

Power Factor Controllers N-6, N-12 and NC-12

Product Features

GE's power factor controllers provide your network with efficient reactive power compensation, measurement and supervision.

User-friendliness and Condition Monitoring

User-friendliness due to multilingual user interface, clear text and symbol messages, graphics, alarm log and communication. GE's power factor controller offers advanced condition monitoring for your network as well as for the capacitor bank. The supervision and condition monitoring functions add to the simplified programming with intelligent self-set-up to ensure optimal use of the reactive power compensation system.

Applications

- Automatic reactive power control of low and medium voltage capacitor banks (tuned, detuned and conventional)

Typical Customers

- Panel builders
- LV switchboard manufacturers

Key Advantages

- Optimized user interface for easy operation
- Intelligent stepping algorithm for optimum step utilization and fast response
- All traditional stepping sequences also available
- Quick and simple mounting and wiring
- Insensitive to current transformer polarity
- Monitoring and protection
- User-friendly
- Several language versions
- Robust construction
- Various step programs



N-6 & N-12

Maximum 6 or 12 capacitor steps
Microprocessor-based technology
C/K auto search
Accuracy class 5%
Ambient temperature 0 to + 60° C
Protection class IP41 at panel and IP20 DIN-rail installation
Measurements; $\cos\phi$, P, Q, S, THD(U), U, I, temperature

NC-12

Maximum 12 capacitor steps
Microprocessor-based technology
C/K auto search
Separate C/K setting for inductive and capacitive side
Accuracy class 2%
Ambient temperature 0 to + 60° C
Protection class IP41 at panel and IP20 DIN-rail installation
Measurements; $\cos\phi$, I _p , I _q , I _{rms} /I ₁ , P, Q, S, THD(U), U, THD(I), I _s , harmonics
Communication RS485/modbus via optional auxiliaries

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Imagination at work

Electronic Devices for High Voltage Applications

Product Features

Grid Solutions' electronic products offering is divided in:

Power Factor Controllers

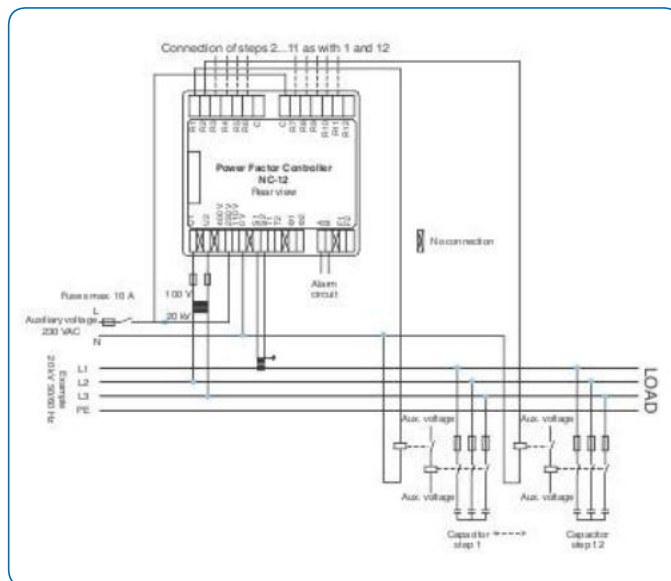
- NC-12 power factor controllers
 - Modbus communication systems
 - External temperature probes

Capacitor Bank Protection Relays

- NPR-series protection relays
- NUR-36 series unbalance protection relays

Digital Capacitance Meters

- NCM-20 digital capacitance meters



Power Factor Controllers

NC-12 Power Factor Controllers

Product Features

Grid Solutions' power factor controllers provide your network with efficient reactive power compensation, measurement and supervision.

Improved User-friendliness and Condition Monitoring

Improved user-friendliness due to multilingual user interface, clear text and symbol messages, graphics, alarm log and communication interface. Grid Solutions' power factor controller offers advanced condition monitoring for your network as well as for the capacitor bank.

The supervision and condition monitoring functions add to the simplified programming with intelligent self set-up to ensure optimal use of the reactive power compensation system.

Applications

Control and supervision of capacitor banks

Typical Customers

- Electrical panel builders
- HV switchgear manufacturers



Advantages

- Optimised user interface for easy operation
- Intelligent stepping algorithm for optimum step utilisation and fast response
- All traditional stepping sequences also available
- Quick and simple mounting and wiring
- Monitoring and protection
- User-friendly
- Several language versions
- Robust construction

Available accessories

- Modbus communication systems
- External temperature probes

NC-12

Control up to 12 capacitor steps

Microprocessor-based technology

C/K auto search

Separate C/K setting for inductive and capacitive side

Accuracy class 2%

Ambient temperature 0 to + 60° C

Protection class IP41 at panel and IP20 DIN-rail installation

Measurements: $\cos\phi$, P, Q, S, THD(U), I_p , I_q , I_{rms}/I_1 , U, I_s , harmonics and temperature

Communication RS485/modbus via optional auxiliary modules

Capacitor Bank Protection Relays

NPR-SERIES

Types

- NPR-C
 - Overcurrent protection
 - Overvoltage/undervoltage protection
 - Current unbalance protection
- NPR-V
 - Overvoltage/undervoltage protection
 - Voltage unbalance protection

Product Features

- Measuring and supervision of electrical values
- Wide range of power supply voltages
- Wide graphical LCD screen with backlight
- Simple installation and commissioning
- Reliability in operation
- Calculated values are true rms values
- Up to 32 configurable alarms
- Includes over-temperature protection



Available Accessories

- Data communication by RS-485 modbus
- Data recorder

NUR-Series Unbalance Protection Relays

NUR-36 is a single phase, sensitive, over-current relay. It features two stages of over-current protection, both having their own parameters and output relays. The NUR-36 is designed for unbalance current protection of double star (Y-Y) or H-connected capacitor banks in high voltage applications. It has solid state construction and is suitable for panel installation (DIN 43700). The relay has filters for harmonic currents and operate at fundamental frequency only. The product fulfils the CE requirements. Information about measurements and relay functions is given by digital display and LEDs.

Product features

- Memory storage for measured currents
 - Values can be used for calibration purposes
- Current inputs: 1 A and 5 A
- Power supply: 40...265 Vac/dc (50/60 Hz)
- Power consumption: 3 W
- Ambient operating temperature: -10° C to +55° C
- User-friendly set-up and operation
- Simple installation and commissioning
- Separate settings for alarm and trip



1. Push-buttons for the menu selections and parameter scrolling
2. SET push-button for parameter settings
3. ENTER push-button for confirming new setting
4. Display
5. POWER indicator, indicates that all the supply voltages of the system are in order
6. FAULT indicator, indicates that an internal fault has been detected in the unit
7. Mode indicators
8. Trip and Alarm indicators
9. Start current and operate time of trip stage
10. Start current and operate time of alarm stage
11. Indicates routed Signal to Relay 3

