

TFA

Air conditioning units.

Air flow rate from 2.300 to 23.000 m³/h

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

The series consists of eight sizes with nominal air flow from 2300 m³/h to 23000 m³/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 TFA 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.



>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.

>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 water heating coil with 2 - 3 - 4 rows for 4 tubes installations.

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.

TPVFXT 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.



>Main technical data

TFA Model			TFA1	TFA2	TFA3	TFA4	TFA5	TFA6	TFA7	TFA8
Max. airflow ⁽¹⁾		m ³ /h	3.000	4.100	5.650	7.350	9.000	11.700	15.500	20.000
Max. airflow ⁽²⁾		m ³ /h	3.500	4.700	6.400	8.000	10.000	13.400	17.800	20.000
Max. airflow ⁽³⁾		m ³ /h	3.500	4.700	6.400	8.400	10.900	13.400	17.800	23.000
Fans available pressure	Base unit ^(1*)	Pa	215	235	236	226	156	193	207	131
	Enhanced unit ^(1*)	Pa	390	407	458	454	340	438	396	381
Noise pressure level (opening vent) ⁽⁹⁾		dB[A]	52	54	55	57	56	58	59	64
Cooling power with coils 4 rows ⁽⁴⁾	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 ⁽⁴⁾	Total	kW	20,0	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 ⁽⁵⁾	Total	kW	18,9	25,8	35,3	46,3	56,1	70,7	93,3	120,2
	Sensible	kW	12,0	16,4	22,4	29,3	37,5	46,9	62,1	79,8
Cooling power with coils 6 rows ⁽⁵⁾	Total	kW	23,9	32,9	45,3	59,2	71,6	90,6	120,3	155,1
	Sensible	kW	15,0	20,5	28,3	36,9	46,4	58,3	77,4	99,6
Heating power with coils 2 rows ⁽⁶⁾		kW	25,2	34,0	46,8	61,5	84,4	103,8	138,0	178,5
Heating power with coils 3 rows ⁽⁶⁾		kW	33,5	45,6	62,7	82,0	110,8	137,3	182,5	234,4
Heating power with coils 4 rows ⁽⁶⁾		kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating power with coils 6 rows ⁽⁶⁾		kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Heating power with coils 2 rows ⁽⁷⁾		kW	14,7	19,8	27,3	36,0	49,0	60,3	80,1	103,8
Heating power with coils 3 rows ⁽⁷⁾		kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating power with coils 4 rows ⁽⁷⁾		kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4
Heating power with coils 6 rows ⁽⁷⁾		kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
COILS										
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
FAN			280	280	315	315	400	400	500	500
MOTOR										
Power supply		V/n°/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
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
FILTERS										
Plane filters efficiency ⁽⁸⁾			G4	G4	G4	G4	G4	G4	G4	G4
Compact filters efficiency ⁽⁸⁾ [accessory]			F7	F7	F7	F7	F7	F7	F7	F7

note (1): with cooling coil ;

note (1*): at the max. air flow 1 with cooling coil 4 rows and G4filters, fouling mean life;

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

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

note (4): Air temperature enters 27° C d.b. 19° C w.b.; water temperature (In-Out) 7° C - 12°C;

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

note (6): Air temperature enters 10° C; water temperature (In-Out) 70° C - 60°C;

note (7): Air temperature enters 10° C; water temperature (In-Out) 45° C - 40°C;

note (8): comply with the regulation EN 779;

note (9): d = 10 m, Q=2, base version, at min. pressure, nominal air flow with cooling coil.

Modular units for
the air treatment

FM - FE

Air handling units for
specific sectors

FM-H EtaMax
HygRoMax-AlfaMini/Max

Air conditioning units

FTA - TFA

Heat recovery units

NRC - HRC - HRR
RCFA - RHE

Roof-top units

RTSA - RTPA - RTLA
MFS - MFSE

Other products

FG - Hot air generator
ESC - Air extractor

> Characteristics

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 / m³) 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 are centrifugal type, double suction and forward blades with high performances.

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).

Pulleys are with variable diameter to better set of the fan to the installation.

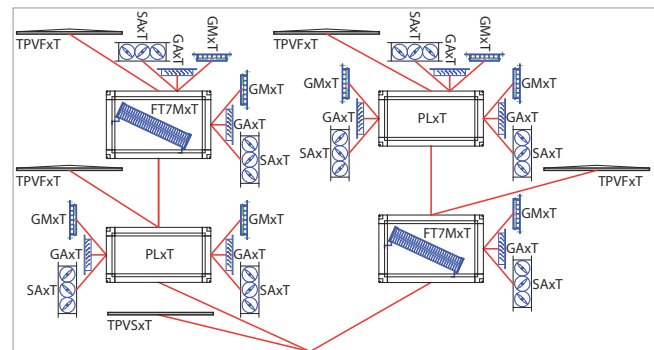
Belts can be SPA or SPB type.

They are supplied with conical clamping, "Taperlock" type and are statically and dynamically balanced.

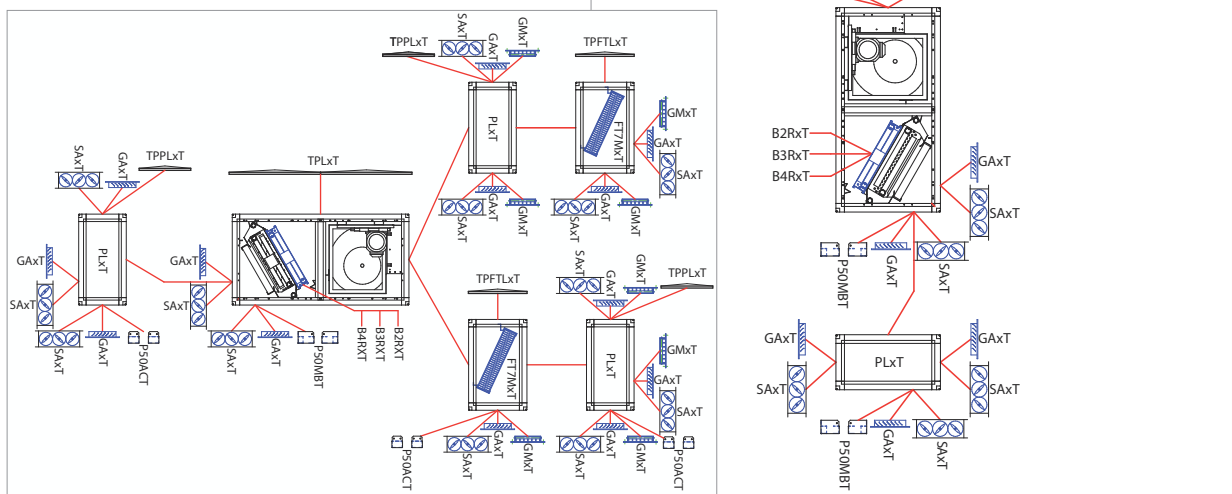
The **water heat exchangers** are made of copper pipes and aluminum fins, blocked by mechanical expansion of the tubes; the main coil can be 4 or 6 rows (hot or cold) and 2, 3 or 4 rows the secondary one (only hot). The filtration is carried out by 50 mm thick synthetic filters with G4 efficiency class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

Scheme of the accessories compatibility
TFA, vertical installation.



Scheme of the accessories compatibility
TFA, horizontal installation.





> Accessories compatibility

	Assembly	TFA1	TFA2	TFA3	TFA4	TFA5	TFA6	TFA7	TFA8
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
TPVFxT	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;

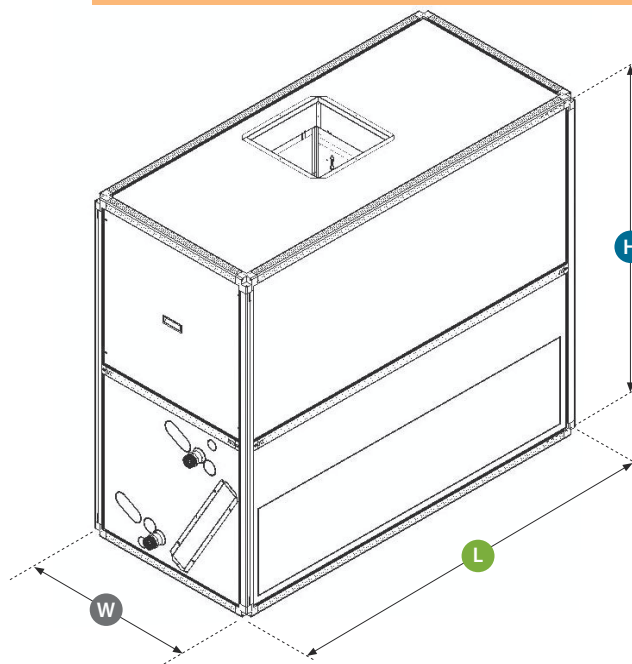
V = This accessory can be mounted only on the vertical version;

O = This accessory can be mounted only on the horizontal version;

* = The roofs TPPLxT are mounted on sizes from 3 to 8 included .

> Dimensions and weights

TFA model		TFA1	TFA2	TFA3	TFA4	TFA5	TFA6	TFA7	TFA8
Length	L mm	928	1172	1334	1659	1659	1984	1984	2472
Width	W mm	684	684	765	765	828	828	1172	1172
Height	H mm	1334	1334	1497	1497	1822	1822	2309	2309
Weight base version, 6 rows coil.	kg	190	220	275	320	415	475	630	807
Weight enhanced version, 6 rows coil.	kg	200	223	283	321	417	502	657	813



Modular units for
the air treatment

FM - FE

Air handling units for
specific sectors

FM-H EtaMax

HygRoMax-AlfaMini/Max

Air conditioning units

FTA - TFA

Heat recovery units

NRC - HRC - HRR

RCFA - RHE

Roof-top units

RTSA - RTPA - RTLA

MFS - MFSE

Other products

FG - Hot air generator

ESC - Air extractor