



FCP

Stand-alone condenser control

FCP is the new CAREL proposal for the stand-alone speed control of single-phase fans, on condensing units with up to two circuits.

Main features and advantages:

- Optimised pressure management, improving the efficiency of the refrigeration installation, with a consequent reduction in energy consumption;
- minimum and maximum speed management, cut-off, speed up, room probe to bring forward the start of the fan, P.I. control;
- designed to operate in stand-alone mode or controlled directly via RS485 serial line with Modbus® RTU / CAREL protocol (optional);
- programming key for the parameter download;
- designed to operate with ratiometric or NTC sensors;
- second set point management;
- distance of the controller from the pressure sensor up to 2 m.

Control is implemented according to the variation in pressure in the water circuit, so as to maintain this stable at the set point.

FCP has been developed for air-conditioning (shelter, air-conditioners) and refrigeration applications, and can be installed directly on the unit, thanks to the case with IP54 index of protection.

The electronic controller uses the principle of phase control to adjust the voltage to the load for currents of up to 8 A / 230 Vac, according to the control signal from the ratiometric pressure transducer. It can control design asynchronous electric motors.

The device can be configured manually by adjusting the trimmers for the set point, differential and motor speed, or alternatively managed directly by setting parameters via the programming key or RS485 serial line.

Technical specifications:

Single-phase power supply:	230 V +10 to -15%, 50/60 Hz with autosensing
Maximum operating current:	8 A @ (-20T50 °C)
Operating conditions:	-20T50 °C, <85% RH (non-condensing)
Storage conditions:	-20T70 °C, <85% RH (non-condensing)
Index of protection:	IP54
Analogue inputs:	0 to 5 Vdc ratiometric, 8 mA or NTC
Digital input:	programmable as motor protection or double set point

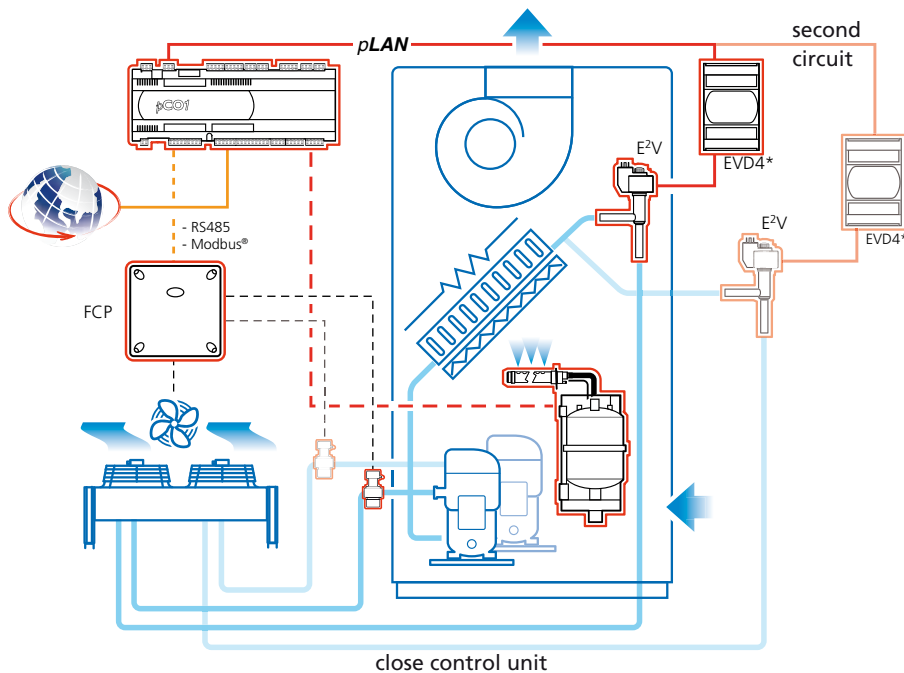
Codes:

FCPM082010	single-phase speed controller 8 A 230 Vac IP54 version master-slave
FCPM082A10	single-phase speed controller 8 A 230 Vac IP54 version only power

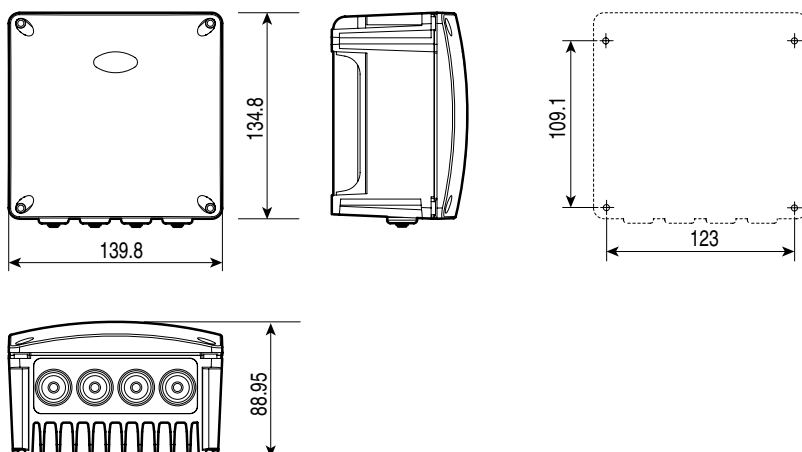
Options:

FCSER0000	serial board RS485
PSOPZKEY00	programming key with battery
PSOPZKEYA0	programming key with external power supply
SPKT00**R0	ratiometric pressure sensor
SPKC00***0	pressure sensors cable
NTC***WF**	NTC sensor, WF version
NTC***HT**	NTC sensor, HT version

Main application:



Dimensions (mm):



Headquarters

CAREL S.p.A.
Via dell'Industria, 11
35020 Brugine - Padova (Italy)
Tel. (+39) 0499 716611
Fax (+39) 0499 716600
carel@carel.com - www.carel.com

Subsidiaries

CAREL Australia Pty Ltd
www.carel.com.au
sales@carel.com.au

CAREL China Ltd.
www.carelhk.com
sales@carelhk.com

CAREL Deutschland GmbH
www.carel.de
info@carel.de

CAREL Export
www.carel.com
carelexport@carel.com

CAREL France Sas
www.carelfrence.fr
carelfrence@carelfrence.fr

CAREL Italia
www.carel.it
carelitalia@carel.com

CAREL Sud America Ltda.
www.carel.com.br
caresudamerica@carel.com.br

CAREL U.K. Ltd.
www.careluk.co.uk
careluk@careluk.co.uk

CAREL USA L.L.C.
www.carelusa.com
sales@carelusa.com

Affiliated Companies:

CAREL Korea Co. Ltd.
www.carel.co.kr
info@carel.co.kr

CAREL (Thailand) Co. Ltd.
www.carel.co.th
info@carel.co.th

www.carel.com

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