Tj = +2 °C	COPd	3,80	-					
Tj = +7 °C	Pdh	11,3	kW	Tj = +7 °C	COPd	4,10	-					
Tj = +12 °C	Pdh	11,5	kW	Tj = +12 °C	COPd	4,40	-					
Tj = biv	Pdh	10,9	kW	Tj = biv	COPd	3,46	-					
Tj = TOL	Pdh	10,7	kW	Tj = TOL	COPd	3,12	-					
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-					
Bivalent temperature				T _{biv}	-4,2	°C	Operation limit temperature		TOL	-10	°C	
Cycling interval capacity for heating				P _{cyh}		kW	Cycling interval efficiency		COP _{cyh}		-	
Degradation co-efficient				Cdh	0,99	-	temperature		WTOL	65	°C	
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>								
Off mode	P _{OFF}	0,002	kW	Rated heat output		P _{sup}	3,3	kW				
Thermostat-off mode	P _{TO}	0,018	kW	Type of energy input		Electric						
Standby mode	P _{SB}	0,007	kW									
Crankcase heater mode	P _{CK}	0,03	kW									
<i>Other items</i>												
Capacity control				fixed				Rated air flow rate, outdoors				m ³ /h
Sound power level, indoors/outdoors				L _{WA}	45/-	dB	Rated water flow rate, indoor heat exchanger			1,15	m ³ /h	
Annual energy consumption				Q _{HE}	7785	kWh	Rated brine or water flow rate, outdoor heat exchanger			2,18	m ³ /h	
<i>For heat pump combination heater:</i>												
Declared load profile		XXL		Water heating energy efficiency		η_{wh}	102	%				
Daily electricity consumption				Q _{elec}	9,66	kWh	Daily fuel consumption		Q _{fuel}		kWh	
Annual electricity consumption				AEC	2121	kWh	Annual fuel consumption		AFC		GJ	
Approved by:												
Contact details		METRO THERM A/S Rundinsvej 55 DK-3200 Helsingør www.metrotherm.dk										

Supplier's name:	METRO THERM A/S		
Model:	Metrosaver UB 15		
Temperature application	35	55	°C
Declared load profile for water heating			
Seasonal space heating energy efficiency class, average climate:	A++	A++	
Water heating energy efficiency class, average climate:			
Rated heat output, average climate:	18	18	kW
Annual energy consumption for space heating, average climate	8134	10194	kWh
Annual electricity consumption for water heating, average climate			kWh
Seasonal space heating energy efficiency, average climate:	175	138	%
Water heating energy efficiency, average climate:			%
Sound power level LWA indoors	43		dB
Rated heat output, cold climate:	18	18	kW
Rated heat output, warm climate:	18	18	kW
Annual energy consumption for space heating, cold climate	9454	11893	kWh
Annual electricity consumption for water heating, cold climate			kWh
Annual energy consumption for space heating, warm climate	5333	6636	kWh
Annual electricity consumption for water heating, warm climate			kWh
Seasonal space heating energy efficiency, cold climate:	180	141	%
Water heating energy efficiency, cold climate:			%
Seasonal space heating energy efficiency, warm climate:	172	137	%
Water heating energy efficiency, warm climate:			%
Sound power level LWA outdoors	-		dB

Data for package fiche


Controller class	VII		
Controller contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	178	141	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A++	%
Seasonal space heating energy efficiency of package, cold climate:	183	145	%
Seasonal space heating energy efficiency of package, warm climate:	176	140	%

Model(s):		Metrosaver UB 15							
Type of heat source/sink:		Brine-to-water							
Low-temperature heat pump:		No							
Equipped with supplementary heater:		Yes							
Heat pump combination heater:		No							
Climate condition:		Average							
Temperature application:		Medium temperature (55 °C)							
Applied standards: EN14825 and EN16147									
Rated heat output		Prated	18,0	kW	Seasonal space heating energy efficiency		η_s	138	%
<i>Declared capacity for part load at outdoor temperature Tj</i>				<i>Declared coefficient of performance for part load at outdoor temperature Tj</i>					
Tj = -7 °C	Pdh	14,6	kW	Tj = -7 °C	COPd	3,16	-		
Tj = +2 °C	Pdh	14,8	kW	Tj = +2 °C	COPd	3,72	-		
Tj = +7 °C	Pdh	15,1	kW	Tj = +7 °C	COPd	4,01	-		
Tj = +12 °C	Pdh	15,4	kW	Tj = +12 °C	COPd	4,27	-		
Tj = biv	Pdh	14,6	kW	Tj = biv	COPd	3,27	-		
Tj = TOL	Pdh	14,6	kW	Tj = TOL	COPd	2,96	-		
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-		
Bivalent temperature		T _{biv}	-5,1	°C	Operation limit temperature		TOL	-10	°C
Cycling interval capacity for heating		P _{ych}		kW	Cycling interval efficiency		COP _{cyc}		-
Degradation co-efficient		Cdh	0,99	-	temperature		WTOL	65	°C
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>					
Off mode	P _{OFF}	0,002	kW	Rated heat output		P _{sup}	3,4	kW	
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		Electric			
Standby mode	P _{SB}	0,007	kW						
Crankcase heater mode	P _{CK}	0,035	kW						
<i>Other items</i>									
Capacity control		fixed		Rated air flow rate, outdoors				m ³ /h	
Sound power level, indoors/outdoors		L _{WA}	43/-	dB	Rated water flow rate, indoor heat exchanger		1,57	m ³ /h	
Annual energy consumption		Q _{HE}	10194	kWh	Rated brine or water flow rate, outdoor heat exchanger		2,89	m ³ /h	
<i>For heat pump combination heater:</i>									
Declared load profile				Water heating energy efficiency		η_{wh}		%	
Daily electricity consumption		Q _{elec}		kWh	Daily fuel consumption		Q _{fuel}	kWh	
Annual electricity consumption		AEC		kWh	Annual fuel consumption		AFC	GJ	
Approved by:									
Contact details		METRO THERM A/S Rundinsvej 55 DK-3200 Helsingør www.metrotherm.dk							

Supplier's name:	METRO THERM A/S		
Model:	Metrosaver UB 17		
Temperature application	35	55	°C
Declared load profile for water heating			
Seasonal space heating energy efficiency class, average climate:	A++	A++	
Water heating energy efficiency class, average climate:			
Rated heat output, average climate:	20	20	kW
Annual energy consumption for space heating, average climate	9474	11407	kWh
Annual electricity consumption for water heating, average climate			kWh
Seasonal space heating energy efficiency, average climate:	166	137	%
Water heating energy efficiency, average climate:			%
Sound power level LWA indoors	43		dB
Rated heat output, cold climate:	20	20	kW
Rated heat output, warm climate:	20	20	kW
Annual energy consumption for space heating, cold climate	11047	13300	kWh
Annual electricity consumption for water heating, cold climate			kWh
Annual energy consumption for space heating, warm climate	6224	7404	kWh
Annual electricity consumption for water heating, warm climate			kWh
Seasonal space heating energy efficiency, cold climate:	171	140	%
Water heating energy efficiency, cold climate:			%
Seasonal space heating energy efficiency, warm climate:	164	136	%
Water heating energy efficiency, warm climate:			%
Sound power level LWA outdoors	-		dB

Data for package fiche

Controller class	VII		
Controller contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	170	140	%
Seasonal space heating energy efficiency class for package, average climate:	A++	A++	%
Seasonal space heating energy efficiency of package, cold climate:	174	144	%
Seasonal space heating energy efficiency of package, warm climate:	167	140	%

Model(s):		Metrosaver UB 17								
Type of heat source/sink:		Brine-to-water								
Low-temperature heat pump:		No								
Equipped with supplementary heater:		Yes								
Heat pump combination heater:		No								
Climate condition:		Average								
Temperature application:		Medium temperature (55 °C)								
Applied standards: EN14825 and EN16147										
Rated heat output		Prated	20,0	kW	Seasonal space heating energy efficiency		η_s	137	%	
<i>Declared capacity for part load at outdoor temperature Tj</i>				<i>Declared coefficient of performance for part load at outdoor temperature Tj</i>						
Tj = -7 °C	Pdh	16,0	kW	Tj = -7 °C	COPd	3,25	kW			
Tj = +2 °C	Pdh	16,2	kW	Tj = +2 °C	COPd	3,70	kW			
Tj = +7 °C	Pdh	16,6	kW	Tj = +7 °C	COPd	3,95	kW			
Tj = +12 °C	Pdh	16,9	kW	Tj = +12 °C	COPd	4,16	kW			
Tj = biv	Pdh	16,1	kW	Tj = biv	COPd	3,35	kW			
Tj = TOL	Pdh	16,0	kW	Tj = TOL	COPd	3,08	kW			
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		kW			
Bivalent temperature				T _{biv}	-4,8	°C				
Cycling interval capacity for heating				P _{ych}		kW				
Degradation co-efficient				Cdh	0,99		-			
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>						
Off mode	P _{OFF}	0,002	kW	Rated heat output		P _{sup}	4,0	kW		
Thermostat-off mode	P _{TO}	0,025	kW							
Standby mode	P _{SB}	0,007	kW	Type of energy input		Electric				
Crankcase heater mode	P _{CK}	0,035	kW							
<i>Other items</i>										
Capacity control		fixed		Rated air flow rate, outdoors				m³/h		
Sound power level, indoors/outdoors		L _{WA}	43/-	Rated water flow rate, indoor heat exchanger			1,72	m³/h		
Annual energy consumption		Q _{HE}	11407	Rated brine or water flow rate, outdoor heat exchanger			3,23	m³/h		
<i>For heat pump combination heater:</i>										
Declared load profile				Water heating energy efficiency		η_{wh}		%		
Daily electricity consumption		Q _{elec}		Daily fuel consumption		Q _{fuel}		kWh		
Annual electricity consumption		AEC		Annual fuel consumption		AFC		GJ		
Approved by:										
Contact details		METRO THERM A/S Rundinsvej 55 DK-3200 Helsingø www.metrotherm.dk								