Protection Relays and Controls
TRAILING CABLE PROTECTION–GROUND-FAULT
GROUND-CHECK MONITORING

Ground-Fault Ground-Check Monitor

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

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

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

- **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

- **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), 450 (XGC Option)

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