

TBX

Air cooled chillers with two-stage centrifugal compressor and axial fans
Cooling capacity from 259 to 861 kW

R134a



Aermec

participates in the EUROVENT:
LCP/A/P/R programme, up to 600 kW
The products are listed on the site
www.eurovent-certification.com
* not certified models



Characteristics

- Available in 12 sizes
- Cooling only version
- New generation two-stage oil-free centrifugal compressor with magnetic levitation bearings
- Refrigerant R134a
- Exceptional high efficiency at part load (up to 30% higher ESEER compared to standard chillers)
- Electronic expansion valve for precise control
- Flooded shell and tube evaporator optimised for refrigerant R134a
- Axial fans for extremely quiet operation
- Compressor features:
 1. Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
 2. Provided with inverter technology that permits capacity modulation down to 25%
 3. Integrated controller that reduces starting current to 6 A only
- Standard "o" and Low noise "L" Versions:
 1. Operating limit up to 42 °C external air temperature
 2. Compressor acoustical enclosure for low noise operation
 3. Fan speed control
- High efficiency "A" and High efficiency low noise "E" Versions:
 1. Operating limit up to 42 °C external air temperature
 2. Compressor acoustical enclosure for low noise operation
 3. EC (Electronically Commutated) fan
- Modulating capacity control microprocessor system
- Evaporator trace heating.
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **GP: Protective grille.** Condenser coil external protection against accidental or hail damage.
- **Factory fitted.**
- **PTW: Remote control of the chiller operating functions.**

TBX	VERS.	1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
AER485P1	All	✓(x1)	✓(x1)	✓(x1)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)
AERWEB300-6	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300-18	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300-6G	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300-18G	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GP300M	L E	✓											
GP400M	L E		✓										
GP500M	L E			✓	✓	✓							
GP 300M+300M	L E						✓						
GP 300M+400M	L E							✓	✓	✓			
GP 400M+400M	L E										✓		
GP 400M+500M	L E											✓	
GP 500M+500M	L E												✓
GP 300M	° A	✓											
GP 400M	° A		✓										
GP 500M	° A			✓	✓	✓							
GP 300M+300M	° A						✓						
GP 300M+400M	° A							✓	✓				
GP 400M+400M	° A									✓			
GP 400M+500M	° A										✓		
GP 500M+500M	° A											✓	✓
AVX	°	570	571	571	572	573	574	575	575	576	576	577	577
	L	570	571	571	572	573	574	575	575	575	576	576	577
	A	570	571	571	572	573	574	575	575	576	576	578	578
	E	570	571	571	572	573	574	575	575	575	576	576	577

Note:

The number in brackets (x2) indicates the quantity to order.

AER485P1 - GP Accessory only factory fitted.

Unit Configurator

Combinando opportunamente le numerose opzioni disponibili, è possibile configurare ciascun modello in modo tale da soddisfare le più specifiche esigenze impiantistiche.

Configuration fields:



Code:

TBX

Size:

1401, 1801, 2001, 2302, 2502, 2652, 2802, 3202, 3502, 3702, 3802, 4102

Model:

° - Cooling only, with evaporator to PED regulations

Version:

° - Standard
L - Standard low noise
A - High efficiency
E - High efficiency low noise

Condenser coil:

° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium

Fan:

° - Standard
I - EC (Electronically Commutated)
standard on "A" and "E" Versions

Power supply:

° - 400V 3~ 50Hz with circuit breakers

Note:

- Electronic expansion valve standard

Technical Data

Mod. TBX			1401	1801	2001	2302	2502	2652	2802	3202*	3502*	3702*	3802*	4102*
Cooling capacity	°	kW	287	368,3	407,3	469,3	509,2	545,2	587,2	669,1	736	780,9	815,9	844,8
	L	kW	258,8	342,8	392,1	435,7	463,9	518,3	543,2	595	635,3	687,8	742,3	784,6
	A	kW	286,8	370,7	415,5	460,4	502,2	538,1	594,1	667,8	739,5	793,3	831,2	861
	E	kW	265,2	354,8	406,4	441,2	473,6	532,5	556	614	650,4	707,4	768,4	813,1
Total input power	°	kW	91,8	117,2	129,3	149	161,4	173	184,9	212,2	233,3	247,4	258,8	268,2
	L	kW	88,9	117,9	134,7	149,6	159,3	177,5	186,2	203,8	217,7	236,3	255	269
	A	kW	86	110,9	124,8	138,1	150,4	161,1	177,3	199,7	220,8	237,3	248,4	258,1
	E	kW	84,8	113,6	130,2	141,2	152,2	170,3	177	196,9	207,8	226,5	246,1	260,1
Evaporator water flow rate	°	l/h	49536	63468	70176	80840	87720	93912	101136	115240	126764	134504	140524	145512
	L	l/h	44646	59065	67577	75047	79911	89292	93568	102495	109444	118477	127858	135154
	A	l/h	49536	63984	71724	79464	86688	92880	102512	115240	127624	136912	143448	148608
	E	l/h	45790	61229	70176	76141	81755	91931	95976	105966	112282	122106	132633	140352
Evaporator pressure drop	°	kPa	36	17	15	15	15	15	14	15	16	17	15	16
	L	kPa	30	15	19	13	15	16	15	15	17	16	16	17
	A	kPa	50	41	43	44	44	44	41	43	45	46	45	48
	E	kPa	44	38	49	40	46	48	46	44	49	47	48	48
EER	°	W/W	3,13	3,14	3,15	3,15	3,16	3,15	3,18	3,15	3,15	3,16	3,15	3,15
	L	W/W	2,91	2,91	2,91	2,91	2,91	2,92	2,92	2,92	2,92	2,91	2,91	2,92
	A	W/W	3,33	3,34	3,33	3,33	3,34	3,34	3,35	3,34	3,35	3,34	3,35	3,34
	E	W/W	3,13	3,12	3,12	3,13	3,11	3,13	3,14	3,12	3,13	3,12	3,12	3,13
ESEER	°	W/W	4,82	4,92	4,95	5,12	5,14	5,13	5,18	5,14	5,14	5,14	5,15	5,14
	L	W/W	4,69	4,77	4,76	4,97	4,97	4,96	5,00	4,97	4,97	4,98	4,97	4,96
	A	W/W	5,01	5,06	5,04	5,33	5,35	5,35	5,38	5,37	5,37	5,36	5,37	5,34
	E	W/W	4,85	4,89	4,82	5,15	5,13	5,13	5,15	5,16	5,14	5,15	5,15	5,14
Power supply		V/ph/Hz	400V/3/50Hz											
Total input current	°	A	147	195	216	242	260	280	299	355	389	412	431	447
	L	A	144	198	225	244	258	287	308	345	366	396	426	449
	A	A	134	179	200	217	235	251	276	322	355	382	399	413
	E	A	132	176	209	221	238	265	275	320	337	366	396	417
Maximum input current (FLA)	°	A	153	234	240	300	300	306	312	462	468	474	480	480
	L	A	153	234	240	300	300	306	312	462	462	468	474	480
	A	A	159	242	250	310	310	318	326	476	484	492	500	500
	E	A	159	242	250	310	310	318	326	476	476	484	492	500
Maximum starting current (LRA)	°	A	24	30	36	126	126	132	138	188	194	200	206	206
	L	A	24	30	36	126	126	132	138	188	188	194	200	206
	A	A	30	38	46	136	136	144	152	202	210	218	226	226
	E	A	30	38	46	136	136	144	152	202	202	210	218	226
Capacity modulation	A		stepless											
	A		30-100	30-100	30-100	15-100	15-100	15-100	15-100	15-100	15-100	15-100	15-100	15-100
Compressor	type		centrifugal inverter oil-free											
Refrigerant	n°		1	1	1	2	2	2	2	2	2	2	2	2
Refrigerant circuit	type		R134a											
Air flow rate	° A	m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000
	L E	m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400
Fan	° L	type	axial											
	A E	type	Axial EC (Electronically Commutated)											
	L E	type	6	8	10	10	10	12	14	14	16	18	20	20
	° A	type	6	8	10	10	10	12	14	14	14	16	18	20
Evaporator	type		flooded shell & tube											
	n°		1	1	1	1	1	1	1	1	1	1	1	1
Maximum external air temperature	°C		42	42	42	42	42	42	42	42	42	42	42	42
Sound power	° A	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93
	L	dB(A)	83	84	85	85	85	86	87	87	87	88	88	88
	E	dB(A)	81	82	83	83	83	84	85	85	85	86	86	86
Sound pressure	° A	dB(A)	56	57	58	58	58	58	59	59	60	60	60	60
	L	dB(A)	51	52	53	53	53	53	54	54	54	55	55	55
	E	dB(A)	49	50	51	51	51	51	52	52	52	53	53	53

* Unit not EUROVENT certified

Data in accordance with EN14511-2:2011

Cooling

Entering water temperature

12°C

Leaving water temperature

7°C

External air temperature

35°C

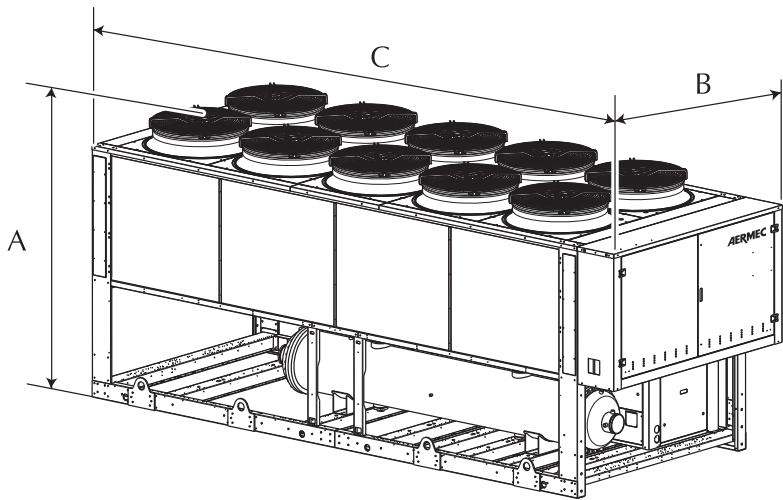
Sound power:

Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

Sound pressure:

Measured in free field over a reflective plane (directivity factor Q = 2), at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Dimensions (mm)



Model. TBX			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
Height A	All	mm	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
Width B	All	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Length	° A	mm	3.780	4.770	5.750	5.750	5.750	7.160	8.150	8.150	9.140	10.120	11.100	11.100
	L E	mm	3.780	4.770	5.750	5.750	5.750	7.160	8.150	8.150	8.150	9.140	10.120	11.100

The technical data given in this documentation are not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

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