

ANL 292H - 652H

Reversible air/water heat pump

Cooling capacity 52,9 ÷ 128,8 kW
Heating capacity 60,8 ÷ 141,4 kW



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



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- L Silenced

FEATURES

Operating field

Operation at full load up to 43 °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.

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It's available in various configurations, with storage tank or pumps.

Inverter fans

Inverter fans from size 292 to size 432 versions L.

The DCPX accessory is not required for these sizes.

MODUCONTROL CONTROL

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

AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.

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), 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: Anti-vibration 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

Model	Ver	292	302	342	402	582	622	652
AERLINK	°				*	*	*	*
	L	*	*	*	*	*	*	*
AERNET	°				*	*	*	*
	L	*	*	*	*	*	*	*
AERSET	°				*	*	*	*
	L	*	*	*	*	*	*	*
MODU-485BL	°				*	*	*	*
	L	*	*	*	*	*	*	*
MULTICONTROL	°				*	*	*	*
	L	*	*	*	*	*	*	*
PR3	°				*	*	*	*
	L	*	*	*	*	*	*	*
SPLW (1)	°				*	*	*	*
	L	*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	292	302	342	402	582	622	652
Fans: °							
°	-	-	-	DCPX83	DCPX83	DCPX83	DCPX83
L	-	-	-	As standard	As standard	As standard	As standard
Fans: M							
L	DCPX62	DCPX62	DCPX63	-	-	-	-

In versions with desuperheater, the DCPX is included as standard.

GP: Anti-intrusion grid

Ver	292	302	342	402	582	622	652
°	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
L	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x_ indicates the quantity to buy

VT: Antivibration

Ver	292	302	342	402	582	622	652
Integrated hydronic kit: 00							
°	-	-	-	VT11	VT11	VT11	VT11
L	VT17	VT17	VT17	VT11	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04, P1, P2, P3, P4							
°	-	-	-	VT11	VT11	VT11	VT11
L	VT13	VT13	VT13	VT11	VT11	VT11	VT11

RIF: Power factor correction

Ver	292	302	342	402	582	622	652
°	-	-	-	RIF42	RIF50	RIF72	RIF51
L	RIF32	RIF32	RIF42	RIF42	RIF50	RIF72	RIF51

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

CONFIGURATOR

Field	Description
1,2,3	ANL
4,5,6	Size 292, 302, 342, 402, 582, 622, 652
7	Operating field
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
8	Model
H	Heat pump
9	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
10	Version
°	Standard
L	Silenced
11	Coils
°	Alluminium
R	Copper pipes-copper fins
S	Tinned copper
V	Copper pipes-Coated aluminium fins
12	Fans
°	Standard (4)
J	Inverter (5)
M	Oversized (6)
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) Water produced up to +4 °C.

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

(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) As standard in sizes fom 402÷652.

(5) Standard for size 292÷342, without useful static pressure. Option for size 402÷652 with useful static pressure.

(6) Option available only for size 292÷342.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (H°)

Size		292	302	342	402	582	622	652
Cooling performance 12 °C/ 7 °C (1)								
Cooling capacity	kW	-	-	-	81,0	102,7	119,8	126,6
Input power	kW	-	-	-	29,2	42,2	44,4	49,7
Cooling total input current	A	-	-	-	52,0	68,0	70,0	77,0
EER	W/W	-	-	-	2,78	2,43	2,70	2,55
Water flow rate system side	l/h	-	-	-	13951	17714	20635	21803
Pressure drop system side	kPa	-	-	-	29	55	53	61
Heating performance 40 °C/ 45 °C (2)								
Heating capacity	kW	-	-	-	88,3	118,8	131,0	138,6
Input power	kW	-	-	-	28,7	39,4	43,3	47,4
Heating total input current	A	-	-	-	51,0	63,0	68,0	74,0
COP	W/W	-	-	-	3,07	3,02	3,03	2,92
Water flow rate system side	l/h	-	-	-	15312	20595	22716	24036
Pressure drop system side	kPa	-	-	-	33	55	61	70

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HL)

Size		292	302	342	402	582	622	652
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	52,0	55,7	64,5	76,6	98,0	114,0	119,0
Input power	kW	21,0	24,0	24,6	30,7	45,5	47,6	53,1
Cooling total input current	A	37,0	41,0	45,0	54,0	72,0	75,0	83,0
EER	W/W	2,48	2,32	2,62	2,49	2,15	2,39	2,24
Water flow rate system side	l/h	8951	9587	11099	13178	16889	19638	20497
Pressure drop system side	kPa	26	24	31	26	40	48	55
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	59,6	64,6	71,3	88,3	118,8	131,0	137,3
Input power	kW	19,0	20,7	22,6	28,7	39,8	43,3	47,4
Heating total input current	A	34,0	36,0	42,0	51,0	63,0	68,0	74,0
COP	W/W	3,13	3,12	3,15	3,07	2,98	3,03	2,90
Water flow rate system side	l/h	10341	11210	12357	15312	20595	22716	23810
Pressure drop system side	kPa	32	29	35	33	55	61	70

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2018; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C**ANL - (H°)**

Size		292	302	342	402	582	622	652
Cooling performance 23 °C / 18 °C (1)								
Cooling capacity	kW	-	-	-	109,8	139,5	162,5	171,7
Input power	kW	-	-	-	32,5	47,0	49,4	55,4
Cooling total input current	A	-	-	-	57,0	75,0	77,0	85,0
EER	W/W	-	-	-	3,38	2,97	3,29	3,10
Water flow rate system side	l/h	-	-	-	18998	24121	28099	29690
Pressure drop system side	kPa	-	-	-	54	102	98	113
Heating performance 30 °C / 35 °C (2)								
Heating capacity	kW	-	-	-	91,7	123,4	136,1	144,0
Input power	kW	-	-	-	23,9	32,8	36,1	39,5
Heating total input current	A	-	-	-	42,0	52,0	56,0	61,0
COP	W/W	-	-	-	3,84	3,76	3,77	3,65
Water flow rate system side	l/h	-	-	-	15847	21315	23510	24877
Pressure drop system side	kPa	-	-	-	35	59	65	75

(1) Data EN 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (HL)

Size		292	302	342	402	582	622	652
Cooling performance 23 °C / 18 °C (1)								
Cooling capacity	kW	70,5	75,5	87,3	103,7	133,0	154,7	161,4
Input power	kW	23,3	26,6	27,4	34,1	50,6	52,9	59,0
Cooling total input current	A	41,0	45,0	50,0	59,0	79,0	83,0	91,0
EER	W/W	3,03	2,84	3,19	3,04	2,63	2,92	2,73
Water flow rate system side	l/h	12189	13055	15114	17945	22998	26742	27911
Pressure drop system side	kPa	48	45	57	48	74	89	102
Heating performance 30 °C / 35 °C (2)								
Heating capacity	kW	62,0	67,1	74,0	91,7	123,4	136,1	142,6
Input power	kW	15,8	17,2	18,8	23,9	33,1	36,1	39,5
Heating total input current	A	28,0	30,0	35,0	42,0	52,0	56,0	61,0
COP	W/W	3,92	3,90	3,94	3,84	3,72	3,77	3,61
Water flow rate system side	l/h	10703	11602	12789	15847	21315	23510	24643
Pressure drop system side	kPa	34	31	37	35	59	65	75

(1) Data EN 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			292	302	342	402	582	622	652
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	°	W/W	-	-	-	4,02	3,71	4,08	3,90
	L	W/W	3,65	3,50	3,88	3,82	3,64	4,01	3,79
ηsc	°	%	-	-	-	157,90	145,50	160,10	152,90
	L	%	142,80	137,00	152,30	149,60	142,60	157,30	148,50
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	°	kW	-	-	-	76	103	113	119
	L	kW	51	56	61	76	103	113	119
SCOP	°		-	-	-	3,53	3,53	3,55	3,48
	L		3,58	3,60	3,60	3,53	3,53	3,55	3,48
ηsh	°	%	-	-	-	138,00	138,00	139,00	136,00
	L	%	140,00	141,00	141,00	138,00	138,00	139,00	136,00
Efficiency energy class	°		-	-	-	-	-	-	-
	L		A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			292	302	342	402	582	622	652
Electric data									
Maximum current (FLA)	°	A	-	-	-	65,0	98,0	107,0	116,0
	L	A	44,0	47,0	54,0	65,0	98,0	107,0	116,0
Peak current (LRA)	°	A	-	-	-	181,0	264,0	264,0	273,0
	L	A	126,0	128,0	160,0	181,0	264,0	264,0	273,0

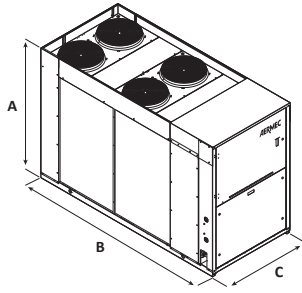
GENERAL TECHNICAL DATA

Size			292	302	342	402	582	622	652
Compressor									
Type	°	type	-	-	-	Scroll	Scroll	Scroll	Scroll
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	2	2	2	2
	L	no.	2	2	2	2	2	2	2
Circuits	°	no.	-	-	-	1	1	1	1
	L	no.	1	1	1	1	1	1	1
Refrigerant	°	type	-	-	-	R410A	R410A	R410A	R410A
	L	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Potential global heating	°	GWP	-	-	-	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq
	L	GWP	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq
System side heat exchanger									
Type	°	type	-	-	-	Brazed plate	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	1
	L	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°	Type	-	-	-	Grooved joints	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)	°	Ø	-	-	-	2 ½"	2 ½"	2 ½"	2 ½"
	L	Ø	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Fan									
Type	°	type	-	-	-	axials	axials	axials	axials
	L	type	axials	axials	axials	axials	axials	axials	axials
Fan motor	°	type	-	-	-	On-Off	On-Off	On-Off	On-Off
	L	type	Inverter	Inverter	Inverter	On-Off	On-Off	On-Off	On-Off
Number	°	no.	-	-	-	2	2	2	2
	L	no.	4	4	6	2	2	2	2
Air flow rate	°	m ³ /h	-	-	-	45800	45800	44600	44600
	L	m ³ /h	17600	17600	17200	32060	32060	31220	31220
Sound data calculated in cooling mode (1)									
Sound power level	°	dB(A)	-	-	-	89,0	89,0	89,0	89,0
	L	dB(A)	73,0	74,0	74,0	83,0	84,0	85,0	85,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	57,6	67,6	57,6	57,6
	L	dB(A)	41,7	42,4	42,6	51,5	52,1	52,7	53,4

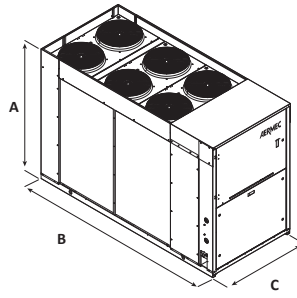
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

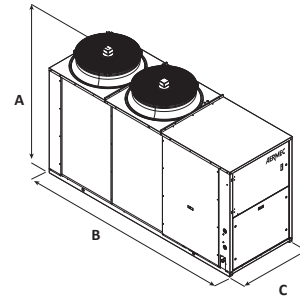
ANL - H 292-302



ANL - H 342



ANL - H 402 - 582 - 622 - 652



Size			292	302	342	402	582	622	652
Dimensions and weights									
A	°	mm	-	-	-	1875	1875	1875	1875
	L	mm	1605	1605	1605	1875	1875	1875	1875
B	°	mm	-	-	-	2950	3200	3200	3200
	L	mm	2450	2450	2450	2950	3200	3200	3200
C	°	mm	-	-	-	1100	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100
Empty weight	°	kg	-	-	-	808	902	1008	1053
	L	kg	655	660	684	808	902	1008	1053

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com