

WF

Water cooled heat pump reversible water side

Cooling capacity 631,5 ÷ 2340,0 kW

Heating capacity 697,7 ÷ 2567,7 kW

• Optimised for low condenser temperatures

For example: units working in cooling mode with ground or tower water, or units working in heat pump mode with low leaving water temperature

- **Maximum condenser leaving water temperature: 50°C**
- **Standard electronic expansion valve**



EUROVENT LCP

FEATURES

- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor)
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 50 °C (with hydraulic system reversing) and with ground water or geothermal loops. **For heating mode operation the IS accessory, condenser isolating valves, is required**

Version

- WF_°** Standard chillers
- WF_A** High efficiency version

Operational limits

- condenser leaving water temperature up to 50 °C
- evaporator leaving liquid temperature down to -6 °C

Options available

- D** partial heat recovery
- T** total heat recovery
- E** evaporating unit
- L** low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material

Modulating capacity control microprocessor system

- Redundancy of the unit (one microprocessor per circuit)
- Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
- Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating valve / variable speed pump
- Electrical panel with all cables numbered

- Current transformer as standard for each compressor
- “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)
- Multilingual display panel

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

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 unit); 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 system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

PRV3: Remote control of the chiller operating functions.

AVX: Spring anti-vibration mounts.

ACCESSORIES FACTORY FITTED ONLY

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

AKW: Acoustic kit. (only for Versions L). Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

IS: Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

ACCESSORIES COMPATIBILITY

Mod	Vers	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•

AVX: Antivibration

Size	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Ver												
°	AVX673	AVX673	AVX673	AVX674	AVX674	AVX674	AVX675	AVX675	AVX689	AVX689	AVX689	AVX689
° L	AVX673	AVX673	AVX674	AVX674	AVX674	AVX674	AVX675	AVX675	AVX689	AVX689	AVX689	AVX689
Size												
Ver												
A	AVX673	AVX673	AVX674	AVX675	AVX675	AVX675	AVX676	AVX676	AVX690	AVX690	AVX691	AVX691
A L	AVX674	AVX674	AVX675	AVX675	AVX675	AVX675	AVX676	AVX676	AVX690	AVX690	AVX691	AVX691

Power factor correction

Size	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Version	RIFWF2512	RIFWF2812	RIFWF3212	RIFWF3612	RIFWF 4212	RIFWF 4812	RIFWF 5612	RIFWF 6412	RIFWF 6713	RIFWF 7213	RIFWF 8413	RIFWF 9613

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

Acoustic kit

Size	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AKW	(1)	•	•	•	•	•	•	•	•	•	•	•

(1) The accessory is only available for the low noise version "L"

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

Isolating valves

Size	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
IS1	(2) %A	%A	°	°	°	°	-	-	-	-	-	-
IS2	(2) -	-	A	A	A	A	°	°	-	-	-	-
IS3	(2) -	-	-	-	-	-	A	A	-	-	-	-
IS4	(2) -	-	-	-	-	-	-	-	°	°	°	-
IS5	(2) -	-	-	-	-	-	-	-	A	A	-	°
IS6	(2) -	-	-	-	-	-	-	-	-	-	A	A

(2) For heating mode operation the IS accessory, condenser isolating valves, is required

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

■ Attention: For D - T - E version - please contact us

CONFIGURATOR

Field	Description
1,2	WF
3,4,5,6	Size
	2512-2812-3212-3612-4212-4812-5612-6412-6713-7213-8413-9613
7	Model
°	Optimised for low condensing temperature
8	Version
°	Standard
A	High efficiency
9	Equipment
°	Standard
L	low noise
10	Heat recovery
°	Without recovery
D	With Desuperheater
T	With total recovery ⁽¹⁾

Field	Description
11	Evaporator
°	Standard
E	Evaporating unit
12	Power supply
°	400V/3/50Hz with fuses
2	230V/3/50Hz with fuses
5	500V/3/50Hz with fuses ⁽²⁾
8	400V/3/50Hz with circuit breakers
4	230V/3/50Hz cwith circuit breakers
9	500V/3/50Hz with circuit breakers ⁽²⁾

(1) Options T are not compatible with option "E"

(2) 500V/3/50Hz available only size 2512-2812

PERFORMANCE SPECIFICATIONS

WF - °

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Power supply		400V/3/50Hz											
Cooling performance 12 °C / 7 °C⁽¹⁾													
Cooling capacity	kW	631,5	722,3	874,3	986,3	1113,3	1280,1	1411,1	1552,1	1661,4	1881,6	2090,6	2317,6
Input power	kW	125,1	143,2	174,0	194,9	219,3	254,0	280,2	310,0	333,1	376,4	424,5	470,4
Cooling total input current	A	212	243	282	317	349	416	457	506	529	620	688	764
EER		5,05	5,04	5,02	5,06	5,08	5,04	5,04	5,01	4,99	5,00	4,92	4,93
Water flow rate system side	l/h	108585	124220	150335	169578	191398	220090	242598	266823	285596	323421	359343	398350
Pressure drop system side	kPa	41	58	56	47	43	62	65	75	51	40	49	56
Water flow rate source side	l/h	129515	148070	179328	202178	228119	262303	289266	318289	340741	385931	429687	476210
Pressure drop source side	kPa	16	16	18	16	18	24	17	19	47	48	48	48
Heating performance 40 °C / 45 °C⁽²⁾													
Heating capacity	kW	697,8	797,6	966,2	1089,0	1228,6	1412,8	1558,1	1714,7	1836,0	2079,5	2316,8	2567,4
Input power	kW	157,9	181,9	220,7	246,3	276,7	322,3	356,2	395,2	419,8	472,2	534,2	593,3
Heating total input current	A	263	302	350	394	434	517	568	629	657	771	855	949
COP		4,42	4,38	4,38	4,42	4,44	4,38	4,37	4,34	4,37	4,40	4,34	4,33
Water flow rate system side	l/h	121221	138559	167848	189203	213457	245440	270712	297917	318950	361269	402507	446049
Pressure drop system side	kPa	14	14	16	14	16	21	15	17	41	42	43	42
Water flow rate source side	l/h	158429	181241	219344	247420	279257	321120	353959	389305	416696	471884	524295	581208
Pressure drop source side	kPa	87	124	119	100	92	132	138	160	109	84	104	118

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WF - A

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Power supply		400V/3/50Hz											
Cooling performance 12 °C / 7 °C⁽¹⁾													
Cooling capacity	kW	640,4	727,3	890,2	1006,3	1136,2	1281,3	1416,2	1553,1	1707,3	1934,4	2154,0	2340,0
Input power	kW	120,6	138,0	169,0	188,7	213,9	240,0	269,9	299,2	324,2	368,5	412,7	458,8
Cooling total input current	A	202	232	268	303	332	392	437	483	514	603	668	741
EER		5,31	5,27	5,27	5,33	5,31	5,34	5,25	5,19	5,27	5,25	5,22	5,10
Water flow rate system side	l/h	110131	125079	153084	173014	195350	220262	243457	266995	293469	332510	370240	402201
Pressure drop system side	kPa	44	59	62	44	62	42	41	51	36	57	58	68
Water flow rate source side	l/h	129922	147620	180618	203996	230292	259679	287828	315995	346993	393008	438292	477401
Pressure drop source side	kPa	64	65	73	70	70	75	75	78	70	70	57	68
Heating performance 40 °C / 45 °C⁽²⁾													
Heating capacity	kW	697,7	792,9	969,9	1095,2	1236,2	1393,9	1546,4	1698,3	1864,1	2111,0	2355,3	2567,7
Input power	kW	151,5	174,4	213,5	236,8	270,2	300,7	338,0	375,9	405,5	464,4	520,8	580,2
Heating total input current	A	251	288	333	377	413	487	543	600	639	749	830	921
COP		4,60	4,55	4,54	4,62	4,57	4,64	4,57	4,52	4,60	4,55	4,52	4,43
Water flow rate system side	l/h	121154	137678	168437	190196	214700	242104	268601	294992	323825	366722	409194	446105
Pressure drop system side	kPa	56	56	63	61	61	65	65	68	61	61	50	59
Water flow rate source side	l/h	160685	182494	223355	252434	285022	321371	355212	389556	428183	485145	540194	586827
Pressure drop source side	kPa	94	126	132	94	132	89	87	109	77	122	123	146

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WF - °E

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Cooling performance 12 °C / 7 °C⁽¹⁾													
Cooling capacity	kW	547,0	624,0	748,0	842,0	954,0	1077,0	1208,0	1328,0	1469,4	1679,0	1801,1	1997,9
Input power	kW	143,0	162,0	195,0	221,0	247,0	279,0	313,0	345,0	381,3	431,1	483,2	533,5
Cooling total input current	A	242	277	321	363	398	465	516	571	613	712	790	873
EER		3,83	3,85	3,84	3,81	3,86	3,86	3,86	3,85	3,85	3,89	3,73	3,74
Water flow rate system side	l/h	93980	107210	128514	144665	163908	185040	207548	228165	252464	288478	309456	343261
Pressure drop system side	kPa	31	43	41	34	31	44	47	55	39	30	36	41

(1) Water user side 12 °C / 7 °C; Condensing temperature 45 °C

WF - AE

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Cooling performance 12 °C / 7 °C⁽¹⁾													
Cooling capacity	kW	585,0	665,0	800,0	899,0	1016,0	1148,0	1246,0	1382,0	1509,8	1710,2	1852,0	2018,6
Input power	kW	143,0	162,0	195,0	221,0	248,0	280,0	313,0	346,0	385,8	437,4	490,0	541,0
Cooling total input current	A	242	277	321	363	398	465	516	571	615	713	792	874
EER		4,09	4,10	4,10	4,07	4,10	4,10	3,98	3,99	3,91	3,91	3,78	3,73
Water flow rate system side	l/h	100509	114254	137449	154458	174560	197239	214076	237443	259397	293839	318199	346824
Pressure drop system side	kPa	36	49	50	35	49	34	31	40	26	42	41	49

(1) Water user side 12 °C / 7 °C; Condensing temperature 45 °C

ENERGY DATA

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613	
Cooling capacity with low leaving water temp		(UE n° 2016/2281)												
SEER	°	W/W	5,88	5,92	5,91	5,97	6,01	5,96	5,97	5,95	6,11	6,34	6,21	6,14
	A	W/W	6,15	6,10	6,15	6,24	6,25	6,28	6,20	6,37	6,46	6,39	6,34	6,26
η _{sc}	°	%	227,3	228,7	228,4	230,7	232,4	230,5	230,7	229,8	236,4	245,4	240,2	237,5
	A	%	238,0	236,0	238,1	241,4	241,8	243,3	239,8	246,9	250,4	247,7	245,6	242,2

ELECTRIC DATA

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Electric data													
Maximum current (FLA)	A	294	336	396	446	494	572	636	702	741	858	954	1053
Peak current (LRA)	A	447	528	596	659	712	872	968	1156	859	1047	1178	1376

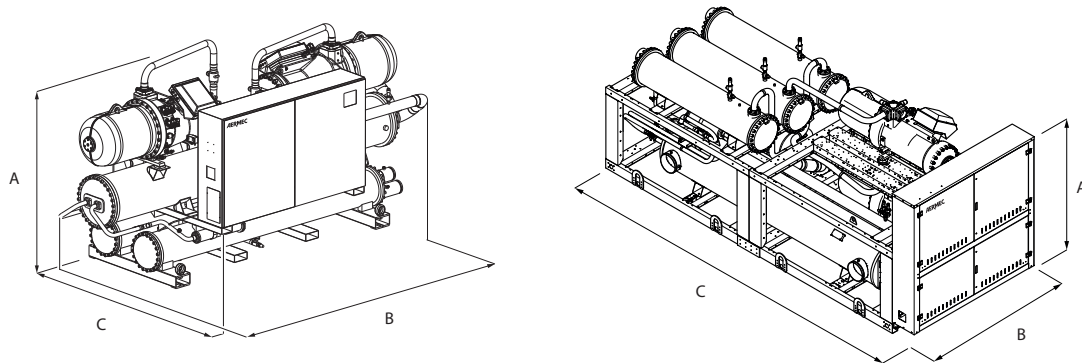
GENERAL TECHNICAL DATA

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613	
Compressor		Type	Screw											
Compressor / Circuit	n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	
Refrigerant	Type	R134a												
System side heat exchanger		Type/n°	Shell&tube/1											
Heat exchanger	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"	10"	10"	10"	10"
Connections (in/out)	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"	10"	10"	10"	10"
Source side heat exchanger		Type/n°	Shell&tube/2					Shell&tube/3						
Heat exchanger	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"	5"	5"	5"	5"
Connections (in/out)	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"	5"	5"	6"	6"
Sound data ⁽¹⁾														
Sound power level	dB(A)	94	94	94	94	95	96	97	98	96	97	99	100	
Sound pressure level	dB(A)	62	62	62	62	63	64	65	66	64	65	67	68	

(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).

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

DIMENSIONS



Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Dimensions and weights													
A	°	mm	2100	2100	2050	2120	2140	2140	2210	2210	2250	2250	2250
B	°	mm	3690	3690	4030	4030	4370	4370	4610	4760	5650	2200	2200
C	°	mm	1470	1470	1470	1520	1550	1550	1600	1600	2200	5650	5650
Peso	°	Kg	3570	3650	4470	4750	5050	5180	6030	6260	7991	8145	8446

Size		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Dimensions and weights													
A	A	mm	2180	2180	2190	2340	2340	2340	2380	2380	2250	2250	2250
B	A	mm	4330	4330	4330	4370	4550	4550	4800	4800	2200	2200	2200
C	A	mm	1470	1470	1537	1695	1695	1695	1700	1700	5650	5650	5650
Peso	A	Kg	4080	4140	5470	5950	6240	6440	7230	7360	8893	9063	9637

Attention: For D - T - E version - please contact us

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.

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