

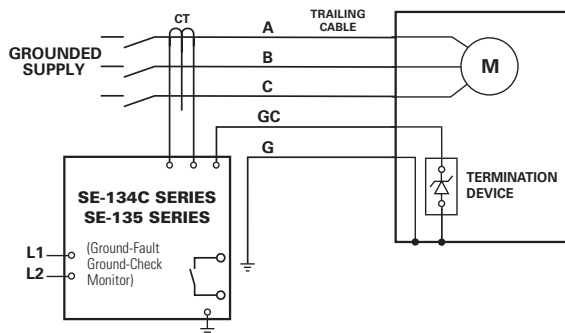
Protection Relays and Controls

TRAILING CABLE PROTECTION—GROUND-FAULT GROUND-CHECK MONITORING

Ground-Fault Ground-Check Monitor



Simplified Circuit Diagram



Ordering Information

| ORDERING NUMBER | OPTION | POWER SUPPLY | COMM |
|-----------------|--------------|---|-------------------------------------|
| SE-134C | Blank or XGC | 0=120/240 V ac/V dc 1=24/48 V dc ⁽¹⁾ | 0=None |
| SE-135 | Blank or XGC | 0=120/240 V ac/V dc 1=24/48 V dc ⁽¹⁾⁽²⁾ | 0=None 3=Ethernet ⁽¹⁾ |

| ACCESSORIES | REQUIREMENT |
|---|-------------|
| SE-CS10 Series | Required |
| SE-CS40 Series (for SE-135) | Optional |
| SE-TA6A Series (for SE-134C) | Required |
| SE-TA12A/SE-TA12B Combination (for SE-134C) | Optional |
| SE-TA12A Series (for SE-135) | Required |
| SE-IP65CVR-G | Optional |
| RK-132 | Optional |
| PPI-600V | Optional |

(1) CE/RCM not available.
 (2) Not available with Ethernet option 3.
 (3) See ordering information.
 See Current Transformer Selection Guide and Accessory Information.


Description


The SE-134C/SE-135 is a microprocessor-based, combination ground-wire monitor and ground-fault relay for resistance-grounded or solidly grounded systems. It continuously monitors the integrity of the ground conductor to protect portable equipment from hazardous voltages caused by ground faults. The SE-134C/SE-135 is field proven in monitoring trailing cables on large mobile equipment such as drag-lines, mining shovels, shore-to-ship power cables, dock-side cranes, stacker-reclaimers, submersible pumps, and portable conveyors.

Features & Benefits

| FEATURES | BENEFITS |
|--|---|
| Adjustable pickup (0.5-12.5 A for SE-CS10) (2 - 50 A for SE-CS40) | Unit can be used on a wide variety of trailing cable applications |
| Adjustable time delay (0.1-2.5 s) | Adjustable trip delay for quick protection and system coordination |
| Output contacts | Separate annunciation of ground-fault and ground-check faults |
| Ground-check LED indication | Indication of open or short ground-check wire makes it easier to find faults |
| CT-loop monitoring | Alarms when CT is not connected |
| High-induced-ac rejection | Makes unit suitable for applications with high voltages and long cables |
| DFT (Harmonic) filter | Prevents false operation |
| Zener-characteristic termination assembly | Provides reliable ground-check loop verification |
| Fail-safe circuits | Ensures ground-check and ground-fault circuits remain safe even in the event of equipment failure |
| Conformal coating | Additional coating protects circuit boards against harsh environment |
| XGC option | Increases maximum cable length for ground-check monitoring (10 km typical) |

Accessories

A  **SE-CS10 or SE-CS40 Series Ground-Fault Current Transformer**
 Required zero-sequence current transformer detects ground-fault current.

B  **SE-TA6A Series, SE-TA12A Series Termination Assembly**
 Required termination assembly; temperature compensated.

Specifications

| | |
|-------------------------------|---|
| IEEE Device Numbers | Checking or Interlocking Relay (3GC), Ground fault (50G/N, 51G/N) |
| Input Voltage | 65-265 V ac; 85-275 V dc; 18-72 V dc |
| Dimensions | H 213 mm (8.4"); W 99 mm (3.9"); D 132 mm (5.2"); |
| Trip Level Settings | 0.5-12.5 A for SE-CS10, 2 - 50 A for SE-CS40 |
| Trip Time Settings | 0.1-2.5 s |
| Contact Operating Mode | Selectable fail-safe or non-fail-safe |
| Harmonic Filtering | Standard feature |
| Test Button | Standard feature |
| Reset Button | Standard feature |
| Output Contacts | Isolated Form A and Form B, Two Form C |
| Approvals | CSA certified, UL Listed (E340889), RCM (Australia)(3), CE(3) |
| Conformally Coated | Standard feature |
| Warranty | 5 years |
| Mounting | Panel, Surface |
| GC Trip Resistance | 28 Ω (Standard), 45Ω (XGC Option) |

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