

# COMMISSION REGULATION (EU) No 813/2013 <sup>1)</sup>

## ECODESIGN REQUIREMENTS FOR HEAT PUMP SPACE HEATERS AND HEAT PUMP COMBINATION HEATERS <sup>1)</sup>

A	Model(s) : AE040RXEDEG / AE090RNYDEG
B	Air-to-water heat pump : yes
C	Water-to-water heat pump : no
D	Brine-to-water heat pump : no
E	Low-temperature heat pump : no
F	Equipped with a supplementary heater : yes
G	Heat pump combination heater : no
H	Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pump, parameters shall be declared for low-temperature application.
I	Parameters shall be declared for average climate conditions.

Item <sup>(1)</sup>	Symbol <sup>(K)</sup>	Value <sup>(L)</sup>	Unit <sup>(M)</sup>	
N	Rated heat output <sup>(*)</sup>	Prated <sup>(6)</sup>	5 kW	
Q	Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
-	Tj = -7 °C	Pdh	4,4 kW	
-	Tj = +2 °C	Pdh	2,7 kW	
-	Tj = +7 °C	Pdh	1,7 kW	
-	Tj = +12 °C	Pdh	1,9 kW	
T	Tj = bivalent temperature	Pdh	4,4 kW	
U	Tj = operation limit temperature	Pdh	4,2 kW	
V	For air-to-water heat pumps Tj = -15 °C (if TOL < -20 °C)	Pdh	- kW	
W	Bivalent temperature	Tbiv	-7 °C	
Y	Cycling interval capacity for heating	Pcyc	- kW	
AB	Degradation co-efficient <sup>(**)</sup>	Cdh	0,9 -	
AD	<b>Power consumption in modes other than active mode</b>			
AF	Off mode	Poff	0,022 kW	
AG	Thermostat-off mode	Pto	0,022 kW	
AH	Standby mode	Psb	0,022 kW	
AI	Crankcase heater mode	Pck	0,000 kW	
AL	<b>Other items</b>			
AM	Capacity control	variable <sup>(AN)</sup>		
AQ	Sound power level, indoors/outdoors	Lwa	40/58 dB	
AR	Emissions of nitrogen oxides	NOx	- mg/kWh	
AT	<b>For heat pump combination heater</b>			
AU	Declared load profile	-		
AW	Daily electricity consumption	Qelec	- kWh	
AY	Annual electricity consumption	AEC	- kWh	
AZ	Contact details	Samsung Electronics, PO Box 12987, Blackrock, Co. Dublin, Ireland or Blackbushe Business Park, Yateley, Gu46 6GG, UK		
P	Seasonal space heating energy efficiency	$\eta_s$	127 %	
R	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
-	Tj = -7 °C	COPd <sup>(5)</sup>	2,10 -	
-	Tj = +2 °C	COPd <sup>(5)</sup>	3,10 -	
-	Tj = +7 °C	COPd <sup>(5)</sup>	4,46 -	
-	Tj = +12 °C	COPd <sup>(5)</sup>	5,72 -	
T	Tj = bivalent temperature	COPd <sup>(5)</sup>	2,10 -	
U	Tj = operation limit temperature	COPd <sup>(5)</sup>	1,51 -	
V	For air-to-water heat pumps Tj = -15 °C (if TOL < -20 °C)	COPd <sup>(5)</sup>	- -	
X	For air-to-water heat pumps: Operation limit temperature	TOL	-10 °C	
Z	Cycling interval efficiency	COPcyc <sup>(AA)</sup>	- -	
AC	Heating water operating limit temperature	WTOL	- °C	
AE	<b>Supplementary heater</b>			
N	Rated heat output <sup>(*)</sup>	Psup	0,8 kW	
AJ	Type of energy input	Electrical <sup>(AK)</sup>		
AL	<b>Other items</b>			
AO	For air-to-water heat pumps : Rated air flow rate, outdoors	-	2400 m <sup>3</sup> /h <sup>(AP)</sup>	
AS	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	- m <sup>3</sup> /h <sup>(AP)</sup>	
AT	<b>For heat pump combination heater</b>			
AV	Water heating energy efficiency	$\eta_{wh}$	- %	
AX	Daily fuel consumption	Qfuel	- kWh	
AY	Annual electricity consumption	AEC	- GJ	

BA <sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated that output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

BB <sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

BC <sup>(1)</sup> Precautions as described in the installation/user manual must be taken when assembling, installing and maintaining this product.

BD <sup>(2)</sup> If you are a professional looking for information on non-destructive disassembly, dismantling and battery removability, please send an email to: erims.sec@samsung.com