

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-AT10T

Indoor Unit: NoneAir-to-water heat pump YesBrine-to-water heat pump NoLow temperature heat pump NoEquipped with a supplementary heater NoHeat Pump Combination Heater NoParameters shall be declared for Medium-temperature applicationsParameters shall be declared for Colder Climate Conditions

Item	Symbol	Value	Unit
Rated Heat Output (*)	Prated	8.0	kW
Seasonal space heating energy efficiency	η_s	139.6	%
Energy Classes		-	
Seasonal Coefficient of Performance	SCOP	3.57	kWh/kWh
Annual Energy consumption	QHE	5517	kWh
Sound power level indoors/outdoors	LWA	58	dB(A)

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

Tj = -7°C	Pdh	4.96	kW	Tj = -7°C	COPd	3.41	
Degradation Coefficient (**)	Cdh	1.00	-				
Tj = +2°C	Pdh	3.58	kW	Tj = +2°C	COPd	4.08	
Degradation Coefficient (**)	Cdh	0.90	-				
Tj = +7°C	Pdh	4.00	kW	Tj = +7°C	COPd	5.61	
Degradation Coefficient (**)	Cdh	0.90	-				
Tj = +12°C	Pdh	4.62	kW	Tj = +12°C	COPd	6.63	
Degradation Coefficient (**)	Cdh	0.90	-				
Tj = bivalent temperature	Pdh	6.53	kW	Tj = bivalent temperature	COPd	2.16	
Tj = operation limit temperature (***)	Pdh	6.45	kW	Tj = operation limit temperature	COPd	1.68	
Tj = -15 °C (if TOL < -20 °C)	Pdh	6.53	kW	Tj = -15 °C (if TOL < -20 °C)	COPd	2.16	
Degradation Coefficient (**)	Cdh	1.00	-				
Bivalent temperature	Tbiv	-15	°C	Operation limit temperature	TOL	-25	°C
Reference design temperature	Tdesignh	-22	°C	Heating water operating limit	WTOL	75	°C

				temperature			
Power consumption in modes other than active mode							
Off Mode	P _{OFF}	0.008	kW	Supplementary Heater			
Thermostat-off mode	P _{TO}	0.008	kW	Rated heat output (*)	P _{sup}	1.5	kW
Standby mode	P _{SB}	0.008	kW	Type of energy input	-		
Crankcase heater mode	P _{CK}	0.064	kW				
Other items							
Capacity control	Variable			Rated airflow rate, outdoors		3600	m³/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> . (**) 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 <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-AT10T
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 Colder Climate Conditions

Item	Symbol	Value	Unit
Rated Heat Output	Prated	8.1	kW
Seasonal space heating energy efficiency	ηs	171.1	%
Energy Classes		-	
Seasonal Coefficient of Performance	SCOP	4.35	kWh/kWh
Annual Energy consumption	QHE	4574	kWh
Sound power level indoors/outdoors	LWA	58	dB(A)

Declared capacity for heating for part load at indoor

Declared coefficient of performance or primary energy ratio for

Temperature 20°C and outdoor temperature T_j

part load at indoor temperature 20°C and outdoor temperature T_j

$T_j = -7^\circ\text{C}$	P_{dh}	5.15	kW	$T_j = -7^\circ\text{C}$	COP_d	3.92	
Degradation Coefficient (**)	C_{dh}	1.00	-				
$T_j = +2^\circ\text{C}$	P_{dh}	3.66	kW	$T_j = +2^\circ\text{C}$	COP_d	4.98	
Degradation Coefficient (**)	C_{dh}	0.90	-				
$T_j = +7^\circ\text{C}$	P_{dh}	4.13	kW	$T_j = +7^\circ\text{C}$	COP_d	6.87	
Degradation Coefficient (**)	C_{dh}	0.90	-				
$T_j = +12^\circ\text{C}$	P_{dh}	4.75	kW	$T_j = +12^\circ\text{C}$	COP_d	8.54	
Degradation Coefficient (**)	C_{dh}	0.90	-				
$T_j = \text{bivalent temperature}$	P_{dh}	6.61	kW	$T_j = \text{bivalent temperature}$	COP_d	2.98	
$T_j = \text{operation limit temperature (***)}$	P_{dh}	7.50	kW	$T_j = \text{operation limit temperature (***)}$	COP_d	2.18	
$T_j = -15^\circ\text{C}$ (if $TOL < -20^\circ\text{C}$)	P_{dh}	6.61	kW	$T_j = -15^\circ\text{C}$	COP_d	2.98	
Degradation Coefficient (**)	C_{dh}	1.00	-				
Bivalent temperature	T_{biv}	-15	$^\circ\text{C}$	Operation limit temperature	TOL	-25	$^\circ\text{C}$
Reference design temperature	$T_{designh}$	-22	$^\circ\text{C}$	Heating water operating limit temperature	$WTOL$	75	$^\circ\text{C}$

Power consumption in modes other than active mode				Supplementary Heater			
Off Mode	P_{OFF}	0.008	kW	Rate heat output (*)	P_{sup}	0.6	kW
Thermostat-off mode	P_{TO}	0.008	kW				
Standby mode	P_{SB}	0.008	kW	Type of energy input	-		
Crankcase heater mode	P_{CK}	0.064	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 $sup(T_j)$.

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

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