

TBA 1300-4325

Air-water chiller

Cooling capacity 328 ÷ 1404 kW

- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge
- Available also with R513A (XP10) refrigerant



DESCRIPTION

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

These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.

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

VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

FEATURES

Operating field

Operation at full load up to 46 °C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)
- Low peak currents (only 6 Amps!)

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Integrated hydronic kit

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

CONTROL PCO⁵

Units include 1 control board for each circuit.

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

AERBAC-ONE: Ethernet communication interface for Bacnet/IP and Modbus TCP/IP protocols, HTTPS protocol for web interface, encrypted communication protocols and access credential management in accordance with the latest standards. One accessory is provided for each unit control board.

AERBACP: Ethernet communication interface for Bacnet/IP and Modbus TCP/IP protocols. 1 accessory is provided for each unit control board.

AERNET: The device remotely controls, manages and remotely monitors a chiller/heat pump using a PC, smartphone or tablet via a Cloud connection. AERNET acts as Master while each connected unit is configured as Slave up to a maximum of 6 control cards. The connection is made via cable and/or USB key. Wi-Fi connectivity is not available. It is also possible to save a log file with all the data from the connected units to your terminal with a simple click for possible post-analysis. With the purchase of the Router, the Custom-

er benefits from a 24-month free period during which he can use the Aernet Service at no additional cost. At the end of this initial period, the Service may be renewed by subscribing to a 1, 2 or 3 year subscription. For further details on costs and renewal methods, please contact our office or consult the technical documentation available on our website. www.aermec.com.

MULTICHILLER-EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

XLATB: This kit allows to extend the working range of the unit from 0 °C to -10 °C ambient temperature, thanks to an additional electric heater and a special insulating material for the heat exchanger.

GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
AER485P1	A,E,N,U	*	*	*		*	*		*	*	
AER485P1 x no. 2	A,E,N,U				*			*			*
AERBAC-ONE	A,E,N,U	*	*	*		*	*		*	*	
AERBAC-ONE x no. 2	A,E,N,U				*			*			*
AERBACP	A,E,N,U	*	*	*		*	*		*	*	
AERBACP x no. 2	A,E,N,U				*			*			*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*
MULTICHILLER-EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ										
A, E	AVX. (1)	AVX500	AVX588	AVX592	AVX589	AVX. (1)	AVX593	AVX. (1)	AVX. (1)	AVX. (1)
N, U	AVX. (1)	AVX500	AVX592	AVX589	AVX. (1)	AVX593	AVX. (1)	AVX. (1)	AVX. (1)	AVX. (1)

(1) Contact us.

Kit low temperature

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A, E	XLATB1	XLATB3	XLATB5	XLATB6	XLATB7	XLATB6	XLATB7	XLATB7	XLATB8	XLATB8
N, U	XLATB2	XLATB5	XLATB5	XLATB5	XLATB7	XLATB6	XLATB6	XLATB7	XLATB8	XLATB8

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

Anti-intrusion grid

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A, E	GP3T	GP4T	GP5T	GP6T	GP7T	GP8T	GP9T	GP10T	GP10T	GP11T
N, U	GP3T	GP4T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T	GP11T

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

CONFIGURATOR

Field	Description
1,2,3	TBA
4,5,6,7	Size 1300, 1350, 2300, 2325, 2350, 3300, 3320, 3340, 3350, 4325
8	Model
°	Cooling only
9	Heat recovery
°	Without heat recovery
10	Version
A	High efficiency
E	Silenced high efficiency
N	Silenced very high efficiency
U	Very high efficiency
11	Coils
I	Copper-aluminium
O	Coated aluminium microchannel
R	Copper pipes-copper fins
V	Copper pipes-Coated aluminium fins
°	Aluminium microchannel
12	Fans
K	Inverter plus
13	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
14,15	Integrated hydronic kit
00	Without hydronic kit
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J (1)
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump

Field	Description
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump (1)
IA	Pump A equipped with inverter device to work at fixed speed
IB	Pump B equipped with inverter device to work at fixed speed
IC	Pump C equipped with inverter device to work at fixed speed
ID	Pump D equipped with inverter device to work at fixed speed
IE	Pump E equipped with inverter device to work at fixed speed
IF	Pump F equipped with inverter device to work at fixed speed
IG	Pump G equipped with inverter device to work at fixed speed
IH	Pump H equipped with inverter device to work at fixed speed
II	Pump I equipped with inverter device to work at fixed speed
IJ	Pump J equipped with inverter device to work at fixed speed (1)
JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed
JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed
JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed
JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed
JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed
JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (1)
KF	Doble pump F with inverter device to work at fixed speed
KG	Doble pump G with inverter device to work at fixed speed
KH	Doble pump H with inverter device to work at fixed speed
KI	Doble pump I with inverter device to work at fixed speed
KJ	Doble pump J with inverter device to work at fixed speed (1)
TF	Double pump F
TG	Double pump G
TH	Double pump H
TI	Double pump I
TJ	Double pump J (1)
16	Refrigerant gas
G	R513A (XP10)
°	R134a

(1) For all configurations including pump J please contact the factory

PERFORMANCE SPECIFICATIONS

TBA - (A)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	330,7	437,3	633,9	741,5	871,9	974,8	1087,0	1155,9	1256,9	1404,1
Input power	kW	95,3	125,9	183,0	214,9	254,8	279,5	314,9	334,9	369,1	413,3
Cooling total input current	A	150,70	200,90	286,20	346,40	416,60	446,90	502,10	547,30	592,30	667,60
EER	W/W	3,47	3,47	3,46	3,45	3,42	3,49	3,45	3,45	3,41	3,40
Water flow rate system side	l/h	56.903	75.228	109.011	127.504	149.890	167.604	186.876	198.728	216.075	241.381
Pressure drop system side	kPa	60	55	48	42	30	52	45	54	36	42

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBA - (E)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	330,7	437,3	633,9	741,5	871,9	974,8	1087,0	1155,9	1256,9	1404,1
Input power	kW	95,3	125,9	183,0	214,9	254,8	279,5	314,9	334,9	369,1	413,3
Cooling total input current	A	150,70	200,90	286,20	346,40	416,60	446,90	502,10	547,30	592,30	667,60
EER	W/W	3,47	3,47	3,46	3,45	3,42	3,49	3,45	3,45	3,41	3,40
Water flow rate system side	l/h	56.903	75.228	109.011	127.504	149.890	167.604	186.876	198.728	216.075	241.381
Pressure drop system side	kPa	60	55	48	42	30	52	45	54	36	42

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBA - (U)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	328,1	443,8	633,5	758,5	876,4	985,0	1088,0	1154,9	1256,9	1342,4
Input power	kW	92,3	124,4	178,8	213,2	245,5	275,4	306,8	326,3	358,1	386,6
Cooling total input current	A	145,70	200,90	281,40	341,60	401,90	437,10	487,30	522,60	582,60	627,60
EER	W/W	3,56	3,57	3,54	3,56	3,57	3,58	3,55	3,54	3,51	3,47
Water flow rate system side	l/h	56.452	76.308	108.940	130.424	150.669	169.356	187.070	198.556	216.075	230.760
Pressure drop system side	kPa	51	25	49	50	30	53	56	53	36	38

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBA - (N)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	328,1	443,8	633,5	758,5	876,4	985,0	1088,0	1154,9	1256,9	1342,4
Input power	kW	92,3	124,4	178,8	213,2	245,5	275,4	306,8	326,3	358,1	386,6
Cooling total input current	A	145,70	200,90	281,40	341,60	401,90	437,10	487,30	522,60	582,60	627,60
EER	W/W	3,56	3,57	3,54	3,56	3,57	3,58	3,55	3,54	3,51	3,47
Water flow rate system side	l/h	56.452	76.308	108.940	130.424	150.669	169.356	187.070	198.556	216.075	230.760
Pressure drop system side	kPa	51	25	49	50	30	53	56	53	36	38

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
SEER - 12/7 (EN14825: 2018)												
SEER	A,E	W/W	5,56	5,57	5,90	5,68	5,90	6,00	6,07	6,08	6,09	5,87
	N,U	W/W	5,74	5,67	6,03	5,99	6,22	6,44	6,23	6,37	6,26	6,14
Seasonal efficiency	A,E	%	219,50	219,60	232,80	224,20	232,90	236,90	239,90	240,30	240,70	231,90
	N,U	%	226,70	223,70	238,20	236,40	245,60	254,70	246,20	251,60	247,50	242,70
Water Regulation (1)	A,E,N,U	type	VW/VO	VW/VO	VW/VO	VW/VO	VW/VO	VW/VO	VW/VO	VW/VO	VW/VO	VW/VO
SEER - 23/18 (EN14825: 2018)												
SEER	A,E	W/W	-	7,44	-	-	7,58	-	-	7,66	7,67	7,41
	N,U	W/W	-	7,62	-	-	7,84	-	-	7,99	7,88	7,74
Seasonal efficiency	A,E	%	-	294,70	-	-	300,30	-	-	303,20	303,70	293,40
	N,U	%	-	301,80	-	-	310,60	-	-	316,40	312,20	306,70
Water Regulation (1)	A,E,N,U	type	-	VW/FO	-	-	VW/FO	-	-	VW/FO	VW/FO	VW/FO
SEPR - (EN 14825: 2018)												
SEPR	A,E	W/W	6,66	7,02	6,44	6,66	6,79	6,47	6,62	6,70	6,63	6,47
	N,U	W/W	6,82	6,93	6,87	7,17	6,83	6,98	6,94	6,90	6,82	6,74
Water Regulation (1)	A,E,N,U	type	VW/FO	VW/FO	VW/FO	VW/FO	VW/FO	VW/FO	VW/FO	VW/FO	VW/FO	VW/FO

(1) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.

ELECTRIC DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Electric data												
Maximum current (FLA)	A,E	A	177,0	252,0	342,0	418,0	493,0	519,0	594,0	734,0	734,0	825,0
	N,U	A	177,0	252,0	353,0	428,0	504,0	529,0	604,0	745,0	745,0	825,0
Peak current (LRA)	A,E	A	38,0	48,0	203,0	279,0	289,0	380,0	455,0	530,0	530,0	621,0
	N,U	A	38,0	48,0	214,0	289,0	300,0	390,0	465,0	541,0	541,0	621,0

GENERAL TECHNICAL DATA

Refrigerant circuit

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Compressor												
Type	A,E,N,U	type	Centrifugal									
Compressor regulation	A,E,N,U	Type	Inverter									
Number	A,E,N,U	no.	1	1	2	2	2	3	3	3	3	4
Circuits	A,E,N,U	no.	1	1	1	2	1	1	2	1	1	2
Refrigerant	A,E,N,U	type	R134a									
Total refrigerant charge (1)	A,E	kg	81,00	166,00	152,00	243,00	285,00	264,00	306,00	317,00	387,00	398,00
	N,U	kg	81,00	166,00	163,00	254,00	296,00	275,00	317,00	328,00	398,00	398,00
Potential global heating (GWP)	A,E,N,U		1430									
Equivalent CO ₂	A,E	tCO ₂ eq	115,83	237,38	217,36	347,49	407,55	377,52	437,58	453,31	553,41	569,14
	N,U	tCO ₂ eq	115,83	237,38	233,09	363,22	423,28	393,25	453,31	469,04	569,14	569,14

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

System side heat exchanger

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
System side heat exchanger												
Type	A,E,N,U	type	Shell and tube									
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1

Fans

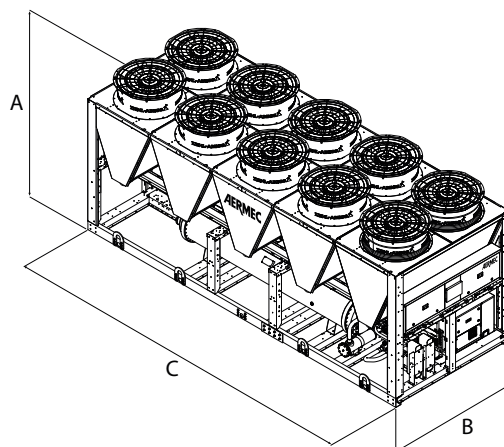
Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Fan												
Type	A,E,N,U	type	axials									
Fan motor	A,E,N,U	type	Inverter									
Number	A,E	no.	6	8	10	12	14	16	18	20	20	22
	N,U	no.	6	8	12	14	16	18	20	22	22	22
Air flow rate	A,E	m ³ /h	128.260	171.020	213.780	256.520	299.280	342.040	384.790	427.550	427.550	470.200
	N,U	m ³ /h	128.260	171.020	256.530	299.280	342.040	384.790	427.550	470.300	470.300	470.200

Sound data

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	88,3	89,9	90,8	92,5	93,0	92,8	93,9	95,3	95,3	95,3
	E	dB(A)	82,3	83,9	84,8	86,5	87,0	86,8	87,9	89,3	89,3	89,3
	N	dB(A)	82,3	84,0	85,3	86,8	87,1	87,1	88,1	89,5	89,5	89,3
	U	dB(A)	88,3	90,0	91,3	92,8	93,1	93,1	94,1	95,5	95,5	95,3
Sound pressure level (10 m)	A	dB(A)	56,1	57,5	58,3	59,9	60,2	59,9	60,9	62,2	62,2	62,1
	E	dB(A)	50,1	51,5	52,3	53,9	54,2	53,9	54,9	56,2	56,2	56,1
	N	dB(A)	50,1	51,6	52,7	54,0	54,2	54,1	55,0	56,3	56,3	56,1
	U	dB(A)	56,1	57,6	58,7	60,0	60,2	60,1	61,0	62,3	62,3	62,1

(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			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ												
Dimensions and weights												
A	A,E,N,U	mm	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520	2.520
B	A,E,N,U	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
C	A,E	mm	3.570	4.760	5.950	7.140	8.330	9.520	10.710	11.900	11.900	13.090
	N,U	mm	3.570	4.760	7.140	8.330	9.520	10.710	11.900	13.090	13.090	13.090
Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	2.770	3.480	4.500	5.550	6.390	6.760	7.950	8.240	8.600	9.700
	E	kg	2.850	3.590	4.630	5.720	6.580	6.980	8.190	8.510	8.870	10.000
	N	kg	2.880	3.810	5.120	5.950	7.060	7.430	8.200	8.950	9.320	10.000
	U	kg	2.800	3.700	4.950	5.760	6.840	7.180	7.920	8.650	9.010	9.700
Weight functioning	A	kg	2.840	3.560	4.630	5.730	6.650	6.960	8.210	8.500	8.940	9.990
	E	kg	2.920	3.670	4.760	5.900	6.840	7.180	8.450	8.770	9.210	10.290
	N	kg	2.960	3.940	5.250	6.100	7.320	7.630	8.410	9.210	9.660	10.290
	U	kg	2.880	3.830	5.080	5.910	7.100	7.380	8.130	8.910	9.350	9.990

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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