

Information requirements for heat pump space heaters and heat pump combination heaters- 813/2013

Model: Samsung AE120JXYDEH & Joule 300L H.G Cyclone
Air-to-water heat pump: Yes
Water-to-water heat pump: No
Brine-to-water heat pump: No
Low-temperature heat pump: Yes
Equipped with a supplementary heater: Yes
Heat Pump combination heater: Yes
Parameters are declared for: low-temperature application
Parameters are declared for: average climate conditions

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	<i>P_{rated}</i>	10.6	kW	Seasonal space heating energy efficiency	η_s	178	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j				Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature T_j			
$T_j = -7^\circ\text{C}$	<i>P_{dh}</i>	9.40	kW	$T_j = -7^\circ\text{C}$	<i>COP_d</i>	2.55	-
$T_j = +2^\circ\text{C}$	<i>P_{dh}</i>	5.70	kW	$T_j = +2^\circ\text{C}$	<i>COP_d</i>	4.21	-
$T_j = +7^\circ\text{C}$	<i>P_{dh}</i>	3.70	kW	$T_j = +7^\circ\text{C}$	<i>COP_d</i>	6.43	-
$T_j = +12^\circ\text{C}$	<i>P_{dh}</i>	3.30	kW	$T_j = +12^\circ\text{C}$	<i>COP_d</i>	10.44	-
$T_j = \text{operation limit temperature}$	<i>P_{dh}</i>	10.60	kW	$T_j = \text{operation limit temperature}$	<i>COP_d</i>	2.52	-
Bivalent temperature	<i>T_{biv}</i>	-10.00	°C	Operation limit temperature	<i>TOL</i>	-10	°C
Degradation co-efficient	<i>C_{dh}</i>	0.9	-	Heating water operating limit temperature	<i>WTOL</i>	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	<i>P_{OFF}</i>	0.08	kW	Rated heat output	<i>P_{sup}</i>	3	kW
Thermostat-off mode	<i>P_{TO}</i>	0.011	kW	Type of energy Input	Electricity		
Standby mode	<i>P_{SB}</i>	0.011	kW				
Crankcase heater mode	<i>P_{CK}</i>	0	kW				
Other items				Outdoor sound power level			
Capacity control		Variable		L_{WA}		64	dB

For heat pump combination heater:

Declared load profile	L		Water heating energy efficiency	η_{wh}	95.5	%
Standby cylinder heat loss	2.352	kWh	Reference hot water temperature		49.43	°C
			DHW volume accounted for in test		263	L

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