

GCR06/GCR12 Multifunction Power Factor Controller

Simply smart solution

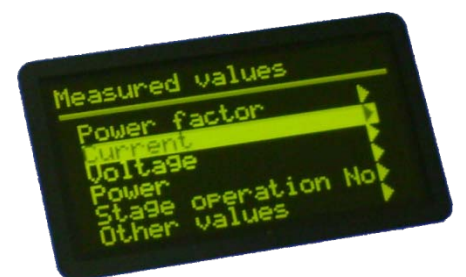
This is new range of multifunction PFC controllers called GCR06 with 6 outputs and GCR12 with 12 outputs for low and medium voltage application. GCR controllers are enlarging popular range of FCR regulators and bringing new features and innovation. These are suitable for Thyristor switching.

Basic features: -

- 4 quadrant measurement and compensation
- Graphic OLED display many information shown at the same time
- Automatic detection of system connection and connected battery composition
- Independent input for second tariff and possibility to change tariff according to current direction
- Ready for compensation of systems with cogeneration units
- Independent delays and operation status setting of every stage
- APFR (average power factor regulation) or instantaneous power factor regulation
- Possibility to use de-compensation reactors
- Hybrid compensation of Thyristor (up to 17 operations per second) and contactor stages operated by one regulator
- Fully programmable alarm output
- Four set periods of APFR regulation 15, 30, 45, 60 minutes
- Temperature measurement with programmable alarm feedback
- Memory for maximum and minimum values recording
- Communication interface RS485 (MODBUS RTU)

GCR06 and GCR12 regulators measure and show following parameters:

- Line voltage between measured phases
- Current in the third phase
- System frequency
- P, Q, S needed compensation power
- Power direction
- $\cos \phi$, average $\cos \phi$
- Odd harmonics of current and voltage up to 19th in %
- Total harmonic distortion of current THDI and voltage THDU
- Tumbler of particular stage operations
- Temperature



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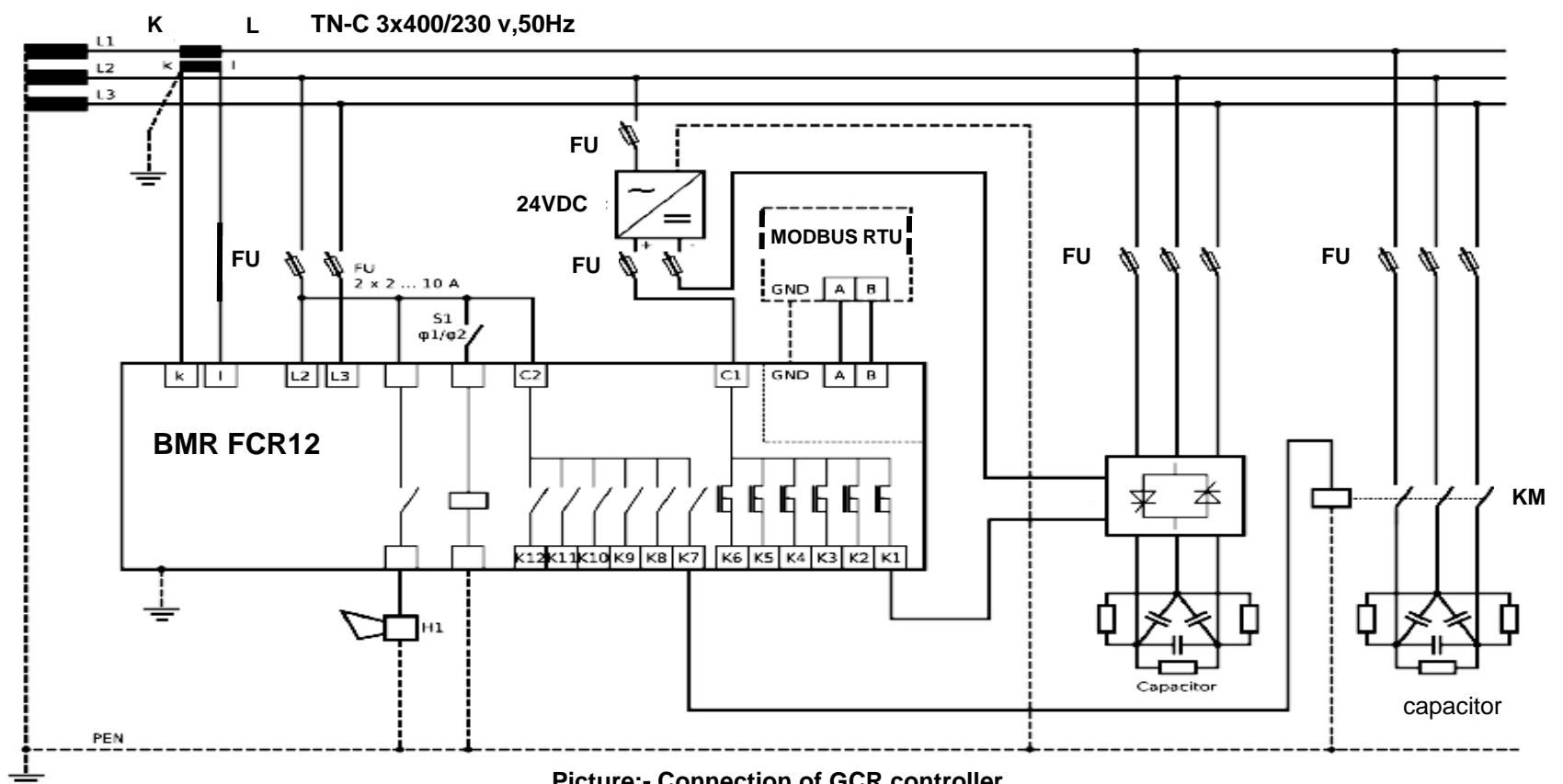
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Technical specification

Parameter	Value
Supply voltage =measuring voltage	400VAC 50Hz (+ 10% , -15%)/100-690VAC (on request)
Frequency	50 /60 Hz
Current range	10 m A ...5,3 A
Measurement accuracy of 1 st current harmonic	± 1 m A (c lass 2)
Power consumption	10 VA
Output channels number	6 (GCR06) o r 12 (G CR12)
Output channels for fast Thyristor switching	1 –6 (GCR06), 1 –12 (GCR12)
Alarm output	250 VAC /5 A
Switching power of relay output contacts	250 VAC /5 A
Switching power of semiconductor output contacts	24 VDC /100 m A o r 230 VAC /100 m A
Speed of semiconductor stages	25 operations per second
Range of requested power factor	0,8 inductive.-0,8 capacitive.
Reconnection delay :semiconductor/contactor stages	0 s /5 -900 s
Switching off delay :semiconductor/contactor stages	0 s /5 -900 s
Compensation stages value setting	manually /automatically
Communication interface	RS48 5 (option)
Communication protocol	Modbus RTU
Communication speed	up to 9600 Bd
Working temperature	-25°C ...+ 8 0°C
Front panel	144 x 144 mm
Panel cutout	138 x 138 mm
Site depth	55 mm
Weight	1 kg
Protection degree	IP20 rear cover/IP54 front panel

Designed & 100% manufactured in Europe. Used worldwide

Wiring diagram: -



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