



Industrial Air to Water Heat Pump



LAAWHRSC 120-1180

Cooling capacity: 124 - 1180 kw

Heating capacity: 136 - 1240 kw

FEATURES

- 18 sizes available ranging from 124 kw to 1180 kw cooling capacity.
- Hermetic scroll compressor for mod. 120-1180, semi-hermetic screw compressor for mod. 250-1180. Each compressor is equipped with a crankcase heater and a thermal overload cut-out; the screw compressor is also complete with a built-in electronic protection with temperature sensor located directly in the motor winding and on the discharge line.
- External rotor type axial fans, equipped with three phase direct drive motors, low noise 8 poles, protection level IP54, provided with a protective outlet grille.
- Evaporator built with high efficiency shell and tube type heat exchanger, factory insulated with flexible close cell material.
- Condenser built with seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins.

- Refrigerant circuit complete with charge valves, filter drier, sight glass, gas-liquid separator, thermostatic expansion valve, high & low pressure switch. The heat pump unit is completed also with 4-way valve, liquid receiver and one way valve.
- Hydraulic circuit built with galvanized pipe, complete with water discharge connection for shell and tube heat exchanger and flange type hydraulic connectors.
- Electric panel consists of: compressor contactor, fan motor contactor, compressor isolating switch, fan protection breaker, phase sequence relay and microprocessor with function display.
- Automatic operation dramatically reducing maintenance cost thanks to reliable microprocessor system.

OPTIONAL

- Metallic filter for hydraulic circuit
- Rubber antivibration mounting
- Electronic expansion valve
- Economizer
- Acoustic enclosure

NOMENCLATURE

LA AW H R S C 150
① ② ③ ④ ⑤ ⑥ ⑦

- ① LA: ATD air product
- ② Unit type
AW: Air to Water
AA: Air to Air
WA: Water to Air
WW: Water to Water

- ③ C: Cooling only
H: Heat pump
- ④ Heat Recovery type
--: With out heat recovery
R: With heat recovery
- ⑤ Heat exchanger
T: Tube in tube type
P: Plate type
S: Shell and tube type

- ⑥ Refrigerant type
A: R410a
B: R134a
C: R407c
- ⑦ Model

OVERALL DIMENSIONS



Mod.	A	B	C	Mod.	A	B	C
120	2500	2160	2430	570	6890	2160	2430
150	2500	2160	2430	640	7190	2160	2430
180	2500	2160	2430	700	8280	2160	2430
250	3290	2160	2430	760	9370	2160	2430
320	3590	2160	2430	870	9880	2160	2430
380	4680	2160	2430	930	10280	2160	2430
430	5800	2160	2430	1000	10580	2160	2430
500	6590	2160	2430	1180	10890	2160	2430

TECHNICAL DATA

Model		120	150	180	250	320	380
Cooling capacity*	kW	124	152.1	184.9	247.6	315.6	376.2
Heating capacity*	kW	136	174.4	211.6	277.6	361.5	428.3
Compressor							
Qty/refrigerant circuit	Nr.	4/4	4/4	4/4	1/1	1/1	1/1
Cooling power input*	kW	38.5	47.2	58.4	73.4	97.2	115.7
Heating power input*	kW	36.1	46.3	57.9	72.8	96.3	113.6
Energy adjustment steps	step	4	4	4	4	4	4
Evaporator							
Water flow rate	m ³ /h	22.2	26.2	31.8	42.6	54.3	64.7
Water side pressure drop	kPa	40	41	41	42	43	42
Axial fan							
Fan motor number	Nr.	4	4	4	6	6	8
Air flow	m ³ /h		96000	96000	144000	144000	192000
Sound pressure level**	dB(A)	76	76	76	77	77	78
Net weight	kg	1800	1950	2150	2500	2900	3650

Model		430	500	570	640	700
Cooling capacity*	kW	432.5	495.6	563.2	631.2	691.8
Heating capacity*	kW	489.2	555.2	639.1	723.0	789.8
Compressor						
Qty/refrigerant circuit	Nr.	2/2	2/2	2/2	2/2	2/2
Cooling power input*	kW	125.1	154.2	170.6	194.4	212.9
Heating power input*	kW	123.9	152.7	169.1	192.7	209.9
Energy adjustment steps	step	8	8	8	8	8
Evaporator						
Water flow rate	m ³ /h	74.4	85.2	96.9	108.6	119.0
Water side pressure drop	kPa	44	43	43	44	45
Axial fans						
Fan motor number	Nr.	10	12	12	12	14
Air flow	m ³ /h	240000	288000	288000	288000	336000
Sound pressure level**	dB(A)	80	81	81	81	82
Net weight	kg	4450	4950	5450	5750	6650

Model		760	870	930	1000	1180
Cooling capacity*	kW	752.4	865	928	991	1180
Heating capacity*	kW	856.6	908	975	1041	1240
Compressors						
Qty/refrigerant circuit	Nr.	2/2	2/2	2/2	2/2	3/3
Cooling power input*	kW	222.3	250.1	279.2	308.3	374.3
Heating power input*	kW	220.2	247.8	276.7	305.5	344.1
Energy adjustment steps	step	8	8	8	8	12
Evaporator						
Water flow rate	m ³ /h	129.4	148.8	159.6	170.5	203.0
Water side pressure drop	kPa	45	45	48	48	50
Axial fans						
Fan motor number	Nr.	16	18	18	18	18
Air flow	m ³ /h	384000	480000	480000	576000	576000
Sound pressure level**	dB(A)	83	81	82	82	83
Net weight	kg	7250	6150	6900	7600	9050

* The performance values refer to the following conditions:

Cooling: ambient air temperature 35 °C ; evaporator water in/out temperature 12/7 °C ;

Heating: ambient air temperature DB 7 °C , WB 6 °C ; condenser water in/out temperature 40/45 °C .

** Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground.

The technical data in this documents are not binding. ATD air reserves the right to make whatever modifications it deems necessary to improve the product at any time.

CTA International Group Pty Ltd

65-67 Sheehan Road Heidelberg West Vic 3081

Tel: 03-94553991

Fax: 03-94553992

E-mail: info@atd.net.au

www.atd.net.au