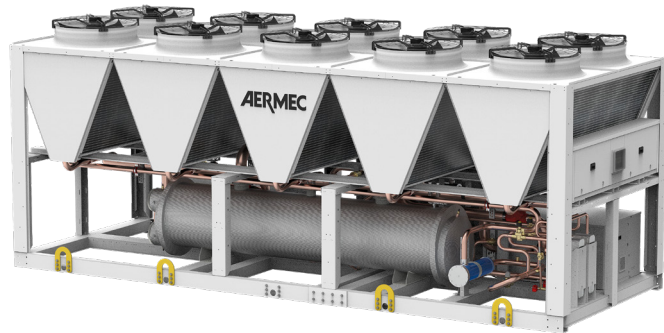


TBA 1300-4325

Air-water chiller

Cooling capacity 328 ÷ 1404 kW

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



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 43°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

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 supervision systems with MODBUS protocol.

AER485P1 x n° 2: 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, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

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

Accessories

Model	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
AER485P1
AER485P1 x n° 2 (1)				.			.			.
AERNET
MULTICHILLER_EVO
PGD1

(1) x Indicates the quantity of accessories to match.

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

Kit low temperature

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A,E,N,U	XLATB	XLATB	XLATB	XLATB	XLATB	XLATB	XLATB	XLATB	XLATB	XLATB

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

Antivibration

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A,E,N,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

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
°	Alluminium microchannel
O	Painted alluminium microchannel
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
12	Fans
J	Inverter
13	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
14,15	Integrated hydronic kit (1)
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
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
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
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
JA	Pump A + stand-by pump, both equipped with inverter device to work at fixed speed
JB	Pump B + stand-by pump, both equipped with inverter device to work at fixed speed
JC	Pump C + stand-by pump, both equipped with inverter device to work at fixed speed
JD	Pump D + stand-by pump, both equipped with inverter device to work at fixed speed
JE	Pump E + stand-by pump, both equipped with inverter device to work at fixed speed
JF	Pump F + stand-by pump, both equipped with inverter device to work at fixed speed
JG	Pump G + stand-by pump, both equipped with inverter device to work at fixed speed
JH	Pump H + stand-by pump, both equipped with inverter device to work at fixed speed
JI	Pump I + stand-by pump, both equipped with inverter device to work at fixed speed
JJ	Pump J + stand-by pump, both equipped with inverter device to work at fixed speed
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

Field	Description
TF	Double pump F
TG	Double pump G
TH	Double pump H
TI	Double pump I
TJ	Double pump J
16	Refrigerant gas
°	R134a
G	RS13A (XP10)

(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	150,7	200,9	286,2	346,4	416,6	446,9	502,1	547,3	592,3	667,6
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	56903	75228	109011	127504	149890	167604	186876	198728	216075	241381
Pressure drop system side	kPa	60	55	48	42	30	52	45	54	36	42

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External 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	150,7	200,9	286,2	346,4	416,6	446,9	502,1	547,3	592,3	667,6
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	56903	75228	109011	127504	149890	167604	186876	198728	216075	241381
Pressure drop system side	kPa	60	55	48	42	30	52	45	54	36	42

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External 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	145,7	200,9	281,4	341,6	401,9	437,1	487,3	522,6	582,6	627,6
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	56452	76308	108940	130424	150669	169356	187070	198556	216075	230760
Pressure drop system side	kPa	51	25	49	50	30	53	56	53	36	38

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External 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	145,7	200,9	281,4	341,6	401,9	437,1	487,3	522,6	582,6	627,6
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	56452	76308	108940	130424	150669	169356	187070	198556	216075	230760
Pressure drop system side	kPa	51	25	49	50	30	53	56	53	36	38

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

ENERGY DATA

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325	
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
SEER	A,E	W/W	5,15	5,23	5,48	5,25	5,54	5,51	5,49	5,57	5,35	
	N,U	W/W	5,35	5,41	5,60	5,48	5,76	5,80	5,62	5,71	5,73	5,62
η _{sc}	A,E	%	203,10	206,00	216,00	206,80	218,40	218,40	217,50	216,50	219,80	211,00
	N,U	%	211,00	213,50	221,00	216,10	227,30	229,10	221,90	225,40	226,30	221,60

ELECTRIC DATA

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Electric data											
Maximum current (FLA)	A,E	A	165,0	249,0	319,0	404,0	488,0	483,0	568,0	727,0	797,0
	N,U	A	165,0	249,0	329,0	413,0	498,0	493,0	577,0	737,0	797,0

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Peak current (LRA)	A,E	A	36,0	45,0	200,0	210,0	305,0	374,0	470,0	565,0	565,0	720,0
	N,U	A	36,0	45,0	210,0	305,0	315,0	384,0	479,0	575,0	575,0	720,0

GENERAL TECHNICAL DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Compressor												
Type	A,E,N,U	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Compressor regulation	A,E,N,U	Type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	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	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Refrigerant charge	A,E	kg	81,0	166,0	152,0	243,0	285,0	264,0	306,0	317,0	387,0	398,0
	N,U	kg	81,0	166,0	163,0	254,0	296,0	275,0	317,0	328,0	398,0	398,0

System side heat exchanger

Type	A,E,N,U	type	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1

Hydraulic connections

Connections (in/out)	A,E,N,U	Type	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato	Giunto scanalato
Size (in)	A,E,N,U	Ø	3"	4"	4"	5"	5"	5"	5"	6"	6"	6"
Size (out)	A,E,N,U	Ø	3"	4"	4"	5"	5"	5"	5"	6"	6"	6"

Fan

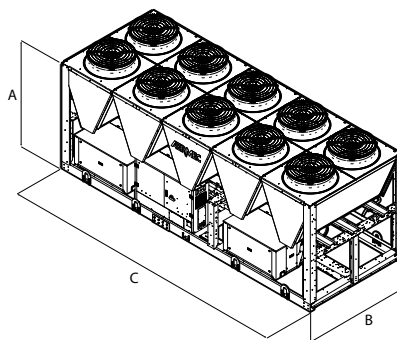
Type	A,E,N,U	type	axials	axials	axials	axials	axials	axials	axials	axials	axials	axials
Fan motor	A,E,N,U	type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
Number	A,E	no.	6	8	10	12	14	16	18	20	20	22
	N,U	no.	6	8	12	14	16	18	20	22	22	22
Air flow rate	A,E	m ³ /h	112920	150560	188200	225840	263480	301120	338760	376400	376400	414040
	N,U	m ³ /h	112920	150560	225840	263480	301120	338760	376400	414040	414040	414040

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
Dimensions and weights												
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3570	4760	5950	7140	8330	9520	10710	11900	11900	13090
	N,U	mm	3570	4760	7140	8330	9520	10710	11900	13090	13090	13090

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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