

# TN

**Air conditioning unit**  
**Air flow from 2300 to 23000 m<sup>3</sup>/h.**



The TN units are destined to commercial and industrial plants for medium size rooms.

The series consists of eight sizes with nominal air flow from 3000 m<sup>3</sup>/h to 23000 m<sup>3</sup>/h and allows the filtration, heating and / or cooling treatments.

The performances are ensured by high efficiency heat exchangers and high pressure fans coupled to the motor by variable pulley and belt.

The compactness, low noise level, and the wide range of accessories gives the TN series a huge versatility in order to adapt to customer requirements: in addition to the possibility of transforming the model from horizontal to vertical and the contrary too, it has been chosen to add an enhanced configuration to ensure a higher pressure of the fan.

## Features

### VERSIONS:

- 8 available sizes in vertical configuration with the possibility to **change them in horizontal version**.
- **Enhanced configuration** to ensure a higher pressure of the fan.

### FRAME:

- The frame is made of aluminum profiles with sandwich panels made of galvanized steel inside and prepainted galvanized steel RAL 9002 outside with polyurethane insulation (density 40 kg / m<sup>3</sup>) and thickness of 25 mm. Both panels of the base unit and panels of the plenum are provided with pre-cuts which allow to make them compatible with the integration of accessories. The fastening of the panels through profile block panel, ensures a perfect seal between panel and frame, and an extreme ease of assembly/ disassembly of the panels. The 3 ways corner joint is made of nylon reinforced with glass fibers. The condensate drain pan, in galvanized steel, is provided with threaded drain connection on both sides and it is suitable for both horizontal and vertical installation of the unit.

### FANS:

- Fans are centrifugal type, double suction and forward blades with high performances.

### MOTORS:

- The installed electrical motors are asynchronous three-phase, with closed frame and outside ventilation, comply with the regulations IEC, CEI, UNEL (protection class IP55), single speed (4 poles).

### TRANSMISSIONS:

- Pulleys are with variable diameter to better set of the fan to the installation. Belts can be SPA or SPB type. They are supplied with conical clamping, "Taperlock" type and are statically and dynamically balanced.

### WATER HEAT EXCHANGERS:

- The water heat exchangers are made of copper pipes and aluminum fins, blocked by mechanical expansion of the tubes; the main coil can be 4 or 6 rows (hot or cold) and 2, 3 or 4 rows the secondary one (only hot). The filtration is carried out by 50 mm thick synthetic filters with G4 efficiency class (according to EN 779) placed on suction side.

### FILTERS

These filters are easily removable to facilitate their maintenance and cleaning; they are placed on guides of the main coils section.

The removal of filters can be done pulling them sideways through the door on the panel, connections side.

With the accessory FTMxT, the filtration is made through compact filters with a F7 filtration degree.

## Accessories

- **PLxT** supply and suction plenum: compatible with GAxT, GMxT and TPPLxT.
- **FT7MxT** compact filters F7 on fans supply: compatible with GMxT, SAxT and TPPxT.
- **B2RxT - B3RxT - B4RxT** batteria a acqua calda a 2 - 3 - 4 ranghi per impianti a 4 tubi.
- **SAxT** suction damper: to be installed on the base unit or on plenums.
- **GMxT** supply grille with adjustable fins: to be installed on the base unit or on plenums.
- **GAxT** suction grille with fixed fins, 45° bended: to be installed on the base unit or on plenums.
- **TPVSxT** protection roof for vertical installation with up supply: to be installed on the base unit.
- **TPVExT** protection roof for vertical installation: to be installed on PLxT, FT7MxT and vertical base unit with front supply.
- **TPLxT** protection roof for horizontal version with front supply: to be installed on the base unit.
- **TPPLxT** plenums protection roof for horizontal installation with front supply: to be installed on PLxT e FT7MxT from size 3 to 8.
- **TPFTLxT** bag filter protection roof for line installation with front supply.
- **P50MBT** corners support feets for horizontal and vertical versions.
- **P50ACT** side support feets for horizontal version.

	Montage	TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
GAxT	V - O	GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T
GMxT	V - O	GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T
SAxT	V - O	SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T
B2RxT	V - O	B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T
B3RxT	V - O	B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T
B4RxT	V - O	B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T
PLxT	V - O	PL1T	PL2T	PL3T	PL4T	PL5T	PL6T	PL7T	PL8T
FT7MxT	V - O	FT7M1T	FT7M2T	FT7M3T	FT7M4T	FT7M5T	FT7M6T	FT7M7T	FT7M8T
TPVSxT	V	TPVS1T	TPVS2T	TPVS3T	TPVS4T	TPVS5T	TPVS6T	TPVS7T	TPVS8T
TPVExT	V	TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T
TPLxT	O	TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T
TPPLxT	O	TPPL1T	TPPL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
TPFTLxT	O	TPFTL1T	TPFTL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
P50MBT	V - O					P50MBT			
P50ACT	O					P50ACT			

- V - O = This accessory can be mounted both on the vertical version and horizontal version;  
V = This accessory can be mounted only on the vertical version;  
O = This accessory can be mounted only on the horizontal version;

## Technical data Aermec TN

			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8	
Max. airflow	1	m <sup>3</sup> /h	3000	4100	5650	7350	9300	11700	15500	20000	
Max. airflow	2	m <sup>3</sup> /h	3500	4700	6400	8000	10000	13400	17800	20000	
Max. airflow	3	m <sup>3</sup> /h	3500	4700	6400	8400	10900	13400	17800	23000	
Fans available pressure											
Maximum fans	4	Base unit	Pa	215	235	236	226	156	193	207	131
	4	Enhanced unit	Pa	390	407	458	454	340	438	396	381
Cooling power with coils 4 rows	5	Total	kW	15,6	21,3	29,1	38,1	44,8	56,7	74,7	96,4
		Sensible	kW	10,7	14,7	20,1	26,2	33,3	41,7	55,1	70,9
Cooling power with coils 6 rows	5	Total	kW	20	27,4	37,7	49,2	58,3	74,5	98,9	127,8
		Sensible	kW	13,4	18,3	25,2	32,8	41,1	51,8	68,8	88,5
Cooling power with coils 4 rows	6	Total	kW	18,9	25,8	35,3	46,3	56,1	70,7	93,3	120,2
		Sensible	kW	12	16,4	22,4	29,3	37,5	46,9	62,1	79,8
Cooling power with coils 6 rows	6	Total	kW	23,9	32,9	45,3	59,2	71,6	90,6	120,3	155,1
		Sensible	kW	15	20,5	28,3	36,9	46,4	58,3	77,4	99,6
Heating power with coils 2 rows	7		kW	25,2	34	46,8	61,5	84,4	103,8	138	178,5
Heating power with coils 3 rows	7		kW	33,5	45,6	62,7	82	110,8	137,3	182,5	234,4
Heating power with coils 4 rows	7		kW	40	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating power with coils 6 rows	7		kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Heating power with coils 2 rows	8		kW	14,7	19,8	27,3	36	49	60,3	80,1	103,8
Heating power with coils 3 rows	8		kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating power with coils 4 rows	8		kW	23,4	31,9	43,7	57	76,3	94,8	125,8	161,4
Heating power with coils 6 rows	8		kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
<b>COILS</b>											
Manifolds diameter 2 rows			1"	1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2	
Manifolds diameter 3 rows			1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	
Manifolds diameter 4 rows			1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	
Manifolds diameter 6 rows			1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	2"	
Condensate discharge diameter			1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	
<b>FAN</b>			280	280	315	315	400	400	500	500	
<b>MOTOR</b>											
Power supply		V/n°/Hz	400V/3/50Hz								
Power/Poles (base unit)		kW/n°	0,75 / 4	1,1 / 4	1,5 / 4	2,2 / 4	2,2 / 4	4 / 4	4 / 4	5,5 / 4	
Power/Poles (enhanced unit)		kW/n°	1,1 / 4	1,5 / 4	2,2 / 4	3/4	3/4	5,5 / 4	5,5 / 4	7,5 / 4	
<b>FILTERS</b>											
Plane filters efficiency	9		G4	G4	G4	G4	G4	G4	G4	G4	
Compact filters efficiency (accessory)	9		F7	F7	F7	F7	F7	F7	F7	F7	
Mouth sound pressure	10		52	54	55	57	56	58	59	64	

note (1): with cooling coil ;

note (2): with heating coil, base unit;

note (3): with heating coil, enhanced unit;

nota (4): alla portata aria massima 1 with cooling coil 4 rows and filters G4 fouling medium life

note (5): Air temperature enters 27° C d.b. 19° C w.b.; water temperature (In-Out) 7° C - 12°C.;

nota (6): Air temperature enters 27° C d.b 19° C w.b.; water temperature (In-Out) 5° C - 10°C.;

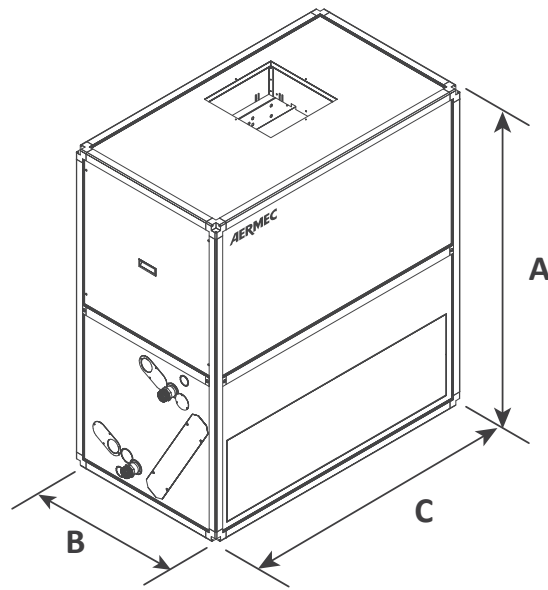
nota (7): Air temperature enters 10° C; water temperature (In-Out) 70° C - 60°C.;

nota (8): Air temperature enters 10° C; water temperature (In-Out) 45° C - 40°C.;

nota (9): comply with the regulation EN 779;

nota (10): d = 10 m, Q =2, base version, at min. pressure, nominal air flow with cooling coil.

## Dimensions (mm)



TN models			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Height	A	mm	1334	1334	1497	1497	1822	1822	2309	2309
Width	B	mm	684	684	765	765	828	828	1172	1172
Length	C	mm	928	1172	1334	1659	1659	1984	1984	2472
Weight (base version coil 6R)		kg	190	220	275	320	415	475	630	807
Weight (enhanced version coil 6R)		kg	200	223	283	321	417	502	657	813