



FCR3

400 Vac phase-cutting speed controllers with Modbus RTU RS485 serial connection

The FCR3 devices are slave microprocessor controllers that manage three-phase asynchronous motors. They are mainly used to control condenser fan motors on refrigeration units.

The control signal may be analogue 0 to 10 V, PWM, 0 to 20 mA or Modbus RTU over RS485 serial; the devices also feature a digital input and a digital output for alarm management.

The serial port is used for remote supervision of all the parameters in the controlled system. Up to 255 addresses can be set on the Modbus network.

The parameters can be configured via the serial connection or using a programming key.

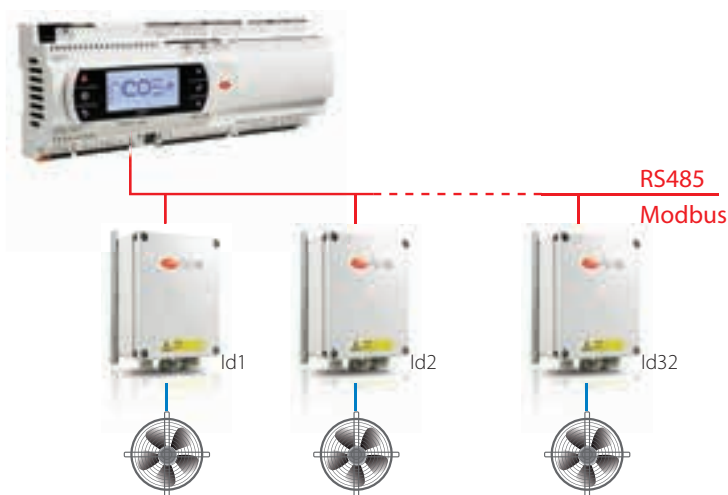
The main parameters are:

- select Min/Cut-off speed;
- set delay at start-up;
- select minimum and maximum speed;
- set linear or quadratic function;
- directly manage output speed (override);
- select output speed when an alarm is active (0%, 50%, 100%);
- read internal operating temperature.

- RS485 serial connection;
- upload/download parameters with programming key;
- models: 6, 9, 12, 20, 40 A; 400 V.



Example of control via RS485 serial



Example of supervisor connection



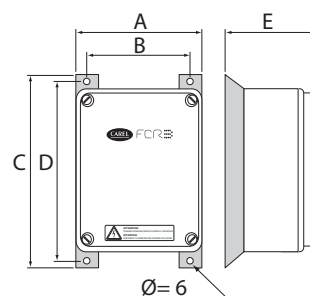
Models available

| Code | Features |
|------------|-----------------------------|
| FCR3064020 | 6 A, 400 V, 50/60 Hz, IP55 |
| FCR3094040 | 9 A, 400 V, 50/60 Hz, IP55; |
| FCR3124020 | 12 A, 400 V, 50/60 Hz, IP55 |
| FCR3204020 | 20 A, 400 V, 50/60 Hz, IP55 |
| FCR3404020 | 40 A, 400 V, 50/60 Hz, IP55 |

Options available

| | |
|------------|---------------------------------|
| PSOPZKEY00 | battery-powered programming key |
| PSOPZKEYA0 | mains-powered programming key |

Physical dimensions (mm)



| modello | A | B | C | D | E |
|------------|-----|-----|-----|-----|-----|
| FCR3064020 | 153 | 133 | 225 | 200 | 115 |
| FCR3094040 | 205 | 180 | 280 | 255 | 130 |
| FCR3124020 | 205 | 180 | 280 | 255 | 130 |
| FCR3204020 | 198 | 174 | 280 | 255 | 158 |
| FCR3404020 | 245 | 219 | 340 | 315 | 200 |



Integration

Fully integrated into the 1tool development environment, and CAREL PlantVisorPRO, PlantWatchPRO supervisory systems



Connectivity

Modbus communication standard over RS485
Can be used with third party BMS



Range

Models available for an operating range from 6 to 40 A

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