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

Indoor Model	***Vitocal 222-A AWOT-M-E 221.A06***
Outdoor Model	***Vitocal 200-A AWO-M-E 201.A06***
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*

Application	***Low temperature***
Climate conditions	***Average***

Rated heat output	*Prated*	6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	*Pdh*	4.9	kW
T_j = + 2 °C	*Pdh*	3.0	kW
T_j = + 7 °C	*Pdh*	3.1	kW
T_j = + 12 °C	*Pdh*	3.0	kW
T_j = bivalent temperature	*Pdh*	4.9	kW
T_j = operation limit temperature	*Pdh*	4.5	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*	0.98	
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.011	kW
Thermostat-off mode	P_{TO}	0.000	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}	39/53	dB
Annual energy consumption	Q_{HE}	2569	kWh

Seasonal space heating energy efficiency	η_s	172	%
Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	COP_d	2.8	
T_j = + 2 °C	COP_d	4.3	
T_j = + 7 °C	COP_d	5.8	
T_j = + 12 °C	COP_d	7.2	
T_j = bivalent temperature	COP_d	2.8	
T_j = operation limit temperature	COP_d	2.6	
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	60	°C
Supplementary heater			
Rated heat output	Psup	9.0	kW
Type of energy input		Electric	
Rated air flow rate, outdoors		2250	m^3/h

For heat pump combination heater							
Declared load profile		L		**Water heating energy efficiency**	η_{wh}	119	%
Daily electric consumption	Q_{elec}	4.153	kWh	Daily fuel consumption	Q_{fuel}		kWh
Annual electricity consumption	*AEC*	886	kWh	Annual fuel consumption	*AFC*		kWh
Standby cylinder heat loss		1104	Wh/day	Reference hot water temperature		52.5	°C
				DHW volume accounted for in test		290	l

Application	***Medium temperature***
Climate conditions	***Average***

Rated heat output	*Prated*	5	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	*Pdh*	4.9	kW
T_j = + 2 °C	*Pdh*	3.3	kW
T_j = + 7 °C	*Pdh*	3.0	kW
T_j = + 12 °C	*Pdh*	2.9	kW
T_j = bivalent temperature	*Pdh*	4.9	kW
T_j = operation limit temperature	*Pdh*	4.7	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*	0.98	
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.011	kW
Thermostat-off mode	P_{TO}	0.000	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}	39/54	dB
Annual energy consumption	Q_{HE}	3447	kWh

Seasonal space heating energy efficiency	η_s	125	%
Declared coefficient of performance for part load at indoor temperature 20 °C and outdoor temperature Tj			
T_j = - 7 °C	COP_d	2.0	
T_j = + 2 °C	COP_d	3.1	
T_j = + 7 °C	COP_d	4.2	
T_j = + 12 °C	COP_d	5.5	
T_j = bivalent temperature	COP_d	2.0	
T_j = operation limit temperature	COP_d	1.8	
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	60	°C
Supplementary heater			
Rated heat output	Psup	9.0	kW
Type of energy input		Electric	
Rated air flow rate, outdoors		2250	m^3/h

For heat pump combination heater							
Declared load profile		L		**Water heating energy efficiency**	η_{wh}	119	%
Daily electric consumption	Q_{elec}	4.153	kWh	Daily fuel consumption	Q_{fuel}		kWh
Annual electricity consumption	*AEC*	886	kWh	Annual fuel consumption	*AFC*		kWh
Standby cylinder heat loss		1104	Wh/day	Reference hot water temperature		52.5	°C
				DHW volume accounted for in test		290	l

Contact details: Viessmann Limited, Hortonwood 30, Telford, TF1 7YP, UK