

## GROUND-FAULT/EARTH-LEAKAGE MONITOR COMPARISON SHEET

FEATURES	EL731	SE-701	SE-703	SE-704
<b>SETPOINT RANGES</b>				
Trip Level	30 mA to 5 A	1 to 99 % of CT-Primary Rating	25 to 500 mA	10 to 5,000 mA
Trip Time	0 to 2 seconds (AS/NZS 2081 Range: 0 to 500 ms)	50 to 2,500 ms	50 to 500 ms	30 to 2,000 ms
<b>COMMUNICATION</b>				
Ethernet/IP	Optional	No	No	No
DeviceNet	Optional	No	No	No
Profibus	Optional	No	No	No
Modbus-TCP	Optional	No	No	No
<b>COMPUTER INTERFACE</b>				
Field Flash Upgradeable	With AC700-CUA-00 Upgrade Module	No	No	No
<b>FREQUENCY RESPONSE</b>				
	CT1: 0–90 Hz CT2: Selectable response (20–6,000 Hz, 20–90 Hz, 190–6,000 Hz, 20–3,000 Hz)	20–420 Hz	20–420 Hz	20–420 Hz
<b>TEMPERATURE INTERFACE</b>				
PTC Overtemperature	Yes	No	No	No
RTD Temperature	Yes	No	No	No
Temperature Metering	Yes	No	No	No
<b>HARDWARE ARCHITECTURE</b>				
Microprocessor Based	Yes	Yes	Yes	Yes
Display	2 x 16 character OLED	No	No	No
Test Switch	Yes	Yes	Yes	Yes
Reset Switch/Single Shot	Yes/Yes	Yes/Yes	Yes/Yes	Yes/ Yes
Remote Reset/Single Shot	Yes/Yes	Yes/Yes	Yes/Yes	Yes/ Yes
Size: H x W x D (mm)	48 x 96 x 129	75 x 55 x 115	75 x 55 x 115	75 x 55 x 115
DFT Harmonic Filtering Algorithm for Fixed Frequency Application	N/A	Yes	Yes	Yes
Peak Detection Algorithm for Variable Frequency Application	N/A	Yes	Yes	Yes
Open-CT Detection	Yes	Yes for EFCT series	Yes	Yes
Short-CT Detection	Yes	No	No	No
Trip Inhibit (Class I/Class II)	No	11 x CT-Primary Rating	No	No

[Littelfuse.com/relayscontrols](http://Littelfuse.com/relayscontrols)

# Littelfuse Protection Relays

## Technical Note - Ground Fault

FEATURES	EL731	SE-701	SE-703	SE-704
<b>USER-SELECTABLE FEATURES</b>				
Password Protection	Yes <sup>1</sup>	No	No	No
Latched/Auto-Reset Trip	No	Yes	No	Yes
Fixed/Variable Frequency	Selectable 0–6 kHz range	Yes	Yes	Yes
Open-CT Trip On/Off	No, Always Enabled	Yes	No, Always Enabled	Yes
High-Current Trip Inhibit On/Off	No	Yes	No	No
Fail-Safe/Non-Fail-Safe Modes	Yes	Yes	Yes	Yes
<b>ANNUNCIATION</b>				
Trip LED	Yes	Yes	Yes	Yes
Trip-Inhibit LED	No	Yes	No	No
Alarm LED	Yes	No	No	No
Power-On LED	Yes	Yes	Yes	Yes
CT-Fault LED	Yes	Flashing Trip LED	Yes	Yes
Metering Display	2-line, 16-character OLED	No	No	No
<b>OUTPUTS</b>				
Analog Output Type	4–20 mA	0–5 V	0–5 V	0–5 V and 0–1 mA
Analog Output Scale	20 mA = 5 A or 20 mA = trip setting	5 V = 100 % CT Primary	10 mV/mA	1 V/A and 0.2 mA/A, or 1 mA and 5 V = setting
Output Contacts	(3) N.O. & N.C. (Form C)	Isolated N.O. & N.C.	(2) NO. & N.C. (Form C)	Isolated N.O. & N.C.
Fail-Safe/Non-Fail-Safe Operation	Yes	Yes	Yes	Yes
<b>CT INPUT</b>				
5-A Secondary	No	Yes	No	No
1-A Secondary	No	Yes	No	No
Sensitive Ground-Fault CT	EFCT Series (2 max)	EFCT, ELCT5, ELCT30, or SE-CS30 Series	EFCT Series	ELCT30 or SE-CS30 Series

<sup>1</sup> Password always enabled with AS/NZS 2081:2011 Regional Option

[Littelfuse.com/relayscontrols](https://www.littelfuse.com/relayscontrols)

# Littelfuse Protection Relays

## Technical Note - Ground Fault

FEATURES	EL731	SE-701	SE-703	SE-704
<b>POWER SUPPLY OPTIONS</b>				
Option A	120 to 240 V ac and 100 to 250 V dc (-0X-X0)	Universal 55 to 275 V ac and 75 to 275 V dc (-0U)	Universal 55 to 275 V ac and 75 to 275 V dc (-0U)	Universal 55 to 275 V ac and 75 to 275 V dc (-0U)
Option B	24 to 44 V ac and 32 to 60 V dc (-1X-X0)	24 V ac (-03)	24 V ac (-03)	24 V ac (-03)
Option C	16 to 30 V dc (-2X-X0)	12/24 V dc (-0D)	12/24 V dc (-0D)	12/24 V dc (-0D)
Option D	N/A	48 V dc (-0T)	48 V dc (-0T)	48 V dc (-0T)
<b>MOUNTING</b>				
Surface	Yes (Requires AC700-SMK)	Yes	Yes	Yes
Panel	Yes	Yes (Requires PMA-55 or PMA-60)	Yes (Requires PMA-55 or PMA-60)	Yes (Requires PMA-55 or PMA-60)
DIN-Rail	Yes (Requires AC700-SMK)	Yes	Yes	Yes
<b>ENVIRONMENT</b>				
Operating Temperature	-40 °C to 60 °C	-40 °C to 60 °C	-40 °C to 60 °C	-40 °C to 60 °C
Storage Temperature	-55 °C to 80 °C	-55 °C to 80 °C	-55 °C to 80 °C	-55 °C to 80 °C
Humidity	85 % Non-Condensing	85 % Non-Condensing	85 % Non-Condensing	85 % Non-Condensing
<b>CERTIFICATION</b>				
cCSAus Compliance	Yes	Yes	Yes	Yes
ANSI/IEEE C37.90.1 - 1989	Yes	Yes	Yes	Yes
AS/NZS 2081:2002 Compliance	No	No	Yes (-XX-02)	No
AS/NZS 2081:2011 Compliance	Yes (-XX-10)	No	Yes (-XX-00)	No
Compliance to IEC 61010-1:2001 and EN61010-1:2001	No	Yes	Yes	Yes
RCM Compliance	Yes	Yes	Yes	Yes
CE Compliance	No	Yes	Yes	Yes
UL Listed	Yes	Yes	Yes	Yes

[Littelfuse.com/relayscontrols](https://www.littelfuse.com/relayscontrols)

**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](https://www.littelfuse.com/product-disclaimer).