

ANL 290-650

Air-water chiller

Cooling capacity 54,7 ÷ 133,5 kW

- Standard version
- Low noise version
- Option integrated hydronic kit user side



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in commercial complexes or industrial applications.

VERSIONS

- ° Standard
- L Silenced

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

Components

Water filter, flow switch, low and high pressure transducers as standard supply on all units.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Case

The base the structure and the panels are made of steel treated with polyester paintRAL 9002.

CONTROL

MODUCONTROL control type.

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

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.

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

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

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Antivibration supports

FACTORY FITTED ACCESSORIES

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

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	290	300	340	400	580	620	650
AERNET	°					*	*	*
	L	*	*	*	*	*	*	*
AERSET	°					*	*	*
	L	*	*	*	*	*	*	*
MODU-485BL	°					*	*	*
	L	*	*	*	*	*	*	*
MULTICONTROL	°					*	*	*
	L	*	*	*	*	*	*	*
PR3	°					*	*	*
	L	*	*	*	*	*	*	*
SPLW (1)	°					*	*	*
	L	*	*	*	*	*	*	*

(1) MULTICONTROL mandatory probe to enable secondary circuit management.

DCPX: Condensation control temperature

Ver	290	300	340	400	580	620	650
Fans: °							
°	-	-	-	-	DCPX83	DCPX83	DCPX83
L	-	-	-	-	As standard	As standard	As standard
Fans: M							
°	-	-	-	-	DCPX83	DCPX83	DCPX83
L	DCPX62	DCPX62	DCPX62	DCPX63	DCPX83	DCPX83	DCPX83

The accessory cannot be fitted on the configurations indicated with -
In versions with desuperheater, the DCPX is included as standard.

GP: Anti-intrusion grid

Ver	290	300	340	400	580	620	650
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
L	GP3	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy.

The accessory cannot be fitted on the configurations indicated with -

VT: Antivibration

Ver	290	300	340	400	580	620	650
Integrated hydronic kit: 00							
°	-	-	-	-	VT11	VT11	VT11
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04							
°	-	-	-	-	VT11	VT11	VT11
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11
Integrated hydronic kit: P1, P2, P3, P4							
°	-	-	-	-	VT11	VT11	VT11
L	VT13	VT13	VT13	VT17	VT11	VT11	VT11

The accessory cannot be fitted on the configurations indicated with -

RIF: Power factor correction

Ver	290	300	340	400	580	620	650
°	-	-	-	-	RIF50	RIF72	RIF51
L	RIF32	RIF32	RIF42	RIF42	RIF50	RIF72	RIF51

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	ANL
4,5,6	Size (1) 290, 300, 340, 400, 580, 620, 650
7	Operating field
°	Standard mechanic thermostatic valve (2)
X	Electronic thermostatic valve (3)
Y	Low temperature mechanic thermostatic valve (4)
8	Model
°	Cooling only
C	Motocondensing unit
9	Heat recovery
°	Without heat recovery
D	With desuperheater (5)
10	Version
°	Standard
L	Silenced
11	Coils
°	Alluminium
R	Copper-copper
S	Tinned copper
V	Copper-painted aluminium
12	Fans
°	Standard (6)
J	Inverter (7)
M	Oversized (8)
13	Power supply
°	400V 3N ~ 50Hz
14	Soft-start
°	Without Soft-Start
S	With Soft-Start
15,16	Integrated hydronic kit
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) The size up 290÷400 are only available in the silenced versions "L".

(2) Water produced up to +4 °C.

(3) Water produced up to +4 °C. For different temperature please contact the factory.

(4) Water produced up to -6 °C.

(5) With this option the "X" and "Y" valves are not compatible.

(6) As standard in sizes fom 580÷650.

(7) Standard for size 290÷400, without useful static pressure. Option for size 580÷650 with useful static pressure.

(8) Option available for all size.

PERFORMANCE SPECIFICATIONS

ANL - °

Size		290	300	340	400	580	620	650
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	-	-	-	-	111,4	124,5	133,5
Input power	kW	-	-	-	-	40,4	47,2	54,5
Cooling total input current	A	-	-	-	-	70,0	82,0	94,0
EER	W/W	-	-	-	-	2,76	2,64	2,45
Water flow rate system side	l/h	-	-	-	-	19191	21442	22988
Pressure drop system side	kPa	-	-	-	-	81	61	70

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ANL - L

Size		290	300	340	400	580	620	650
Cooling performance 12 °C/7 °C(1)								
Cooling capacity	kW	54,7	60,0	66,0	76,3	104,5	114,6	121,4
Input power	kW	20,9	22,9	25,1	29,9	43,7	51,3	59,4
Cooling total input current	A	38,0	41,0	46,0	55,0	74,0	87,0	101,0
EER	W/W	2,62	2,61	2,63	2,56	2,39	2,24	2,04
Water flow rate system side	l/h	9415	10326	11374	13144	18006	19758	20909
Pressure drop system side	kPa	28	33	40	41	71	52	58

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY DATA

Size		290	300	340	400	580	620	650	
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	°	W/W	-	-	-	-	3,96	3,92	3,90
	L	W/W	3,83	3,84	3,87	3,86	3,86	3,81	3,81
η _{sc}	°	%	-	-	-	-	155,50	153,70	152,80
	L	%	150,00	150,60	151,70	151,20	151,20	149,30	149,40

ELECTRIC DATA

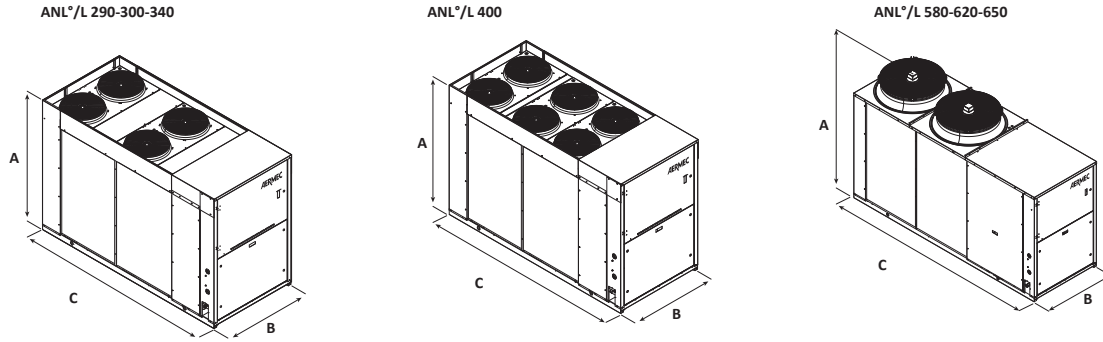
Size		290	300	340	400	580	620	650	
400V 3N ~ 50Hz									
Electric data									
Maximum current (FLA)	°	A	-	-	-	-	85,0	99,0	112,0
	L	A	49,0	53,0	58,0	69,0	85,0	99,0	112,0
Peak current (LRA)	°	A	-	-	-	-	262,0	308,0	320,0
	L	A	130,0	131,0	162,0	183,0	262,0	308,0	320,0

GENERAL TECHNICAL DATA

Size		290	300	340	400	580	620	650	
Compressor									
Type	°	type	-	-	-	-	Scroll	Scroll	Scroll
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	-	2	2	2
	L	no.	2	2	2	2	2	2	2
Circuits	°	no.	-	-	-	-	1	1	1
	L	no.	1	1	1	1	1	1	1
Refrigerant	°	type	-	-	-	-	R410A	R410A	R410A
	L	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Potential global heating	°L	GWP	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	
Refrigerant charge	°	kg	-	-	-	-	19,1	18,5	19,0
	L	kg	9,0	10,7	10,7	10,4	19,1	18,5	19,0
System side heat exchanger									
Type	°	type	-	-	-	-	Brazed plate	Brazed plate	Brazed plate
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	-	1	1	1
	L	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°	Type	-	-	-	-	Grooved joints	Grooved joints	Grooved joints
	L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	∅	-	-	-	-	2 ½"	2 ½"	2 ½"
	L	∅	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Fan									
Type	°	type	-	-	-	-	axials	axials	axials
	L	type	axials	axials	axials	axials	axials	axials	axials
Fan motor	°	type	-	-	-	-	On-Off	On-Off	On-Off
	L	type	Inverter	Inverter	Inverter	Inverter	On-Off	On-Off	On-Off
Number	°	no.	-	-	-	-	2	2	2
	L	no.	4	4	4	6	2	2	2
Air flow rate	°	m ³ /h	-	-	-	-	35900	35900	35900
	L	m ³ /h	15600	15600	15600	20700	35900	35900	35900
Sound data calculated in cooling mode (1)									
Sound power level	°	dB(A)	-	-	-	-	82,4	82,8	83,2
	L	dB(A)	73,4	73,5	74,2	75,1	77,2	77,6	78,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	50,5	50,9	51,3
	L	dB(A)	41,7	41,8	42,5	43,4	45,3	45,7	46,1

(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).

DIMENSIONS



Size			290	300	340	400	580	620	650
Dimensions and weights									
A	°	mm	-	-	-	-	1875	1875	1875
	L	mm	1605	1605	1605	1875	1875	1875	1875
B	°	mm	-	-	-	-	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3200	3200	3200
	L	mm	2450	2450	2450	2950	3200	3200	3200
Weight empty	°	kg	-	-	-	-	854	925	970
	L	kg	628	636	648	666	854	925	970

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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