Lochinvar®
HIGH EFFICIENCY BOILERS & WATER HEATERS

Information requirements for heat pumps

Energy Index: SCOP

Regulations: calculated according to commision regulation (EU) 2013/813, implementing the directive of the european commission 2009/125/ec "ecodesign".

Climate: Average

Source type: Outdoor air

User type: Low temperature

User flow: Constant user flow rate

Model: **LAHP-2654LT454**							
Outdoor side heat exchanger of heat pump: **Air**							
Indoor side heat exchanger of heat pump: **Water**							
Indication if the heater is equipped with a supplementary heater: **No**							
If applicable: driver of compressor: **Electric motor**							
Parameters shall be declared for the average heating season, parameters for the warmer and colder heating seasons are optional.							
item	symbol	value	unit	item	symbol	value	unit
Rated heating capacity	$P_{rated,h}$	177	kW	Seasonal space heating energy efficiency	$\eta_{s,h}$	154	%
Declared heating capacity for part load at indoor temperature 20 °C and outdoor temperature *Tj*				Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures *Tj*			
Tj = -7°C	*Pdh*	157	kW	*Tj* = -7°C	COP_d	2.41	%
Tj = 2°C	*Pdh*	95.3000	kW	*Tj* = 2°C	COP_d	3.78	%
Tj = 7°C	*Pdh*	71.1000	kW	*Tj* = 7°C	COP_d	5.31	%
Tj = 12°C	*Pdh*	81.4000	kW	*Tj* = 12°C	COP_d	6.96	%
Tbiv = -7°C	*Pdh*	157	kW	*Tj* = -7°C	COP_d	2.41	%
TOL = -10°C	*Pdh*	142	kW	*Tj* = -10°C	COP_d	2.11	%
For air-to-water heat pumps: Operation limit temperature *Tj* = -°C	*Pdh*	-	kW	For air-to-water heat pumps: *Tj* = +-°C	COP_d	-	%
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	T_{ol}	-10	°C
Cycling interval capacity for heating	P_{cych}	-	kW	Cycling interval efficiency	COP_{cyc}	-	%
Degradation co-efficient chillers(*)	C_{dh}	0.98	_	Heating water operating limit temperature	*WTol*	60.0000	°C
Power consumption in modes other than 'active mode'				**Supplementary heater**			
Off mode	P_{OFF}	0.02	kW	Back-up heating capacity (*)	elbu	-	kW
Thermostat-off mode	P_{TO}	0.89	kW	Type of energy input	-		
Crankcase heater mode	P_{CK}	0.22	kW	Standby mode	P_{SB}	0.15	kW
Other items							
Capacity control	staged			For air-to-air heat pumps: air flow rate, outdoor measured	_	94226	m^3/h
Sound power level, indoor/outdoor measured Emissions of nitrogen oxides (if applicable)	L_{WA} NOx(***)	0/90.7 0.0	dB mg/kW h fuel input	For water/brine-to-air heat pumps: Rated brine or water flow rate, outdoor side heat exchanger	_	-	m^3/h
			GCV				
GWP of the refrigerant		466	kg CO_2 eq (100 years)				
Contact details	prova						

(*)

(**) If Cdh is not determined by measurement then the default degradation coefficient of heat pumps shall be 0,25.

(***) From 26 September 2018. Where information relates to multi-split heat pumps, the test result and performance data may be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.