

## WSH

## Reversible water-cooled heat pump, gas side

Cooling capacity 165,8 ÷ 269,7 kW  
Heating capacity 183,3 ÷ 300,3 kW

- Reversing valve
- Optional electronic expansion valve which allows: cooling down to -6 °C
- Modulating capacity control 25-100%



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.

**High-efficiency screw compressors, with silent functioning and with cooling capacity adjustment via continuous modulation from 40 to 100%. (25-100% with electronic valve OPTION which is to be requested when placing the order)**

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- L Standard silenced

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-16 °C, and the possibility to produce also negative temperature water down to -6 °C for the evaporator and hot water for the condenser up to 55 °C.  
(for more information, refer to the technical documentation).

#### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.  
Adjustment includes complete management of the alarms and their log.  
Possibility to control two units in a Master-Slave configuration

### ACCESSORIES COMPATIBILITY

Model	Ver	0701	0801	0901	1101
AER485P1	°L	•	•	•	•
AERBACP	°L	•	•	•	•
AERNET	°L	•	•	•	•
MULTICHILLER-EVO	°L	•	•	•	•
PRV3	°L	•	•	•	•

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**AKW:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

**Antivibration**

Ver	0701	0801	0901	1101
°, L	AVX665	AVX665	AVX665	AVX666

**Power factor correction**

Ver	0701	0801	0901	1101
°, L	RIF161	RIF161	RIF201	RIF241

A grey background indicates the accessory must be assembled in the factory

**Acoustic kit**

Ver	0701	0801	0901	1101
L	AKW (1)	AKW (1)	AKW (1)	AKW (1)

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

**CONFIGURATOR**

Field	Description
1,2,3	<b>WSH</b>
4,5,6,7	<b>Size</b> 0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502
8	<b>Operating field</b>
X	Low temperature electronic thermostatic valve (1)
°	Standard mechanic thermostatic valve (2)
9	<b>Model</b>
°	Reversible heat pump, gas side
10	<b>Heat recovery</b>
D	With desuperheater (3)
°	Without heat recovery
11	<b>Version</b>
°	Standard
L	Standard silenced
12	<b>Condenser</b>
°	PED regulation
13	<b>Power supply</b>
2	230V ~ 3 50Hz with fuses
4	230V ~ 3 50Hz with magnet circuit breakers (4)
5	500V ~ 3 50Hz with fuses
8	400V ~ 3 50Hz with magnet circuit breakers
9	500V ~ 3 50Hz with magnet circuit breakers
°	400V ~ 3 50Hz

(1) Water produced up to +4 °C. For different temperature please contact the factory.

(2) Water produced up to +4 °C

(3) In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) Not available for size 2502

## PERFORMANCE SPECIFICATIONS

### WSH - °/L

Size			0701	0801	0901	1101
<b>Cooling performance 12 °C / 7 °C (1)</b>						
Cooling capacity	°/L	kW	165,8	195,7	216,7	269,7
Input power	°/L	kW	37,1	42,3	48,3	58,8
Cooling total input current	°/L	A	65,0	73,0	81,0	100,0
EER	°/L	W/W	4,47	4,63	4,48	4,59
Water flow rate source side	°/L	l/h	34669	40687	45310	56133
Pressure drop source side	°/L	kPa	30	31	30	36
Water flow rate system side	°/L	l/h	28521	33675	37283	46389
Pressure drop system side	°/L	kPa	23	24	22	27
<b>Heating performance 40 °C / 45 °C (2)</b>						
Heating capacity	°/L	kW	183,3	210,3	237,3	300,3
Input power	°/L	kW	45,4	51,6	58,7	74,4
Heating total input current	°/L	A	81,0	91,0	101,0	131,0
COP	°/L	W/W	4,04	4,08	4,05	4,03
Water flow rate source side	°/L	l/h	40419	46517	52342	66297
Pressure drop source side	°/L	kPa	42	42	39	51
Water flow rate system side	°/L	l/h	31805	36498	41190	52140
Pressure drop system side	°/L	kPa	24	23	23	29

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

Size			0701	0801	0901	1101
<b>SEER - 12/7 (EN14825: 2018) (1)</b>						
SEER	°/L	W/W	5,04	5,47	5,29	5,11
Seasonal efficiency	°/L	%	198,6%	215,8%	208,6%	201,3%
<b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b>						
Pdesignh	°/L	kW	249	285	322	-
SCOP	°/L	W/W	4,20	4,25	4,23	-
ηsh	°/L	%	160.0%	162.0%	161.0%	-

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.  
(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

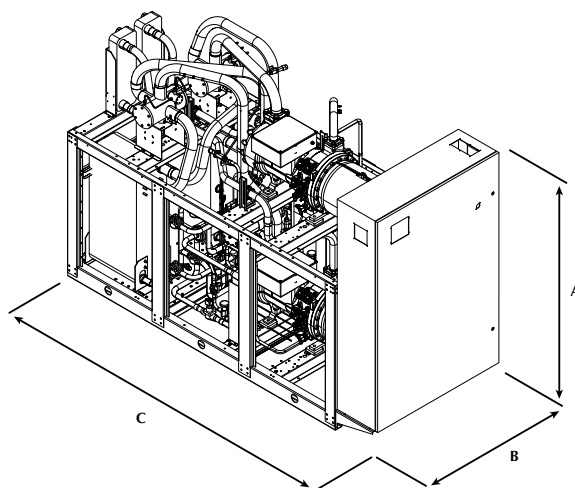
Size			0701	0801	0901	1101
<b>Electric data</b>						
Maximum current (FLA)	°/L	A	124,0	144,0	162,0	182,0
Peak current (LRA)	°/L	A	163,0	192,0	229,0	300,0

## GENERAL TECHNICAL DATA

Size			0701	0801	0901	1101
<b>Compressor</b>						
Type	°L	type			Bi-vite	
Compressor regulation	°L	Type			On-Off	
Number	°L	no.	1	1	1	1
Circuits	°L	no.	1	1	1	1
Refrigerant	°L	type			R134a	
<b>System side heat exchanger</b>						
Type	°L	type			Brazed plate	
Number	°L	no.	1	1	1	1
Connections (in/out)	°L	Type			Grooved joints	
Sizes (in/out)	°L	Ø			3"	
<b>Source side heat exchanger</b>						
Type	°L	type			Brazed plate	
Number	°L	no.	1	1	1	1
Connections (in/out)	°L	Type			Grooved joints	
Sizes (in/out)	°L	Ø			3"	
<b>Sound data calculated in cooling mode (1)</b>						
Sound power level	°	dB(A)	86,0	86,0	86,0	92,0
	L	dB(A)	78,0	78,0	78,0	84,0
Sound pressure level (10 m)	°	dB(A)	54,1	54,1	54,1	60,1
	L	dB(A)	46,1	46,1	46,1	52,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



Size			0701	0801	0901	1101
<b>Dimensions and weights</b>						
A	°	mm	2050	2050	2050	2050
	L	mm	2120	2120	2120	2120
B	°L	mm	809	809	809	809
C	°L	mm	2960	2960	2960	3360
Empty weight	°	kg	1391	1443	1506	1946
	L	kg	1622	1674	1737	2206

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)