AERMEC

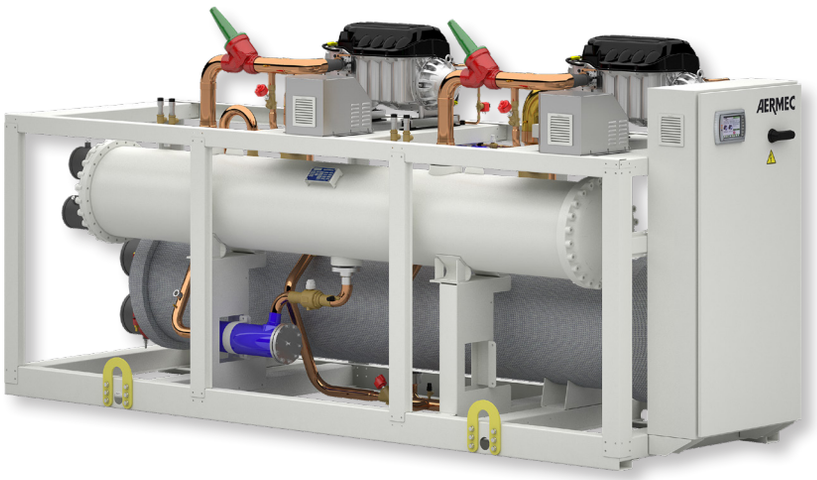
WTX

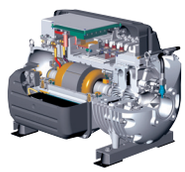
Water/Water Chiller - internal installation
Centrifugal oil-free compressors, Flooded heat exchangers
Cooling capacity 222,9÷1958,4 kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT program: LCP The products concerned up to 1500kW appear on the site www.eurovent-certification.com





- **HIGH EFFICIENCY UP TO 9**
- **EXTENDED OPERATING RANGE**
- **POSSIBILITY OF SELECTING BETWEEN HEAT EXCHANGERS WITH 1 OR 2 PASSES ON WATER SIDE**

Features

Indoor unit producing chilled water equiped with magnetic levitation centrifugal compressors and shell&tube heat exchangers.
The base and the structure are made of steel treated with polyester anti-corrosion paints.
The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

Versions
WTX_A High Efficiency Chiller
WTX_U Ultra-High Efficiency Chiller
Both versions can be sound-proofed

- **Operating range:** Water produced at 15°C to 50°C on Condenser side and 5°C to 25°C on Evaporator side.

- **Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation**
  - Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise
  - The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%)
  - Built-in device to reduce starting current **(only 6 Amps!**)
- **Flooded Evaporator with subcooler**
  - Subcooler effect:
  Superheats compressor gas intake;
  Subcools thermostatic valve fluid intake;
  Increases chiller yield and ensures gas suction from compressor.
- **Condenser**
  - With refrigerant on shell side and water on pipe side

- From size 1300 to 2350, heat exchangers have 2 passes on the water side

- From size 3300 to 4350, configurations are available with heat exchangers with 1 or 2 passes on the water side

- Extraordinary efficiency under partial loads **(ESEER up to 9 among the highest on the market)**
- Electronic thermostatic valves
- On-board control electronics for monitoring and proactive operating management
- Microprocessor unit control
- Touchscreen colour LCD user interface with very intuitive graphic menus
- **Acoustic chiller enclosure (option):** in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.

- **MULTICHILLER_EVO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel, always ensuring constant delivery to the evaporators. **This accessory requires the inclusion of AER485P1 for each unit connected.**

- **AVX:** Spring-type anti-vibration supports**.**

Compatibility of accessories

WTX	vers.	1300	1350	2300	2350	3300	3325	3350	4325	4350
AER485P1		•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•

(1) Accessory to be defined when placing the order

Choice of unit

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

Field		Description
1,2,3		**WTX**
4,5,6,7		**Size**
		1300 - 1350 - 2300 - 2350 - 3300 - 3325 - 3350 - 4325 - 4350
8		**Efficiency**
	A	High efficiency
	U	Extra high efficiency
9		**Heat exchangers**
	2	Two passes on water side
	1	On pass on water side **(available from size 3300 to 4350)**
10		**Version**
	°	Standard
	L	Sound-proofed
11		**Power supply**
	°	400V 3 ~ 50Hz with circuit breakers on compressors and auxiliary circuit

HEAT EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

Flooded evaporator with level adjustment through an electronic valve controlled by a level sensor.

Backflow condenser with refrigerant on shell side and water on tube side.

From size 1300 to 2350, heat exchangers have 2 passes on the water side.

Starting from size **WTX3300, heat exchangers** are available as **versions with one or two passes on the water side** to meet any plant installation requirement.
The dimensions of the two configurations ensure similar performances (same approach to heat exchangers). **The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side**, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.

Technical data

WTX - A			1300	1350	2300	2350	3300		3325		3350		4325*		4350*	
Passes on water side		no.	2	2	2	2	1	2	1	2	1	2	1	2	1	2
									400V 3 ~ 50Hz							
12°C/7°C	Cooling capacity	(1) kW	351,3	488,5	702,8	899,4	1054,4	1054,3	1214,3	1215,9	1466,1	1466,0	1716,2	1715,9	1955,0	1958,4
	Total input power	(1) kW	70,8	94,3	141,8	164,1	211,4	212,6	219,9	220,6	281,6	283,8	315,3	318,8	375,1	380,0
	EER	(1)	4,96	5,18	4,96	5,48	4,99	4,96	5,52	5,51	5,21	5,17	5,44	5,38	5,21	5,15
	System side water flow rate	(1) l/h	60421	84005	120843	154630	181265	181265	208750	209052	252016	252016	294969	294969	336022	336647
	Pressure drops	(1) kPa	32	30	40	33	32	54	39	77	31	54	24	60	31	82
	Source side water flow rate	l/h	72792	100514	145584	183481	218376	218376	247239	247235	301544	301544	350417	350417	402059	402062
	Pressure drops	kPa	31	33	35	28	31	28	38	35	31	33	42	41	31	53
	Cooling mode for low temperature (UE n° 2016/2281)															
	ηsc		321,1	328,1	316,6	335,1	340,4		327,8		345,8		333,0		345,5	
	SEER		8,23	8,40	8,12	8,58	8,71		8,40		8,85		8,53		8,84	

WTX - U			1300	1350	2300	2350	3300		3325		3350		4325		4350	
Passes on water side		no.	2	2	2	2	1	2	1	2	1	2	1	2	1	2
									400V 3 ~ 50Hz							
12°C/7°C	Cooling capacity	(1) kW	222,9	334,1	445,9	559,7	669,0	669,0	869,6	840,1	1002,7	1006,1	1179,6	1191,4	1336,9	1342,6
	Total input power	(1) kW	37,5	55,9	75,1	94,3	112,2	112,5	144,9	140,7	166,9	167,2	195,3	198,4	222,3	223,4
	EER	(1)	5,95	5,98	5,94	5,93	5,96	5,95	6,00	5,97	6,01	6,02	6,04	6,01	6,01	6,01
	System side water flow rate	(1) l/h	38334	57444	76669	96214	115003	115003	149475	144424	172332	172942	202737	204799	229777	230804
	Pressure drops	(1) kPa	12	13	16	12	12	21	18	32	14	24	10	26	14	37
	Source side water flow rate	l/h	45016	67385	90033	113067	135049	135049	175273	169344	202156	202690	237659	240040	269542	270255
	Pressure drops	kPa	12	14	13	10	12	10	17	15	13	14	17	18	13	23
	Cooling mode for low temperature (UE n° 2016/2281)															
	ηsc		341,3	335,5	346,7	360,1	344,5		367,1		363,5		355,3		365,3	
	SEER		8,73	8,59	8,87	9,20	8,81		9,38		9,29		9,08		9,33	

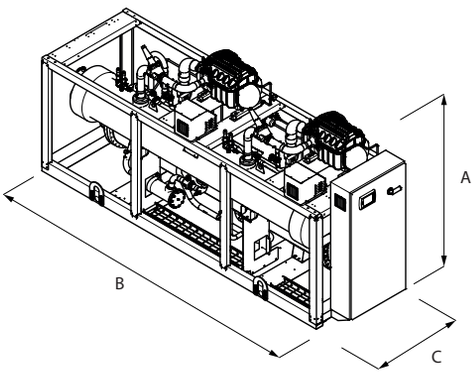
Data (14511:2018)
(1) System side water (in/out) 12°C/7°C; Source side water (in/out) 30°C/35°C
* Units not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

			1300	1350	2300	2350	3300	3325	3350	4325	4350
Electrical Data											
Total current absorbed when cold	A	A	106	145	212	255	317	356	435	503	580
	U	A	60	91	120	158	180	237	273	316	364
Maximum current (FLA)		A	135	210	270	420	405	630	630	840	840
Starting current (LRA)		A	6	6	141	216	276	426	426	636	636
Oil Free Centrifugal Inverter Compressors											
Compressors / Circuit		no./no.	1/1	1/1	2/1	2/1	3/1	3/1	3/1	4/1	4/1
Coolant gas		Type					R134a				
Evaporator - Shell&tube											
Heat exchanger		no.					1				
Condenser - Shell&tube											
Heat exchanger		no.					1				
Sound Data											
Sound power level	A	dB(A)	90.0	91.0	93,0	93,5	96,0	95,5	97,0	98,5	100,0
Sound power level	U	dB(A)	87.0	88,0	90.0	88,0	90.0	91.0	94,0	94,0	97,0

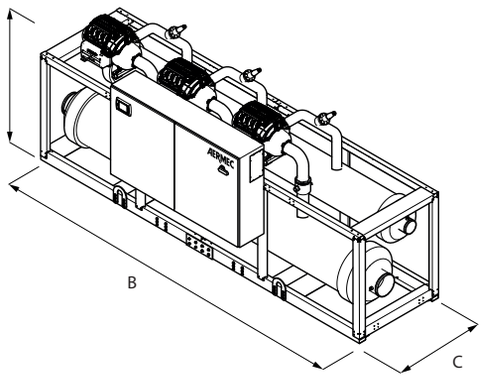
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.
N.B.: For further information, please refer to the selection programme or the technical documentation available at www.aermec.com

Dimensions (mm)

WTX 1300 - 2350



WTX 3300 - 4350



WTX A/U		1300	1350	2300	2350	3300		3325		3350		4325		4350	
Passes on water side	no.	**2**	**2**	**2**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**
A	mm	1850	1950	1970	2010	1970	2240	2010	2280	2010	2280	2010	2280	2280	2280
B	mm	3040	3040	3340	3440	4966	3990	4966	3990	4966	3990	4966	4966	4966	4966
C	mm	1000	1000	1240	1240	1640	1732	1640	1732	1640	1836	1640	1836	1732	1836

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