Information requirements for heat pump space heaters and heat pump combination heaters - Commission Regulation (EU) No 813/2013

Indoor Unit Model	*Vitocal 151-A AWOT-M-E-AC-AF 151.A13*
Outdoor Unit Model	*Vitocal 15X-A ODU 230V A13 AF*
Equipped with a supplementary heater	*yes*
Heat pump combination heater	*yes*

Application	*Low temperature*
Climate conditions	*Average*

Rated heat output	*Prated*	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	*Pdh*	11.0	kW
T_j = + 2 °C	*Pdh*	6.8	kW
T_j = + 7 °C	*Pdh*	5.9	kW
T_j = + 12 °C	*Pdh*	5.5	kW
T_j = bivalent temperature	*Pdh*	11.0	kW
T_j = operation limit temperature	*Pdh*	10.1	kW
T_j = - 15 °C (if TOL < -20 °C)	*Pdh*	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	*Pcych*	-	kW
Degradation coefficient	*Cdh*	1	
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.014	kW
Standby mode	P_{SB}	0.016	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	40/56	dB
Annual energy consumption	Q_{HE}	5672	kWh

Seasonal space heating energy efficiency	η_s	178	%
Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	COP_d	3.0	
T_j = + 2 °C	COP_d	4.3	
T_j = + 7 °C	COP_d	6.1	
T_j = + 12 °C	COP_d	7.4	
T_j = bivalent temperature	COP_d	2.9	
T_j = operation limit temperature	COP_d	2.7	
T_j = - 15 °C (if TOL < -20 °C)	COP_d	-	
Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output	Psup	2.3	kW
Type of energy input		Electric	
Rated air flow rate, outdoors		4188	m^3/h

For heat pump combination heater			
Declared load profile		XL	
Daily electric consumption	Q_{elec}	5788	kWh
Annual electricity consumption	*AEC*	1273	kWh
Standby cylinder heat loss		1200	Wh/day

Water heating energy efficiency	η_{wh}	130	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	*AFC*	-	kWh
Reference hot water temperature		52.5	°C
DHW volume accounted for in test		260	l

Application	*Medium temperature*
Climate conditions	*Average*

Rated heat output	*Prated*	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	*Pdh*	10.7	kW
T_j = + 2 °C	*Pdh*	6.6	kW
T_j = + 7 °C	*Pdh*	5.7	kW
T_j = + 12 °C	*Pdh*	5.7	kW
T_j = bivalent temperature	*Pdh*	10.7	kW
T_j = operation limit temperature	*Pdh*	9.7	kW
T_j = - 15 °C (if TOL < -20 °C)	*Pdh*	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	*Pcych*	-	kW
Degradation coefficient	*Cdh*	1	
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.000	kW
Thermostat-off mode	P_{TO}	0.014	kW
Standby mode	P_{SB}	0.016	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	40/56	dB
Annual energy consumption	Q_{HE}	6944	kWh

Seasonal space heating energy efficiency	η_s	141%	%
Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	COP_d	2.3	
T_j = + 2 °C	COP_d	3.4	
T_j = + 7 °C	COP_d	4.8	
T_j = + 12 °C	COP_d	6.3	
T_j = bivalent temperature	COP_d	2.3	
T_j = operation limit temperature	COP_d	2.1	
T_j = - 15 °C (if TOL < -20 °C)	COP_d	-	
Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output	Psup	2.3	kW
Type of energy input		Electric	
Rated air flow rate, outdoors		4188	m^3/h

For heat pump combination heater			
Declared load profile		XL	
Daily electric consumption	Q_{elec}	5788	kWh
Annual electricity consumption	*AEC*	1273	kWh
Standby cylinder heat loss		1200	Wh/day

Water heating energy efficiency	η_{wh}	130%	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	*AFC*	-	kWh
Reference hot water temperature		52.5	°C
DHW volume accounted for in test		260	l

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