

Product fiche concerning the
COMMISSION DELEGATED REGULATIONS

(EU)No 811/2013 of 18 February 2013

(EU)No 813/2013 of 02 August 2013

Models:	Outdoor Unit: AOWD-MB-AT10
	<u>Indoor Unit: None</u>
Air-to-water heat pump	Yes
Brine-to-water heat pump	No
Low temperature heat pump	No
Equipped with a supplementary heater	No
Heat Pump Combination Heater	No
Parameters shall be declared for	Medium-temperature applications
Parameters shall be declared for	Warmer Climate Conditions

Item	Symbol	Value	Unit
Rated Heat Output (*)	Prated	11.0	kW
Seasonal space heating energy efficiency	η_s	176.0	%
Energy Classes		-	
Seasonal Coefficient of Performance	SCOP	4.47	kWh/kWh
Annual Energy consumption	QHE	3270	kWh
Sound power level indoors/outdoors	LWA	57	dB(A)

Declared capacity for heating for part load at indoor Temperature 20°C and outdoor temperature Tj

Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj

Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	
Degradation Coefficient (**)	Cdh	-	-				
Tj = +2°C	Pdh	9.82	kW	Tj = +2°C	COPd	2.02	
Degradation Coefficient (**)	Cdh	1.00	-				
Tj = +7°C	Pdh	7.11	kW	Tj = +7°C	COPd	4.09	
Degradation Coefficient (**)	Cdh	1.00	-				
Tj = +12°C	Pdh	4.03	kW	Tj = +12°C	COPd	6.29	
Degradation Coefficient (**)	Cdh	0.90	-				
Tj = bivalent temperature	Pdh	9.43	kW	Tj = bivalent temperature	COPd	2.12	
Tj = operation limit temperature (***)	Pdh	9.82	kW	Tj = operation limit temperature	COPd	2.02	
Bivalent temperature	Tbiv	4	°C	Operation limit temperature	TOL	-25	°C
Reference design temperature	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	75	°C

Power consumption in modes other than active mode				Supplementary Heater			
Off Mode	P _{OFF}	0.009	kW	Rate heat output (*)	P _{sup}	1.2	kW
Thermostat-off mode	P _{TO}	0.009	kW				
Standby mode	P _{SB}	0.009	kW	Type of energy input	-		
Crankcase heater mode	P _{CK}	0.042	kW				
Other items							
Capacity control	Variable			Rated airflow rate, outdoors		3600	m ³ /h
Outlet temperature capacity control	Variable						
Water flow rate capacity control	Fixed						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output <i>Prated</i> is equal to the design load for heating <i>Pdesignh</i> , and the rated heat output of a supplementary heater <i>Psup</i> is equal to the supplementary capacity for heating <i>sup(Tj)</i> . (**) <i>Cdh</i> shall be determined for each part load ratio, where applicable, by measurement. If not, the default degradation coefficient is <i>Cdh</i> = 0,9 (***) If the declared <i>TOL</i> is lower than the <i>Tdesignh</i> of the considered climate, then the outdoor dry bulb temperature is equal to <i>Tdesignh</i> for the part load							

Models: Outdoor Unit: AOWD-MB-AT10

Indoor Unit: None

Air-to-water heat pump Yes

Brine-to-water heat pump No

Low temperature heat pump No

Equipped with a supplementary heater No

Heat Pump Combination Heater No

Parameters shall be declared for Low-temperature applications

Parameters shall be declared for Warmer Climate Conditions

Item	Symbol	Value	Unit
Rated Heat Output	Prated	11.1	kW
Seasonal space heating energy efficiency	η_s	237.2	%
Energy Classes		-	
Seasonal Coefficient of Performance	SCOP	6.01	kWh/kWh
Annual Energy consumption	QHE	2454	kWh
Sound power level indoors/outdoors	LWA	57	dB(A)

Declared capacity for heating for part load at indoor Temperature 20°C and outdoor temperature Tj

Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj

Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	
Degradation Coefficient (**)	Cdh	-	-				
Tj = +2°C	Pdh	11.1	kW	Tj = +2°C	COPd	3.05	

Degradation Coefficient (**)	Cdh	1.00	-				
Tj = +7°C	Pdh	7.26	kW	Tj = +7°C	COPd	5.21	
Degradation Coefficient (**)	Cdh	1.00	-				
Tj = +12°C	Pdh	4.10	kW	Tj = +12°C	COPd	7.89	
Degradation Coefficient (**)	Cdh	0.90	-				
Tj = bivalent temperature	Pdh	11.10	kW	Tj = bivalent temperature	COPd	3.05	
Tj = operation limit temperature (***)	Pdh	11.10	kW	Tj = operation limit temperatur (***)	COPd	3.05	
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design temperature	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	75	°C

Power consumption in modes other than active mode				Supplementary Heater			
Off Mode	P _{OFF}	0.009	kW	Rate heat output (*)	P _{sup}	0	kW
Thermostat-off mode	P _{TO}	0.009	kW				
Standby mode	P _{SB}	0.009	kW	Type of energy input	-		
Crankcase heater mode	P _{CK}	0.042	kW				

Other items							
Capacity control	Variable			Rated airflow rate, outdoors		3600	m ³ /h
Outlet temperature capacity control	Variable						
Water flow rate capacity control	Fixed						

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating $P_{designh}$, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating $sup(T_j)$.

(**) Cdh shall be determined for each part load ratio, where applicable, by measurement. If not, the default degradation coefficient is Cdh = 0,9

(***) If the declared TOL is lower than the Tdesignh of the considered climate, then the outdoor dry bulb temperature is equal to Tdesignh for the part load