

COMMISSION REGULATION (EU) No. 813/2013

Information requirements for heat pump space heaters and heat pump combination heaters

Model: Samsung AE160RXYDEG EU & 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: No

Equipped with supplementary heater: No

Heat pump combination heater: Yes

Parameters are declared for: Medium-temp application, 55°C

Parameters are declared for: **Average climate conditions**



SAMSUNG

Applicable Standards:

EN14511: 2013, EN14825: 2016, EN 16147: 2017, EN12102: 2017

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
$T_j = -7^{\circ}\text{C}$	P_{dh}	14.2	kW
$T_j = +2^{\circ}\text{C}$	P_{dh}	8.6	kW
$T_j = +7^{\circ}\text{C}$	P_{dh}	5.5	kW
$T_j = +12^{\circ}\text{C}$	P_{dh}	4.5	kW
$T_j = \text{bivalent temperature}$	P_{dh}	14.2	kW
$T_j = \text{operation limit temperature}$	P_{dh}	14.0	kW
For air-to-water heat pumps: $T_j = -15^{\circ}\text{C}$ (if TOL, -20°C)	P_{dh}	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cyc}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	-
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control	Variable		
Sound power level, indoors/outdoors	L_{WA}	-/66	dB
Emissions of nitrogen oxides	NO_x	-	mg/kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	138	%
Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature T_j			
$T_j = -7^{\circ}\text{C}$	COP_d	2.06	-
$T_j = +2^{\circ}\text{C}$	COP_d	3.31	-
$T_j = +7^{\circ}\text{C}$	COP_d	5.23	-
$T_j = +12^{\circ}\text{C}$	COP_d	6.57	-
$T_j = \text{bivalent temperature}$	COP_d	2.06	-
$T_j = \text{operation limit temperature}$	COP_d	1.82	-
For air-to-water heat pumps: $T_j = -15^{\circ}\text{C}$ (if TOL, -20°C)	P_{dh}	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	-	kW
Type of energy Input			
For air-to-water heat pumps: Rated air flow rate, outdoors			
		7080	m ³ /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			
	-	-	m ³ /h

For heat pump combination heater:

Declared load profile	XL			Water heating energy efficiency	η_{wh}	135	%
Daily electricity consumption	Q_{elec}	6.247	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	1245	kWh	Reference hot water temperature	-	53.73	°C
Cylinder: Standby heat loss	-	2.352	kWh/day	Volume of DHW accounted for in test	-	300	L
Contact details	Joule Ireland, Unit 407 North West Business Park, Cappagh Road, Dublin 11, Ireland. D11 HD36						

(*) 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 output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating $sup(T_j)$.

(**) If C_{dh} is not determined by measurement then the default degradation coefficient is $C_{dh}=0.9$.

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