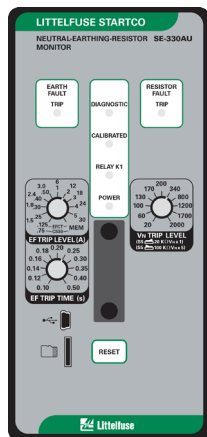
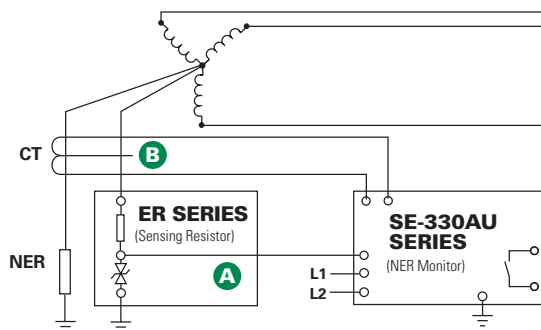


SE-330AU SERIES

Neutral-Earthing-Resistor Monitor - New Revision



Simplified Circuit Diagram



Ordering Information

| ORDERING NUMBER | POWER SUPPLY | COMM | | | K4 UNIT HEALTHY CONTACT | |
|--------------------------------------|-------------------|---|---|---|-------------------------|-------------------|
| SE-330AU | - | X | X | - | 0 | X |
| SE-330AU for all apps. 35 kV or less | 0=120/240 Vac/Vdc | 0=USB Only 1=DeviceNet 3=EtherNet (Dual RJ45) 4=EtherNet (SC Fiber & RJ45) 5=EtherNet (Dual SC Fiber) | | | | 0=Normally Open |
| SE-330HV for 72 kV apps. | 2=48 Vdc | 6=IEC61850 (Dual RJ45) 7=IEC61850 (SC Fiber & RJ45) 8=IEC61850 (Dual SC Fiber) | | | | 1=Normally Closed |

| ACCESSORIES | REQUIREMENT |
|----------------------------|-------------|
| ER Series Sensing Resistor | Required |
| Current Transformer | Required |
| SE-IP65CVR-G | Optional |
| SE-MRE-600 | Optional |
| RK-332 | Optional |

Description

The SE-330AU is an advanced earth-fault and earthing-resistor monitoring relay for low- and medium-voltage transformers and generators. It monitors neutral current, neutral-to-earth voltage, and neutral-to-earth resistance. It provides continuous monitoring of the neutral-to-earth path to verify that the neutral-earthing resistor (NER) is intact. This is of utmost importance—an open NER renders current-sensing earth-fault protection inoperative and could result in a false belief that the system is functioning properly. The SE-330AU earth-fault function complies with AS/NZS 2081.3:2002. Outputs include four relay outputs, and an analog output. A mini USB port is included to view measured values, configure settings, and check event records. An on-board micro SD card can be used for long-term data logging. Network communications options are available. For non-AS/NZS 2081 applications, see the SE-330 or SE-330HV.




Resistor Monitoring

The SE-330AU combines the measured values of resistance, current, and voltage to continuously determine that the NER is intact. It is able to detect a resistor failure with or without an earth fault present. Sensing resistors are matched to the system voltage and are used to monitor NGRs on systems up to 35 kV.

Earth-Fault Monitoring

The SE-330AU uses a 5- or 30-A-primary current transformer to provide a pickup-setting range of 0.125 to 5 A or 0.75 to 30 A to comply with AS/NZS 2081.3:2002. DFT filtering ensures that false trips due to harmonic noise from adjustable-speed drives do not occur. Open-CT detection is provided.

Accessories

- A**  **ER Series Sensing Resistor**
Required interface between the power system and the SE-330AU. Eliminates hazardous voltage levels at the relay.
- B**  **EFCT Series Earth-Fault Current Transformer**
Sensitive earth-fault current detection (5 A primary).
-  **SE-CS30 Series Earth-Fault Current Transformer**
Sensitive earth-fault current detection (30 A primary).

Specifications

| | |
|-------------------------------|--|
| Input Voltage | See ordering information |
| Dimensions | H 213 mm (8.4"), W 98 mm (3.9"), D 132 mm (5.2") |
| GF Trip-Level Settings | 0.125 to 30 A |
| GF Trip-Time Settings | 0.1 to 0.5 s |
| Vn Trip-Level Settings | 20-2,000 Vac (≤5 kV systems) 100-10,000 Vac (>5 kV systems) |
| Output Contacts | Two Form A, Two Form C |
| Operating Mode | Fail-Safe |
| Harmonic Filtering | Standard feature |
| Reset | Front panel push button and remote input |
| Approvals | C-Tick (Australian), CE |
| Communications | Mini USB (standard); DeviceNet (optional), IEC 61850 (optional), Modbus TCP and EtherNet/IP (optional) |
| Analog Output | 4-20 mA, self or loop powered |
| Conformal Coating | Standard feature |
| Warranty | 5 years |
| Mounting | Panel, Surface (optional) |