



## *fcs* series

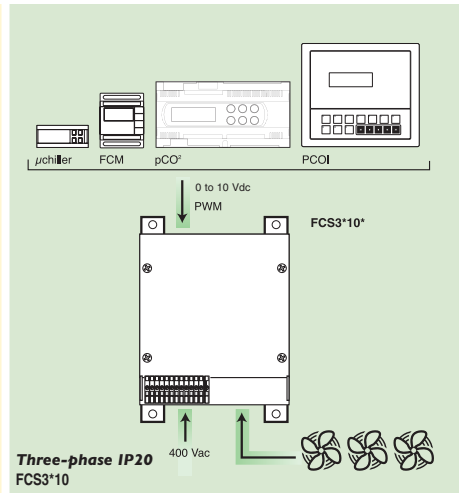
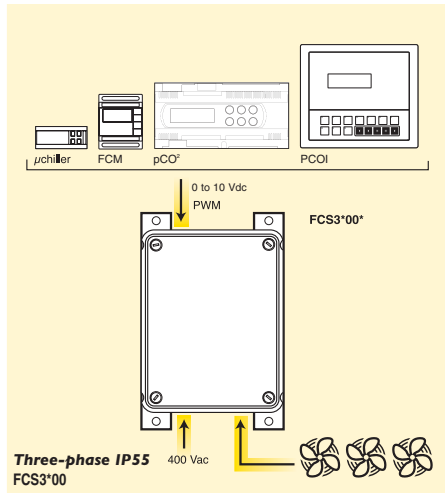
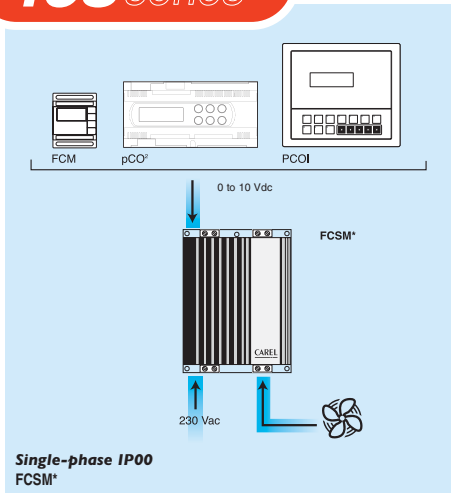
### Condensation controllers

**fcs** units is an electronic voltage regulator that uses the phase-cutting principle to regulate the output voltage supplied to the load, according to an input control signal. It is used to control asynchronous axial electric motors (low capacity and class H, specific for phase-cutting control), such as fans, pumps, mixers, stirrers, etc.

The **fcs** regulators have been designed to be managed by an electronic control module (operating as MASTER), which supplies a proportional 0 to 10 Vdc signal for the correct management of the speed controller.

For air-conditioning and refrigeration applications in particular, CAREL has developed the **fcM** controller that integrates all the typical functions (cooling/heating control, minimum and maximum speed, cut off, speed up, defrost etc.) required for the correct operation of the electric motors.

Otherwise, it is possible to send the control signal to **fcs** directly from the controllers of pCO sistema series (0 to 10 Vdc) and  $\mu C^2$  (PWM, pulse width modulation) series of controllers.



**Technical specifications**

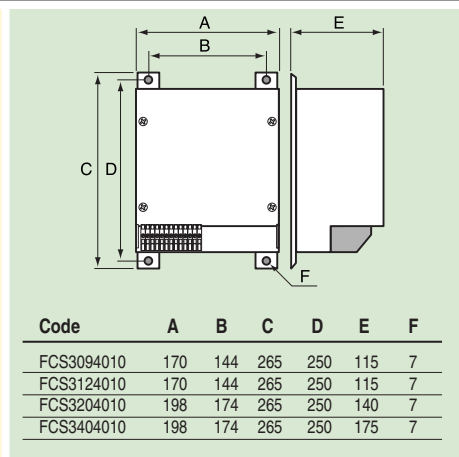
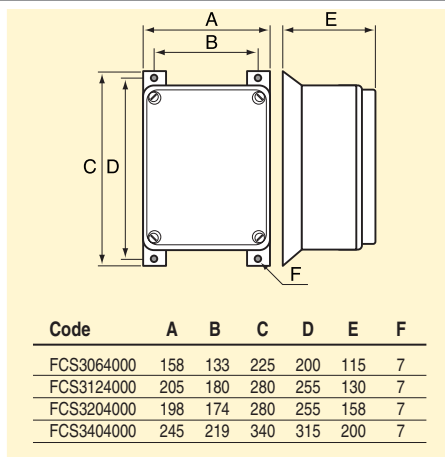
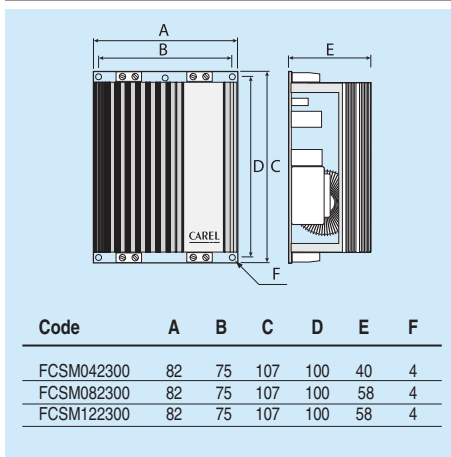
	Single-phase model	Tree-phase model
Power supply:	230 Vac (-15% to +10%)	400 Vac (-15% to +10%)
Operating temperature:	-10T50 °C (*)	-10T50 °C (*)
Storage temperature:	-20T70 °C (*)	-20T70 °C (*)
Frequency:	50/60 Hz	50/60 Hz
Control signal:	0 to 10 Vdc	0 to 10 Vdc/PWM
Input signal impedance:	180 kΩ	10 kΩ
Index of protection:	IP00	IP55/IP20

(\*) All the models are CE marked and comply with the European Directives 73/23/EEC, 89/336/EEC and successive amendments. CAREL reserves the right to modify or change its products without prior notice.

Code	Rated current	Derating between 40 and 50°C	Dissipated power
FCSM042300	4 A	3.5 A	5.4 W
FCSM082300	8 A	7 A	9.8 W
FCSM122300	12 A	10 A	14.4 W
FCS3064000	6 A	5 A	35 W
FCS3124000	12 A	10 A	65 W
FCS3204000	20 A	16 A	128 W
FCS3404000	40 A	32 A	238 W
FCS3094010	9 A	8 A	55 W
FCS3124010	12 A	10 A	65 W
FCS3204010	20 A	16 A	128 W
FCS3404010	40 A	32 A	250 W

The peak current corresponds to 3 times the rated current. Three-phase 230 Vac versions are available upon request.

**Dimensions (mm)**



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