

TECHNICAL DATA SHEET

Information requirements for heat pump space heaters and heat pump combination heaters

Model(s):		YLHD 120 T/TP	
Air-to-water heat pump:			yes
Water-to-water heat pump:			not
Brine-to-water heat pump:			not
Low-temperature heat pump:			yes
For low-temperature heat pumps, parameters shall be declared for low-temperature application. Otherwise, parameters shall be declared for medium-temperature application. Parameters shall be declared for average climate conditions.			
Item	Symbol	Value	Unit
Rated heat output at $T_{designh} = -10$ (-11) °C	$P_{rated} = P_{designh}$	95,7	kW
Declared capacity for heating for part load at fixed outlet water temperature 35°C and outdoor temperature T_j			
$T_j = -7$ °C	P_{dh}	69,9	kW
$T_j = +2$ °C	P_{dh}	51,5	kW
$T_j = +7$ °C	P_{dh}	33,1	kW
$T_j = +12$ °C	P_{dh}	14,7	kW
$T_j =$ bivalent temperature	P_{dh}	77,3	kW
$T_j =$ operation limit temperature	P_{dh}	58,8	kW
For air-to-water heat pumps: $T_j = -15$ °C (if $TOL < -20$ °C)	P_{dh}	x,x	kW
Bivalent temperature (maximum +2°C)	T_{biv}	-5	°C
Cycling interval capacity for heating	P_{cyc}	x,x	kW
Degradation coefficient	C_d	0,97	—
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0,000	kW
Thermostat-off mode	P_{TO}	0,120	kW
Standby mode	P_{SB}	0,000	kW
Crankcase heater mode	P_{CK}	0,264	kW
Other items			
Capacity control	fixed/variable	fixed	
Sound power level, indoors	L_{WA}	x	dB(A)
Sound power level, outdoors	L_{WA}	88	dB(A)
Contact details	Johnson Controls Limited UK Fenton Way Basildon Essex SS15 6RZ United Kingdom		
Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	140	%
Declared coefficient of performance or primary energy ratio for part load at fixed outlet water temperature 35°C and outdoor temperature T_j			
$T_j = -7$ °C	COP_d	2,81	—
$T_j = +2$ °C	COP_d	3,92	—
$T_j = +7$ °C	COP_d	4,21	—
$T_j = +12$ °C	COP_d	4,49	—
$T_j =$ bivalent temperature	COP_d	3,08	—
$T_j =$ operation limit temperature	COP_d	2,44	—
For air-to-water heat pumps: $T_j = -15$ °C (if $TOL < -20$ °C)	COP_d	x,xx	—
For air-to-water HP : Operation limit temperature (maximum -7°C)	TOL	-10	°C
Heating water operating limit temperature	WTOL	50	°C
Cycling interval efficiency	COP_{cyc}	x,xx	—
Supplementary heater (to be declared even if not provided in the unit)			
Rated heat output	$P_{sup} = P_{sup}(T_j)$	36,9	kW
Type of energy input			
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate	$Q_{airsource}$	36000	m ³ /h
For water-to-water: Rated water flow rate	$Q_{watersource}$	x	m ³ /h
For brine-to-water: Rated brine flow rate	$Q_{brinesource}$	x	m ³ /h

If C_{dh} is not determined by measurement then the default degradation coefficient is $C_{dh} = 0,9$.

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