

TELECOMMUNICATIONS

# FCB

## UNITÀ DI FREE-COOLING DIRETTO PER SHELTER DESTINATI AD APPARECCHIATURE TECNOLOGICHE

500 – 3500 m<sup>3</sup>/h



MULTI-PROTOCOL  
COMMUNICATION  
INTERFACE



EC RADIAL FANS

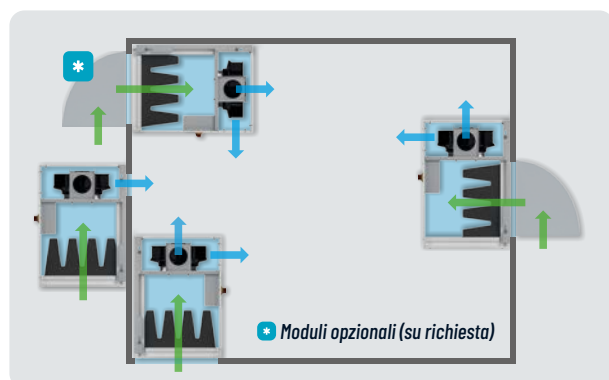


**With damper  
ON REQUEST**

FCB is a ventilating unit for the air conditioning of telephone exchange facilities and shelters.

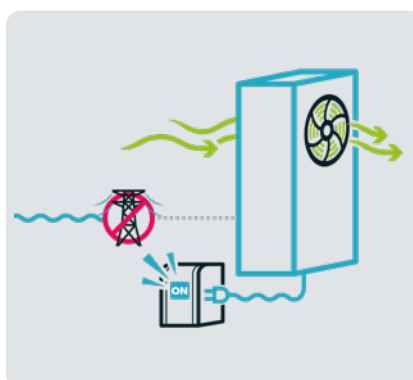
Designed **for ceiling or wall mounting**, it is suitable for air conditioning of control centres with limited internal space or space entirely taken up by technological equipment. The rational arrangement of the components across the machine makes FCB **easy to install and suitable for different configurations of the shelter**. The unit can interface with pre-existing air conditioning units in order **to increase the energy efficiency of the system and make the most of the advantages offered by direct Free-Cooling**.

- Modbus RTU interface
- Rigid pocket air filters with high filtering power



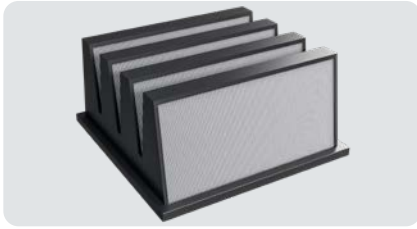
### Simple and fast installation

FCB is designed to ensure **maximum installation flexibility inside and outside the shelter**. Regardless of its configuration, it can be installed on the walls, floor and ceiling of the facility or, alternatively, outside the shelter. In any case, **installing the unit is fast and easy**.



### Maximised Redundancy

Depending on the electrical specifications of the system, the unit can be set up with **230/1/50 power supply or with 24VDC or 48VDC direct current power supply**.



### Shelter safety

As standard, FCB units are equipped with **high efficiency F7 filters**, essentially important to prevent dust and pollutants from entering the shelter when using Direct Free-Cooling as the main source of cooling.



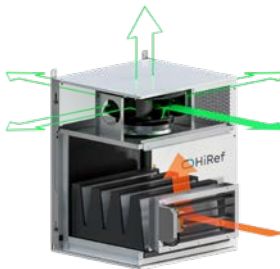
### Low temperature design

If the unit needs to be installed in environments characterised by very low outside temperatures, it is possible to install **an additional damper for mixing the air flows**. When the supply air temperature falls below a given threshold, the extra damper opens, recirculating part of the internal ambient air.

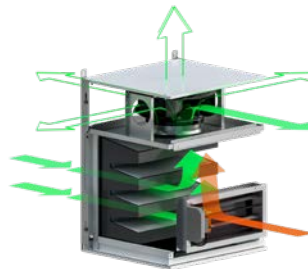


### Easier scheduled maintenance

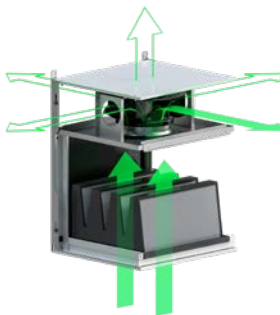
The unit has been accurately designed to ensure **frontal access to components**. This aspect, combined with full extractibility of filters and of the mixing damper (if available), makes **routine maintenance operations easier**.



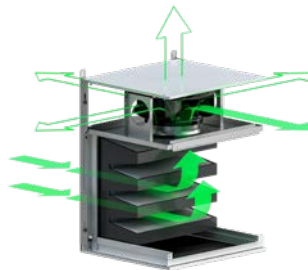
Recirculation only with damper



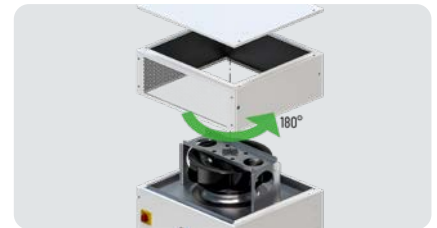
Rear external air intake with recirculation



Lower side external air intake



Rear side external air intake



### Maximised configurability of the air flow

The FCB range has been designed to allow **customization of the air flows to meet any system requirement**. By rotating the upper unit module, the direction of the air delivery flow can be changed as desired, while intake can be obtained from the bottom or from the rear, based on the positioning of the grilled panel.

### Integration in the mechanical system

FCB allows users **to implement or enhance the Free-Cooling function in air conditioning systems that do not feature it**, interfacing with all units, including non-HiRef brands. In this way, the unit energy consumption is significantly reduced. Standard FCB interfaces:

- air conditioning systems
- overpressure dampers
- electric heating systems

### Highest internal configurability

Depending on the ambient conditions, it is possible to operate **Free-Cooling only, Free-Cooling with recirculation by means of a pressure relief damper**, or to operate a **mechanical cooling/heating system**.

FCB		0036	
Indoor air 27°C - 40% / Outdoor air 12°C			
Cooling capacity	kW	2.4   17.1	
Indoor air 27°C - 40% / Outdoor air 17°C			
Cooling capacity	kW	1.6   11.4	
Indoor air 27°C - 40% / Outdoor air 7°C			
Cooling capacity	kW	3.2   22.8	
Rated air flow	m³/h	500 - 3500	
Power supply	V/ph/Hz	48 Vdc	
Dimensions [L x H x D]	mm	670 x 870 x 610	

Also available with alimentation 230/1/50 and 60 Hz

