

TDA

Air handling units

Air flow rate 800 ÷ 3500 m³/h

- Horizontal or vertical installation
- Version with 3-4 row water-type coil
- Version with 2-row direct expansion coil
- Version with extractor



DESCRIPTION

The conditioning units in the TDA range have been designed for small and medium sized rooms in civil, commercial and hotel type systems. The units are designed to guarantee high head levels and are suitable for both vertical and horizontal installation, to ensure greater versatility of use. The outstanding aesthetic finish of the product makes it perfect for installation in box rooms, bathrooms, suspended ceilings or in the room itself. The wide range of sizes and accessories available means it's easy to choose the best model for the specific requirements.

Structure

Structure with hot galvanised steel sandwich panels, 15mm thick, with interposed polyurethane foam (density 40kg/m³). The delivery and suction panels are equipped with flanges for the collets to any air channels and can be moved to create different air flow configurations. The horizontal or vertical fixing to the walls of the unit is made possible by the appropriate brackets.

New centrifugal fans

New centrifugal fans with high head levels, double suction, forward blades and directly coupled motor. The single-phase 230V-50Hz motor is multi-speed (of which three speeds can be selected).

Condensated collection basin

Condensated collection basin in galvanised steel, suitable for both vertical and horizontal installation.

Coils with 3-4 rows

Coils with 3-4 rows, that can be fed with hot or refrigerated water. Made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes. They are equipped with threaded sleeves for the plumbing connections and the air breather valve. The coils can be rotated on site.

A 2-row, direct expansion coil is also available. It is made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes.

ACCESSORIES

FAF filter G4 on intake: Contained in the special housing, it is made of synthetic fibre and pleated geometry; the U-shaped frame is in galvanised sheet metal with two galvanised wire support nets

SM Mixing chamber with G4 filter and dampers: Galvanised steel housing complete with two air adjustment dampers with opposed fins in galvanised steel. The housing comes complete with a synthetic fibre filter (efficiency class G4, in accordance with standard EN779).

SR Intake damper: Consisting of a frame with galvanised steel ribbed fins. The fins are moved by nylon toothed wheels.

GM Delivery grille: Grille with double row of adjustable fins to introduce air into the room.

GA Suction grille: With tilted fins fixed at 45°; can be installed directly on the device (by removing the flange) or on the wall.

CMA: Outer casing for grille

BP One-row water-type post-heating coil applied outside the unit: Contained in a special, thermally-insulated housing, it is installed on the air delivery flange only and consists of a 1-row turbo-type coil.

BR Electric post-heating coil applied outside the unit: The machines can be fitted with the electric coil accessory of suitable capacity. It is installed downstream of the finned coil only.

VCT 2-way or 3-way valve: These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. **The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility. These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.**

VCTA Two or three-way valve actuator: The VCT series valves can be combined with one of the two actuators, VCTA230 on/off 230V or 24V modulating VCTA24M. **The actuator must be selected according to the type of system/adjustment provided.**

PM Delivery plenum with circular start-up: Sandwich panel in hot galvanised steel, with interposed polyurethane foam (40kg/m³). The panel is 15mm thick. It is installed in place of the delivery panel with rectangular flange, using the same 4 self-threading screws.

CONTROL PANELS

PX: with selector only

WMT05 Electromechanical thermostat

WMT10 control panel

ACCESSORIES COMPATIBILITY

Size	09	15	21	28	37
FAF	FAF1	FAF2	FAF3	FAF4	FAF4
SM	SM1	SM2	SM3	SM4	SM5
SR	SR1	SR2	SR3	SR4	SR4
GM	GM5	GM6	GM7	GM8	GM8
GA	GA5	GA6	GA7	GA8	GA8
CMA	CMA5	CMA6	CMA7	CMA8	CMA8
BP	BP1	BP2	BP3	BP4	BP5
BR	BR1	BR2	BR3	BR4	BR5
VCT (2 way)	VCT102	VCT202	VCT402	VCT402P	VCT402P
VCT (3 way)	VCT103	VCT203	VCT403	VCT403P	VCT403P
VCTA230	.	.	.	.	.
VCTA24M	.	.	.	.	.
PM	PM1	PM2	PM3	PM4	PM4
PX	.	.	.	.	-(2)
WMT05	.	-(1)	-(1)	-(1)	-(2)
WMT10	.	-(1)	-(1)	-(1)	-(2)

(1) Envision the use of SIT3 and the replacement of the 2A fuse with one 4A fuse

(2) Envisions return relay, one per speed

TECHNICAL DATA

Size		9	15	21	28	37
Nominal air flow rate	m ³ /h	800	1400	2000	2700	3500
	l/s	222	389	556	750	972
Useful static pressure (1)	Pa	277	330	227	150	240
Cooling capacity with 3-row coil (2)	total kW	4,90	7,40	11,10	14,70	17,90
	sensible kW	3,50	5,60	8,20	10,90	13,70
Cooling capacity with 4-row coil (2)	total kW	6,10	9,70	13,10	18,40	22,30
	sensible kW	4,30	6,90	9,40	12,50	15,20
Cooling capacity with R-407C coil (3)	total kW	5,10	7,50	10,70	14,10	16,70
	sensible kW	3,50	5,20	7,40	9,90	12,40
Heating capacity with 3-row coil (4)	kW	10,40	16,60	24,20	32,10	41,20
Heating capacity with 4-row coil (4)	kW	12,10	19,90	27,30	36,80	45,40
Heating coil capacity for 4-pipe systems (4)	kW	5,20	8,80	12,60	16,40	20,90
Heating capacity with 3-row coil (5)	KW	5,10	8,10	11,90	15,70	20,10
Heating capacity with 4-row coil (5)	KW	6,00	9,80	13,40	18,20	22,30
Heating capacity with coil for 4-pipe systems (5)	KW	2,50	4,30	6,00	7,80	10,00
Electric coil capacity	KW	4	6	8	10	12
Electric coil power supply		230/1	400V/3	400V/3	400V/3	400V/3
Fnas	n°	1	2	2	1	2
Motors		1	2	2	1	2
Total fan input power	kW	0,357	0,713	0,736	0,874	1,771
Fan input current	A	1,6	3,1	3,2	3,8	7,7
Fan power supply		230V~/50Hz				
Filter efficiency (6)		G4	G4	G4	G4	G4
Sound power level (7)	dB(A)	62	63	70	72	73
Connections						
Water battery collectors	Ø mm	1"	1"	1"	1"	1"
Direct expansion liquid coil pipes	Ø mm	10	10	12	16	16
Direct expansion gas coil pipes	Ø mm	18	22	22	28	28
Condensate discharge	Ø mm	3/8"	3/8"	1/2"	1/2"	1/2"

Unit designed to operate with all recirculating air or maximum 10% of external air

(1) At nominal flow rate with 3-row coil

(2) Incoming air temperature 27°C d.b. 19°C w.b.; water temperature (In-Out) 7°C-12°C

(3) Incoming air temperature 27°C d.b. 19°C w.b.; average evap. temp. 7°C

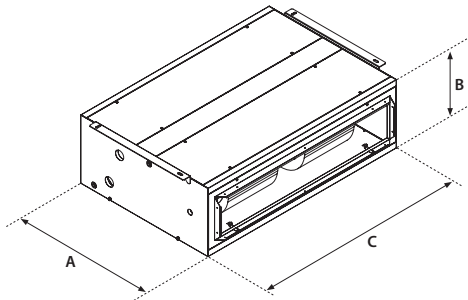
(4) Incoming air temperature 20°C; water temperature (In-Out) 70°C-60°C

(5) Incoming air temperature 20°C; water temperature (In-Out) 45°C-40°C

(6) In accordance with standard EN 779

(7) In accordance with standard UNI EN ISO 9614

DIMENSIONS



CONFIGURATOR

Field	Description
TDA	
Size	
09, 15, 21, 28, 37	
Version	
3	3-row water coil
4	4-row water coil
E	2-row direct expansion coil
X	Extractor (without coil)

Size		9	15	21	28	37
Dimensions and weights						
Height	B	mm	300	320	320	380
Width	C	mm	920	1000	1400	1400
Length	A	mm	630	670	670	790
Net weight *		kg	42	53,00	71,00	88,00

(*) with 4-row coil

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia

Tel. 0442633111 - Telefax 044293577

www.aermec.com