

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): AOWD-MB SMART-54K							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	$\eta_s$	126	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature $T_j$				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature $T_j$			
$T_j = -7\text{ °C}$	Pdh	11.98	kW	$T_j = -7\text{ °C}$	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.98	-				
$T_j = 2\text{ °C}$	Pdh	7.41	kW	$T_j = 2\text{ °C}$	COPd	3.19	-
Degradation co-efficient (**)	Cdh	0.98	-				
$T_j = 7\text{ °C}$	Pdh	5.70	kW	$T_j = 7\text{ °C}$	COPd	4.18	-
Degradation co-efficient (**)	Cdh	0.98	-				
$T_j = 12\text{ °C}$	Pdh	6.38	kW	$T_j = 12\text{ °C}$	COPd	5.14	-
Degradation co-efficient (**)	Cdh	0.98	-				
$T_j = \text{bivalent temperature}$	Pdh	11.98	kW	$T_j = \text{bivalent temperature}$	COPd	2.05	-
$T_j = \text{operation limit temperature}$	Pdh	10.41	kW	$T_j = \text{operation limit temperature}$	COPd	1.78	-
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	Pdh	NA	kW	For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	COPd	NA	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>ych</sub>	NA	kW	Cycling interval efficiency	COP <sub>yc</sub>	NA	-
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.018	kW	Rated heat output (*)	P <sub>sup</sub>	2.59	kW
Thermostat-off mode	P <sub>TO</sub>	0.018	kW	Type of energy input	Electric		
Standby mode	P <sub>SB</sub>	0.018	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4500	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	-/72	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	8292	kWh				
For heat pump combination heater:(Model(s): AOWD-MB SMART-54K + WITD-AQUATANK MB-300-2							
Declared load profile	XL			Water heating energy efficiency	$\eta_{wh}$	109.8	%
Daily electricity consumption	Q <sub>elec</sub>	7.292	kWh	Daily fuel consumption	Q <sub>fuel</sub>	NA	kWh
Annual electricity consumption	AEC	1526	kWh	Annual fuel consumption	AFC	NA	GJ
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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							