



**SABIANA**  
IL CLIMA AMICO

A leading brand of  AFG



# Ocean Modular Ducted Unit

**T**he **Ocean** modular ducted units are suitable for heating and cooling small and medium-sized environments. The compact dimensions of the unit and the modularity of the basic components simplify installation in small spaces. **Four basic models and 15 versions** are available, both horizontal and vertical, with air flow-rates ranging from 600 to 5.300 m<sup>3</sup>/h, heat outputs **from 6 to 68 kW**, cooling capacities **from 3 to 30 kW**.

**A**s well as the traditional accessories, each unit can be supplied with **the innovative Crystall electronic filter** that significantly improves indoor air quality.

# Technical characteristics of the main components:

**Casing:** consists of self-supporting panels in hot dip galvanized, prepainted steel, which are completely insulated with a 20 mm. thick, thermoacoustic, flame retardant lining.



**Fan section:** for the models 1, 2 and 3 consists of centrifugal fans in galvanized steel with two impellers, and one directly coupled three speed motor.

Model 4 consists of two motors with external rotor directly coupled to the impeller. The supply is **single phase 230V – 50Hz**, with permanently installed capacitor, insulation class F.

**Coil:** is mounted in a galvanized steel carrying frame and constructed in 3/8" dia expanded copper tubes with aluminium fins with a pitch of 2,1 mm. The steel headers have tapping for air vent and male connectios. The coils **are tested** to a pressure **of 30 bars**.

In normal operation the water temperature should not exceed 95°C and the maximum working pressure 10 bars. Where a cooling coil is fitted the coil should always be fitted in a vertical position. The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**Filter:** regenerable synthetic filter, 50 mm thick.

## Noise level

The average noise level (**sound pressure**)

is measured in the open air at a distance of one meter from the mouth of the unit.

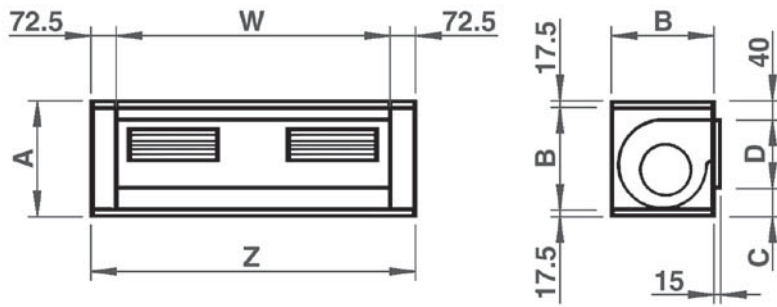
MODEL 1		
SPEED	dB(A)	at AIR FLOW of m³/h
1	45	650
2	51	1000
3	55	1400

MODEL 2		
SPEED	dB(A)	at AIR FLOW of m³/h
1	50	1150
2	55	1550
3	60	2100

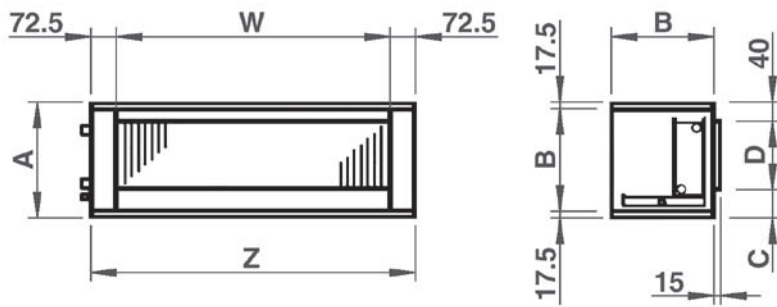
MODEL 3		
SPEED	dB(A)	at AIR FLOW of m³/h
1	53	1750
2	56	2300
3	61	3000

MODEL 4		
SPEED	dB(A)	at AIR FLOW of m³/h
1	55	2500
2	61	3800
3	65	5300

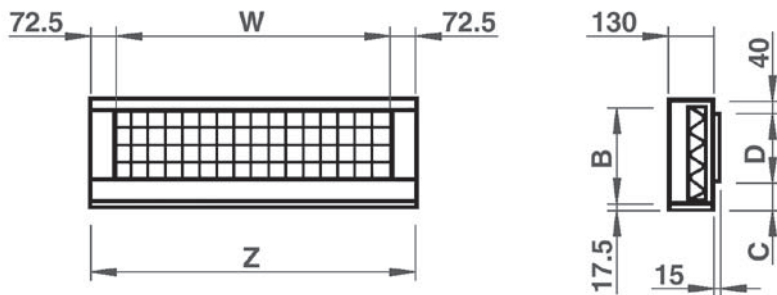
# Dimensions and Weight



FAN SECTION **SUE**



COIL SECTION **SBO**



FILTER SECTION **SFS**

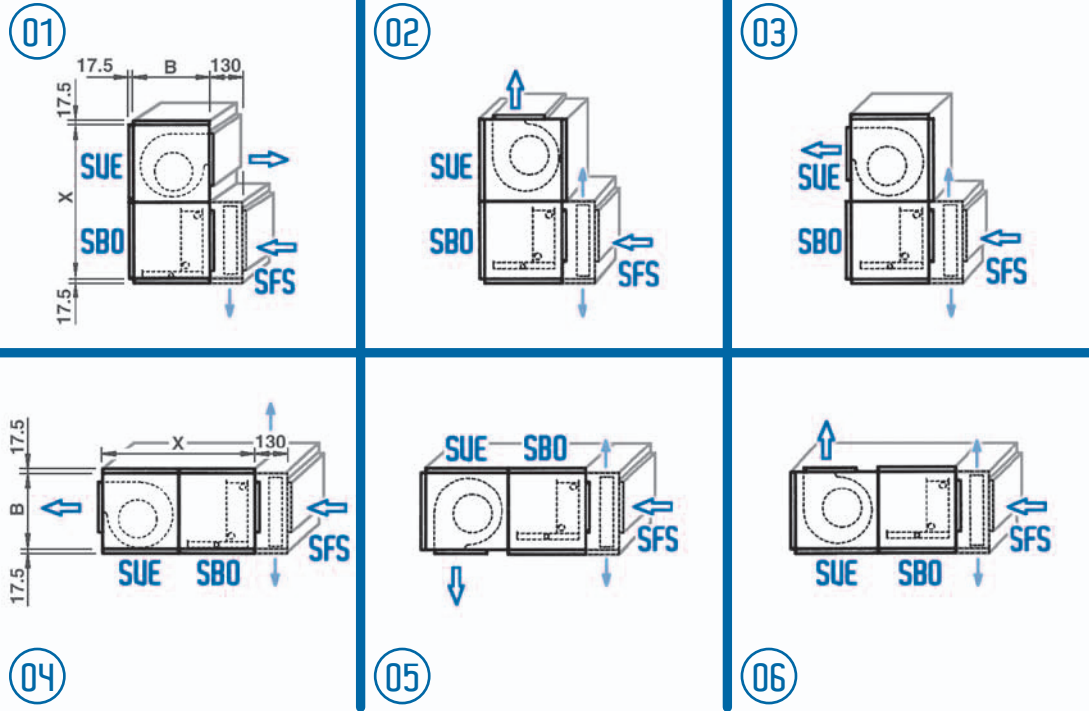
MODEL	DIMENSIONS mm						
	A	B	C	D	X	Z	W
<b>1</b>	335	300	65	195	600	950	805
<b>2</b>	415	380	40	300	760	950	805
<b>3</b>	515	480	40	400	960	950	805
<b>4</b>	515	480	40	400	960	1500	1355

SECTION WEIGHTS (kg)					
MODEL	1	2	3	4	
<b>FAN SECTION</b>	23	28	32	52	
<b>COIL SECTION</b>	2 ROWS	14	18	22	38
	3 ROWS	16	20	24	42
	4 ROWS	18	22	26	45
	6 ROWS	22	28	34	55
	4 + 2 ROWS	–	26	30	52
	6 + 2 ROWS	–	32	38	62
<b>DIRECT EXPANSION</b>	19	23	27	46	

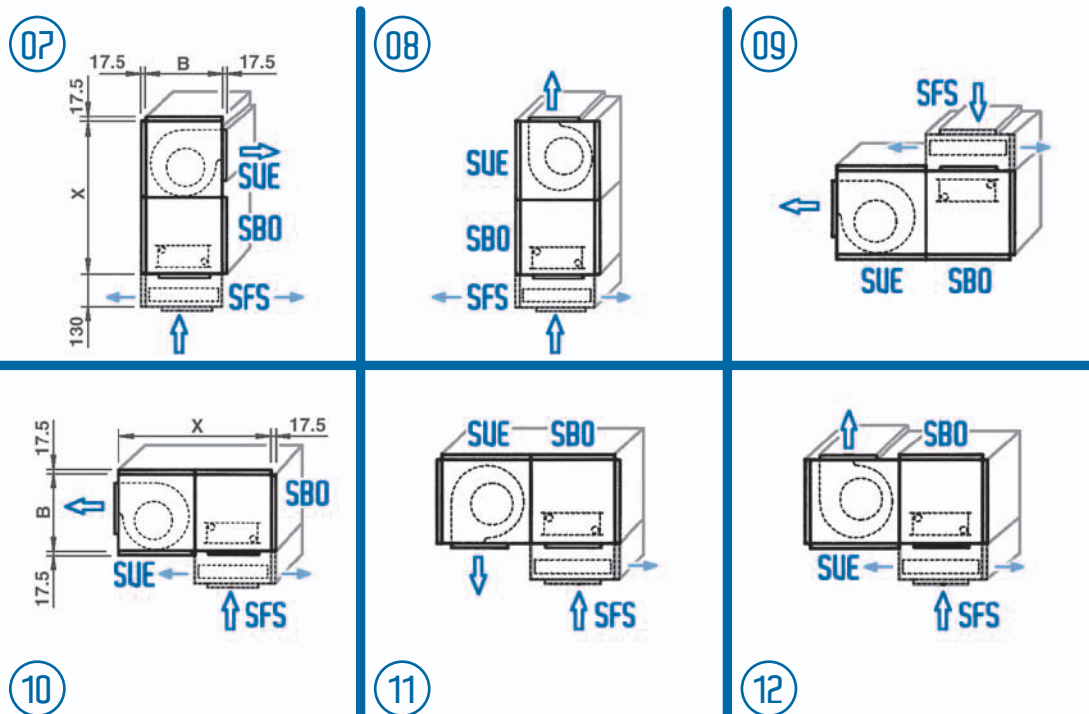
# Combination possibilities

In addition to the 12 versions available using standard components a wide range of **further combinations can be achieved** and for each of them you can choose between the four different types of coil.

## Heating and cooling



## Heating only

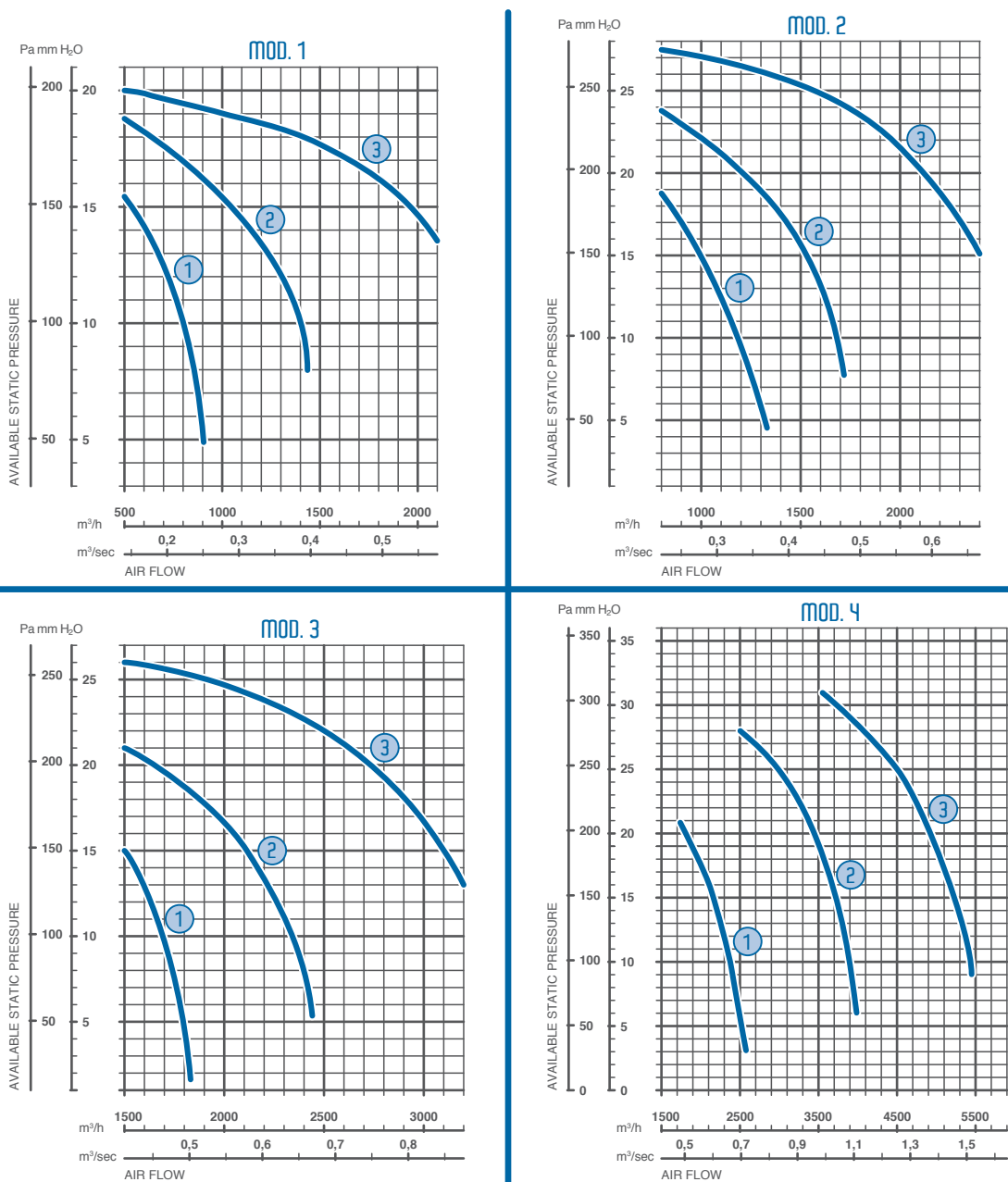


# Performance data

## Fan section graphs.

The fan section can be used for ventilation or as an air extraction box.  
The fan performance curve shows the air flow and the available static pressure for each speed at the mouth of the fan.

MAXIMUM ABSORPTION (Ampère)				
MODEL	1	2	3	4
HIGH	2,1	2,4	2,8	5,9
MEDIUM	1,4	1,4	2,0	3,9
LOW	1,0	1,0	1,5	2,9

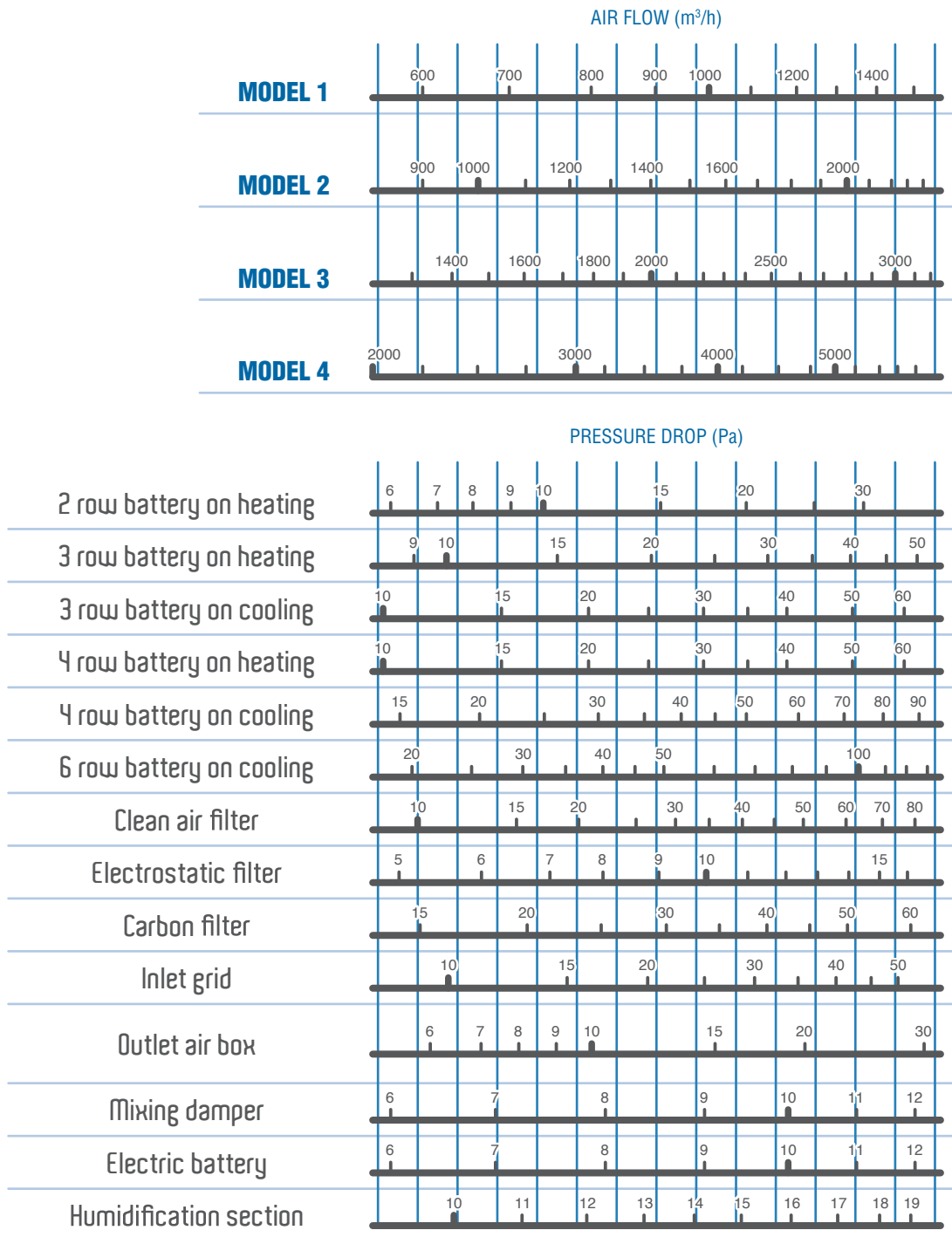


NOTE: ① ② ③ fan speed.

The curves show the available static pressure of the fan at its various speeds.

# Performance data

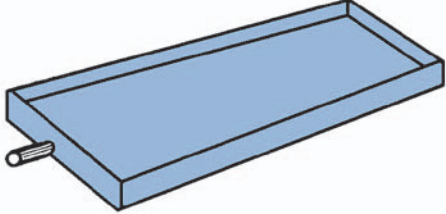
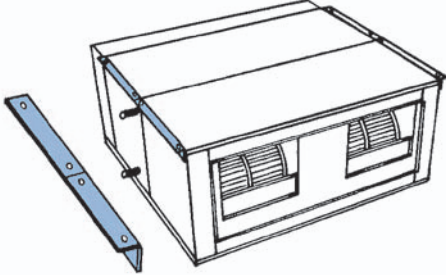
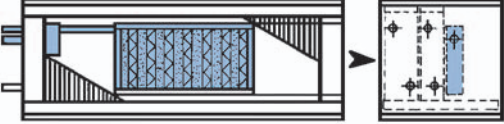
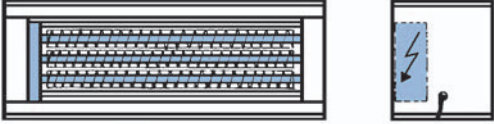

Air side pressure drop diagram for internal components (Pa).



**NOTE:** to find out the available static pressure of the Ocean modular ducted unit you have to deduct the pressure drop of each component fitted in the unit. This information can be found in the pressure drop diagram.

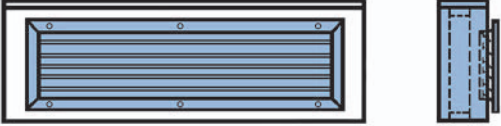
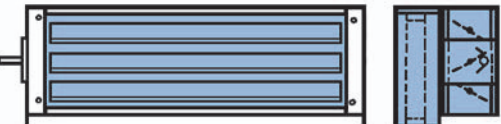
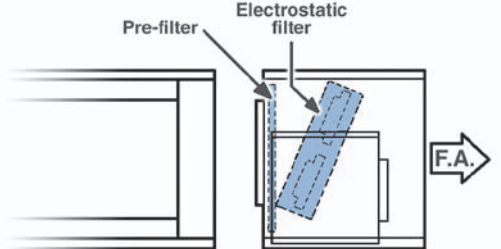
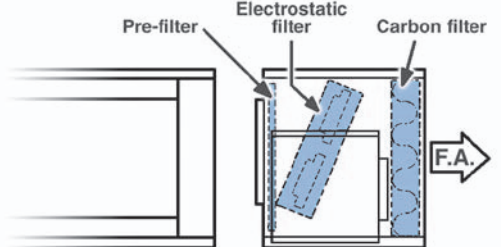
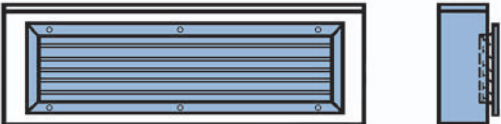
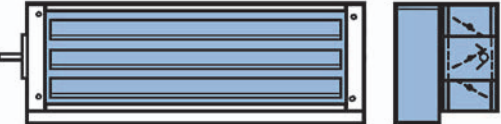


# Standard unit components

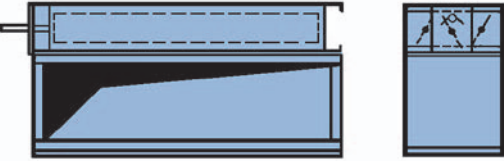

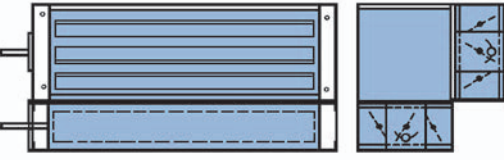
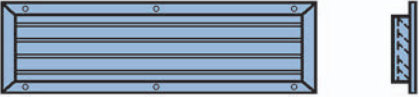
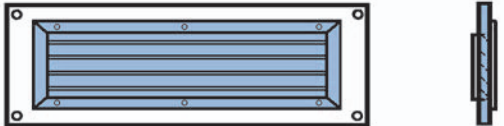

<p><b>BRC</b></p>	<p><b>Condensate collection tray</b></p> <p>Always provided for 01 to 06 versions and in combination with "SUD" humidifying unit and with chilled water coils.</p>	
<p><b>SQS</b></p>	<p><b>Suspension brackets</b></p> <p>Galvanized steel angle brackets for ceiling mounting or wall mounting.</p>	
<p><b>SUD</b></p>	<p><b>Humidification section</b></p> <p>Deck fill humidification with 2 way valve, 230 V 50 Hz supply, with manual regulation of the water flow rate. The "BRC" drip tray must always be used.</p>	
<p><b>BEL</b></p>	<p><b>Electric heater incorporating a safety thermostat</b></p> <p>The electrical heaters must be installed downstream of the fan section.</p>	
<p><b>V2300PA</b></p>	<p><b>230V ON-OFF VALVE KIT for main and auxiliary coil</b></p>	



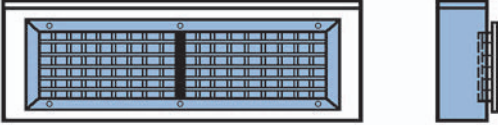

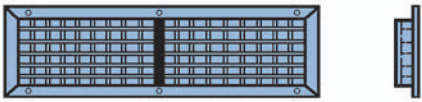
# Inlet accessories

<p><b>FGR</b></p>	<p><b>Filter section with inlet grid</b></p>	
<p><b>FSR</b></p>	<p><b>Filter section with damper</b></p>	
<p><b>SFE</b></p>	<p><b>Section with pre-filter and electrostatic filter</b></p>	
<p><b>FCA</b></p>	<p><b>Section with: pre-filter, electrostatic filter and active carbon filter</b></p>	
<p><b>PAG</b></p>	<p><b>Inlet box with grid</b></p>	
<p><b>PAS</b></p>	<p><b>Inlet box with damper</b></p>	

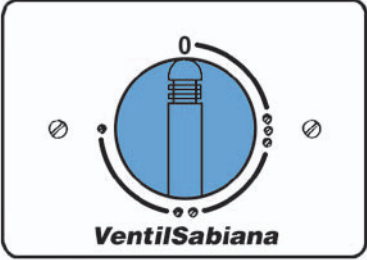


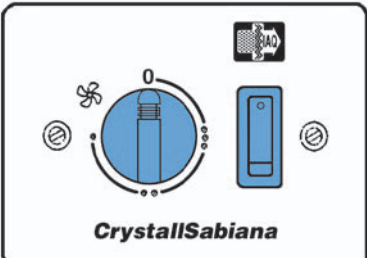

# Inlet accessories

<p><b>PMS</b></p>	<p><b>Inlet/outlet box with top or bottom damper</b></p>	
<p><b>PSI</b></p>	<p><b>Top/bottom panel</b></p>	
<p><b>PDS</b></p>	<p><b>Mixing box with two dampers</b></p>	
<p><b>GAS</b></p>	<p><b>Inlet grid</b> To be installed on the duct.</p>	
<p><b>PGA</b></p>	<p><b>Panel with inlet grid</b> To be installed on the fan section or on the plenum.</p>	
<p><b>SRA</b></p>	<p><b>Inlet damper</b></p>	

## Outlet accessories

<b>PMB</b>	<b>Supply plenum with double louvres</b>	
<b>PMC</b>	<b>Supply plenum with spigots</b> with 3 diffusers (sizes 1-2-3) with 4 diffusers (size 4)	
<b>BMA</b>	<b>Supply grid with double louvres</b> To be installed on the duct.	

# Controls

<p><b>COM</b></p>	<p><b>Speed switch</b> Remote manual speed control. Switch with 4 positions: - OFF - low speed - medium speed - high speed</p>	 <p><b>VentilSabiana</b></p>
<p><b>MO-3V</b></p>	<p>Manual 3 speed switch, Without thermostatic control.</p>	
<p><b>TMO-T</b></p>	<p>Manual 3 speed switch. Manual Summer/Winter switch. Electronic room thermostat for fan and valve control (ON-OFF). It allows to control the summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe.</p>	
<p><b>CIF</b></p>	<p><b>Speed switch and switch for the electrostatic filter</b></p>	 <p><b>CrystallSabiana</b></p>
<p><b>VAR</b></p>	<p><b>Electronic variable speed drive with ON-OFF switch</b></p>	

The descriptions and illustrations provided in this publication are not binding: Sabiana reserves the right, whilst maintaining the essential characteristics of the types described and illustrated, to make, at any time, without the requirement to promptly update this piece of literature, any changes that it considers useful for the purpose of improvement or for any other manufacturing or commercial requirements.



**SABIANA**  
IL CLIMA AMICO

A leading brand of  **AFG**

Sabiana s.p.a. • via Piaue, 53 • 20011 Corbetta • Milano • Italy

phone +39.02.97203.1 r.a. / +39.02.97270429 / +39.02.97270576

fax +39.02.9777282 / +39.02.9772820

[www.sabiana.it](http://www.sabiana.it) • [info@sabiana.it](mailto:info@sabiana.it)