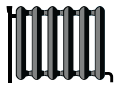




**ENERG**  
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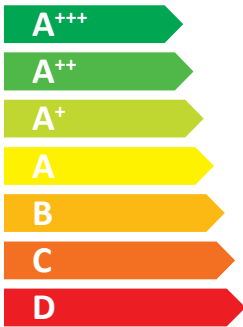


METROAIR F12



55 °C

35 °C



**A++**

**A++**



dB



**57** dB

■ 13  
■ **10**  
■ 12  
kW

■ 12  
■ **12**  
■ 12  
kW



2019

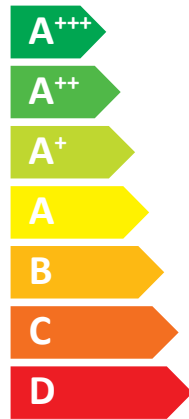
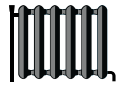
811/2013



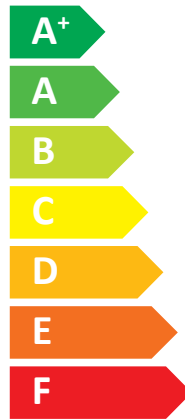
**ENERG** Y IJA  
 енергия · ενεργεια IE IA



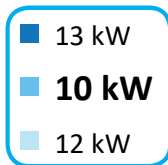
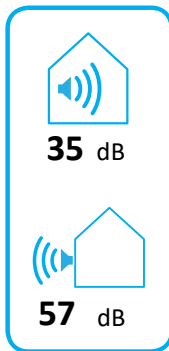
METROAIR F12 + METROAIR 330



**A++**



**A**





# ENERG

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Y

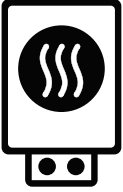




IJA

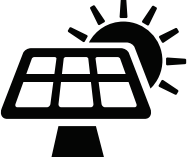
IE


IA





## METROAIR F12 + METROAIR 330

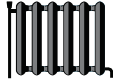











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Supplier's name:	<b>METRO THERM A/S</b>		
Model:	<b>METROAIR F12 + METROAIR 330</b>		
Temperature application	<b>35</b>	<b>55</b>	°C
Declared load profile for water heating	<b>XL</b>		
Seasonal space heating energy efficiency class, average climate:	<b>A++</b>	<b>A++</b>	
Water heating energy efficiency class, average climate:	<b>A</b>		
Rated heat output, average climate:	11,5	10,0	kW
Annual energy consumption for space heating, average climate	5382	6136	kWh
Annual electricity consumption for water heating, average climate	1702		kWh
Seasonal space heating energy efficiency, average climate:	174	132	%
Water heating energy efficiency, average climate:	98		%
Sound power level LWA indoors	35		dB
Rated heat output, cold climate:	11,5	13,0	kW
Rated heat output, warm climate:	12,0	12,0	kW
Annual energy consumption for space heating, cold climate	7798	11197	kWh
Annual electricity consumption for water heating, cold climate	1904		kWh
Annual energy consumption for space heating, warm climate	2759	3419	kWh
Annual electricity consumption for water heating, warm climate	1551		kWh
Seasonal space heating energy efficiency, cold climate:	142	111	%
Water heating energy efficiency, cold climate:	88		%
Seasonal space heating energy efficiency, warm climate:	229	185	%
Water heating energy efficiency, warm climate:	108		%
Sound power level LWA outdoors	57		dB

### Data for package fiche

Controller class	II		
Controller contribution to efficiency	4,0		%
Seasonal space heating energy efficiency of package, average climate:	178	136	%
Seasonal space heating energy efficiency class for package, average climate:	<b>A+++</b>	<b>A++</b>	%
Seasonal space heating energy efficiency of package, cold climate:	146	115	%
Seasonal space heating energy efficiency of package, warm climate:	233	189	%

<b>Model(s):</b>		<b>METROAIR F12 + METROAIR 330</b>									
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											
<b>Rated heat output</b>		Prated	10,0	kW	<b>Seasonal space heating energy efficiency</b>		$\eta_s$	132	%		
<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	8,9	kW	Tj = -7 °C	COPd	1,99	-				
Tj = +2 °C	Pdh	5,5	kW	Tj = +2 °C	COPd	3,22	-				
Tj = +7 °C	Pdh	3,5	kW	Tj = +7 °C	COPd	4,61	-				
Tj = +12 °C	Pdh	5,0	kW	Tj = +12 °C	COPd	6,25	-				
Tj = biv	Pdh	9,2	kW	Tj = biv	COPd	1,90	-				
Tj = TOL	Pdh	8,1	kW	Tj = TOL	COPd	1,92	-				
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-				
Bivalent temperature				T <sub>biv</sub>	-7,9	°C	Operation limit temperature		TOL	-10	°C
Cycling interval capacity for heating				P <sub>cyh</sub>		kW	Cycling interval efficiency		COP <sub>cyh</sub>		-
Degradation co-efficient				Cdh	0,98	-	Heating water operating limit		WTOL	58	°C
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>							
Off mode	P <sub>OFF</sub>	0,002	kW	Rated heat output		P <sub>sup</sub>	1,9	kW			
Thermostat-off mode	P <sub>TO</sub>	0,014	kW	Type of energy input		Electric					
Standby mode	P <sub>SB</sub>	0,015	kW								
Crankcase heater mode	P <sub>CK</sub>	0,035	kW								
<i>Other items</i>											
Capacity control		variable		Rated air flow rate, outdoors			4380	m <sup>3</sup> /h			
Sound power level, indoors/outdoors		L <sub>WA</sub>	35/57	dB	Rated water flow rate, indoor heat exchanger			0,86	m <sup>3</sup> /h		
Annual energy consumption		Q <sub>HE</sub>	6136	kWh	Rated brine or water flow rate, outdoor heat exchanger				m <sup>3</sup> /h		
<i>For heat pump combination heater:</i>											
<b>Declared load profile</b>		<b>XL</b>		<b>Water heating energy efficiency</b>		$\eta_{wh}$	98	%			
Daily electricity consumption		Q <sub>elec</sub>	7,75	kWh	Daily fuel consumption		Q <sub>fuel</sub>	kWh			
Annual electricity consumption		AEC	1702	kWh	Annual fuel consumption		AFC	GJ			
<b>Approved by:</b>											
<b>Contact details</b>		<b>METRO THERM A/S Rundinsvej 55 DK-3220 Helsingø www.metrotherm.dk</b>									