Protection Relays & Controls

Ground-Fault Protection–Grounded Systems



SE-704 SERIES (PGR-4704)

Earth-Leakage Monitor



Simplified Circuit Diagram



Ordering Information

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ORDERING NUMBER	CONTROL POWER
SE-704-0U	120/240 Vac/Vdc
SE-704-0D	12/24 Vdc
SE-704-0T	48 Vdc
SE-704-03	24 Vac
ACCESSORIES	REQUIREMENT
SE-CS30 Series	Required
PGA-0500	Optional
PMA-55, PMA-60	Optional

Note: For optional conformal coating please consult factory.

Description

The SE-704 is a microprocessor-based ground-fault relay for resistanceand solidly-grounded systems. It offers very sensitive ground-fault detection as low as 10 mA and can be used on systems with significant harmonic content. The SE-704 provides feeder-level protection or individual-load protection. The output contacts can be connected for use in protective tripping circuits or in alarm indication circuits. The analog output can be used with a PLC or a meter.

Features & Benefits

FEATURES	BENEFITS
Adjustable pickup (10 mA-5 A)	Adjustable trip setting provides a wide range of low-level protection and system coordination
Adjustable time delay (30 ms-2.0 s)	Adjustable trip delay allows quick protection and system coordination
Output contacts	Form A and Form B ground-fault output contacts for operation of separate annunciation and trip circuits
Analog output (0-5 V & 0-1 mA)	Allows for connecting an optional meter (PGA-0500) or control system
CT-Loop monitoring	Alarms when CT is not connected
Selectable contact operating mode	Selectable fail-safe or non-fail-safe operating modes allows connection to shunt or undervoltage breaker coil
Harmonic filtering	Eliminates nuisance tripping
Non-volatile trip memory	Retains trip state when de-energized to simplify troubleshooting
Microprocessor based	No calibration required saves maintenance cost
Universal power supply	Allows operation in application where one side of PT is faulted, provides flexibility for numerous applications

Accessories



SE-CS30 Series Ground-Fault Transformer

Required zero-sequence current transformer specifically designed for low level detection. Flux conditioner is included to prevent saturation.



PGA-0500 Analog % Current Meter

Optional panel-mounted analog meter displays ground-fault current as a percentage of the set-point or 5 A.

Specifications

IEEE Device Numbers Input Voltage Dimensions Trip Level Settings Contact Operating Mode Harmonic Filtering Test Button Reset Button CT-Loop Monitoring Output Contacts Approvals Analog Output Conformally coated Warranty

Mounting

Ground fault (50G/N, 51G/N) See ordering information H 75 mm (3.0"); W 55 mm (2.2"); D 115 mm (4.5") 10 mA-5.0 A 30-2000 ms Selectable fail-safe or non-fail-safe Standard feature Standard feature Standard feature Standard feature Isolated Form A and Form B UL Listed (E340889), CSA, CE (European Union) C-Tick (Australian) 0-5 V & 0-1 mA Optional 5 years DIN, Surface (standard) Panel (with PMA-55 or PMA-60 adapter)