

**Air/Water chillers for outdoor installation**  
**With two-stage centrifugal compressor shell and tube heat exchangers and axial fans**  
**Cooling capacity 259÷861kW**



**Aermec** participates in the EUROVENT: LCP programme, The products are listed on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



## Characteristics

- Available in 13 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 **"M"** 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.
- **MULTICHILLER TBX:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **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	Alls	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_TBX	Alls	•	•	•	•	•	•	•	•	•	•	•	•
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											•	•
	°	570	571	571	572	573	574	575	575	576	576	577	577
AVX	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

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

**Code:**

TBX

**Size:**

1401, 1801, 2001, 2302, 2502, 2652, 2802, 3202, 3502, 3702, 3802, 4102, 4303

**Model:**

° - Cooling only

**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

TBX - °		1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102	
		V/ph/Hz												
		400V/3/50Hz												
12°C/7°C	Cooling capacity	(1) kW	287	368	407	469	509	545	587	669	736	781	816	845
	Total power input	(1) kW	91,8	117,2	129,3	149	161,4	173	184,9	212,2	233,3	247,4	258,8	268,2
	EER	(1)	3,13	3,14	3,15	3,15	3,16	3,15	3,18	3,15	3,15	3,16	3,15	3,15
	ESEER	(1)	4,82	4,92	4,95	5,12	5,14	5,13	5,18	5,14	5,14	5,14	5,15	5,14
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	49536	63468	70176	80840	87720	93912	101136	115240	126764	134504	140524	145512
	Pressure drop	(1) kPa	36	17	15	15	15	15	14	15	16	17	15	16

TBX - L		1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102	
		V/ph/Hz												
		400V/3/50Hz												
12°C/7°C	Cooling capacity	(1) kW	259	343	392	436	464	518	543	595	635	688	742	785
	Total power input	(1) kW	88,9	117,9	134,7	149,6	159,3	177,5	186,2	203,8	217,7	236,3	255,0	269,0
	EER	(1)	2,91	2,91	2,91	2,91	2,91	2,92	2,92	2,92	2,92	2,91	2,91	2,92
	ESEER	(1)	4,69	4,77	4,76	4,97	4,97	4,96	5,00	4,97	4,97	4,98	4,97	4,96
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	44646	59065	67577	75047	79911	89292	93568	102495	109444	118477	127858	135154
	Pressure drop	(1) kPa	30	15	19	13	15	16	15	15	17	16	16	17

TBX - A		1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102	
		V/ph/Hz												
		400V/3/50Hz												
12°C/7°C	Cooling capacity	(1) kW	287	371	416	460	502	538	594	668	740	793	831	861
	Total power input	(1) kW	86,0	110,9	124,8	138,1	150,4	161,1	177,3	199,7	220,8	237,3	248,4	258,1
	EER	(1)	3,33	3,34	3,33	3,33	3,34	3,34	3,35	3,34	3,35	3,34	3,35	3,34
	ESEER	(1)	5,01	5,06	5,04	5,33	5,35	5,35	5,38	5,37	5,37	5,36	5,37	5,34
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	49536	63984	71724	79464	86688	92880	102512	115240	127624	136912	143448	148608
	Pressure drop	(1) kPa	50	41	43	44	44	44	41	43	45	46	45	48

TBX - E		1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102	
		V/ph/Hz												
		400V/3/50Hz												
12°C/7°C	Cooling capacity	(1) kW	265	355	406	441	474	533	556	614	650	707	768	813
	Total power input	(1) kW	84,8	113,6	130,2	141,2	152,2	170,3	177	196,9	207,8	226,5	246,1	260,1
	EER	(1)	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	(1)	4,85	4,89	4,82	5,15	5,13	5,13	5,15	5,16	5,14	5,15	5,15	5,14
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	45790	61229	70176	76141	81755	91931	95976	105966	112282	122106	132633	140352
	Pressure drop	(1) kPa	44	38	49	40	46	48	46	44	49	47	48	48

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(1) Water evaporator 12°C/7°C, External air 35°C

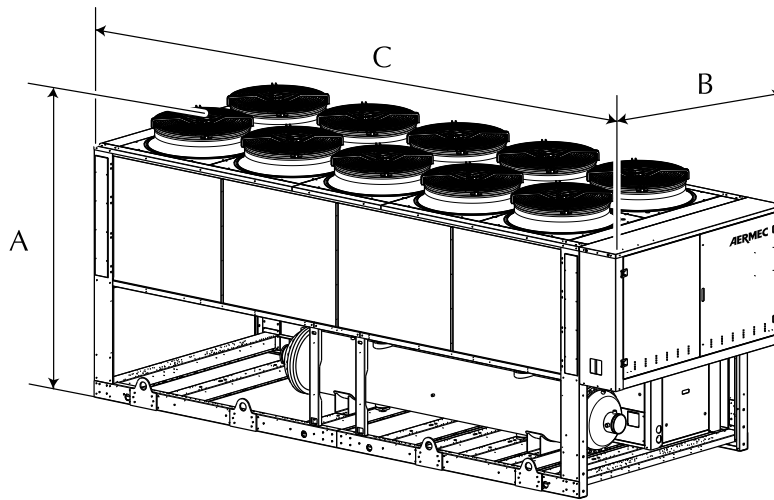
		1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102	
<b>Electrical data</b>														
400V	Total input corrente (cooling)	° (3) A	147	195	216	242	260	280	299	355	389	412	431	447
	Maximum current (FLA)	° (3) A	153	234	240	300	300	306	312	462	468	474	480	480
	Starting current (LRA)	(3) A	24	30	36	126	126	132	138	188	194	200	206	206
400V	Total input corrente (cooling)	L (3) A	144	198	225	244	258	287	308	345	366	396	426	449
	Maximum current (FLA)	L (3) A	153	234	240	300	300	306	312	462	462	468	474	480
	Starting current (LRA)	(3) A	24	30	36	126	126	132	138	188	188	194	200	206
400V	Total input corrente (cooling)	A (3) A	134	179	200	217	235	251	276	322	355	382	399	413
	Maximum current (FLA)	A (3) A	159	242	250	310	310	318	326	476	484	492	500	500
	Starting current (LRA)	(3) A	30	38	46	136	136	144	152	202	210	218	226	226
400V	Total input corrente (cooling)	E (3) A	132	176	209	221	238	265	275	320	337	366	396	417
	Maximum current (FLA)	E (3) A	159	242	250	310	310	318	326	476	476	484	492	500
	Starting current (LRA)	(3) A	30	38	46	136	136	144	152	202	202	210	218	226
<b>Centrifugal inverter oil-free Compressor</b>														
Compressors / Circuit		n°/n°	1/1	1/1	1/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Refrigerant		Type	R134a											
<b>Heat exchanger system side</b>														
Exchanger		Type/n°	flooded shell & tube/1											
Electrical heater		n°/W	1/170	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250
<b>Axial fans</b>														
Fan	°	Type/n°	Axial/6	Axial/8	Axial/10	Axial/10	Axial/10	Axial/12	Axial/14	Axial/14	Axial/16	Axial/18	Axial/20	Axial/20
		m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000
Fan	L	Type/n°	Axial/6	Axial/8	Axial/10	Axial/10	Axial/10	Axial/12	Axial/14	Axial/14	Axial/14	Axial/16	Axial/18	Axial/20
		m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400
Fan	A	Type/n°	Ax.EC/6	Ax.EC/8	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/12	Ax.EC/14	Ax.EC/14	Ax.EC/16	Ax.EC/18	Ax.EC/20	Ax.EC/20
		m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000
Fan	E	Type/n°	Ax.EC/6	Ax.EC/8	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/12	Ax.EC/14	Ax.EC/14	Ax.EC/14	Ax.EC/16	Ax.EC/18	Ax.EC/20
		m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400
<b>Sound data (cooling)</b>														
Sound power level	°	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93
		dB(A)	56	57	58	58	58	58	59	59	60	60	60	60
		dB(A)	83	84	85	85	85	85	86	87	87	87	88	88
Sound pressure level	L	dB(A)	51	52	53	53	53	53	54	54	54	55	55	55
		dB(A)	88	89	90	90	90	91	92	92	93	93	93	93
		dB(A)	56	57	58	58	58	58	59	59	60	60	60	60
Sound pressure level	A	dB(A)	81	82	83	83	83	84	85	85	85	86	86	86
		dB(A)	49	50	51	51	51	51	52	52	52	53	53	53
		dB(A)	49	50	51	51	51	51	52	52	52	53	53	53

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

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## 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 C	°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
	LJE	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