



METRO THERM A/S

METRO Delta PA-P-PVT 156622001











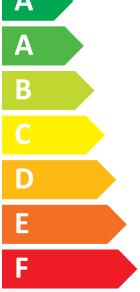
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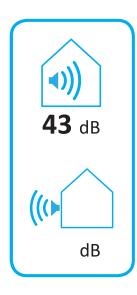
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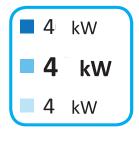












811/2013 2019

Supplier's name:	METRO TH	IERM A/S	
Model:	METRO Delta PA-P-PVT		
Temperature application	35	55	°C
Declared load profile for water	1	-	
heating	١		
Seasonal space heating energy	A+++	۸ 4 4 4	
efficiency class, average climate:	Аттт	A+++	
Water heating energy efficiency	Α÷	- L	
class, average climate:	Α,		
Rated heat output, average climate:	4	4	kW
Annual energy consumption for space heating, average climate	1476	1691	kWh
Annual electricity consumption for water heating, average climate	732		kWh
Seasonal space heating energy efficiency, average climate:	238	180	%
Water heating energy efficiency, average climate:	140		%
Sound power level LWA indoors	43	}	dB
Rated heat output, cold climate:	4	4	kW
Rated heat output, warm climate:	4	4	kW
Annual energy consumption for space heating, cold climate	1725	1968	kWh
Annual electricity consumption for water heating, cold climate	732		kWh
Annual energy consumption for space heating, warm climate	955	1082	kWh
Annual electricity consumption for water heating, warm climate	732		kWh
Seasonal space heating energy efficiency, cold climate:	244	185	%
Water heating energy efficiency, cold climate:	140		%
Seasonal space heating energy efficiency, warm climate:	238	182	%
Water heating energy efficiency, warm climate:	140	0	%
Sound power level LWA outdoors		·	dB

Model(s):	METRO Delta PA-P-PVT		
Type of heat source/sink:	Water / 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 - EN16147 - EN12102-	1		



				Seasonal space heating energy			
Rated heat output	Prated	3,9	kW	efficiency	η_s	180	%
Declared capacity for part load at outdoor temp	perature Ti			Declared coefficient of performance for part	load at outdo	or temperatur	e Ti
Tj = -7 °C	Pdh	3,6	kW	Tj = -7 °C	COPd	3,93	
Tj = +2 °C	Pdh	3,9	kW	Tj = +2 °C	COPd	4,63	
Tj = +7 °C	Pdh	4,0	kW	Tj = +7 °C	COPd	5,14	
Tj = +12 °C	Pdh	4,1	kW	Tj = +12 °C	COPd	5,71	
Tj = biv	Pdh	3,5	kW	Tj = biv	COPd	3,66	
Tj = TOL	Pdh	3,5	kW	Tj = TOL	COPd	3,66	
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		
Bivalent temperature	T _{biv}	-10	T °C	Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych	10	kW	Cycling interval efficiency	COPcyc		
Degradation co-efficient	Cdh	1,00	-	Heating water operating limit	WTOL	70	°C
	1	•					
Power consumption in modes other than active	mode			Supplementary heater			
Off mode	P _{OFF}	0,003	kW	Rated heat output	Psup	0,0	kW
Thermostat-off mode	P _{TO}	0,003	kW				
Standby mode	P _{SB}	0,003	kW	Type of energy input	Electric		
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		Rated air flow rate, outdoors			m³/h
				Rated water flow rate, indoor heat			
Sound power level, indoors/outdoors	L _{WA}	43/-	dB	exchanger			m³/h
				Rated brine or water flow rate,			
Annual energy consumption	Q _{HE}	1691	kWh	outdoor heat exchanger			m³/h
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	η_{wh}	140	%
	_						<u> </u>
Daily electricity consumption	Q _{elec}	3,500	kWh	Daily fuel consumption	Q _{fuel}		kWh
Annual electricity consumption	AEC	732	kWh	Annual fuel consumption	AFC		GJ
Approved by:							
Contact details	METRO T	HERM A/S	- Rundii	nsvej 55 - 3200 Helsinge - Denmark			

Model(s):	METRO Delta PA-P-PVT
Type of heat source/sink:	Water / Water
Low-temperature heat pump:	No
Equipped with supplementary heater:	Yes
Heat pump combination heater:	Yes
Climate condition:	Average
Temperature application:	Low temperature (35 °C)



Applied standards: EN14825 - EN16147	- EN12102-	1			 		
Rated heat output	Prated	4,4	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	238	%
Declared capacity for part load at outdoor tem	perature Tj			Declared coefficient of performance for part	load at outdoo	or temperatur	е Тј
Tj = -7 °C	Pdh	4,1	kW	Tj = -7 °C	COPd	5,77	
Tj = +2 °C	Pdh	4,2	kW	Tj = +2 °C	COPd	6,11	
Tj = +7 °C	Pdh	4,2	kW	Tj = +7 °C	COPd	6,37	
Tj = +12 °C	Pdh	4,3	kW	Tj = +12 °C	COPd	6,67	
Tj = biv	Pdh	4,1	kW	Tj = biv	COPd	5,72	
Tj = TOL	Pdh	4,1	kW	Tj = TOL	COPd	5,72	
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		
Bivalent temperature	T _{biv}	-10	°C	Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation co-efficient	Cdh	1,00	-	Heating water operating limit	WTOL	70	°C
Power consumption in modes other than active	mode			Supplementary heater			
Off mode	P _{OFF}	0,003	kW	Rated heat output	Psup	0,0	kW
Thermostat-off mode	P _{TO}	0,003	kW		•		
Standby mode	P _{SB}	0,003	kW	Type of energy input	Electric		
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		Rated air flow rate, outdoors			m³/h
				Rated water flow rate, indoor heat			
Sound power level, indoors/outdoors	L_WA	41/-	dB	exchanger			m³/h
				Rated brine or water flow rate,			
Annual energy consumption	Q _{HE}	1476	kWh	outdoor heat exchanger			m³/h
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	η_{wh}	140	%
Daily electricity consumption	Q _{elec}	3,500	kWh	Daily fuel consumption	Q _{fuel}		kWh
Annual electricity consumption	AEC	732	kWh	Annual fuel consumption	AFC		GJ
Approved by:							
Contact details	METRO T	LEDNA A /C	Dundin	svej 55 - 3200 Helsinge - Denmark			