239-RTD-AN

Multilin 239 Motor Protection Relay

PUBLISHED IDENTITY

GE 239-RTD-AN is a Multilin 239 motor protection relay configured with three programmable RTD inputs and one isolated analog output. The relay combines motor thermal, current, ground-fault and process supervision with metering, event records and serial communication.

Technical snapshot

Product family	Multilin 239 Motor Protection System
Order code	239-RTD-AN
Protected equipment	Three-phase AC motors and associated mechanical equipment
RTD option	3 programmable stator or bearing RTD inputs
Supported RTD types	100 ohm platinum, 120 ohm nickel, 100 ohm nickel and 10 ohm copper
Analog-output option	One isolated output selectable as 0-1 mA, 0-20 mA or 4-20 mA
Analog-output sources	Thermal capacity, percent full load, phase current or RTD temperature
Phase CT inputs	Three isolated inputs for 1 A or 5 A secondaries

Verified related ApterPower product pages

General Electric 469-P5-HI-A20-E

General Electric 750-P5-G5-HI-A1-R-E

Engineering data

Official evidence organized for exact-model review

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Analog-output option	One isolated output selectable as 0-1 mA, 0-20 mA or 4-20 mA
Analog-output sources	Thermal capacity, percent full load, phase current or RTD temperature

Phase CT inputs	Three isolated inputs for 1 A or 5 A secondaries
Standard temperature input	NTC or PTC thermistor
Communications	RS-485 with Modbus RTU
Protection functions	Thermal overload, current unbalance, mechanical jam, short circuit, ground fault and undercurrent
Temperature protection	Stator and bearing overtemperature with the RTD option
Output relays	Trip, alarm, auxiliary and service relays
Lifecycle	Legacy product

EVIDENCE BOUNDARY

Confirm the complete GE 239-RTD-AN order code, control-power version, CT inputs, RTD wiring and approved motor-protection settings before installation.

Applications and system role

Four distinct documented operating contexts

MEDIUM-MOTOR PROTECTION

Supervises current, thermal capacity and direct winding or bearing temperature on a configured motor feeder.

SMALL LOW-VOLTAGE MOTOR PROTECTION

Combines overload, unbalance, jam, short-circuit, ground-fault and undercurrent elements in one relay.

MOTOR TEMPERATURE MONITORING

Uses three programmed RTDs and the standard thermistor input for stator or bearing protection.

ANALOG CONDITION RETRANSMISSION

Sends a selected thermal, current or RTD value to a meter or control system through the isolated output.

Integration control

The RTD option accepts supported platinum, nickel and copper sensor types, while the AN option can retransmit thermal capacity, motor current or an RTD temperature. Phase-current inputs, ground-current supervision, configurable digital inputs and output relays provide the protection interface to the motor circuit. Before service, retain CT ratios, full-load current, thermal model, RTD type, trip logic, analog scaling and serial settings; final testing must prove each used protection element and its assigned output.

Verified related ApterPower product pages

General Electric UR8FH

General Electric UR9GH

Technical questions

Complete model-specific answers from the approved evidence set

What protection role does GE 239-RTD-AN perform?

GE 239-RTD-AN protects a three-phase AC motor by supervising current, thermal capacity, temperature and configured process conditions.

How many temperature sensors can the RTD option on 239-RTD-AN monitor?

The RTD option provides three programmable inputs for stator or bearing temperature sensors.

Which RTD types are supported by GE 239-RTD-AN?

GE documents 100-ohm platinum, 120-ohm nickel, 100-ohm nickel and 10-ohm copper RTD types for the relay.

What can the AN output on GE 239-RTD-AN transmit?

The isolated analog output can retransmit thermal capacity, percentage of full load, phase current or a selected RTD temperature.

Which analog ranges can 239-RTD-AN provide?

The customer-selectable isolated output supports 0-1 mA, 0-20 mA and 4-20 mA ranges.

How does GE 239-RTD-AN communicate with a supervisory system?

The relay uses an RS-485 serial interface with Modbus RTU for remote settings, status and data access.

Which settings must be retained before 239-RTD-AN is replaced?

Technicians should retain CT ratios, motor full-load current, thermal model, protection setpoints, RTD configuration, relay logic, analog scaling and serial settings.

What confirms GE 239-RTD-AN commissioning?

Commissioning is complete after secondary-injection, RTD-resistance, trip, alarm, analog-output and communication tests confirm the approved protection design.

Product precautions

Eight aligned controls before return to service

1. Record the complete GE 239-RTD-AN order code, serial record and panel position.
2. Place the motor, starter or breaker and control circuits in the approved maintenance state.
3. Short and isolate energized CT secondary circuits with the approved test facilities before disconnection.
4. Back up CT ratios, full-load current, thermal model, trip logic, communications and analog scaling.
5. Identify all three RTDs, their sensor types, locations and two- or three-wire terminations.
6. Verify the installed control-power version and every relay-output circuit before energization.
7. Perform secondary-injection and resistance checks for each used current, ground and RTD function.
8. Prove trip, alarm, analog-output and communication behavior before returning the motor to service.

Verified related ApterPower product pages

- General Electric IS220PRTDH1A
- General Electric IS220PTCCH1A
- General Electric IS200WROBH1A
- General Electric IC695ALG508

Evidence and support

Manufacturer references, related products and direct contact

Manufacturer evidence used

- GE Vernova Multilin 239 Motor Protection System brochure and ordering information.
- GE Vernova 239 product presentation, 239-RTD-AN order-code page.
- GE Vernova 239 legacy product page and motor-protection application tables.

Verified related ApterPower product pages

General Electric IC693PTM101A

General Electric IC695CMX128

General Electric IC693CPU363-DL

General Electric IC200MDL940F

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