

Automatic Power Factor Correction Controllers

GCR06 and GCR12

- Graphic OLED display many information shown at the same time
- Automatic detection of system connection and connected capacitor battery composition
- Independent input for second tariff and possibility to change tariff according to current direction
- Hybrid compensation of Thyristor (up to 17 operations per second) and contactor stages operated by one regulator
- Fully programmable alarm output
- Communication interface RS485 (MODBUS RTU)



FCR06 and FCR12



- Four digits display and dichromatic indication LED
- Automatic detection of system connection and connected capacitor battery composition
- Independent input for second tariff
- Ready for compensation in low voltage or high voltage systems
- Fast Thyristor and Hybrid compensation (25 operations per second)
- Fully programmable alarm output
- Communication interface RS485 (Modbus RTU)

FCR05 and FCR07

- Three digits display and indication LEDs show many information
- High current sensitivity and accuracy
- Automatic detection of system connection and connected capacitor battery composition
- Ready for compensation in low voltage systems
- Independent delays and operation status setting of every stage
- Programmable alarm output
- Small 97 x 97 mm design or DIN rail design



FCR123

- 4 quadrant measuring and regulation
- Switching speed up to 75 operations / 1 s (25 operation per phase)
- Only for CTU33 Thyristor switching modules
- Instantaneous real-time correction of $\cos \phi$
- Independent setting of each stage
- Alarm output.



ICR06 and ICR12

- Count of particular stage operations
- 4 impulse inputs (+P, -P, +Q, -Q)
- Possibility of de-compensation reactors usage
- Adjustable half-period of APFR - 15, 30, 45 and 60 minutes
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- Programmable alarm output
- RS485 interface



Switching Modules CTU02 and CTU03 / 33

Module for Three phase capacitors, CTU02

- Switching elements in all three phases
- Designed for three-phase capacitors
- Switching speed up to 25 operations per second
- Operation and failure status signalization
- Ideal for fast and hybrid compensation
- Control voltage 24 VDC or 230 VAC



Module for Single phase capacitors, CTU03 / CTU33

- Control voltage 24 VDC or 230 VAC
- Maximum switching power up to 126 KVAR
- Ideal for fast and hybrid compensation
- Switching speed up to 25 operations / 1s
- Operation and failure status signalization
- Switching elements in all three phases

Energy Monitoring And Management

Power quality Analyzer PLA44



- Voltage and current measurement according the norm EN 50160
- Current transformer input ../1A and ../5A
- Minimums and maximums stored in EEPROM memory
- Measured data recording to FLASH memory
- Averaging for current, active and apparent power with set period
- 5,7" TFT VGA (640 x 480) display
- Voltage and current harmonic measurement up 50th harmonic
- Neutral current measurement
- Three and four wire connection and measurement
- Load profile recording up to 512 days
- Asymmetry, phase sequence, rotation
- RS485, LAN, USB interfaces

Other Related Products

- Maximum demand controller
- RS485 converters, PMS software
- Modular devices - monitoring, timers and special relays
- Maximum current controller
- Heating control systems

GUIDANCE IS AVAILABLE IN DESIGNING COMPLETE APFC SOLUTION