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
ER Series Sensing Resistor
Required interface between the power system and the SE-330AU. Eliminates hazardous voltage levels at the relay.

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)