



Aermec participate in the EUROVENT program: LCP the products are present on the site www.eurovent-certification.com



- **REFRIGERANT REVERSING VALVE**
- **OPTIONAL ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**
 - **COOLING DOWN TO -6°C**
 - **MODULATING CAPACITY CONTROL 25–100%**

Characteristics

- Available in 10 sizes (4 sizes single compressor and 6 sizes dual compressor)
- Manufactured with refrigerant R134a
- Versions for cooling only - heat pump with refrigerant reversing valve
- Partial heat recovery option
- Standard Version ($^{\circ}$):
 - leaving water temperature up to 55°C in heat pump mode
- Version X:
 - leaving liquid temperature down to -6°C
- Version L:
 - low noise
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion valve option)
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Dual refrigerant circuit plate heat exchanger optimised for R134a on dual compressor units
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic display of refrigeration capacity
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Compact dimensions
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
 - AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
 - AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
 - AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
 - AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
 - **SAP:** A series of remote buffer tanks and pumps are available. Refer to the technical manual.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AKW:** ACOUSTIC KIT: Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

Accessory compatibility

Mod	Vers.	0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
AERWEB300	-	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	-	•	•	•	•	•	•	•	•	•	•
AER485P1	-	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF	-	161	161	201	241	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)
PRV3	-	•	•	•	•	•	•	•	•	•	•
	°/L	665	665	665	666	662	662	662	663	664	664
AVX	D	665	665	665	666	662	662	662	663	664	664
AKW	L	•	•	•	•	•	•	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Code:

WSH

Size:

0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502

Expansion device:

- ° - Standard, minimum leaving water temperature down to +4 °C
- X - With electronic expansion valve that allows:
 - Leaving liquid temperature down to -6 °C
 - Modulating capacity control (25 - 100%)

Model:

- ° - Standard

Heat recovery:

- ° - Without heat recovery
- D - With desuperheaters (partial heat recovery)

Version:

- ° - Standard
- L - Low noise

Condenser:

- ° - PED regulation

Power supply (1)

- ° - 400V 3~ 50Hz with fuses
- 8 - 400V 3~ 50Hz with circuit breakers
- 2 - 230V 3~ 50Hz with fuses
- 4 - 230V 3~ 50Hz with circuit breakers
- * (not available for size 2502)
- 5 - 500V 3~ 50Hz with fuses
- 9 - 500V 3~ 50Hz with circuit breakers

(1) 230V/3/50Hz is not available for size 2502

Technical Data

WSH - °/L			701	801	901	1101	1402	1602	1802	2002	2202	2502
		V/ph/Hz	400V/3/50Hz									
12°C / 7°C	Cooling capacity	(1) kW	166	195	216	269	359	426	464	524	591	668
	Total input power	(1) kW	37,14	42,31	48,35	58,78	79,23	92,02	103,47	114,87	127,11	146,9
	EER	(1)	4,46	4,62	4,48	4,58	4,53	4,63	4,49	4,56	4,65	4,55
	Cooling Energy Class Eurovent	(1)	C	B	C	B	B	B	B	B	B	B
	Water flow rate system side	(1) l/h	28552	33712	37324	46440	61920	73616	80152	90472	102168	115584
	Pressure drop	(1) kPa	23	24	22	27	43	47	48	59	65	74
	Water flow rate geothermal side	(1) l/h	34434	40411	45004	55754	74338	87995	96329	108273	121776	138133
	Pressure drop	(1) kPa	30	31	30	36	57	62	65	79	88	101
40°C / 45°C	Heating capacity	(2) kW	190	218	247	312	438	511	563	647	730	819
	Total input power	(2) kW	45,84	52,05	59,19	75,13	104,03	123,32	133,01	153,87	173,98	190,54
	COP	(2)	4,15	4,2	4,17	4,15	4,21	4,14	4,23	4,2	4,2	4,3
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B	B	A
	Water flow rate system side	(2) l/h	32651	37468	42286	53526	74937	87426	96346	110620	124894	139881
	Pressure drop	(2) kPa	26	25	25	31	61	67	68	77	85	97
	Water flow rate geothermal side	(2) l/h	42361	48746	54856	69480	98039	113923	126325	144907	163764	184907
	Pressure drop	(2) kPa	46	46	43	55	82	89	89	98	110	122
Performance under average climatic conditions (Average)												
Pdesignh		(3)	249	285	322	/	/	/	/	/	/	/
SCOP		(3)	4,20	4,25	4,23	/	/	/	/	/	/	/
ηs		(3)	160	162	161	/	/	/	/	/	/	/

Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

(3) Efficiencies for average temperature Applications (55°C)

Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 400kW

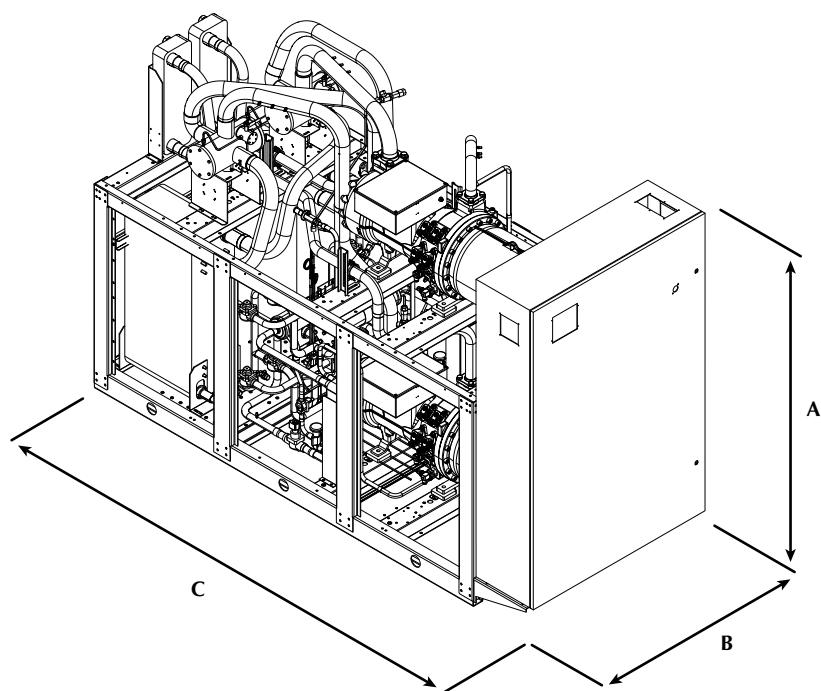
		701	801	901	1101	1402	1602	1802	2002	2202	2502
Electrical data											
Total input current (cooling)	A	65	73	80.6	100	135	146.5	162	187.5	210	242
Total input current (heating)	A	81	91	101	130.5	178.5	210	221	256.5	291	320
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430
Starting current (LRA)	A	163	192	229	300	287	336	391	462	482	575
Screw Compressor											
Compressors / Circuit	n°/n°	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Type	R134a									
Heat exchanger system side											
Exchanger	Type/n°	Plate/1									
hydraulic connections (In/Out)	Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side											
Exchanger	Type/n°	Plate/1									
hydraulic connections (In/Out)	Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data (Cooling mode)											
Sound power level	dB(A)	86	86	86	92	89	89	89	93	95	95
Sound pressure level	dB(A)	54	54	54	60	57	57	57	61	63	63

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



Mod WSH			0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
Height (A)	(°)	mm	1980	1980	1980	2060	2000	2000	2000	2000	2060	2060
	L	mm	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)		mm	810	810	810	810	1260	1260	1260	1260	1260	1260
Length (C)		mm	2960	2960	2960	3360	3060	3060	3060	3460	3460	3460
Weight (empty)		kg (°)	1391	1443	1506	1946	2276	2350	2423	2872	3309	3407
		kg (D)	1622	1674	1737	2200	2542	2616	2689	3168	3605	3703