



RLC04 Capacitor / Filter Protection Relay



The RLC04 is a numeric, digital signal processor based, protection relay. Designed specifically to combine all functions required for comprehensive protection of medium and high voltage capacitor banks and filter installations, the RLC04 supercedes the previous RLC3 N & H models, providing many enhancements and new features including:

- Star & H configuration banks are catered for in a single product
- Enhanced accuracy & resolution via 16 bit waveform sampling
- 1A or 5A input current, user selectable from setup menu
- Comprehensive Trip History with time-stamping
- Optional power-up restore feature returns the relay to the exact operational condition at power down
- A new event trip function with user defined messaging
- Expanded settings for overvoltage, & thermal protection
- A front RS232 communication port for setup and data download
- The rear data port is user programmable as RS232 or RS485
- High speed data communications up to 115k baud

Protection Functions:

- Peak repetitive overvoltage protection to the 50th harmonic
- Overcurrent, Undercurrent and earth fault protection
- Neutral unbalance protection with residual compensation
- Line unbalance protection
- Thermal protection for capacitor, inductor & resistor elements
- Dual breaker fail protection with programmable logic
- Capacitor re-switching protection

Key Features:

- 4 Dual 1A/5A Current Measuring Elements (Ia, Ib, Ic & neutral unbalance for star applications, or Iref, Iub a, Iub b & Iub c for H connected applications). Measured currents are in %, alternatively p.u., of In.
- Six Relay Outputs: Numbers 1-5 are user programmable as regards trip/alarm function allocation, Number 6 is a dedicated Self Supervision relay. All relays are configurable as regards contact form.
- 30V to 250V ac/dc High Efficiency, Low Loss, Wide Range AC/DC Auxiliary Power Supply.
- Supercap backed Real-time clock provides all time-stamping functions without an internal battery.
- LED Status Indication: Power On (Healthy) Status, Alarm Status, and Trip Status.
- 2 Line, 16 Character, Alpha-numeric, Backlit, Liquid Crystal Display.
- Interactive user interface: Setup menus & displays, comprehensive Running displays and Trip History display, acknowledgement and resetting of trip condition & interactive hardware diagnostic testing.
- Remote Communication via RS232 or RS485 Serial Port (either directly or via landline / GSM modem).
- One front panel RS232 port and one rear port, selectable as RS232 or RS485 with data rates to 115kb.
- Co-resident communication protocols are MODBUSRTU, and the proprietary STRIKE Protocol.
- Windows Application Software, for programming/data uploading and monitoring.
- Optically Isolated Digital Input, for breaker status indication, event signaling or remote reset.
- Flush mount or 19" rack mounting. Draw-out facility with automatic CT shorting contacts.
- In a single model the RLC04 caters for 1A/5A inputs, 50/60Hz operation, Normal or H-configuration applications, Normally Open, or Normally Closed relay contacts, a wide range of ac or dc auxiliary supply voltages and RS232 or RS485 remote communications.

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