

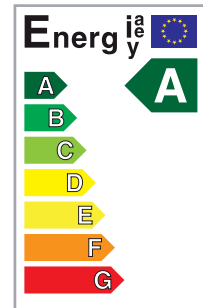
HWF WATER/WATER chillers with twin screw compressor

Cooling capacity from 630 up to 1529 kW
Heating capacity from 670 up to 1609 kW

R134a



Aermec participates in the EUROVENT Certification Program up to 1500 kW
The products of interest figure in the EUROVENT Guide of Certified products.



- **OPTIMISED FOR HIGH CONDENSATION TEMPERATURES**
for example appliances functioning also in heating mode
- **STANDARD AND HIGH EFFICIENCY VERSION**
- **CONDENSER WATER OUTLET TEMPERATURE MAXIMUM TEMPERATURE: 60 °C**
- **SHELL AND TUBE HEAT EXCHANGERS**
- **STANDARD ELECTRONIC THERMOSTATIC VALVE, WHICH ALLOWS:**
 - THE PRODUCTION OF REFRIGERATED WATER UP TO – 6 °C
 - ADJUSTMENT OF THE COOLING CAPACITY VIA CONTINUOUS MODULATION 12.5–100%

Features

- 8 sizes
- Two circuits
- High efficiency screw compressors optimised for R134a
- Heat exchangers with very large exchange surfaces
- **Electronic thermostatic valve as standard**
- Compact dimensions
- Suitable for use in heat pump mode with temperature of water produced up to 60°C (with hydraulic inversion) and in the presence of liquid chiller. **For functioning in heating mode envision the IS accessory, condensers isolation**
- **Extended operational limits**
- **temperature of the water exiting the condenser up to 60 °C**
- temperature of the water exiting the evaporator to -6 °C
- **Available set-ups:**
 - partial heat recovery
 - total heat recovery
 - moto-evaporating reduced sound emission owing to compressors enclosed by thick galvanised sheet steel panels with high density sound-absorbent capacity
 - **Microprocessor modular adjustment**
 - Redundancy of the components (one microprocessor per circuit)
 - Outlet water temperature control with continuous adjustment of capacity (12.5-100% for each compressor) and dynamic display of the cooling capacity
 - Control boards will numbered cables
 - Condensation control with 0-10Vdc signal for the management of a modulating valve/variable speed pump depending on the pressure
 - Standard amperometric transformer for each compressor
- "Always Working" Function: in critical conditions, the machine does not stop but can self-adjust
- Automatic compensation of the Set Points with analogue input from 4 to 20 mA or 0 - 10 V or external air probe
- Self-adapting differential work switch to always assure the correct compressor functioning times
- PDC "Pull Down Control" System: prevents the increase in power when the water temperature quickly approaches the set-point
- DL "Demand Limit": allows to limit electrical absorption of the machine in the case of insufficient electrical power (load peaks or start-up of generators).
- Multi-language display of the parameters

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PRV3:** Allows to control the chiller at a distance.
- **RIF:** Current rephaser. Connected in parallel to the motor, it allows a reduction of the input current (about 10%).
It can only be installed in the factory.
- **AVX:** Spring anti-vibration mounts.
- **AERWEB30:** the AERWEB device allows the remote control of a chiller from a common PC by means of a serial connection. By using additional modules the device allows control of the chiller by telephone network, using the **AERMODEM** accessory or GSM network, using the **AERMODEMGSM** accessory. The AERWEB can pilot up to 9 chillers, each of which **must be** equipped with the AER485 or AER485P2 accessory.
- **MULTICHILLER:** Control system for control, switch-on and switch-off of the single chillers in a plant in where multiple units are installed in parallel, always ensuring constant flow to the evaporators.
- **AKW (ACOUSTIC KIT):** Allows to lower the noise further via panelling of the machine optimised with high density ecological material. **Only available in L versions. It can only be installed in the factory.**
- **IS:** Isolation kit for condensers. Mandatory accessory for machine functioning in heat pump mode.
It can only be installed in the factory.

Accessories compatibility								
Mod	2512	2812	3212	3612	4212	4812	5612	6412
AERWEB30	✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER	✓	✓	✓	✓	✓	✓	✓	✓
AER485P1	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)
PRV3	✓	✓	✓	✓	✓	✓	✓	✓
AVX	✓	✓	✓	✓	✓	✓	✓	✓
RIF	RIFHWF 2512	RIFHWF 2812	RIFHWF 3212	RIFHWF 3612	RIFHWF 4212	RIFHWF 4812	RIFHWF 5612	RIFHWF 6412
AKW(HWF-L)	✓	✓	✓	✓	✓	✓	✓	✓
IS1	°/A	°/A	°	°	°	°	°	°
IS2			A	A	A	A		
IS3							A	A

AVX compatibility								
standard/standard silenced								
Mod HWF	2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
AVX	673	673	673	674	674	674	675	675
high efficiency/high efficiency silenced								
Mod HWF	2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
AVX	673	673	674	675	675	675	676	676
Mod HWF	2512AL	2812AL	3212AL	3612AL	4212AL	4812AL	5612AL	6412AL
AVX	674	674	675	675	675	675	676	676

REF - AKW - IS are accessories installed only in the factory

° = standard version

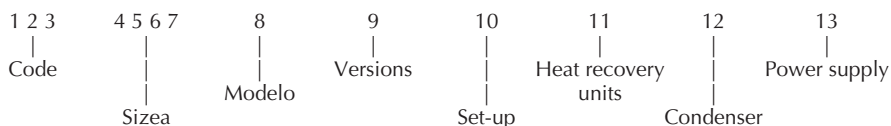
A = high efficiency version

°L/AL = silenced versions

Choosing the unit

By appropriately combining the variety of options available, it is possible to configure every model in a manner that satisfies all specific implant requirements.

Fields configurator:



Identification:

HWF

Size:

2512, 2812, 3212, 3612, 4212, 4812, 5612, 6412

Model:

° - Optimised for high condensations

Versions:

° - Standard

A - High efficiency

Set-up:

° - Standard

L - Silenced

Heat recovery units:

° - Without heat recovery units

D - with partial recovery

T - with total recovery (not available for unit E)

Condenser:

° - Standard

E - Motor-evaporating

Power supply:

° - 400V 3~50Hz with fuses

8 - 400V 3~50Hz with magnet circuit breakers

5 - 500V 3~50Hz with fuses (only for 2512 and 2812)

9 - 500V 3~50Hz with magnet circuit switches (only for 2512 and 2812)

Caution: the standard options are represented by the ° symbol;

Example of a sale code: **HWF2512A8**

This is a high efficiency HWF unit, with size 2512 in Standard version, with PED standard heat exchangers and electric control board for compressors with 400V 3~ 50Hz motors with magnet circuit breakers.

As it has been noted, as every option is represented unmistakably from all others, it is not necessary to indicate the standard options within the marketing brand (identified by °).

Technical data

Mod HWF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
Cooling capacity	kW	630	716	846	949	1095	1261	1421	1519
Total input power	kW	127	144	169	191	220	252	286	305
Water flow rate at the evaporator	l/h	108360	123152	145512	163228	188340	216892	244412	261268
Pressure drop at the evaporator	kPa	41	56	53	44	41	60	65	72
Water consumption at the condenser	l/h	130204	147924	174580	196080	226180	260236	293604	313725
Pressure drop at the condenser	kPa	16	16	17	15	17	23	18	18
Input current	A	226	255	286	314	378	426	488	530
E.E.R.		4,96	4,97	5,01	4,97	4,98	5,00	4,97	4,98
E.E.R. class (Eurovent)		B	B	B	B	B	B	B	B
E.S.E.E.R.		5,85	5,87	5,91	5,86	5,87	5,90	5,86	5,88
Heating capacity	kW	670	762	898	1009	1163	1338	1512	1615
Total input power	kW	149	170	199	225	259	297	338	360
Water flow rate at the condenser	l/h	115240	131064	154456	173548	200036	230128	260064	277780
Pressure drop at the condenser	kPa	13	12	13	12	14	18	14	14
Water consumption at the evaporator	l/h	89612	101824	120228	134848	155482	179044	201928	215860
Pressure drop at the evaporator	kPa	28	39	36	30	28	41	45	49
Input current	A	267	300	337	371	446	503	575	625
C.O.P.		4,50	4,48	4,51	4,48	4,49	4,50	4,47	4,49
C.O.P. class (Eurovent)		A	A	A	A	A	A	A	A
Electric power supply		400V-3-50Hz							
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Peak current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin screw compressor	n°	2	2	2	2	2	2	2	2
Partial load (electronic VT)	%	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100
Shell and tube evaporators	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connections (victaulic) Ø		6"	6"	6"	8"	8"	8"	8"	8"
Shell and tube condenser	n°	2	2	2	2	2	2	2	2
Condenser hydraulic connections (victaulic) Ø		5"	5"	5"	5"	5"	5"	6"	6"
Sound power (1)	db(A)	93,6	94,0	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

Mod HWF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
Cooling capacity	kW	645	733	858	969	1112	1253	1439	1529
Total input power	kW	123	140	164	185	212	239	275	293
Water flow rate at the evaporator	l/h	110940	126076	147584	166668	191264	215516	247500	262992
Pressure drop at the evaporator	kPa	44	60	57	41	59	40	42	50
Water consumption at the condenser	l/h	132096	150156	175792	198488	227728	256624	294800	313388
Pressure drop at the condenser	kPa	65	66	68	66	67	72	77	76
Input current	A	221	249	278	306	367	408	471	514
E.E.R.		5,24	5,24	5,23	5,24	5,25	5,24	5,23	5,22
E.E.R. class (Eurovent)		A	A	A	A	A	A	A	A
E.S.E.E.R.		6,19	6,18	6,17	6,18	6,19	6,19	6,17	6,16
Heating capacity	kW	678	771	902	1019	1168	1317	1513	1609
Total input power	kW	145	165	193	218	250	282	325	346
Water flow rate at the condenser	l/h	116616	132612	155144	175268	200892	226528	260236	276748
Pressure drop at the condenser	kPa	51	52	53	51	52	56	60	59
Water consumption at the evaporator	l/h	91676	104232	121948	137772	157892	178024	204336	217236
Pressure drop at the evaporator	kPa	30	41	39	28	40	28	29	34
Input current	A	261	293	328	361	433	481	556	606
C.O.P.		4,68	4,67	4,67	4,67	4,67	4,67	4,66	4,65
C.O.P. class (Eurovent)		A	A	A	A	A	A	A	A
Electric power supply		400V-3-50Hz							
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Peak current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin screw compressor	n°	2	2	2	2	2	2	2	2
Partial load (electronic VT)	%	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100
Shell and tube evaporators	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connections (victaulic) Ø		8"	8"	8"	10"	10"	10"	10"	10"
Shell and tube condenser	n°	2	2	2	2	2	2	2	2
Condenser hydraulic connections (victaulic) Ø		4"	4"	5"	5"	5"	5"	6"	6"
Sound power (1)	db(A)	93,6	94,0	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

(1) Sound pressure measured in free field with directionality factor 2 at 10 m, in agreement with the ISO 3744 Standard.

The performance declares refers to the following conditions:

Cooling:

- Evaporator water (in/out) 12°C/7°C
- Evaporator water (in/out) 30°C/35°C

Heating:

- Evaporator water (in/out) 40°C/45°C
- Evaporator water (in/out) 10°C/5°C

- With isolation of the condensers (mandatory accessory)

Technical data

Mod HWF		2512°E	2812°E	3212° E	3612°E	4212° E	4812°E	5612°E	6412°E
Cooling capacity	kW	540	615	726	816	947	1070	1225	1311
Total input power	kW	141	161	189	212	246	278	318	340
Water flow rate at the evaporator	l/h	92883	105773	124872	140352	162884	184040	210700	225492
Pressure drop at the evaporator	kPa	30	42	39	32	31	44	49	54
Input current	A	247	278	315	345	416	465	532	579
E.E.R.	W/W	3,83	3,82	3,84	3,85	3,85	3,85	3,85	3,86
E.E.R. class (Eurovent)		A	A	A	A	A	A	A	A
Electric power supply		400V-3-50Hz							
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Peak current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin screw compressor	n°	2	2	2	2	2	2	2	2
Partialisation (electronic VT)	%	35-100	35-100	35-100	35-100	35-100	35-100	35-100	35-100
Shell and tube evaporators	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connections (victaulic) Ø		6"	6"	6"	8"	8"	8"	8"	8"
Sound pressure (1)	db(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound power	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

Mod HWF		2512AE	2812AE	3212AE	3612AE	4212AE	4812AE	5612AE	6412AE
Cooling capacity	kW	577	657	779	873	1012	1143	1263	1362
Total input power	kW	143	162	191	214	248	280	320	342
Water flow rate at the evaporator	l/h	99244	113004	133988	150156	174064	196596	217236	234264
Pressure drop at the evaporator	kPa	35	48	47	33	49	34	32	39
Input current	A	249	281	318	348	418	467	534	581
E.E.R.	W/W	4,03	4,06	4,08	4,08	4,08	4,08	3,95	3,98
E.E.R. class (Eurovent)		A	A	A	A	A	A	A	A
Electric power supply		400V-3-50Hz							
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Peak current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin screw compressor	n°	2	2	2	2	2	2	2	2
Partial load (electronic VT)	%	35-100	35-100	35-100	35-100	35-100	35-100	35-100	35-100
Shell and tube evaporators	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connections (victaulic) Ø		8"	8"	8"	10"	10"	10"	10"	10"
Sound pressure (1)	db(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound power	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

(1) Sound pressure measured in free field with directionality factor 2 at 10 m, in agreement with the ISO 3744 Standard.

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Cooling:

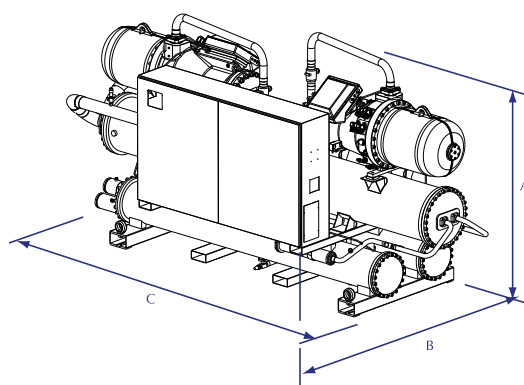
Evaporator water (in/out) = 12 °C/7°C

Condensation T. = 45°C

Dimensional data (mm)

Mod HWF		2512	2812	3212	3612	4212	4812	5612	6412
Height (A)	mm	2100	2100	2050	2120	2140	2140	2210	2210
Width (B)	mm	1470	1470	1470	1520	1550	1550	1600	1600
Length (C)	mm	3690	3690	4030	4030	4370	4370	4610	4760
Weight	Kg	3570	3650	4470	4750	5100	5200	6110	6310

Mod HWF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
Height (A)	mm	2180	2180	2190	2340	2340	2340	2380	2380
Width (B)	mm	1470	1470	1537	1695	1695	1695	1700	1700
Length (C)	mm	4330	4330	4330	4370	4550	4550	4800	4800
Weight	Kg	4080	4140	5470	5950	6290	6460	7310	7410



Caution: For the dimensions of versions D - T - L - E contact the head office