

# **Tivano** Fan coils for heating, cooling and climate control Residential / Light-commercial



# Tivano, maximum comfort and versatility

The new Tivano range consists of fan coils for heating, cooling and climate control. Tivano can be sited almost anywhere, from residential to light-commercial application, thanks to its elegant design and very compact dimensions (high performance from only 150 mm depth!).

Tivano can be matched both with high temperature heat generators, like boilers, and with low temperature ones, like heat pumps. It is therefore compatible with Hydronic Unit, with all condensing boilers and with integrated hybrid systems.

Tivano offers excellent thermal comfort in all seasons. It

heats and cools very quickly and, once the desired temperature is reached, it keeps it with pinpoint accuracy and minimum noise.

The range comes in two product versions: the standard version (Tivano) and the radiant version (Tivano R), that can both be either wall-mounted or horizontally installed under-ceiling, with the addition of specific "tray" kits, available as option. Tivano, featuring a 2-pipe coil, is available in 5 different sizes, and thanks to a wide range of specific optional kits, like valves control devices, feet and other hydraulic accessories, offers a great number of application possibilities.





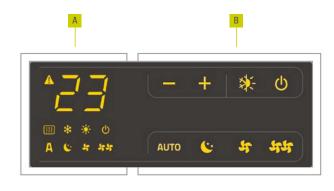
### **TECHNOLOGY AND MANAGEMENT**

# **Tivano, DC-Inverter Technology**

Tivano is a product with DC-Inverter technology and is equipped with a high efficiency permanent magnet engine. For Tivano control and regulation, two different optional accessories are available. The first option is a display, that can be installed onboard on the right side, with SOFT TOUCH function, 3-speed regulation and

"auto" function, for an automatic step-by-step modulation towards the setpoint. The second option is an interface board, to be installed inside the product, for the connection with 3-speed remote controls (remote control is not standard supplied).





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A Display

B Touch buttons

ICONS	FUNCTIONS				
A	Automatic step-by-step operation				
45	Minimum operation				
44	Maximum ventilation speed				
**	Ultra low noise operation				
<del>\</del>	Heating ON				
**	Cooling ON				



## **TECHNOLOGY**

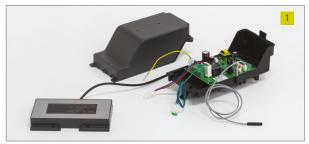
# Accessories for control and installation

Tivano fan coil offers a wide range of accessories for the installation and customization of the product in order to enable its installation anywhere: feet for floorstanding

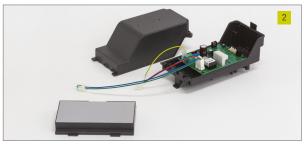
installation or to cover the pipes, in case they come up from the floor; 3-way valve group with electrical actuator and 2-way valve ON/OFF or proportional.

REF.	CODE	DESCRIPTION					
ACCESSORIES FOR CONTROL AND REGULATION							
1	20116484	ALPHA TIVANO 20 IN - control for onboard installation with speed selector					
2	20116481	ALPHA TIVANO REMOTO - interface board for three-speed control (control not included)					

REF.	CODE	DESCRIPTION			
OTHE	OTHER ACCESSORIES				
3	20116486 2-way solenoid valve kit (for circulators at variable flow)				
4	20116489	3-way solenoid valve kit for circulators at fixed flow)			









REF.	CODE	DESCRIPTION		
OTHER ACCESSORIES				
5	20116493	2-way taps kit		
6	20116500	White feet kit		

REF.	CODE	DESCRIPTION	
OTHER ACCESSORIES			
7	20116503	90° "L" coupling kit	
8	20116505	Fitting spacer kit	











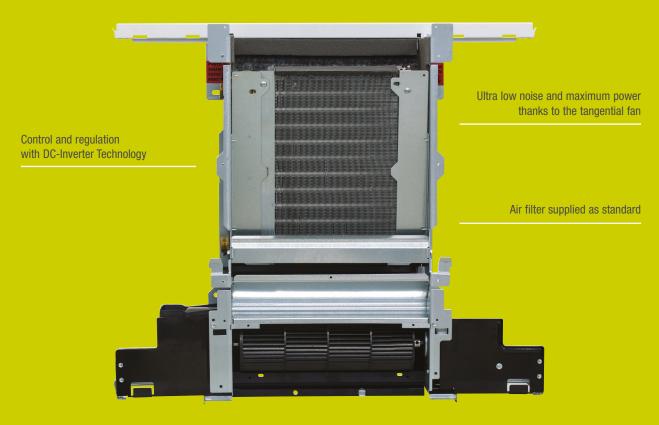
## **TECHNOLOGY**

Ideal for heating, cooling and climate control

Double range with radiant versions and standard versions

Reduced dimensions, 150mm depth only

Five sizes of capacity and 2-pipe hydraulics



Can be matched with condensing boilers, heat pumps and hybrid systems

Suitable for wall-mounted or under-ceiling installation, thanks to the "tray" kits available as option

High speed to reach the set point on heating and on cooling

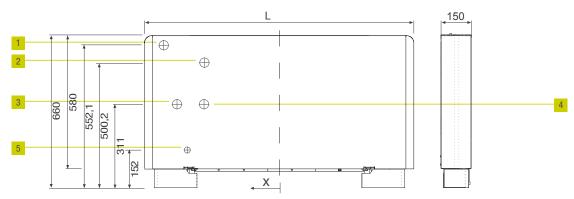
Ideal for residential and light-commercial application



## **TECHNICAL DRAWINGS**

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TIVANO - TIVANO R	U.O.M	23	45	64	76	94
DIMENSIONS			l	l		
L	mm	723	923	1123	1323	1523
WEIGHT						
Net weight	Kg	17	20	23	26	29
HYDRAULIC CONNECTIONS - DISTANCE FROM MIDPOINT (X DISTANCE) - IN CASE OF WA	ALL PIPES					
1- Inlet for 3-way diverter valve installation (with spacer connection)	mm	325,5	425,5	525,5	625,5	725,5
2- Inlet for 2-way valve installation (with 90° connection)	mm	205,8	305,8	405,8	505,8	605,8
3- Outlet via 3-way valve	mm	284,8	384,8	484,8	584,8	684,8
4- Outlet via 2-way valve	mm	205,8	305,8	405,8	505,8	605,8
5- Condensate drain	mm	254	354	454	654	754
CLEARANCE						
A	mm	140	140	140	140	140
В	mm	80	80	80	80	80
C	mm	20	20	20	20	20
D	mm	20	20	20	20	20
E	mm	400	400	400	400	400
F	mm	2500	2500	2500	2500	2500

## TIVANO - TIVANO R

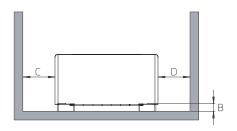


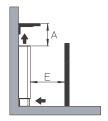
## KEY:

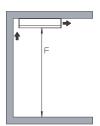
- Inlet for 3-ways diverter valve installation with spacer connection (using code 20116489 and code 20116505)
- Inlet for 2-ways valve installation with 90° connection (using code 20116486 with code 20116503 or code 20116493 with code 20116503)

3 Outlet via 3-ways valve

- 4 Outlet via 2-ways valve
- 5 Condensate drain









## **TECHNICAL DATA**

DESCRIPTION and MODELS	U.O.M.	TIVANO 23 / R 23	TIVANO 45 / R 45	TIVANO 64 / R 64	TIVANO 76 / R 76	TIVANO 94 / R 94
PERFORMANCE						
Total cooling capacity <sup>(a)</sup>	W	1062	2056	3211	3759	4423
Sensible cooling capacity	W	829	1562	2517	2997	3565
Water flow rate	l/h	183	354	552	647	761
Water losses	kPa	7,6	8,4	23,0	18,3	24,8
Heating capacity with 50°C inlet water (b)	W	1387	2720	3827	4572	5591
Water flow rate (50 °C water inlet)	l/h	185	357	558	653	769
Water losses (50 °C water inlet)	kPa	6,3	7,0	17,5	14,5	19,2
Heating capacity with 70°C water inlet (c)	W	2347	4530	6436	7619	9356
Water flow rate (70°C Δt 10)	l/h	202	390	553	655	805
Water losses (70°C Δt 10)	kPa	6,9	7,5	16,1	13,5	19,4
Cooling capacity without ventilation (70°C Δt 10)	W	322	379	447	563	690
HYDRAULIC FEATURES						
Water coil content	litre	0,47	0,8	1,13	1,46	1,8
Maximum operating pressure	bar	10	10	10	10	10
Hydraulic connections	inch			eurokonus 3/4		
AERAULIC DATA						
Airflow at "Performance" (d)	m³/h	191(*)	377(*)	543(*)	678(*)	763(*)
Airflow at medium speed (AUTO mode)	m³/h	111(*)	247(*)	360(*)	444(*)	484(*)
Airflow at minimum ventilation speed	m³/h	54(*)	153(*)	246(*)	366(*)	422(*)
Maximum static pressure available	Pa	10	10	13	13	13
ELECTRICAL DATA	·					
Power supply	V/ph/Hz			230/1/50		
Maximum power consumption (e)	W	15,1	23,2	26,4	36	40,3
Maximum current input (e)	A	0,14	0,21	0,24	0,35	0,38
Absorbed power at minimum speed	W	6	12	14	18	19
SOUND LEVEL						
Sound pressure at "Performance" (g)	dB(A)	43,6	44,5	46,9	47,5	48,7
Sound pressure at medium airflow (9)	dB(A)	34,4	35,3	35,7	36,2	38,9
Sound pressure at minimum airflow (9)	dB(A)	25,3	26,5	26,6	27,4	28,7
Sound pressure at temperature 'setpoint' (9)	dB(A)	19,8	20,5	23,3	23,8	24,7

### KEY:

- a Coil inlet water temperature 7°C, coil outlet water temperature 12°C, air temperature 27°C d.b. and 19°C w.b. (UNI EN 1397)
- Coil inlet water temperature 50°C, water flow rate as in cooling, air temperature 20°C (UNI EN 1397)
- Coil inlet water temperature 70°C, coil outlet water temperature 60°C, air temperature 20°C
- d Air flow rate measured with clean filters
- e With the maximum number of revolutions
- g Sound pressure measured in semi-anechoic chamber according to ISO 7779
- (\*) Cooling Airflow data.

  Concerning Heating Airflow, it is 20 m³/h higher on the model 23 and 40 m³/h higher on all other models, at every speed.



Trading Address: Via Risorgimento, 23/A 23900 LECCO (LC) Italy Tel. +39 0341 277111 Fax +39 0341 277263 info@berettaboilers.com www.berettaboilers.com

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