

# FCR05/FCR07 power factor controllers

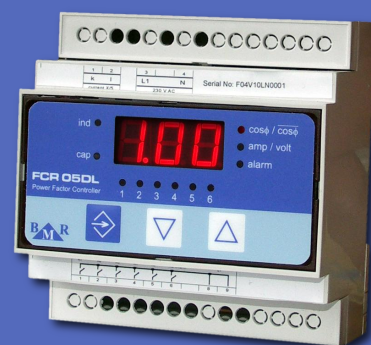
new generation of FCR05/FCR07 power factor controller range

New generation of FCR05 / FCR07 controllers brings new features and performance of existing range. Faster processor and better AD converters increase the sensitivity for measurement of current, add the fast measurement of voltage and current for more precise computing and many other interesting improvements.

- 4 quadrant measurement and compensation
- Four digits display and dichromatic indication LED
- **Measurement of current with sensitivity from 10 mA**
- Symbolic menu for easy setting and operation
- Automatic detection of system connection and capacitor battery composition in all 4 quadrants
- For FCR07 controller enlarge number of outputs to 8
- **Reactive power Offset feature**
- **Menu parameter lock for panel builders**
- Ready for compensation in LV and HV systems
- Independent setting of every step output
- APFR (average power factor regulation) or instantaneous power factor regulation
- Ready for de-compensation reactors usage with possibility to use one reactor tuned by capacitor steps
- **Programmable alarm last output with adjustable response**
- **Temperature measurement with adjustable level for alarm and forced ventilation start**
- Memory for maximum and minimum values recording
- **Operation number counter and working hour counter for each step**
- Communication interface RS485 (Modbus RTU)
- Measurement of U, I, f,  $\cos\phi$ , THDI, THDU, U harm, I harm, P, Q, S, temp.



Type	Number of stages	Power supply voltage	Measuring voltage	DIN rail design	Last output alarm
FCR05	6	400 V	400 V	—	•
FCR07	8	400 V	400 V	—	•
FCR05V230	6	230 V	230 V	—	•
FCR07V230	8	230 V	230 V	—	•
FCR05DL	6	400 V	400 V	•	•
FCR07DL	8	400 V	400 V	•	•
FCR05DLV230	6	230 V	230 V	•	•
FCR07DLV230	8	230 V	230 V	•	•



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<b>Parameter</b>	<b>Value</b>
Supply voltage	400 V AC or 230 V AC (+10%, -15%)
Measuring voltage	L-L 400 VAC or L-N 230 VAC
Frequency	50 / 60 Hz
Current range	10 mA ... 6 A
Measurement accuracy	± 2%
Power consumption	10 VA
Number of step outputs	6 (FCR05) or 8 (FCR07)
Last output as and alarm output	250 VAC / 5 A
Switching power of relay output contacts	250 VAC / 5 A
Range of adjustable step reactive power	999 kVAr ind. .... 999 kVAr cap.
Range of requested power factor	0,8 ind. ... 0,8 cap.
Reconnection delay	5 ... 900 s
Switching off delay	5 ... 900 s
Communication interface	RS485
Communication protocol	Modbus RTU
Communication speed	up to 38400 Bd
Compensation stages value setting	manually / automatically
Working temperature	-40°C ... +80°C
Front panel	97 x 97 mm
Panel cutout	91 x 91 mm
Site depth	55 mm
Weight	0,65 kg
Protection degree	IP20 rear cover / IP54 front panel
Standards	EN 61010-1, EN50081-1, EN50082-1

