



ENERG

енергия · ενέργεια

Y

IJA

IE

IA



METROSAVER MB 12



35 °C



A⁺⁺

A⁺⁺⁺

A⁺⁺⁺

A⁺⁺

A⁺

A

B

C

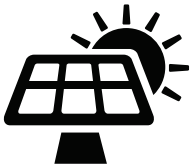
D

E

F

G

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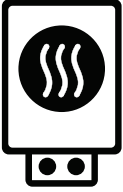




IJA

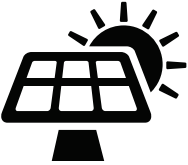
IE


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METROSAVER MB 12

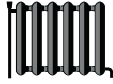






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55 °C



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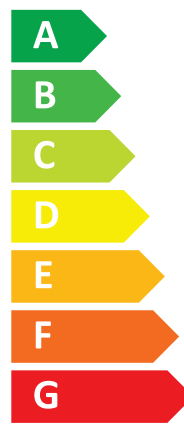
METROSAVER MB 12

 55 °C

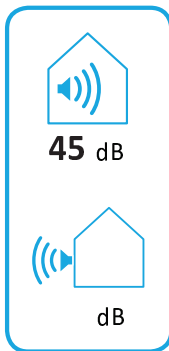
 XL



A++



A



2015

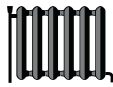
811/2013



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METROSAVER MB 12



55 °C

35 °C



A++

A++



45 dB



dB

■ 14
 ■ 14
 ■ 14
 kW

■ 14
 ■ 14
 ■ 14
 kW




2015

811/2013

Supplier's name:	METRO THERM A/S		
Model:	Metrosaver MB 12		
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:	14	14	kW
Annual energy consumption for space heating, average climate	6042	7785	kWh
Annual electricity consumption for water heating, average climate	1745		kWh
Seasonal space heating energy efficiency, average climate:	183	141	%
Water heating energy efficiency, average climate:	96		%
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	1745		kWh
Annual energy consumption for space heating, warm climate	3949	5120	kWh
Annual electricity consumption for water heating, warm climate	1745		kWh
Seasonal space heating energy efficiency, cold climate:	189	145	%
Water heating energy efficiency, cold climate:	96		%
Seasonal space heating energy efficiency, warm climate:	181	138	%
Water heating energy efficiency, warm climate:	96		%
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 MB 12									
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	kW				
Tj = +2 °C	Pdh	11,1	kW	Tj = +2 °C	COPd	3,80	kW				
Tj = +7 °C	Pdh	11,3	kW	Tj = +7 °C	COPd	4,10	kW				
Tj = +12 °C	Pdh	11,5	kW	Tj = +12 °C	COPd	4,40	kW				
Tj = biv	Pdh	10,9	kW	Tj = biv	COPd	3,46	kW				
Tj = TOL	Pdh	10,7	kW	Tj = TOL	COPd	3,12	kW				
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		kW				
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		XL		Water heating energy efficiency		η_{wh}	96	%			
Daily electricity consumption		Q _{elec}	7,95	kWh	Daily fuel consumption		Q _{fuel}	kWh			
Annual electricity consumption		AEC	1745	kWh	Annual fuel consumption		AFC	GJ			
Approved by:											
Contact details		METRO THERM A/S Rundinsvej 55 DK-3200 Helsingør www.metrotherm.dk									