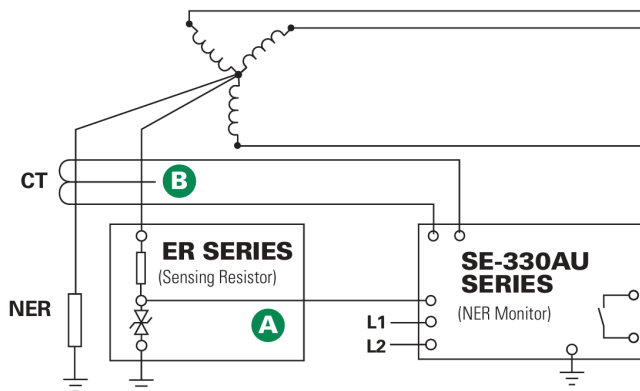




Neutral-Earthing-Resistor Monitor



Simplified Circuit Diagram



Description

The SE-330AU is an advanced earth-fault and earthing-resistor monitoring relay for low- and medium-voltage transformers and generators, compliant to AS/NZS 2081.6:2011 and AS/NZS 2081.8:2011. 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. 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. DFT filtering ensures that false trips due to harmonic noise from adjustable-speed drives do not occur. Open-CT detection is provided.

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	RCM (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)


Protection Relays & Controls


SE-330AU SERIES


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 2=48 Vdc	0=USB Only				
		1=DeviceNet				
		3=EtherNet (Dual RJ45)				
		4=EtherNet (SC Fiber & RJ45)				
		5=EtherNet (Dual SC Fiber)				
SE-330HV for 72 kV apps.		6=IEC61850 (Dual RJ45)				0=Normally Open 1=Normally Closed
		7=IEC61850 (SC Fiber & RJ45)				
		8=IEC61850 (Dual SC Fiber)				

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).

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

Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/product-disclaimer.