

CAREL



fcs series

Condensation controllers

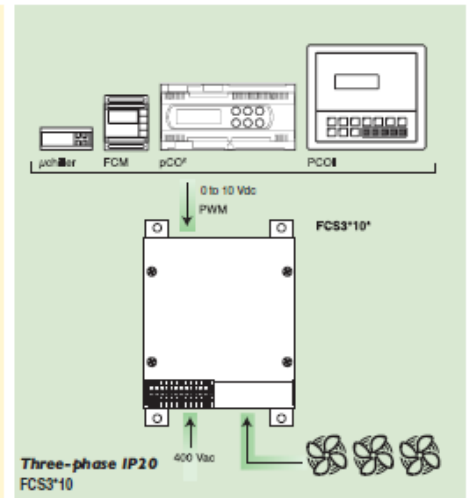
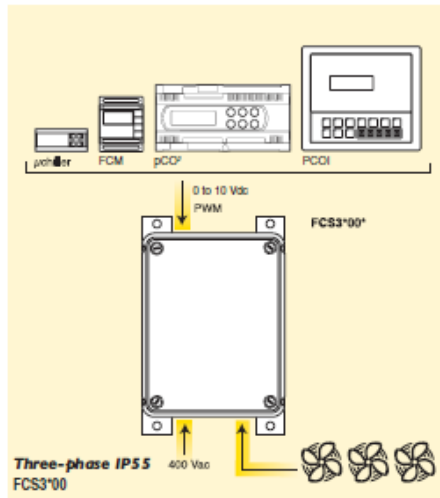
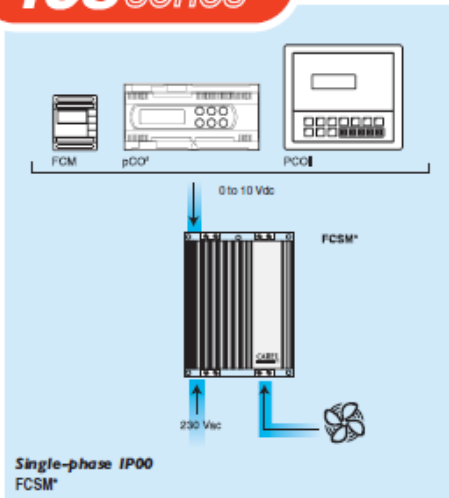
fcs units is an electronic voltage regulator that uses the phase-cutting principle to regulate the output voltage supplied to the load, according to an input control signal. It is used to control asynchronous axial electric motors (low capacity and class H, specific for phase-cutting control), such as 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 μC^2 (PWM, pulse width modulation) series of controllers.

fcs series



Technical specifications

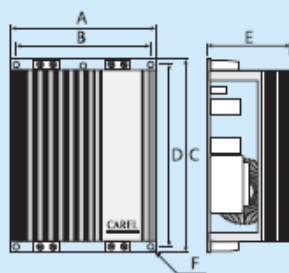
	Single-phase model	Tree-phase model
Power supply:	230 Vac (-15% to +10%)	400 Vac (-15% to +10%)
Operating temperature:	-10T50 °C (*)	-10T50 °C (*)
Storage temperature:	-20T70 °C (*)	-20T70 °C (*)
Frequency:	50/60 Hz	50/60 Hz
Control signal:	0 to 10 Vdc	0 to 10 Vdc/PWM
Input signal impedance:	180 kΩ	10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

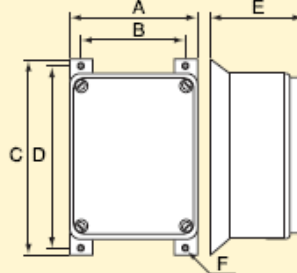
Code	Rated current	Derating between 40 and 50°C	Dissipated power
FCSM042300	4 A	3.5 A	5.4 W
FCSM082300	8 A	7 A	9.8 W
FCSM122300	12 A	10 A	14.4 W
FCS3064000	6 A	5 A	35 W
FCS3124000	12 A	10 A	65 W
FCS3204000	20 A	16 A	128 W
FCS3404000	40 A	32 A	238 W
FCS3094010	9 A	8 A	55 W
FCS3124010	12 A	10 A	65 W
FCS3204010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

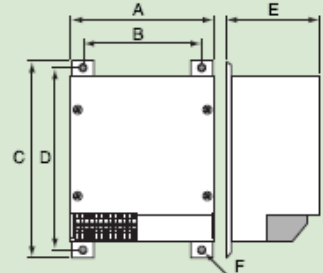
Dimensions (mm)



Code	A	B	C	D	E	F
FCSM042300	82	75	107	100	40	4
FCSM082300	82	75	107	100	58	4
FCSM122300	82	75	107	100	58	4



Code	A	B	C	D	E	F
FCS3064000	158	133	225	200	115	7
FCS3124000	205	180	280	255	130	7
FCS3204000	198	174	280	255	158	7
FCS3404000	245	219	340	315	200	7



Code	A	B	C	D	E	F
FCS3094010	170	144	265	250	115	7
FCS3124010	170	144	265	250	115	7
FCS3204010	198	174	265	250	140	7
FCS3404010	198	174	265	250	175	7