

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

Model: Samsung AE050JXYDEH & Joule 200L 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: No
Equipped with a supplementary heater: Yes
Heat Pump combination heater: Yes
Parameters are declared for: medium-temperature application
Parameters are declared for: average climate conditions

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Rated heat output</b>	<b><i>Prated</i></b>	<b>5</b>	<b>kW</b>	<b>Seasonal space heating energy efficiency</b>	<b><math>\eta_s</math></b>	<b>125</b>	<b>%</b>
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>Pdh</i>	4.20	kW	$T_j = -7^\circ\text{C}$	<i>COPd</i>	2.24	-
$T_j = +2^\circ\text{C}$	<i>Pdh</i>	2.50	kW	$T_j = +2^\circ\text{C}$	<i>COPd</i>	2.90	-
$T_j = +7^\circ\text{C}$	<i>Pdh</i>	2.20	kW	$T_j = +7^\circ\text{C}$	<i>COPd</i>	4.02	-
$T_j = +12^\circ\text{C}$	<i>Pdh</i>	2.20	kW	$T_j = +12^\circ\text{C}$	<i>COPd</i>	7.25	-
$T_j = \text{operation limit temperature}$	<i>Pdh</i>	4.70	kW	$T_j = \text{operation limit temperature}$	<i>COPd</i>	1.90	-
Bivalent temperature	<i>Tbiv</i>	-10.00	°C	Operation limit temperature	<i>TOL</i>	-10	°C
Degradation co-efficient	<i>Cdh</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<sub>OFF</sub></i>	0.08	kW	Rated heat output	<i>P<sub>sup</sub></i>	3	kW
Thermostat-off mode	<i>P<sub>TO</sub></i>	0.011	kW	Type of energy Input	Electricity		
Standby mode	<i>P<sub>SB</sub></i>	0.011	kW				
Crankcase heater mode	<i>P<sub>CK</sub></i>	0	kW				
Other items				Outdoor sound power level			
Capacity control		Variable		$L_{WA}$		61	dB

For heat pump combination heater:							
<b>Declared load profile</b>		L		<b>Water heating energy efficiency</b>	$\eta_{wh}$	105	%
Standby cylinder heat loss		2.136	kWh	Reference hot water temperature		49.44	°C
				DHW volume accounted for in test		180	L

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