

**Energy Index:** SCOP

**Regulations:** calculated according to commission 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-88HTR290								
Outdoor side heat exchanger of heat pump: <b>Air</b>								
Indoor side heat exchanger of heat pump: <b>Water</b>								
Indication if the heater is equipped with a supplementary heater: <b>Not present</b>								
If applicable: driver of compressor: <b>Electric motor</b>								
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	$P_{rated,h}$	70.7	kW		Seasonal space heating energy efficiency	$\eta_{s,h}$	152	%
Declared heating capacity for part load at indoor temperature 20 °C and outdoor temperature $T_j$					Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j = -7^{\circ}\text{C}$	$P_{dh}$	57.6	kW		$T_j = -7^{\circ}\text{C}$	$COP_d$	2.57	%
$T_j = 2^{\circ}\text{C}$	$P_{dh}$	43.7	kW		$T_j = 2^{\circ}\text{C}$	$COP_d$	3.83	%
$T_j = 7^{\circ}\text{C}$	$P_{dh}$	50.5	kW		$T_j = 7^{\circ}\text{C}$	$COP_d$	5.00	%
$T_j = 12^{\circ}\text{C}$	$P_{dh}$	57.3	kW		$T_j = 12^{\circ}\text{C}$	$COP_d$	6.15	%
$T_{biv} = -6^{\circ}\text{C}$	$P_{dh}$	59.8	kW		$T_j = -6^{\circ}\text{C}$	$COP_d$	2.67	%
$TOL = -10^{\circ}\text{C}$	$P_{dh}$	51.6	kW		$T_j = -10^{\circ}\text{C}$	$COP_d$	2.29	%
For air-to-water heat pumps: Operation limit temperature $T_j = -^{\circ}\text{C}$	$P_{dh}$	-	kW		For air-to-water heat pumps: $T_j = +^{\circ}\text{C}$	$COP_d$	-	%
Bivalent temperature	$T_{biv}$	-6	°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(*)	$C_{dh}$	0.99	—		Heating water operating limit temperature	$WTol$	70.0	°C
Power consumption in modes other than ‘active mode’					Supplementary heater			
Off mode	$P_{OFF}$	0.10	kW		Back-up heating capacity (*)	elbu	-	kW
Thermostat-off mode	$P_{TO}$	0.30	kW		Type of energy input	-		
Crankcase heater mode	$P_{CK}$	0.12	kW		Standby mode	$P_{SB}$	0.10	kW



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Other items								
Capacity control	staged				For air-to-air heat pumps: air flow rate, outdoor measured	–	33036	m³/h
Sound power level, indoor/outdoor measured	$L_{WA}$	0/88	dB		For water/brine-to-air heat pumps: Rated brine or water flow rate, outdoor side heat exchanger	–	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO <sub>x</sub> (** *)	0.0	mg/kW h fuel input GCV					
GWP of the refrigerant		3	kg CO <sub>2</sub> eq (100 years)		<1			
Contact details	prova							
<p>(*)</p> <p>(**) If Cdh is not determined by measurement then the default degradation coefficient of heat pumps shall be 0,25.</p> <p>(***) 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.</p>								