

WRL

Water-cooled chillers
Cooling capacity from 6.6 to 43.7 kW

R410A

Variable Multi Flow

VMF



AERMEC participates to EUROVENT program: LCP/W/P/C. The involved products can be found in the website www.eurovent-certification.com



MODU_CONTROL DISPLAY



KSAE External air probe ACCESSORY



PR3 Simplified remote panel ACCESSORY

- HIGH EFFICIENCIES
- POSSIBILITY OF HAVING: DESUPERHEATER
- USED FOR GEOTHERMAL APPLICATIONS

Features

WRL is the range of water-cooled chillers operating with R410A refrigerant. They are indoor units with hermetic scroll compressors that respond perfectly to the requirements of the residential market: small dimensions, easy installation, low noise.

High efficiency

Aermec has designed these units to allow reaching high efficiencies and low consumptions.

Connections

Electric and hydraulic connections are all positioned in the upper part of the unit to facilitate installation and maintenance operations. All this also allows to reduce technical spaces and their positioning in the smallest space possible.

Silent

WRL units are distinguished for their silent operation. Careful soundproofing of the unit with suitable sound-absorbent material confers all units with noise limits that allow them to be used in homes and not necessarily in dedicated technical premises.

Dynamic set point

Thanks to the use of a state of the art electronic adjustment and of an external air temperature probe "KSAE" (ACCESSORY), the chiller can adapt the temperature of the water produced, on variation of the climatic conditions, increasing the energy efficiency of the system.

Advantages

The technological choices made, orientated always at maximum quality coupled with the use of the most innovative technologies making the WRL series able to ensure, as well as the maximum energy efficiency, complete installation facility and excellent versatility of use aimed at the use of alternative sources.

Range

9 sizes are available.

Models

- WRL ° (only cold)
- WRL E (Condenserless unit (shipped with seal charge only))

Versions

- WRL ° (standard, without storage tank)

Technical features

- Structure and base in hot galvanised sheet steel and with epoxy paint. (RAL 9002).
- Large plate heat exchangers.
- Compressors with high performance and low electric absorption.
- Standard differential pressure switch (evaporator side).
- In compliance with Safety Directives (EC) and Standards regarding electromagnetic compatibility.
- The safety of the appliance is guaranteed by the door-lock isolating switch on the electric control board and active protections on the main components.
- State of the art electronic adjustment.
- Control circuit board (Modu control)
- PR3 simplified remote panel (ACCESSORY).
- Compatible with system (VMF), except for domestic hot water production.

Accessories

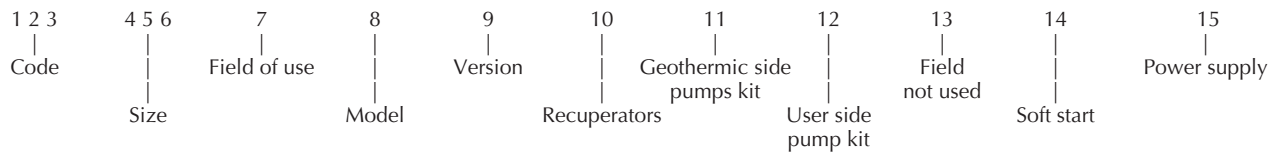
- **VT:** Anti-vibration mounts, four anti-vibration mounts to be mounted under the unit's sheet steel base.
- **KSAE:** External air probe. Temperature probe with plastic container.
- **PR3:** Simplified remote panel. Allows to perform the basic controls of the unit with alarm signals. It can be used with a shielded cable at a distance of 150 m.
- **MODU-485A:** interface for supervising systems with MODBUS protocol.

Accessories compatibility									
WRL	025	030	040	050	070	080	100	140	160
VT	9	9	9	9	9	9	15	15	15
KSAE	✓	✓	✓	✓	✓	✓	✓	✓	✓
PR3	✓	✓	✓	✓	✓	✓	✓	✓	✓
MODU-485A	✓	✓	✓	✓	✓	✓	✓	✓	✓

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:



CODE::

WRL

SIZE:

025 - 030 - 040 - 050 - 070 - 080 - 100 - 140 - 160

FIELD OF USE:

° - Standard with water produced up to +4°C
Y - Low temperature with water produced to -8°C

MODEL:

° - Cooling only
E - Condenserless unit (shipped with seal charge only)

VERSION:

° - Standard

HEAT RECOVERY:

° - Without recuperators
D - Desuperheater

VERSION GEOTHERMIC SIDE PUMP KIT "°":

° - Without pump

Geothermic applications

B - SPEED PUMP ON-OFF (UP TO MODEL WRL 080)
Single speed three-phase STANDARD PUMP (WRL 100-140-160 MODELS)
U - Single speed three-phase LARGER PUMP (WRL 100-140-160 MODELS)
F - Pump with phase cut set-up (MODELS UP TO WRL 080)
I - Inverter Pump (MODELS UP TO WRL 080)

Water sheet applications

V - 2-way modulating valve

USER SIDE PUMP KIT:

Standard version "°"

° - Without pump
P - speed ON-OFF PUMP (UP TO MODEL WRL 080)
Single speed three-phase
STANDARD PUMP (WRL 100-140-160 MODELS)
N - Single speed three-phase LARGER PUMP
(WRL 100-140-160 MODELS)

FIELD NOT USED

°

SOFT-START:

° - Without soft-start
S - With Soft-start

POWER SUPPLY:

° - 400V 3N~ 50Hz
M - 230V ~ 50Hz (only for models WRL 025 - 030 - 040)
4 - 230V-3-50Hz (only for models WRL 050, 070, 080, 100, 140, 160)

Configuration example:

WRL050Y°°°°°°S°

Technical data

WRL Model		025	030	040	050	070	080	100	140	160
Cooling capacity	230V-1 kW	6.6	8.3	11.3	-	-	-	-	-	-
	400V-3	6.7	8.4	11.3	14.7	19.2	21.8	29.4	38.4	43.7
Input power	230V-1 kW	1.47	1.78	2.50	-	-	-	-	-	-
	400V-3	1.43	1.70	2.42	3.05	3.93	4.59	6.09	7.84	9.17
Input current	230V-1 A	7.2	9.2	11.7	-	-	-	-	-	-
	400V-3	3.1	2.6	4.9	6.4	7.4	9.1	12.8	14.8	18.2
E.E.R.	230V-1	4.49	4.66	4.52	-	-	-	-	-	-
	400V-3	4.69	4.94	4.69	4.82	4.90	4.75	4.83	4.90	4.77
ESEER	230V-1	4.96	5.19	5.17	-	-	-	-	-	-
	400V-3	5.22	5.53	5.33	5.34	5.39	5.28	5.74	5.81	5.66
Rate of water evaporation	230V-1 lh	1.140	1.430	1.940	-	-	-	-	-	-
	400V-3	1.150	1.450	1.940	2.530	3.300	3.750	5.060	6.600	7.510
System side pressure drops "o"	230V-1 kPa	15	17	23	-	-	-	-	-	-
	400V-3	15	17	23	21	26	30	25	34	38
Condenser water consumption	230V-1 lh	1.390	1.740	2.370	-	-	-	-	-	-
	400V-3	1.390	1.750	2.360	3.050	3.970	4.540	6.100	7.950	9.090
Geothermic side pressure drops	230V-1 kPa	28	29	36	-	-	-	-	-	-
	400V-3	28	30	35	32	40	46	42	57	66
Compressor						SCROLL				
N° circuits/N° compressors		1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2	1 / 2
Flow rate control	%	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100	0 - 50 - 100	0 - 50 - 100	0 - 50 - 100
Evaporator						PLATES				
Hydraulic connections	ø	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4
Quantity	n°	1	1	1	1	1	1	1	1	1
Condenser						PLATES				
Hydraulic connections	ø	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4	F / 1"1/4
Quantity	n°	1	1	1	1	1	1	1	1	1
Storage tank						Only for versions equipped with storage tank/pumps				
Tank capacity	l	100	100	100	100	100	100	150	150	150
Expansion vessel										
WRL only with pump	n./l	1/2	1/2	1/2	1/2	1/2	1/2	1/8	1/8	1/8
WRL pump and storage tank	n°/l	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
Sound data										
Sound power	dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure**	dB(A)	47,0	48,5	49,0	50,5	51,5	52,0	53,5	54,5	55,0

[**] Sound pressure measured in semiriverberant chamber measuring 85 m3 and with reverberation time Tr=0,5 s

■ Cooling:

Evaporator	
Input temperature	12 °C
Output temperature	7 °C
Condenser	
Input temperature	30 °C
Output temperature	35 °C

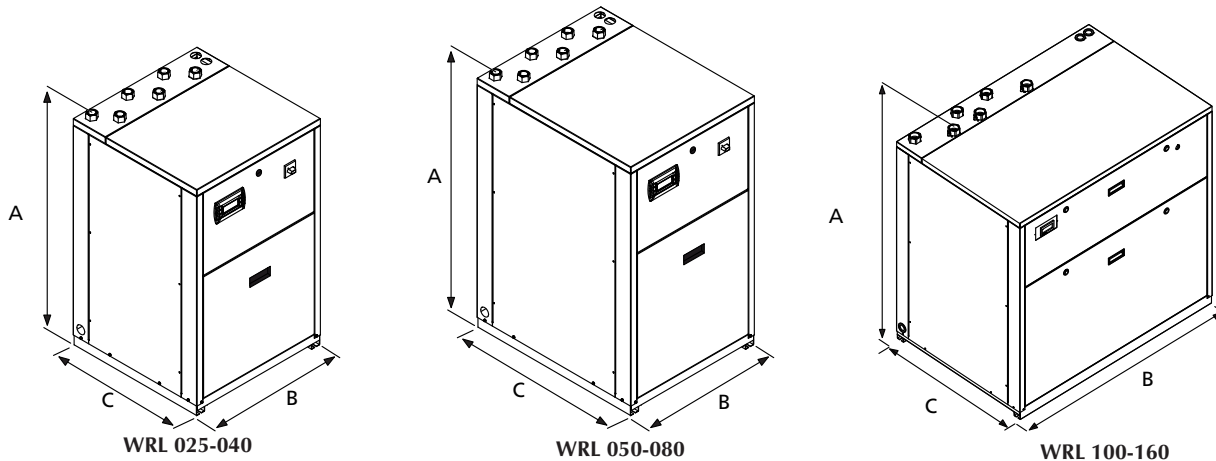
Technical data "E"

Model WRLE		025E	030E	040E	050E	070E	080E	100E	140E	160E
Cooling capacity	230V-1 kW	6.2	7.8	10.4	-	-	-	-	-	-
	400V-3	6.3	7.8	10.4	13.4	17.4	19.7	26.8	34.7	39.4
Input power	230V-1 kW	1.7	2.1	2.9	-	-	-	-	-	-
	400V-3	1.7	2.0	2.8	3.6	4.5	5.3	7.2	9.1	10.6
Input current	230V-1 A	8.3	10.5	12.8	-	-	-	-	-	-
	400V-3	3.4	3.2	5.4	7.2	8.3	10.2	14.3	16.6	20.5
E.E.R.	230V-1	3.56	3.65	3.63	-	-	-	-	-	-
	400V-3	3.70	3.87	3.75	3.73	3.83	3.71	3.73	3.83	3.71
Rate of water evaporation	230V-1 lh	1.070	1.340	1.790	-	-	-	-	-	-
	400V-3	1.080	1.340	1.790	2.300	2.980	3.390	4.600	5.970	6.770
System side pressure drops "o"	230V-1 kPa	13	15	20	-	-	-	-	-	-
	400V-3	13	15	20	18	21	24	21	28	31

■ Cooling:

Condenser inlet water temperature	45°C
Processed water temperature	7°C; Δt 5°C

Dimensions (mm)



WRL		025	030	040	050	070	080	100	140	160
Height (A)	mm	976	976	976	1.126	1.126	1.126	1.126	1.126	1.126
Width (B)	mm	607	607	607	607	607	607	1.157	1.157	1.157
Depth (C)	mm	628	628	628	798	798	798	798	798	798
Weight WRL°	kg	120	123	126	164	173	179	275	282	287
Weight WRLE	kg	110	115	125	150	150	150	245	250	250