

Terminali standard - Standard fan-coils

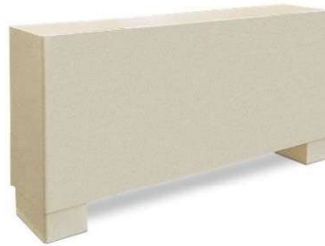
Fan-coil alta portata d'aria con mobile
Fan-coil high air flow with cabinet

TOM/TIM
2017

TOM



TIM



Caratteristiche generali

Trovano il loro impiego negli impianti ove siano richieste portate d'aria con grandi distribuzioni canalizzate. Le portate d'aria hanno un campo da 1525 a 6.815 m³/h in 6 grandezze. Disponibile l'applicazione di lampade germicida ad alta efficienza che non solo evitano il rischio di contaminazioni, ma consentono un risparmio energetico (circa 15%) mantenendo perfettamente pulite le alette della batteria di scambio (musei, biblioteche, hotel, cliniche...).

Modelli con mobile

La griglia di mandata in acciaio e il mobile sono verniciati RAL 9010. Nella parte posteriore dell'apparecchio lasciare uno spazio sufficiente (almeno 350 mm) alla per l'estrazione del filtro e il passaggio all'aria (TOM).

Batteria ad acqua in tubi di rame \varnothing 9,52 mm (3/8") a ranghi sfalsati, alettatura in alluminio PA 2,5 mm (10FPI), ad alta efficienza, completa di robusti collettori in ferro filettati Gas Femmina. Di serie le batterie sono a 4R 16T. Una batteria addizionale di riscaldamento a 1R realizza impianti a 4 tubi. Disponibili anche batterie a 5R. I collettori d'alimentazione (di serie previsti sulla destra guardando frontalmente l'unità) possono essere comunque montati secondo le indicazioni pervenute in fase d'ordine. Batterie standard ad acqua: Pressione: esercizio 14,4 Bar - test 16 Bar. Temperatura esercizio: 80°C - max 100°C

Bacinella condensa in lamiera zincata e verniciata con polveri epossidiche, su entrambi i lati, a richiesta in inox, completamente coibentata con materiale ignifugo a cellule chiuse sp. 5 mm classe '1'.

Filtro dell'aria in fibra sintetica rigenerabile classe EU3-G3-M1 sp. 23 mm racchiusa in profilo di lamiera zincata con rete di protezione su entrambi i lati.

Elettro ventilatore centrifugo a doppia aspirazione con coclee e ventole in lamiera zincata bilanciate staticamente e dinamicamente.

Motore a 6P con condensatore permanentemente inserito (PSC/AOM) a 3 velocità montato su supporti elastici antivibranti con bronzine auto lubrificanti, IP22 classe 'B' con protezione termica incorporata V230/1/50Hz

General information

Air handling units are installed where relevant air flow and large ducted distribution system are requested such as commercial mall, offices, restaurants, banks...

Air flow range moves from 1525 to 6.815 m³/h splitted in 6 sizes. Available the utilization of high efficiency germicide lamps. These lamps not only avoid risk of contamination but also permit relevant energy saving (\pm 15%) maintaining perfectly clean the heat exchange fins. Ideal applications: museum, library, hotel, clinic....

Cased unit

For installation where floor space is at a premium and where units can be ceiling mounted. Steel supply grille and cabinet are painted with epoxy powder colour RAL 9010 (pure white). It is necessary to leave space at rear of unit to allow filter extraction and sufficient air intake not less 350 mm (TOM)

Finned Coils Tubes are manufactured from 9,52 mm (3/8") OD copper and are staggered for greater heat transfer. High efficiency louvered aluminum fins 10 FPI are bonded into the tubes and coils are available for water or for DX version. Water coils includes heavy steel headers screwed gas Female. Standard 2-pipe coils 4-Rows, and an additional 1R heating coils are available for 4 pipe systems. Manual drain and manual or automatic air vent applied on prolonged Units are supplied as standard with pipe connections on the right when viewed from the front. Left sided connections are available when specified at order but it is also possible to reverse the handling on site. Water standard coils Pressure: working 14,4 Bar - test 16 Bar. Temperature: working 80°C - max 100°C

Drain Trays manufactured from galvanized sheet steel with an epoxy paint finish on both sides. The drain tray is fully insulated with 5 mm closed cell polyurethane foam which has a class "1" European standard fire proof. Stainless steel drain trays are also possible.

Air Filters The synthetic media is cleanable and enclosed in a galvanized frame with wire mesh support. Efficiency is to class EU3-G3-M1 th.23 mm. If ducted return air is required, a galvanized filter frame is available with bottom or side filter removal. Are also available washable filters or aluminum mesh.

Electric Motors Fan deck The motor is mounted directly on beach galvanized scroll, V230/1/50Hz supply and have a permanent coupled capacitor. Std motors (PSC/AOM) have sealed for life sinterized bearings, open aluminum enclosure rated IP 22 Class 'B' and 3 speeds with built in thermal overload protection. Centrifugal fans are fitted on a rigid galvanized panel having galvanized scroll and impeller to assure a spark free fan in case of accidental contact between fan and scroll.

On-Off and Modulating Valve Kit are available with 2 or 3-port valves. They can be supplied loose, or factory fitted, when they are wired and tested. It is also possible to factory fit any other leading brand of controls and these are normally free issued to us from the client. All kits are assembled to allow ease of maintenance and removal.

Dati nominali - Nominal data

Versione con mantello	Cabinet version	Velocità/Speed	TOM/TIM	20	25	30	35
Portata d'aria nominale (0Pa) con filtro standard	Nominal air flow (0Pa) with std filter	Alta/High	m ³ /h	2315	3290	3700	3955
		Media/Medium	m ³ /h	2025	2380	3395	3675
		Bassa/Low	m ³ /h	1525	1540	2850	3200
Resa freddo	Cooling capacity	4R 16T 10FPI					
Portata d'acqua	Water flow rate		l/h	2691	3683	4241	4645
Resa frigorifera totale	Total cooling capacity	Alta/High ⁽¹⁾	kW	15,68	21,46	24,72	27,07
Resa sensibile	Sensible capacity		kW	10,04	13,73	15,86	17,31
Perdita carico lato acqua	Water pressure drops		kPa	45,3	47,2	49,9	40,2
Resa caldo	Heating capacity	4R 16T 10FPI					
Riscaldamento	Heating capacity	Alta/High ⁽²⁾	kW	18,66	25,75	29,46	32,03
Perdita carico lato acqua	Water pressure drops		kPa	38,8	40,2	42,3	33,9
Riscaldamento	Heating capacity	Alta/High ⁽³⁾	kW	31,25	43,23	49,40	53,70
Portata d'acqua	Water flow rate		l/h	2744	3797	4339	4717
Perdita carico lato acqua	Water pressure drops		kPa	39,0	41,2	42,6	33,7
Resa caldo	Heating capacity	1R 16T 10FPI					
Riscaldamento	Heating capacity	Alta/High ⁽³⁾	kW	13,82	18,79	21,61	24,12
Portata d'acqua	Water flow rate		l/h	1214	1650	1898	2119
Perdita carico lato acqua	Water pressure drops		kPa	25,9	51,6	36,5	48,9
Dati generali	General data	4R					
Potenza nominale	Motor nominal power	IP22	W	245	2*147	2*245	2*245
Potenza assorbita	Absorbed motor power	Alta/High	W	374	540	770	860
Assorbimento	Absorbed motor current	Alta/High	A	1,85	2,40	4,06	4,16
Lunghezza batteria	Length of coil	16T=H400 mm	mm	800	1000	1200	1400
Superficie frontale	Coil face area	4R-16T	m ²	0,32	0,40	0,48	0,56
Contenuto d'acqua	Coil water content	4R-16T	lt	3,93	4,91	5,89	6,87
Elemento Elettrico	Electric heaters	EE-V230	W	1500	2000	2500	3000
El. elettrico alta capacità	High capacity electric heaters	EH-V230	W	2000	2500	3000	4000
Potenza Sonora (Lw)	Sound Power Levels (Lw)	Alta/High	dB(A)	69,1	69,1	71,5	72,5
Pressione sonora (Lp)	Sound Pressure Levels (Lp)	Alta/High	dB(A)	60,1	60,1	62,5	63,5

Dati riferiti alle condizioni/the following standard rating conditions are in accordance with European std (PA 2,5 mm – 10 FPI):

⁽¹⁾ aria/air 27°C 50% - acqua/water 7/12°C ⁽²⁾ aria/air 20°C acqua/water 50°C stessa portata del freddo/water flow rate as cooling mode

⁽³⁾ aria/air 20°C acqua/water 70/60°C. alimentazione/power supply V230/50Hz

Livelli sonori/Sound level: in camera riverberante/measured in a Reverberant Chamber as Eurovent 8/2 rec. in accordance with UNI/EN/ISO 3741/2001.

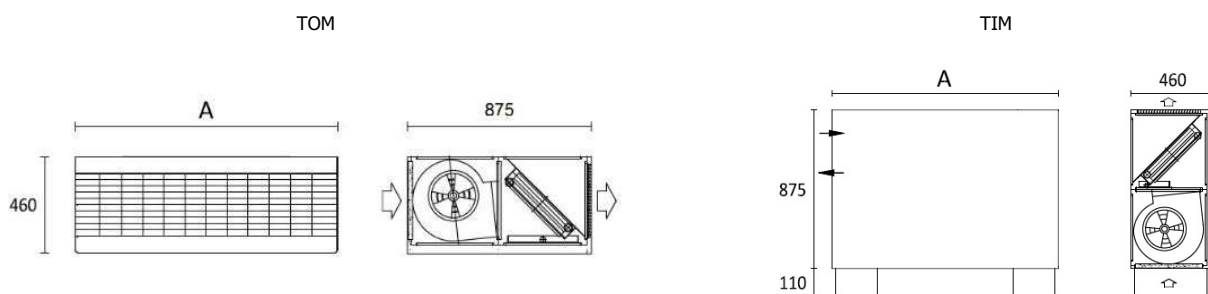
Rumore di fondo/Background noise 24,1 dB – Valori globali riferiti a/global values related to SWL=octave band central frequency from 125 to 8M Hz.

Livelli di pressione sonora riferiti a unità installata con attenuazione ambientale del locale mediamente arredato di 9 dB

The SPL-Lp values are related to a Room Absorption of 9 dB room of V=100 m³ volume with a reverberating time of T=0,5 sec.

Per valori diversi di attenuazione ambientale (Lw-Lp) ricalcolare la pressione sonora (Lp) / For different room absorption value use Lp = Lw – (Lw-Lp)

Dimensioni - Dimensions (mm)



TOM/TIM	20	25	30	35
A mm	1050	1250	1450	1650
kg	83	102	120	146

Terminali standard - Standard fan-coils

Fan-coil con mobile alta portata d'aria motore Brushless con regolazione portata 0-100%
Fan-coil with cabine high air flow Pa Brushless DC motor 0-100% variable air volume

TOM/TIM-EC
2017

TOM-EC



TIM-EC



Caratteristiche generali

Trovano il loro impiego negli impianti ove siano richieste portate d'aria con grandi distribuzioni canalizzate. Le portate d'aria hanno un campo da 1.080 a 4.180 m³/h in 4 grandezze. Disponibile l'applicazione di lampade germicida ad alta efficienza che non solo evitano il rischio di contaminazioni, ma consentono un risparmio energetico (circa 15%) mantenendo perfettamente pulite le alette della batteria di scambio (musei, biblioteche, hotel, cliniche...).

Modelli con mobile

La griglia di mandata in acciaio e il mobile sono verniciati RAL 9010. Nella parte posteriore dell'apparecchio lasciare uno spazio sufficiente (almeno 350 mm) alla per l'estrazione del filtro e il passaggio all'aria (TOM-EC).

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Elettro ventilatore centrifugo a doppia aspirazione con coclee e ventole in lamiera zincata bilanciate staticamente e dinamicamente.

Motore inverter e filtro elettronico con controllo elettronico della velocità segnale 1-10 Volt con bronzine auto lubrificanti, IP 20 classe 'B' con protezione termica incorporata V230/1/50Hz.

General information

Air handling units are installed where relevant air flow and large ducted distribution system are requested such as commercial mall, offices, restaurants, banks...
Air flow range moves from 1.080 to 4.180 m³/h splitted in 4 sizes. Available the utilization of high efficiency germicide lamps. These lamps not only avoid risk of contamination but also permit relevant energy saving (approx 15%) maintaining perfectly clean the heat exchange fins. Ideal applications: museum, hotel, clinic....

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EC motor: Electronically Commutated Motors (EC Motors) are a brushless DC motor and have no mechanical commutator. They use microprocessor technology with electronic filter to control the level of current through the windings. This electronic operation offers a significant advantage over traditional AC motors namely; high efficiency, energy savings, continuously variable speed control, compact design, long life and direct connection to AC mains. V230÷10% 50/60Hz, IP20, Class B, max ambient temp. 50°C, input signal 1..10Vdc, variable speed 300 to 1500 RPM, overload protection, life expectancy 50.000 hours

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Dati nominali - Nominal data

Unità a vista	No ducted	Velocità/Speed	TO-EC	20	25	30	35
Portata d'aria nominale (0Pa) con filtro standard	Nominal air flow (0Pa) with std filter	Alta/High Bassa/Low	m ³ /h m ³ /h	2475 725	3060 1710	3705 1920	4185 2280
Resa freddo	Cooling capacity	4R 16T 10FPI					
Portata d'acqua	Water flow rate		l/h	2583	3219	3910	4469
Resa frigorifera totale	Total cooling capacity	Alta/High ⁽¹⁾	kW	15,06	18,76	22,79	26,05
Resa sensibile	Sensible capacity		kW	9,66	12,02	14,58	16,60
Perdita carico lato acqua	Water pressure drops		kPa	27,1	32,3	39,1	38,1
Resa caldo	Heating capacity	4R 16T 10FPI					
Riscaldamento	Heating capacity	Alta/High ⁽²⁾	kW	19,34	24,01	29,09	33,07
Perdita carico lato acqua	Water pressure drops		kPa	25,5	30,4	37,0	36,0
Riscaldamento	Heating capacity	Alta/High ⁽³⁾	kW	32,67	40,54	49,09	55,79
Portata d'acqua	Water flow rate		l/h	2870	3561	4312	4900
Perdita carico lato acqua	Water pressure drops		kPa	31,5	37,3	45,1	43,4
Resa caldo	Heating capacity	1R 16T 10FPI					
Riscaldamento	Heating capacity	Alta/High ⁽³⁾	kW	11,24	14,09	16,82	19,55
Portata d'acqua	Water flow rate		l/h	987	1238	1478	1717
Perdita carico lato acqua	Water pressure drops		kPa	30,1	49,0	15,7	22,7
Dati generali	General data	4R					
Potenza assorbita	Absorbed motor power	Alta/High	W	340	320	540	580
Assorbimento	Absorbed motor current	Alta/High	A	2,25	2,08	3,68	3,76
Potenza Sonora (Lw)	Sound Power Levels (Lw)	Alta/High	dB(A)	68,9	64,9	69,1	70,3
Pressione sonora (Lp)	Sound Pressure Levels (Lp)	Alta/High	dB(A)	59,9	55,9	60,1	61,3
Lunghezza batteria	Length of coil	16T=H400 mm	mm	800	1000	1200	1400
Superficie frontale	Coil face area	4R-16T	m ²	0,32	0,40	0,48	0,56
Contenuto d'acqua	Coil water content	4R-16T	lt	3,93	4,91	5,89	6,87
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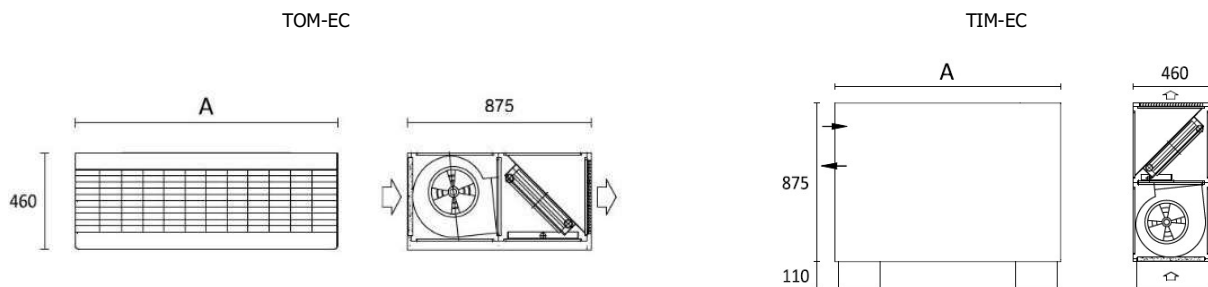
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SWL: Valori globali riferiti a/global values is related to centre-octave-band-frequency from 1250 to 8.000Hz (**REC16 Eurovent/Cecomaf**)

SPL: Livelli di pressione sonora riferiti a unità installata con attenuazione ambientale del locale mediamente arredato di / the SPL-Lp values are related to a Room Absorption (RA) of 9 dB room of V=100 m³ volume with a reverberating time of T=0,5 sec. Per valori diversi di attenuazione ambientale (Lw-Lp) ricalcolare la pressione sonora (Lp)/For different room absorption value use Lp=Lw-(Lw-Lp)

Dimensioni - Dimensions (mm)



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Motore EC e Filtro elettronico / EC motor and Electronic filter

