

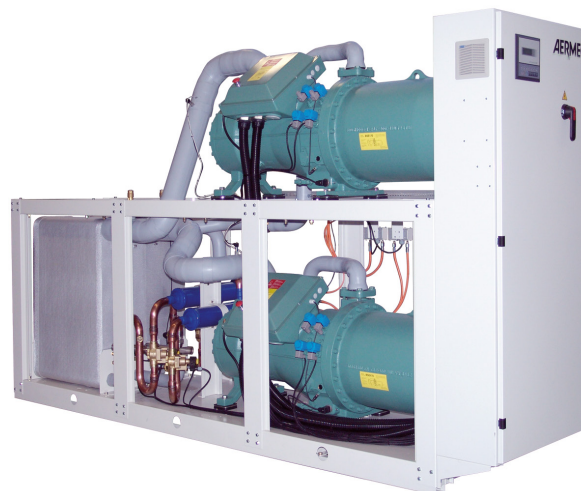
HWS

Water cooled chiller reversible water side, and Evaporating unit
For indoor installation
Screw compressor and plate exchanger
Cooling capacity 146 - 712 kW
Heating capacity 161 - 771 kW

R134a



Aermec participates in the EUROVENT Program: LCP
 The products of interest can be found on the website www.eurovent-certification.com



- **REVERSIBLE ON HYDRAULIC SIDE IN HEAT PUMP**
- **GEO THERMAL APPLICATIONS**

Features

Units for internal installation offering chilled/hot water (reversible on the water side). Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. The screw compressors are optimized for low condensing temperatures, plate heat exchangers are applied on both the system and source side. The base and frame are in steel treated with anti-corrosion polyester paint.

Versions

HWS Standard reversible water side

HWS_E Evaporating unit

- 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)
- For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- 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 ana-

logue 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).

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;

- **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.	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•	•
AER485P1		•	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF		-	161	161	201	241	-	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)	301(x2)
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
	°/L	651	651	652	652	656	658	658	658	659	667	661	661	661
	E	-	668	668	668	669	-	670	670	670	671	672	672	672
AVX	D	-	651	652	652	654	-	658	659	659	667	661	661	661
	DE	-	668	668	668	669	-	670	670	670	671	672	672	672
	T	-	652	655	655	657	-	662	662	662	663	664	664	664
AKW		•	•	•	•	•	•	•	•	•	•	•	•	•

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.

Field 1,2,3 Code HWS

3,4,5,6 Size
0601-0701-0801-0901-1101-1202-1402-1602-1802-2002-2202-2502-2802

7 Field of use
 ° Standard (temperature of water produced up to +4 °C)
 X Electronic thermostatic valve (temperature of water produced up to +4 °C)
 (for lower temperatures please contact us)

8 Model
 ° Only cooling

9 Heat recovery (1)
 ° Without heat recovery
 D With desuperheater
 T With total recovery

10 Versions
 ° Standard
 L Low noise

Heat exchanger (2)
 ° PED regulation
 E Evaporating unit (delivered with holding charge only)

11 Power supply (3)
 ° 400V/3/50Hz
 8 400V/3/50Hz with circuit breakers
 2 230V/3/50Hz with fuses
 4 230V/3/50Hz with circuit breakers
 5 500V/3/50Hz with fuses
 9 500V/3/50Hz with circuit breakers

(1) The desuperheater and total recovery are not available for sizes 0601 and 1202; T are not compatible with E

(2) The size 0601 and 1202 they can not be motoevaporating

(3) For size 2502 and 2802 no 230V/3/50Hz

Technical Data

HWS - °/L		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802	
		V/ph/Hz				400V/3/50Hz									
12°C / 7°C	Cooling capacity	(1) kW	146,4	179,0	212,0	233,0	293,0	293,0	356,0	422,0	468,0	527,0	586,0	660,0	712,0
	Total input power	(1) kW	31,8	38,1	43,2	49,3	59,7	63,5	76,8	86,5	101,0	110,7	120,5	137,7	148,2
	EER	(1)	4,61	4,69	4,91	4,74	4,91	4,61	4,63	4,87	4,64	4,76	4,86	4,8	4,8
	ESEER		5,12	5,29	5,55	5,37	5,55	5,20	5,25	5,49	5,23	5,35	5,44	5,33	5,29
	Cooling Energy Class Eurovent	(1)	C	B	B	B	B	C	C	B	C	B	B	B	B
	Water flow rate system side	(1) l/h	25284	30788	36636	40248	50568	50568	61404	72756	80840	90988	101136	114036	122980
Pressure drop	(1) kPa	29	20	20	19	23	38	36	40	41	45	48	53	62	
Water flow rate geothermal side	(1) l/h	30268	36834	43499	48091	60045	60535	73496	86318	96690	108308	119927	135441	145856	
Pressure drop	(1) kPa	40	27	27	26	31	53	50	55	58	62	67	75	88	
40°C / 45°C	Heating capacity	(2) kW	161,0	192,0	219,0	246,0	309,0	320,0	376,0	435,0	493,0	559,0	627,0	690,0	771,0
	Total input power	(2) kW	36,9	44,1	48,9	56,9	71,2	73,8	87,9	99,2	113,6	129,0	143,6	155,2	178,0
	COP	(2)	4,35	4,35	4,47	4,32	4,34	4,34	4,28	4,39	4,34	4,33	4,37	4,44	4,33
	Water flow rate system side	(2) l/h	27520	32852	37496	42140	52976	54868	64500	74648	84452	95804	107500	118164	131924
	Pressure drop	(2) kPa	31	41	20	19	24	42	36	39	42	46	50	55	74
	Water flow rate geothermal side	(2) l/h	21638	25826	29653	32990	41538	43103	50448	58798	66315	75216	84624	93491	103819
Pressure drop	(2) kPa	19	12	12	12	14	25	22	24	25	27	29	32	44	
Performance under average climatic conditions (Average)															
Pdesignh	(3)	215	257	293	330	/	/	/	/	/	/	/	/	/	
SCOP	(3)	4,55	4,60	4,73	4,58	/	/	/	/	/	/	/	/	/	
ηs	(3)	174	176	181	175	/	/	/	/	/	/	/	/	/	

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/5°C
(3) Efficiencies for low temperature Applications (35°C), according to regulation n°811/2013 Pdesignh ≤ 400kW

HWS - E/LE		701	801	901	1101	1402	1602	1802	2002	2202	2502	2802	
12°C / 7°C	Cooling capacity	(4) kW	163	192	212	263	326	385	428	481	539	601	676
	Total input power	(4) kW	41	47	54	66	82	93	108	120	132	146	159
	EER	(4)	3,98	4,09	3,93	3,98	3,98	4,14	3,96	4,00	4,08	4,12	4,25
	Water flow rate system side	(4) l/h	28040	33020	36460	45240	56070	66220	73620	82790	92710	103370	116270
	Pressure drop	(4) kPa	18	18	17	21	33	37	38	40	45	49	59

- (4) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

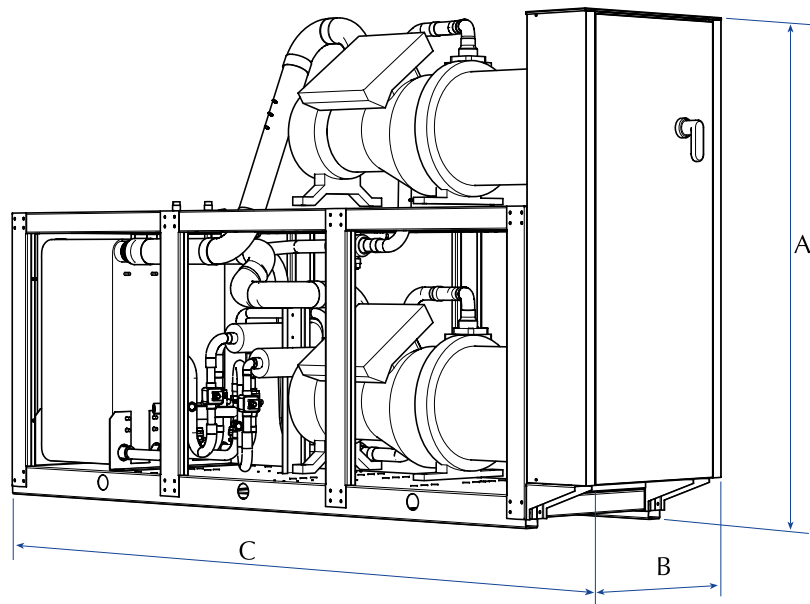
		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Electrical data														
Total input current (cooling)	°	A	56	66	74	82	101	112	132	148	164	184	203	233
Total input current (heating)	°	A	67	73	82	91	117	133	146	164	183	209	235	257
Total input current (cooling)	E	A	/	72	81	90	113	/	144	162	180	204	226	254
Maximum current (FLA)		A	105	124	144	162	182	210	248	288	324	344	364	430
Starting current (LRA)		A	180	163	192	229	300	285	287	336	391	462	482	575
Screw Compressor														
Compressors / Circuit	n°/n°	1/1	1/1	1/1	1/1	1/1	2/2	2/2	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)	(4) Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side														
Exchanger	Type/n°	Plate/1												
hydraulic connections (In/Out)	(4) Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data														
Sound power level	°	dB(A)	85	86	86	86	92	88	89	89	89	93	95	95
Sound pressure level		dB(A)	53	54	54	54	60	56	57	57	57	61	63	63
Sound power level	L	dB(A)	77	78	78	78	84	80	81	81	81	85	87	87
Sound pressure level		dB(A)	45	46	46	46	52	48	49	49	49	53	55	55
Sound power level	E	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 level	LE	dB(A)	/	78	78	78	84	/	81	81	81	85	87	87
Sound pressure level		dB(A)	/	46	46	46	52	/	49	49	49	53	55	55

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 HWS (°E - L)		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Height (A) °- E	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
Height (A) L - LE	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
Length (C)	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
	kg (°)	1101	1251	1301	1357	1788	1738	2028	2097	2169	2598	3000	3095	3095
Weight	kg (L)	1229	1379	1429	1485	1934	1966	2256	2325	2397	2855	3257	3352	3352
	kg (D/DE)	-	1479	1529	1585	2045	-	2256	2325	2397	2855	3257	3352	3352

Mod HWS (° - L)		0601 T	0701 T	0801 T	0901 T	1101 T	1202 T	1402 T	1602 T	1802 T	2002 T	2202 T	2502 T	2802 T
Height (A) °	mm	-	2000	2000	2000	2000	-	2050	2050	2050	2050	2065	2065	2065
Height (A) L	mm	-	2120	2120	2120	2120	-	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	-	810	810	810	810	-	1250	1250	1250	1250	1250	1250	1250
Length (C)	mm	-	2960	2960	2960	3360	-	3060	3060	3060	3460	3460	3460	3460
Weight	kg	-	1479	1529	1585	2045	-	2294	2363	2435	2894	3296	3391	3391