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

Indoor Unit Model	Vitocal 151-A AW	OT-M-E-AC-AF 151.A10				
Outdoor Unit Model	Vitocal 15X-A OD	J 230V A10 AF		C		
Equipped with a supplementary heater	yes			VIESMANN		
Heat pump combination heater	yes			VIECIMAN		
Application	Low temperature					
Climate conditions	Average					
Rated heat output		Prated 10 k	kW	Seasonal space heating energy efficiency	η _s 190 %	
Declared capacity for heating for part load a temperature Tj	t indoor temperature	20 °C and outdoor		Declared coefficient of performance for part load at indoor temp temperature Tj	erature 20 °C and outdoor	
T _i = - 7 °C		Pdh 8.7 k	kW	T _i = - 7 °C	COP _d 3.1	
$T_i = +2 °C$			kW	$T_i = +2 °C$	COP _d 4.8	
$T_i = +7 \degree C$			kW	$T_i = +7 °C$	COP _d 6.0	
$T_i = + 12 °C$			kW	$T_i = + 12 \degree C$	COP _d 7.3	
$T_i = bivalent temperature$			kW	$T_i = bivalent temperature$	COP _d 3.1	
$T_i = operation limit temperature$			kW	$T_i = operation limit temperature$	COP _d 2.9	
$T_i = -15 \text{ °C} (\text{if TOL} < -20 \text{ °C})$			kW	$T_i = -15 \text{ °C} (\text{if TOL} < -20 \text{ °C})$	COP _d -	
Bivalent temperature			°C	Operation limit temperature	TOL -10 °C	
Cycling interval capacity for heating			kW	Cycling interval efficiency	COPcyc - WTOL 70 °C	
Degradation coefficient		Cdh 1		Heating water operating limit temperature	WTOL 70 °C	
Power consumption in modes other than ac Off mode Thermostat-off mode Standby mode Crankcase heater mode	ive mode	$P_{TO} = \frac{0.014}{P_{SB}}$ k k k k k k k k k k k k k k k k k k	kW kW kW kW	Supplementary heater Rated heat output Type of energy input	Psup 2.3 kW Electric	
Other items Capacity control Sound power level, indoors/outdoors Annual energy consumption			dB Wh	Rated air flow rate, outdoors	4045 m³/h	
For heat pump combination heater Declared load profile Daily electric consumption Annual electricity consumption Standby cylinder heat loss		AEC 1273 k	:Wh :Wh h/day	Water heating energy efficiency Daily fuel consumption Annual fuel consumption Reference hot water temperature DHW volume accounted for in test	η _{wh} 130 % Q _{fuel} - kWh AFC - kWh 52.5 °C 260 I	
Application	Medium temperate	170				
Climate conditions	Average					
Pated heat output		Protod 0 k	k)//	Seasonal space heating energy efficiency	n 145% %	

T _j = - 7 °C Pdh 8.3 kW T _j = + 2 °C Pdh 5.7 kW T _j = + 7 °C Pdh 5.7 kW T _j = + 12 °C Pdh 5.7 kW T _j = bivalent temperature Pdh 8.3 kW T _j = poperation limit temperature Pdh 8.3 kW T _j = operation limit temperature Pdh 7.5 kW T _j = operation limit temperature Pdh - kW Bivalent temperature T _{bv} -7 °C Cycling interval capacity for heating Pcych - kW Degradation coefficient Cdh 1 KW Power consumption in modes other than active mode 0.014 kW Off mode P $_{TO}$ $_{SB}$ 0.016 kW Crankcase heater mode P $_{CK}$ 0.000 kW Other items Capacity control $_{SHE}$ 6944 kWh	Rated heat output	Prated	9	kW
T _j = - 7 °C Pdh 8.3 kW T _j = + 2 °C Pdh 5.2 kW T _j = + 7 °C Pdh 5.7 kW T _j = + 12 °C Pdh 5.7 kW T _j = poperation limit temperature Pdh 7.5 kW T _j = operation limit temperature Pdh 7.5 kW T _j = operation limit temperature Pdh 7.5 kW T _j = operation limit temperature Pdh 7.5 kW Bivalent temperature Ciff TOL < -20 °C)	Declared capacity for heating for part load at indoor temperature temperature Ti	e 20 °C an	d outdoor	
$T_j = + 2 \ ^\circ C$ Pdh 5.2 kW $T_j = + 7 \ ^\circ C$ Pdh 5.7 kW $T_j = + 12 \ ^\circ C$ Pdh 5.7 kW $T_j = bivalent temperature Pdh 8.3 kW T_j = operation limit temperature Pdh 8.3 kW T_j = operation limit temperature Pdh 8.3 kW T_j = -15 \ ^\circ C \ (if TOL < -20 \ ^\circ C) Pdh kW Bivalent temperature T_{biv} -7 ^\circ C Cycling interval capacity for heating Pcych kW Degradation coefficient Cdh 1 kW Power consumption in modes other than active mode P_{orrf} 0.000 kW Power consumption in modes other than active mode P_{orrf} 0.000 kW Standby mode P_{SB} 0.016 kW Crankcase heater mode P_{cK} 0.000 kW Other items Capacity control Sound power level, indoors/outdoors L_{WA} 40/56 dB Sound power level, indoors/outdo$				
$T_j = + 2 \ ^\circ C$ Pdh 5.2 kW $T_j = + 7 \ ^\circ C$ Pdh 5.7 kW $T_j = + 12 \ ^\circ C$ Pdh 5.7 kW $T_j = bivalent temperature Pdh 8.3 kW T_j = operation limit temperature Pdh 8.3 kW T_j = operation limit temperature Pdh 8.3 kW T_j = -15 \ ^\circ C \ (if TOL < -20 \ ^\circ C) Pdh kW Bivalent temperature T_{biv} -7 ^\circ C Cycling interval capacity for heating Pcych kW Degradation coefficient Cdh 1 kW Power consumption in modes other than active mode P_{orrf} 0.000 kW Power consumption in modes other than active mode P_{orrf} 0.000 kW Standby mode P_{SB} 0.016 kW Crankcase heater mode P_{cK} 0.000 kW Other items Capacity control Sound power level, indoors/outdoors L_{WA} 40/56 dB Sound power level, indoors/outdo$	T _i = - 7 °C	Pdh	8.3	kW
$T_j = + 12 \ ^\circ C$ Pdh 5.7 kW $T_j = bivalent temperature Pdh 8.3 kW T_j = operation limit temperature Pdh 7.5 kW T_j = -15 \ ^\circ C (if TOL < -20 \ ^\circ C)$	$T_i = +2 °C$	Pdh	5.2	kW
T = bivalent temperature Pdh 8.3 kW T _j = operation limit temperature Pdh 7.5 kW T _j = - 15 °C (if TOL < -20 °C)	$T_i = +7 °C$	Pdh	5.7	kW
$T_j = operation limit temperature Pdh 7.5 kW T_j = -15 °C (if TOL < 20 °C)$	T _i = + 12 °C	Pdh	5.7	kW
$T_1 = -15 \degree C$ (if TOL < -20 °C)	T _j = bivalent temperature	Pdh	8.3	kW
Bivalent temperature T_{bv} -7 °C Cycling interval capacity for heating P_{Cych} -1 kW Degradation coefficient Cdh 1 kW Power consumption in modes other than active mode Cdh 1 kW Power consumption in modes other than active 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 L_{WA} $40/56$ dB Sound power level, indoors/outdoors L_{WA} $40/56$ dB Annual energy consumption Q_{HE} 5788 kWh Declared load profile D_{alec} 5788 kWh Manual electricity consumption AEC 5788 kWh	T _j = operation limit temperature	Pdh	7.5	kW
Cycling interval capacity for heating $Poych$ - kW Degradation coefficient Cdh 1 1 Power consumption in modes other than active mode Cdh 1 1 Power consumption in modes other than active mode P_{OFF} 0.000 kW 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 0.000 kW Sound power level, indoors/outdoors L_{WA} $40/56$ dB Annual energy consumption Q_{HE} 6944 kWh	T _j = - 15 °C (if TOL < -20 °C)	Pdh	-	kW
Degradation coefficient Cdh 1 Power consumption in modes other than active mode P_{OFF} 0.000 kW Off mode P_{To} 0.014 kW Thermostat-off mode P_{SB} 0.016 kW Standby mode P_{SB} 0.016 kW Crankcase heater mode P_{CK} 0.000 kW Other items Capacity control L_{WA} $40/56$ dB Sound power level, indoors/outdoors L_{WA} $40/56$ dB kWh For heat pump combination heater Declared load profile XL 5788 kWh Daily electric consumption Q_{elec} $$788$ kWh Annual electricity consumption AEC $$788$ kWh	Bivalent temperature	T _{biv}	-7	°C
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 Sound power level, indoors/outdoors L_{WA} 40/56 dB Annual energy consumption Q_{HE} 6944 kWh For heat pump combination heater Declared load profile Daily electric consumption Q_{elec} XL 5788 kWh Annual electricity consumption AEC 1273 kWh	Cycling interval capacity for heating	Pcych	-	kW
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 $Capacity control$ kW Sound power level, indoors/outdoors L_{WA} $\frac{Variable}{40/56}$ dB Annual energy consumption Q_{HE} $\frac{6944}{6944}$ kWh Declared load profile Daily electric consumption Q_{elec} $\frac{XL}{5788}$ kWh Annual electricity consumption AEC $\frac{XW}{KW}$	Degradation coefficient	Cdh	1	
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 $Capacity control$ kW Sound power level, indoors/outdoors L_{WA} $\frac{Variable}{40/56}$ dB Annual energy consumption Q_{HE} $\frac{6944}{6944}$ kWh Declared load profile Daily electric consumption Q_{elec} $\frac{XL}{5788}$ kWh Annual electricity consumption AEC $\frac{XW}{KW}$	Device consumption in modes other than active mode			
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 Q_{CK} 0.000 kW Other items Q_{HE} 40/56 dB Sound power level, indoors/outdoors L_{WA} 40/56 6944 kWh For heat pump combination heater Q_{HE} 5788 kWh Daily electric consumption Q_{elec} $S788$ kWh		P	0.000	k\//
Standby mode P_{SB} 0.016 kW Crankcase heater mode P_{CK} 0.000 kW Other items P_{CK} 0.000 kW Other items Capacity control $Variable$ 40/56 dB Sound power level, indoors/outdoors L_{WA} 40/56 6944 kWh For heat pump combination heater Declared load profile $Variable$ kWh Daily electric consumption Q_{elec} XL 5788 kWh Annual electricity consumption AEC $S788$ kWh 1273 kWh	-			
Crankcase heater mode P CK 0.000 kW Other items Capacity control kW Sound power level, indoors/outdoors L WA 40/56 dB Annual energy consumption Q HE 6944 kWh For heat pump combination heater Declared load profile XL 5788 kWh Daily electric consumption Q elec 5788 kWh Annual electricity consumption AEC 1273 kWh				
Capacity control Variable Sound power level, indoors/outdoors L wa Annual energy consumption Q HE For heat pump combination heater Declared load profile Daily electric consumption Annual electricity consumption Annual electricity consumption	5			kW
Capacity control Variable Sound power level, indoors/outdoors L wa Annual energy consumption Q HE For heat pump combination heater Declared load profile Daily electric consumption Annual electricity consumption Annual electricity consumption	Other items			
Sound power level, indoors/outdoors L WA 40/56 dB Annual energy consumption Q HE 6944 kWh For heat pump combination heater Declared load profile Daily electric consumption Q elec S788 KWh Annual electricity consumption AEC LT273 KWh			variable	
Annual energy consumption Q _{HE} 6944 kWh For heat pump combination heater Declared load profile Daily electric consumption Q _{elec} XL 5788 kWh Annual electricity consumption AEC 1273 kWh		Lwa		dB
Declared load profile XL Daily electric consumption Q elec 5788 kWh Annual electricity consumption AEC 1273 kWh	Annual energy consumption		6944	kWh
Declared load profile XL Daily electric consumption Q elec 5788 kWh Annual electricity consumption AEC 1273 kWh				
Daily electric consumption Q _{elec} 5788 kWh Annual electricity consumption AEC 1273 kWh	For heat pump combination heater			
Annual electricity consumption AEC 1273 kWh	•	•		
	5	. 0.00		
Standby cylinder heat loss 1200 Wh/day	, , , , , , , , , , , , , , , , , , , ,	AEC	-	
	Standby cylinder heat loss		1200	Wh/day

Seasonal space heating energy efficiency	η _s	145%	%
Declared coefficient of performance for part load at indoor temperature Tj	temperature 20	°C and outd	oor
T _j = - 7 °C	COPd	2.4	
T _i = + 2 °C	COPd	3.7	
T _i = + 7 °C	COPd	4.6	
T _j = + 12 °C	COPd	6.0	
T _j = bivalent temperature	COPd	2.4	
T _j = operation limit temperature	COPd	2.1	
T _j = - 15 °C (if TOL < -20 °C)	COPd	-	
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		4045	m³/h
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	1

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