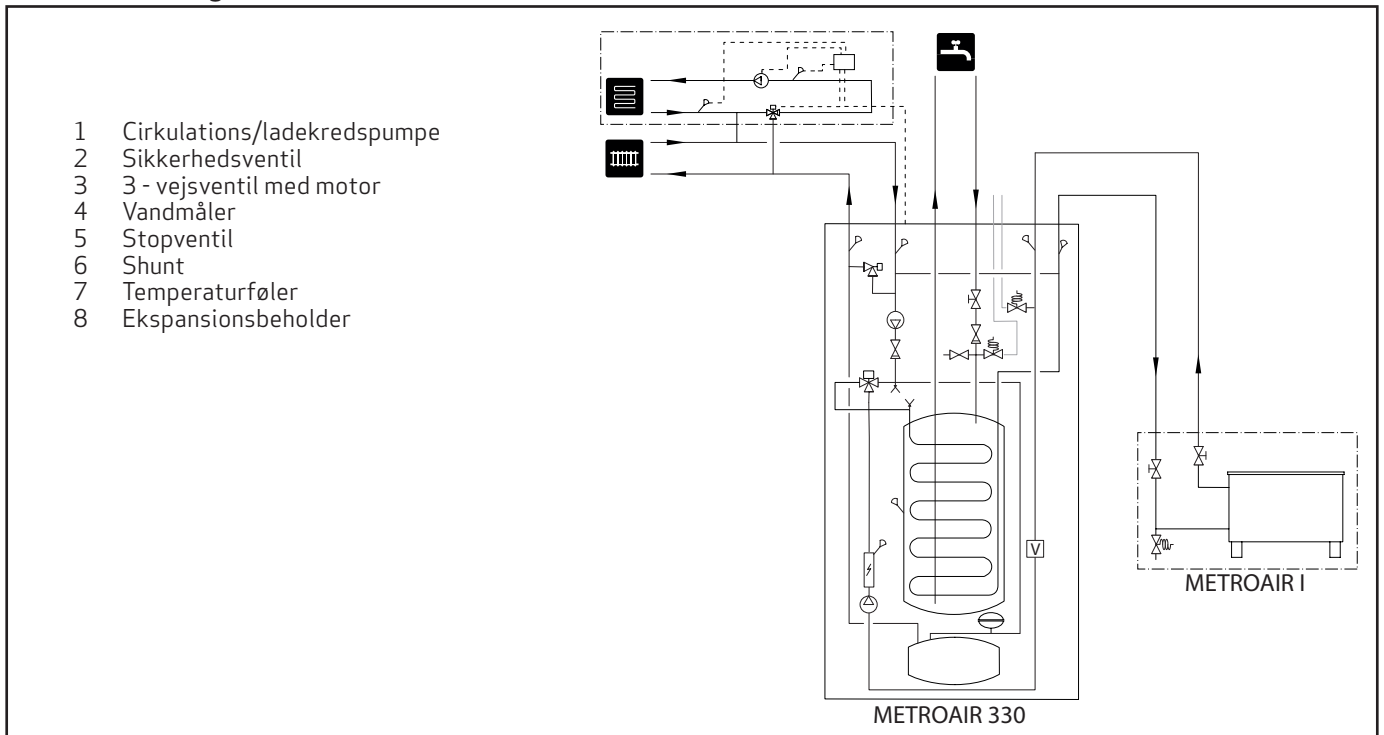


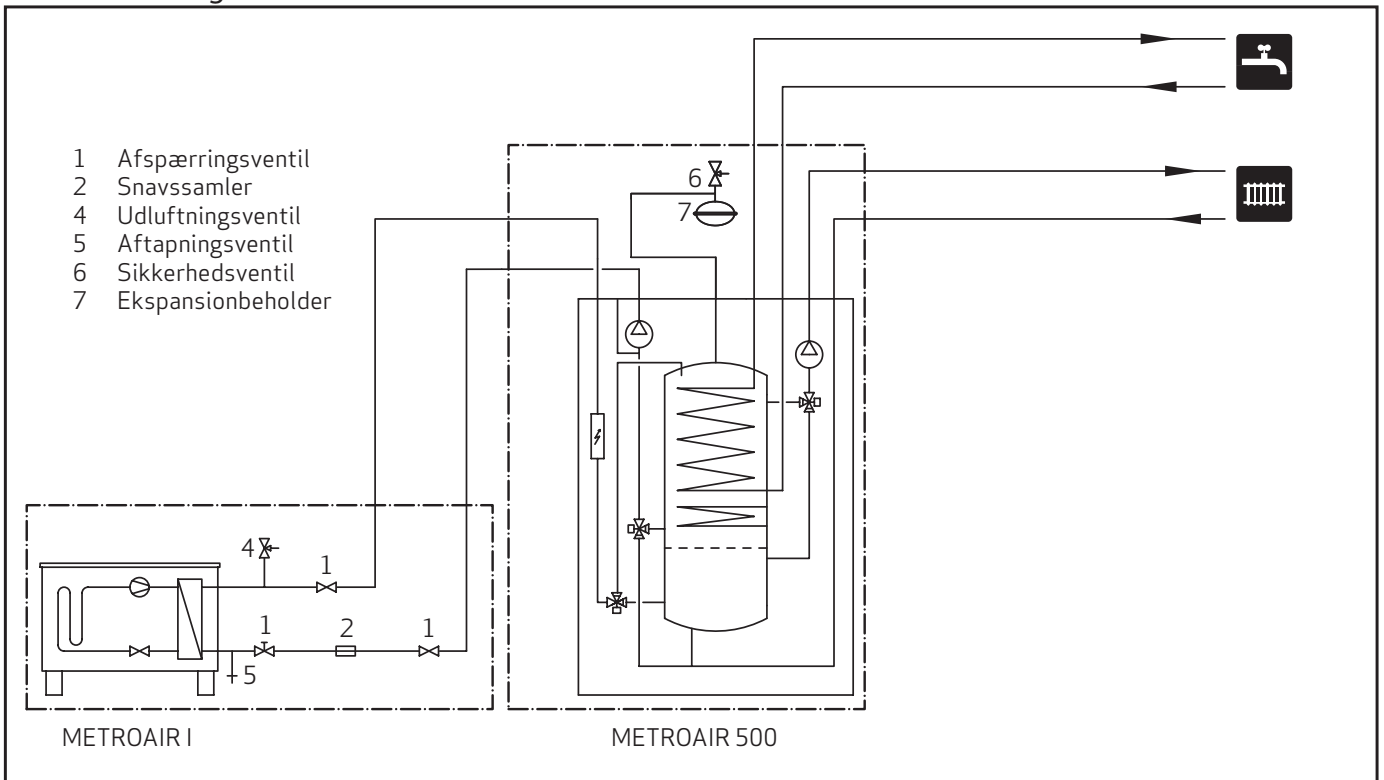
METROAIR I

Datablad

METROAIR I8 og I12




METROAIR I8 og I12



Supplier's name:	METRO THERM A/S		
Model:	Metroair I 8 + Metroair 330		
Temperature application	35	55	°C
Declared load profile for water heating	XL		
Seasonal space heating energy efficiency class, average climate:	A+++	A++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	5,9	6,3	kW
Annual energy consumption for space heating, average climate	2544	3472	kWh
Annual electricity consumption for water heating, average climate	1661		kWh
Seasonal space heating energy efficiency, average climate:	189	147	%
Water heating energy efficiency, average climate:	101		%
Sound power level LWA indoors	35		dB
Rated heat output, cold climate:	6,8	7,4	kW
Rated heat output, warm climate:	5,9	6,3	kW
Annual energy consumption for space heating, cold climate	4182	5524	kWh
Annual electricity consumption for water heating, cold climate	1895		kWh
Annual energy consumption for space heating, warm climate	1452	1939	kWh
Annual electricity consumption for water heating, warm climate	1473		kWh
Seasonal space heating energy efficiency, cold climate:	158	130	%
Water heating energy efficiency, cold climate:	88		%
Seasonal space heating energy efficiency, warm climate:	214	171	%
Water heating energy efficiency, warm climate:	114		%
Sound power level LWA outdoors	53		dB

Data for package fiche


Controller class	VI		
Controller contribution to efficiency	4,0		%
Seasonal space heating energy efficiency of package, average climate:	193	151	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	162	134	%
Seasonal space heating energy efficiency of package, warm climate:	218	175	%

Model(s):		Metroair I 8 + Metroair 330									
Type of heat source/sink:		Air-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	6,3	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	5,5	kW	Tj = -7 °C	COPd	2,48	-				
Tj = +2 °C	Pdh	4,1	kW	Tj = +2 °C	COPd	3,80	-				
Tj = +7 °C	Pdh	2,9	kW	Tj = +7 °C	COPd	4,45	-				
Tj = +12 °C	Pdh	3,3	kW	Tj = +12 °C	COPd	5,26	-				
Tj = biv	Pdh	5,5	kW	Tj = biv	COPd	2,48	-				
Tj = TOL	Pdh	5,7	kW	Tj = TOL	COPd	2,34	-				
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-				
Bivalent temperature				T _{biv}	-7	°C	Operation limit temperature		TOL	-10	°C
Cycling interval capacity for heating				P _{cyh}		kW	Cycling interval efficiency		COP _{cyh}		-
Degradation co-efficient				C _{dh}	0,99	-	Heating water operating limit		WTOL	65	°C
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>							
Off mode	P _{OFF}	0,025	kW	Rated heat output		P _{sup}	0,6	kW			
Thermostat-off mode	P _{TO}	0,01	kW	Type of energy input		Electric					
Standby mode	P _{SB}	0,025	kW								
Crankcase heater mode	P _{CK}	0,037	kW								
<i>Other items</i>											
Capacity control		variable		Rated air flow rate, outdoors			2300	m ³ /h			
Sound power level, indoors/outdoors		L _{WA}	35/53	dB	Rated water flow rate, indoor heat exchanger		variable	m ³ /h			
Annual energy consumption		Q _{HE}	3472	kWh	Rated brine or water flow rate, outdoor heat exchanger			m ³ /h			
<i>For heat pump combination heater:</i>											
Declared load profile		XL		Water heating energy efficiency		η_{wh}	101	%			
Daily electricity consumption		Q _{elec}	7,56	kWh	Daily fuel consumption		Q _{fuel}	kWh			
Annual electricity consumption		AEC	1661	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:	Metroair I 12 + Metroair 330		
Temperature application	35	55	°C
Declared load profile for water heating	XL		
Seasonal space heating energy efficiency class, average climate:	A+++	A++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	8	8,3	kW
Annual energy consumption for space heating, average climate	3409	4529	kWh
Annual electricity consumption for water heating, average climate	1661		kWh
Seasonal space heating energy efficiency, average climate:	190	148	%
Water heating energy efficiency, average climate:	101		%
Sound power level LWA indoors	35		dB
Rated heat output, cold climate:	9,3	9,8	kW
Rated heat output, warm climate:	9,2	9,2	kW
Annual energy consumption for space heating, cold climate	5666	7239	kWh
Annual electricity consumption for water heating, cold climate	1895		kWh
Annual energy consumption for space heating, warm climate	2241	2741	kWh
Annual electricity consumption for water heating, warm climate	1473		kWh
Seasonal space heating energy efficiency, cold climate:	159	130	%
Water heating energy efficiency, cold climate:	88		%
Seasonal space heating energy efficiency, warm climate:	216	176	%
Water heating energy efficiency, warm climate:	114		%
Sound power level LWA outdoors	53		dB

Data for package fiche


Controller class	VI		
Controller contribution to efficiency	4,0		%
Seasonal space heating energy efficiency of package, average climate:	194	152	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	163	134	%
Seasonal space heating energy efficiency of package, warm climate:	220	180	%

Model(s):				Metroair I 12 + Metroair 330								
Type of heat source/sink:				Air-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	8,3	kW		Seasonal space heating energy efficiency				
								η_s	148	%		
<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	7,3	kW		Tj = -7 °C	COPd	2,39			-		
Tj = +2 °C	Pdh	4,7	kW		Tj = +2 °C	COPd	3,85			-		
Tj = +7 °C	Pdh	2,9	kW		Tj = +7 °C	COPd	4,48			-		
Tj = +12 °C	Pdh	3,3	kW		Tj = +12 °C	COPd	5,30			-		
Tj = biv	Pdh	7,3	kW		Tj = biv	COPd	2,39			-		
Tj = TOL	Pdh	7,8	kW		Tj = TOL	COPd	2,28			-		
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW		Tj = -15 °C (if TOL < -20 °C)	COPd				-		
Bivalent temperature				T _{biv}	-7	°C		Operation limit temperature				
Cycling interval capacity for heating				P _{cyh}		kW		Cycling interval efficiency				
Degradation co-efficient				Cdh	0,99	-		Heating water operating limit				
								TOL	-10	°C		
								COP _{cyh}		-		
								WTOL	65	°C		
<i>Power consumption in modes other than active mode</i>								<i>Supplementary heater</i>				
Off mode	P _{OFF}	0,025	kW		Rated heat output				P _{sup}	0,5	kW	
Thermostat-off mode	P _{TO}	0,007	kW									
Standby mode	P _{SB}	0,025	kW		Type of energy input				Electric			
Crankcase heater mode	P _{CK}	0,037	kW									
<i>Other items</i>												
Capacity control	variable			Rated air flow rate, outdoors					3400	m ³ /h		
Sound power level, indoors/outdoors	L _{WA}	35/53	dB		Rated water flow rate, indoor heat exchanger					variable	m ³ /h	
Annual energy consumption	Q _{HE}	4529	kWh		Rated brine or water flow rate, outdoor heat exchanger						m ³ /h	
<i>For heat pump combination heater:</i>												
Declared load profile				XL				Water heating energy efficiency				
								η_{wh}				
								101				
								%				
Daily electricity consumption	Q _{elec}	7,56	kWh		Daily fuel consumption				Q _{fuel}		kWh	
Annual electricity consumption	AEC	1661	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:	Metroair I 16 + Metroair 330		
Temperature application	35	55	°C
Declared load profile for water heating	XL		
Seasonal space heating energy efficiency class, average climate:	A+++	A+++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	11	12,3	kW
Annual energy consumption for space heating, average climate	4502	6524	kWh
Annual electricity consumption for water heating, average climate	1616		kWh
Seasonal space heating energy efficiency, average climate:	199	153	%
Water heating energy efficiency, average climate:	104		%
Sound power level LWA indoors	35		dB
Rated heat output, cold climate:	13,0	14,0	kW
Rated heat output, warm climate:	13,0	13,0	kW
Annual energy consumption for space heating, cold climate	7543	9765	kWh
Annual electricity consumption for water heating, cold climate	1758		kWh
Annual energy consumption for space heating, warm climate	3153	3867	kWh
Annual electricity consumption for water heating, warm climate	1448		kWh
Seasonal space heating energy efficiency, cold climate:	167	138	%
Water heating energy efficiency, cold climate:	95		%
Seasonal space heating energy efficiency, warm climate:	217	177	%
Water heating energy efficiency, warm climate:	116		%
Sound power level LWA outdoors	55		dB

Data for package fiche


Controller class	VI		
Controller contribution to efficiency	4,0		%
Seasonal space heating energy efficiency of package, average climate:	203	157	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	171	142	%
Seasonal space heating energy efficiency of package, warm climate:	221	181	%

Model(s):		Metroair I 16 + Metroair 330								
Type of heat source/sink:		Air-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	12,3	kW	Seasonal space heating energy efficiency		η_s	153	%	
<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	10,9	kW	Tj = -7 °C	COPd	2,48	-			
Tj = +2 °C	Pdh	6,7	kW	Tj = +2 °C	COPd	3,96	-			
Tj = +7 °C	Pdh	5,9	kW	Tj = +7 °C	COPd	4,67	-			
Tj = +12 °C	Pdh	6,0	kW	Tj = +12 °C	COPd	5,67	-			
Tj = biv	Pdh	10,9	kW	Tj = biv	COPd	2,48	-			
Tj = TOL	Pdh	11,6	kW	Tj = TOL	COPd	2,40	-			
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-			
Bivalent temperature				T _{biv}	-7	°C	Operation limit temperature			
Cycling interval capacity for heating				P _{cyh}		kW	Cycling interval efficiency			
Degradation co-efficient				Cdh	0,99	-	Heating water operating limit			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P _{OFF}	0,025	kW	Rated heat output		P _{sup}	0,7	kW		
Thermostat-off mode	P _{TO}	0,007	kW	Type of energy input						
Standby mode	P _{SB}	0,025	kW	Electric						
Crankcase heater mode	P _{CK}	0,037	kW							
<i>Other items</i>										
Capacity control	variable			Rated air flow rate, outdoors			4150	m ³ /h		
Sound power level, indoors/outdoors	L _{WA}	35/55	dB	Rated water flow rate, indoor heat exchanger			variable	m ³ /h		
Annual energy consumption	Q _{HE}	6524	kWh	Rated brine or water flow rate, outdoor heat exchanger				m ³ /h		
<i>For heat pump combination heater:</i>										
Declared load profile		XL		Water heating energy efficiency		η_{wh}	104	%		
Daily electricity consumption				Q _{elec}	7,36	kWh	Daily fuel consumption		Q _{fuel}	kWh
Annual electricity consumption				AEC	1616	kWh	Annual fuel consumption		AFC	GJ
Approved by:										
Contact details		METRO THERM A/S Rundinsvej 55 DK-3220 Helsingør www.metrotherm.dk								

Supplier's name:	NIBE		
Model:	METROAIR I 20 + METROAIR 500		
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:	11	12,3	kW
Annual energy consumption for space heating, average climate	4502	6524	kWh
Annual electricity consumption for water heating, average climate	2096		kWh
Seasonal space heating energy efficiency, average climate:	199	153	%
Water heating energy efficiency, average climate:	103		%
Sound power level LWA indoors	35		dB
Rated heat output, cold climate:	13,0	14,0	kW
Rated heat output, warm climate:	13,0	13,0	kW
Annual energy consumption for space heating, cold climate	7543	9765	kWh
Annual electricity consumption for water heating, cold climate	2284		kWh
Annual energy consumption for space heating, warm climate	3153	3867	kWh
Annual electricity consumption for water heating, warm climate	1873		kWh
Seasonal space heating energy efficiency, cold climate:	167	138	%
Water heating energy efficiency, cold climate:	94		%
Seasonal space heating energy efficiency, warm climate:	217	177	%
Water heating energy efficiency, warm climate:	115		%
Sound power level LWA outdoors	55		dB

Data for package fiche

Controller class	VI		
Controller contribution to efficiency	4,0		%
Seasonal space heating energy efficiency of package, average climate:	203	157	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	171	142	%
Seasonal space heating energy efficiency of package, warm climate:	221	181	%

Model(s):		METROAIR I 20 + METROAIR 500							
Type of heat source/sink:		Air-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	12,3	kW	Seasonal space heating energy efficiency		η_s	153	%
<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	10,9	kW	Tj = -7 °C	COPd	2,48	-		
Tj = +2 °C	Pdh	6,7	kW	Tj = +2 °C	COPd	3,96	-		
Tj = +7 °C	Pdh	5,9	kW	Tj = +7 °C	COPd	4,67	-		
Tj = +12 °C	Pdh	6,0	kW	Tj = +12 °C	COPd	5,67	-		
Tj = biv	Pdh	10,9	kW	Tj = biv	COPd	2,48	-		
Tj = TOL	Pdh	11,6	kW	Tj = TOL	COPd	2,40	-		
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-		
Bivalent temperature				T _{biv}	-7	°C	Operation limit temperature		
Cycling interval capacity for heating				P _{cyh}		kW	Cycling interval efficiency		
Degradation co-efficient				Cdh	0,99	-	Heating water operating limit		
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>					
Off mode	P _{OFF}	0,025	kW	Rated heat output		P _{sup}	0,7	kW	
Thermostat-off mode	P _{TO}	0,007	kW						
Standby mode	P _{SB}	0,025	kW	Type of energy input		Electric			
Crankcase heater mode	P _{CK}	0,037	kW						
<i>Other items</i>									
Capacity control	variable			Rated air flow rate, outdoors			4150	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	35/55	dB	Rated water flow rate, indoor heat exchanger			variable	m ³ /h	
Annual energy consumption	Q _{HE}	6524	kWh	Rated brine or water flow rate, outdoor heat exchanger				m ³ /h	
<i>For heat pump combination heater:</i>									
Declared load profile		XXL		Water heating energy efficiency		η_{wh}	103	%	
Daily electricity consumption	Q _{elec}	9,54	kWh	Daily fuel consumption		Q _{fuel}		kWh	
Annual electricity consumption	AEC	2096	kWh	Annual fuel consumption		AFC		GJ	
Approved by:									
Contact details		© NIBE Energy Systems - Box 14 - Hannabadvägen 5 - 28521 Markaryd - Sweden							