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

Q elec

AEC

kWh

kWh

Wh/day

Annual fuel consumption

Reference hot water temperature DHW volume accounted for in test

4.153

886

1104 

Indoor Model	Vitocal 222-A AWOT-M-E 221.A04
Outdoor Model	Vitocal 200-A AWO-M-E 201.A04
Air-to-water heat pump	yes
Water-to-water heat pump	по
Brine-to-water heat pump	по
Low-temperature heat pump	по
Equipped with a supplementary heater	yes
Heat pump combination heater	yes

Low temperature Average

Application Climate conditions

Daily electric consumption

Standby cylinder heat loss

Annual electricity consumption



Rated heat output	Prated	5	kW
Declared capacity for heating for part load at indoor tempera	ture 20 °C and	d outdoor	
temperature Tj			
T _ 7°0	Pdh		kW
T <sub>j</sub> = - 7 °C T <sub>i</sub> = + 2 °C	Pan Pdh	4.7	kW kW
$T_i = +7 °C$			
$T_{i} = + 7 C$ $T_{i} = + 12 °C$	Pdh Pdh	3.1 3.0	kW kW
$T_j = T_1 Z_2 C_2$ $T_i = bivalent temperature$	Pan Pdh		
T <sub>i</sub> = operation limit temperature		4.7	kW
$T_j = operation limit temperature T_i = -15 \text{ °C} \text{ (if TOL } < -20 \text{ °C} \text{)}$	Pdh Pdh	4.3	kW kW
		-7	°C
Bivalent temperature	T <sub>biv</sub>	-1	•
Cycling interval capacity for heating	Pcych		kW
Degradation coefficient	Cdh	0.98	
Power consumption in modes other than active mode Off mode	POFF	0.011	kW
Thermostat-off mode	P OFF P TO	0.000	kW kW
Standby mode	г <sub>то</sub> Р <sub>sв</sub>	0.000	kW
Crankcase heater mode	г <sub>SB</sub> Р <sub>ск</sub>	0.010	kW
	Г СК	0.000	KVV
Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	Lwa	39/53	dB
Annual energy consumption	Q <sub>HE</sub>	2476	kWh
For heat pump combination heater		<u> </u>	
Declared load profile		L	

Seasonal space heating energy efficiency	ηs	173	%
Declared coefficient of performance for part load at indoor temperature Tj	erature 20	°C and out	door
$\begin{split} T_{j} &= -7 \ ^{\circ}C \\ T_{j} &= +2 \ ^{\circ}C \\ T_{j} &= +7 \ ^{\circ}C \\ T_{j} &= +12 \ ^{\circ}C \\ T_{j} &= bivalent temperature \\ T_{j} &= operation limit temperature \\ T_{j} &= -15 \ ^{\circ}C \ (if \ TOL < -20 \ ^{\circ}C) \\ Operation limit temperature \\ Cycling interval efficiency \\ Heating water operating limit temperature \end{split}$	COP <sub>d</sub> COP <sub>d</sub> COP <sub>d</sub> COP <sub>d</sub> COP <sub>d</sub> COP <sub>d</sub> TOL COPcyc WTOL	2.9 4.3 5.8 7.1 2.9 2.6 -10 60	° v
Supplementary heater Rated heat output Type of energy input	Psup	9.0 Electric	kW
Rated air flow rate, outdoors		2250	m³/h

Water heating energy efficiency Daily fuel consumption	η <sub>wh</sub> Q <sub>fuel</sub>	119	% kWh
Annual fuel consumption	AFC		kWh
Reference hot water temperature		52.5	°C
DHW volume accounted for in test		290	I

Application	Medium tem	Medium temperature			
Climate conditions	Average				
Rated heat output		Prated	5	kW	
Declared capacity for heating for part lo temperature Tj	oad at indoor tempe	rature 20 °C an	d outdoor		
T <sub>j</sub> = - 7 °C		Pdh	4.6	kW	
T <sub>j</sub> = + 2 °C		Pdh	3.1	kW	
T <sub>j</sub> = + 7 °C		Pdh	3.0	kW	
T <sub>i</sub> = + 12 °C		Pdh	2.9	kW	
T <sub>i</sub> = bivalent temperature		Pdh	4.6	kW	
T <sub>i</sub> = operation limit temperature		Pdh	4.4	kW	
T <sub>i</sub> = - 15 °C (if TOL < -20 °C)		Pdh		kW	
Bivalent temperature		T <sub>biv</sub>	-7	°C	
Cycling interval capacity for heating		Pcych		kW	
Degradation coefficient		Cdh	0.9		
Off mode Thermostat-off mode Standby mode Crankcase heater mode		Р <sub>ОFF</sub> Р <sub>ТО</sub> Р <sub>SB</sub> Р <sub>СК</sub>	0.011 0.000 0.016 0.000	kW kW kW kW	
Other items					
Capacity control			variable		
Sound power level, indoors/outdoors		L <sub>WA</sub>	39/53	dB	
Annual energy consumption		Q <sub>HE</sub>	3327	kWh	
For heat pump combination heater					
Declared load profile					
Daily electric consumption		Q elec	4,153	kWh	
Annual electricity consumption		AEC	886	kWh	
Standby cylinder heat loss		ALC	1104	Wh/day	
Stanuby Cylinder neat loss			1104	win/day	

Seasonal space heating energy efficiency	η <sub>s</sub>	124	%
Declared coefficient of performance for part load at indoo temperature Tj	r temperature 20	°C and out	door
T <sub>i</sub> = - 7 °C	COPd	2.0	
r, = + 2 °C	COPd	3.1	
T <sub>i</sub> = + 7 °C	COPd	4.2	
T <sub>i</sub> = + 12 °C	COPd	5.5	
T <sub>j</sub> = bivalent temperature	COPd	2.0	
j = operation limit temperature	COPd	1.9	
T <sub>j</sub> = - 15 °C (if TOL < -20 °C)	COPd		
Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc		
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater Rated heat output Type of energy input	Psup	9.0 Electric	kW
Rated air flow rate, outdoors		2250	m³/h
Water heating energy efficiency	η <sub>wb</sub>	119	%
Daily fuel consumption	Q fuel		kWh
Annual fuel consumption	AFC		kWh

52.5

290

°C

Т