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SE-107

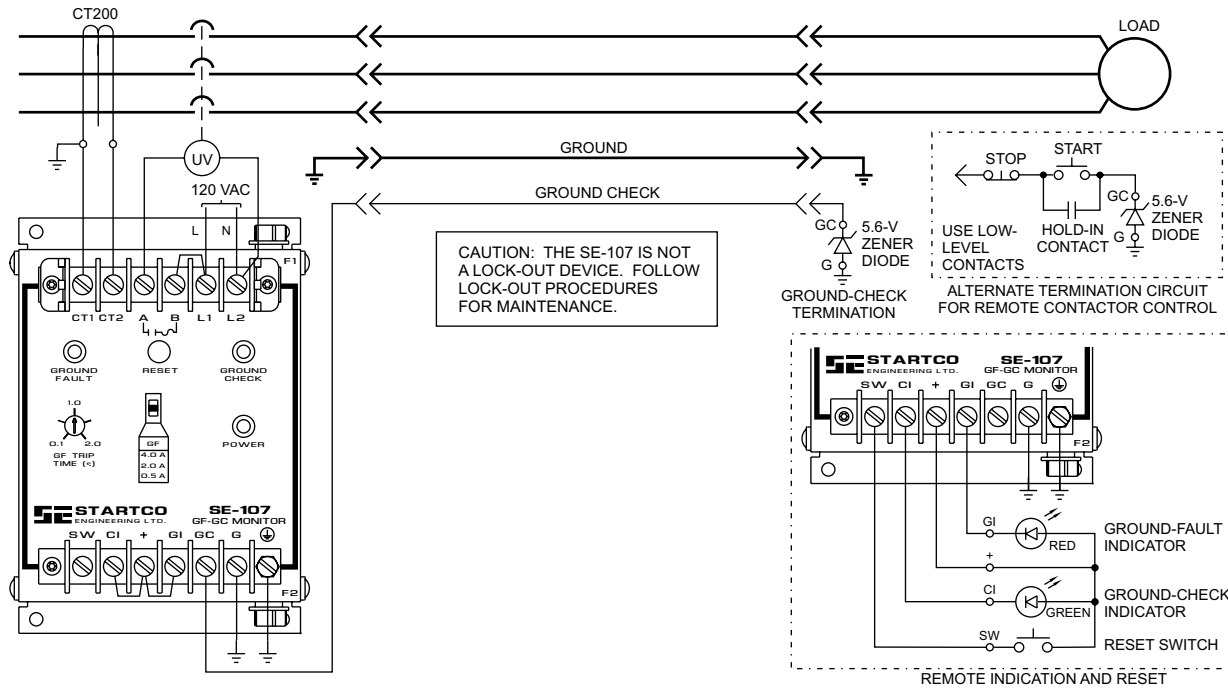
GROUND-FAULT GROUND-CHECK MONITOR

The SE-107 is a combination ground-fault and ground-check monitor for resistance-grounded systems in non-hazardous applications. The ground-fault circuit is latching and the ground-check circuit is typically non-latching. One output contact is provided for contactor control or for undervoltage operation in a breaker trip circuit.

Ground-fault current is sensed by a CT200-series window-type current transformer. A trip level of 0.5, 2.0, or 4.0 A is switch selectable for use with a 5-, 15-, or 25-A grounding resistor. Trip time is adjustable from 0.1 to 2.0 seconds.

The fail-safe ground-check circuit is validated by an end-of-line termination with a 5.6-volt Zener characteristic. The Zener characteristic clamps induced voltage and allows induced current to flow in the ground-check loop. Consequently, induced-ac-withstand capability, noise immunity, and open/short detection are independent of current in the phase conductors.

TYPICAL APPLICATION



TECHNICAL SPECIFICATIONS

Supply:
 ac 120 or 240 Vac (+10, -45%),
 50/60 Hz, 10 VA
 ac/dc 120 Vdc (+40, -8%), 5 W
 120 Vac (+10, -29%), 47 to 440 Hz, 5 VA

Ground-Fault Circuit:
 CT Ratio 200:5
 CT Input Burden 0.02 Ω
 Trip Level* 0.5, 2.0, or 4.0 A
 Frequency Response 25 to 400 Hz,
 25 to 110 Hz with Option H
 Trip Time 0.1 to 2.0 s
 Thermal Withstand* 200 A Continuous, 2,500 A for 2 s
 Trip-Level Accuracy +10, -20%
 Trip-Time Accuracy 10%
 Operating Mode Latching

* Currents referred to primary of CT200 for prospective ground-fault currents less than 4,000 A.

Ground-Check Circuit:
 Open-Circuit Voltage 12 Vdc
 Output Impedance 240 Ω
 Nominal Loop Current 25 mA
 Induced-ac Withstand 25 Vac Continuous, 120 Vac for 3 s
 Fuse Rating (F2) 0.5 A, 250 Vac, Time Delay
 Pull-In Time 1.5 s
 Trip Time 0.2 s (GC open), 0.5 s (GC to G short)
 Trip-Time Accuracy +10, -30%
 GC-Loop Trip Resistance 40 ± 10 Ω
 Operating Mode Non-Latching, Latching with Option L

Output Relay:
 CSA/UL Contact Ratings 1 mA to 4 A Resistive, 240 Vac or 28 Vdc
 Supplemental Contact Ratings:
 Make/carry 0.2 s 10 A
 Carry continuous 4 A
 Break:
 dc 20 W resistive
 10 W inductive (L/R=0.04 s)
 ac 960 VA resistive
 700 VA inductive (PF=0.4)
 Subject to maximums of 4 A and 240 V (ac or dc).
 Contact Configuration N.O. (Form A)
 Fuse Rating (F1) 4.0 A, 250 Vac, Time Delay

Remote Indication:
 + 12 Vdc
 GI/CI Current Sink, 560 Ω Internal

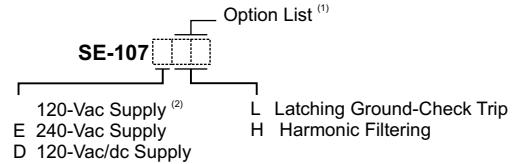
Dimensions:
 Height 150 mm (5.9")
 Width 109 mm (4.3")
 Depth 100 mm (4.0")

Shipping Weight 1 kg (2.2 lb)

Environment:
 Operating Temperature -40 to 60°C
 Storage Temperature -55 to 80°C
 Humidity 85% Non-Condensing

PWB Conformal Coating MIL-1-46058 qualified, UL QMJU2 recognized

ORDERING INFORMATION



Each SE-107 is supplied with a 1N5339B termination device.

⁽¹⁾ List options required in order shown above.

⁽²⁾ Standard, leave blank.

Ground-Fault CT's:
 CT200 56 mm (2.2") Window
 CT200L 89 mm (3.5") Window

Ground-Check Termination:
 1N5339B 5-W Axial Lead
 1N4553B 50-W Stud Mount
 SE-TA6 50-W Assembly
 SE-TA6A SE-134C Termination Assembly

Remote Indication and Reset:
 RK-102 22-mm Component Kit
 RK-105 Indication-and-Reset Assembly
 RK-105I Indication Assembly
 RK-13 Relay Interface Module

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