

Ground Fault Protection SE-701, SE-704

IEEE Device Numbers
50G, 50N, 51G, 51N

Features:

- Microprocessor based-recalibration is not required
- DFT (harmonic) filter prevents false operation
- Self-test function
- 0- to 5-V analog output for external metering
- Selectable fail-safe (undervoltage) or non-fail-safe (shunt) operating mode
- Remote reset and indication
- Non-volatile trip memory
- Current-sensor verification
- DIN-rail, surface, and panel mounting



- SE-701:** Ground-fault trip-level range is 1 to 99% of CT-primary rating

Minimum System Components

Requires an EFCT-series current sensor or a 1- or 5-A secondary CT.

Neutral Grounding Resistor Monitoring SE-325

IEEE Device Numbers
50G, 50N, 51G, 51N, 59N, 86

Features:

- Continuously monitors NGR continuity
- Conforms to CSA Standard M421-00 Use of Electricity in Mines
- Provides main or backup ground-fault protection
- Trip delay to coordinate with downstream ground-fault relays
- Selectable fail-safe (undervoltage) or non-fail-safe (shunt) operating mode
- LED indication of Ground Fault, Resistor Fault, and Power



Minimum System Components

Requires a CT200 current transformer and a sensing resistor (ER-600 VC, ER-5kV, ER-15kV, or ER-25kV)

Neutral Grounding Resistor Monitoring SE-330, 330 HV

IEEE Device Numbers
50G, 50N, 51G, 51N, 59N, 86

Features:

- Continuously measures NGR resistance
- Wide set-point ranges-compatible with any neutral-connected NGR up to 72 kV system voltage
- Calibrates to NGR resistance
- 4-20 mA output for earth-leakage metering
- DFT (harmonic) filter prevents false operation
- Selectable fail-safe (undervoltage) or non-fail-safe (shunt) operating mode
- Trip delay to coordinate with downstream ground-fault relays
- Standard RS-232 interface
- Optional DeviceNet, PROFIBUS, and Ethernet communications
- Four output relays for control and indication
- Pulsing output contact for fault locating (SE-330)
- Conforms to CSA Standard M421-00 Use of Electricity in Mines (SE-330, SE-330HV)
- Free SE-MON330 PC-interface software



Minimum System Components

The SE-330 requires a current transformer and a sensing resistor (ER-600VC, ER-5kV, ER-15kV, ER-25kV, or ER-35kV)

The SE-330 HV requires a current transformer and a sensing resistor (ER-15kV, ER-25kV, ER-35kV, ER-72kV)

Feeder Protection FPU-32

IEEE Device Numbers
26, 46, 49, 50, 50G, 50N, 51, 51G, 51N, 74, 86


Features:

- Eight functions to protect against overcurrent, earth-faults, and phase loss
- IEC and IEEE overcurrent protection curves
- Thermal element active overcurrent pickup
- Definite - and inverse- time ground-fault protection
- CT-saturation compensation
- Two set-point groups can be used for:
 - Maintenance setting to reduce flash hazard
 - Two different loads
- Eighty-character backlit display
- Compact size for ease of installation and for retrofit applications
- Standard TIA-232 interface with Modbus RTU
- Optional TIA-485 with Modbus RTU and Allen Bradley DF1, DeviceNet, or Ethernet communications
- Free SE-Comm-RIS PC-interface
- Universal power supply
- Three programmable output relays; programmable analog output; programmable digital input
- Single temperature-sensor input
- Conformally coated circuit boards




Uses phase CT's and an optional earth-fault CT. Applications using 5-A secondary CT's require an MPU-CIM Current Input Module.


Accessories

 ER-600VC
Used on systems up to 1kV




 ER-5kV
Used on systems up to 5kV




 ER-15kV
Used on systems up to 15kV




 ER-25kV
Used on systems up to 25kV




 ER-35kV
Used on systems up to 35kV




 ER-72kV
Used on systems up to 72kV




Current Transformers

 CT200
(50-mm, 2.20" ID)
Detects phase current or ground-fault current or ground-fault current



 EFCT-26
(26-mm, 1.02" ID)
Sensitive current transformer used to detect ground-fault current



 SE-CS30
SE-CS30-26 (26-mm, 1.02" ID)
SE-CS30-70 (70-mm, 2.75" ID)

