# Protection Relays and Controls



# SE-703 SERIES

#### Earth-Leakage Monitor



### **Simplified Circuit Diagram**



#### **Ordering Information**

ORDERING NUMBER	CONTROL POWER
SE-703-0U-0x	120/240 Vac/Vdc
SE-703-0D-0x	12/24 Vdc
SE-703-0T-0x	48 Vdc
SE-703-03-0x	24 Vac

Note: x=0 for AS/NZS 2081:2011 compliance (fail-safe output contacts) x=2 for AS/NZS 2081:2002 compliance (selectable fail-safe or non-fail-safe output contacts

ACCESSORIES	REQUIREMENT
EFCT Series	Required
PGA-0500	Optional
PMA-55	Optional
PMA-60	Optional
SE-EFVC Voltage Clamp	Optional

## Description



The SE-703 is a microprocessor-based earth-fault relay for resistanceand solidly earthed systems. It offers sensitive earth-fault detection as low as 25 mA and can be used on systems with significant harmonic content. The SE-703 provides feeder-level protection or individual-load protection. The output contacts can be connected for use in protective tripping circuits or in alarm indication circuits. The analog output can be used with a PLC or a meter. The SE-703 is specifically designed to be AS/NZS 2081 compliant to either 2011 or 2002 (see ordering options).

### **Features & Benefits**

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FEATURES	BENEFITS
Adjustable pickup (25-500 mA)	Adjustable trip setting provides a wide range of low- level protection and system coordination
Adjustable time delay (INST-500 ms)	Adjustable trip delay allows quick protection and system coordination
Output contacts	2 Form C ground-fault output contacts for operation of separate annunciation and trip circuits
Analog output (0-5V)	Allows for connecting an optional meter (PGA-0500) or control system
CT-Loop monitoring	Alarms when CT is not connected
Contact operating mode	Fail-safe operating mode for undervoltage applications, optional non-fail-safe mode available
Harmonic filtering	Eliminates nuisance tripping
Non-volatile trip memory	Retains trip state while de-energized to simplify troubleshooting
Microprocessor based	No calibration required, saves maintenance cost
Universal power supply	Allows operation in application where one side of PT is faulted, provides flexibility for numerous applications
Global certifications	Compliant with US, Canadian, European, and Australian standards for applications in almost any country

#### Accessories



**EFCT Series Ground-Fault Current Transformer** Required zero-sequence current transformer specifically designed for low-level detection.

**PGA-0500 Analog % Current Meter** Optional panel-mounted analog meter displays groundfault current as a percentage of the set-point or 5 A.

**PMA-60 Series – Mounting Adapter** Required when panel mounting for AS/NZS 2081:2011 compliance

#### **Specifications**

**IEEE Device Numbers** Ground fault (50G/N, 51G/N) **Input Voltage** See ordering information Dimensions H 75 mm (3.0"); W 55 mm (2.2"); D 115 mm (4.5") **Trip Level Settings** 25-500 mA **Trip Time Settings** INST-500 ms Fail-safe (x=0 models) or selectable (x=2 models) **Contact Operating Mode** Harmonic Filtering Standard feature **Test Button** Standard feature **Reset Button** Standard feature **CT-Loop Monitoring** Standard feature **Output Contacts** Two isolated Form C contacts Approvals CSA certified, UL Listed (E340889), CE (European Union), RCM (Australian) Compliance AS/NZS 2081:2011 (x=0 models) or AS/NZS 2081: 2002 (x=2 models) **Analog Output** 0-5 V **Conformally coated** Yes Warranty 5 years DIN, Surface (standard) Mounting Panel (with PMA-55 or PMA-60 adapter)