

# COMMISSION REGULATION (EU) No. 813/2013

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

Model: Samsung AE080RXYDEG EU & 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 supplementary heater: No

Heat pump combination heater: Yes

Parameters are declared for: Low-temp application, 35°C

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



### Applicable Standards:

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

| Item   | Symbol        | Value    | Unit      |
|--|---------------|----------|-----------|
| <b>Rated heat output (*)</b>   | <b>Prated</b> | <b>8</b> | <b>kW</b> |
| Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature $T_j$ |               |          |           |
| $T_j = -7^\circ\text{C}$   | $P_{dh}$      | 7.1      | kW        |
| $T_j = +2^\circ\text{C}$   | $P_{dh}$      | 4.3      | kW        |
| $T_j = +7^\circ\text{C}$   | $P_{dh}$      | 3.1      | kW        |
| $T_j = +12^\circ\text{C}$  | $P_{dh}$      | 2.6      | kW        |
| $T_j = \text{bivalent temperature}$  | $P_{dh}$      | 7.1      | kW        |
| $T_j = \text{operation limit temperature}$   | $P_{dh}$      | 7.0      | 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  | $L_{WA}$      | -/63     | dB        |
| Emissions of nitrogen oxides   | $NO_x$        | -        | mg/kWh    |

| Item   | Symbol                     | Value      | Unit              |
|--|----------------------------|------------|-------------------|
| <b>Seasonal space heating energy efficiency</b>  | <b><math>\eta_s</math></b> | <b>175</b> | <b>%</b>          |
| Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature $T_j$ |                            |            |                   |
| $T_j = -7^\circ\text{C}$   | $COP_d$                    | 2.63       | -                 |
| $T_j = +2^\circ\text{C}$   | $COP_d$                    | 4.24       | -                 |
| $T_j = +7^\circ\text{C}$   | $COP_d$                    | 6.39       | -                 |
| $T_j = +12^\circ\text{C}$  | $COP_d$                    | 8.22       | -                 |
| $T_j = \text{bivalent temperature}$  | $COP_d$                    | 2.63       | -                 |
| $T_j = \text{operation limit temperature}$   | $COP_d$                    | 2.48       | -                 |
| 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   |                            |            |                   |
|  |                            | 3960       | m <sup>3</sup> /h |
| For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger            |                            |            |                   |
|  | -                          | -          | m <sup>3</sup> /h |

For heat pump combination heater:

|                               |            |   |     |  |             |   |     |
|-------------------------------|------------|---|-----|--|-------------|---|-----|
| <b>Declared load profile</b>  | -          |   |     | <b>Water heating energy efficiency</b> | $\eta_{wh}$ | - | %   |
| Daily electricity consumption | $Q_{elec}$ | - | kWh | Daily fuel consumption                 | $Q_{fuel}$  | - | kWh |

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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