

**Earth Leakage Relays** are used by OEMs in combination with fault breaking devices such as MCBs and MCCBs, to provide earth leakage detection in special distribution panels under the control of an Authorised Person.

The OEM tests the combination to verify that the total disconnection time is in conformity with EN60947-2 Annex M.

- ✓ Adustable trip current and time setting.
- ✓ Compact design combined ELRC-1 /... Type A
- ✓ Flexible design ELR -3E or ELR-3C used with separately mounted residual current transformer CT-1/... Type A
- ✓ ELR-3B and ELR-3B10 with display screen used with separately mounted residual current transformer CTB-1/... Type B
- ✓ ELR-3BN Type B standard version 110-240v AC control. Special versions available on request: 24-48V AC/DC control. RS485 communication port for Modbus-RTU protocol.



**Product Standard: EN 60947-2 Annex M**

Ordering reference: see below

<b>ELRC - 1/... Earth leakage relay - Type A</b> Control supply 110-125V ac/dc, 220-240V ac, 380-415V ac			
Monitoring: Voltage < 415V 50/60Hz			
Internal Diam. in mm	Contacts C/O	Setting range	Reference
35	1	0.025 < 25 A	ELRC-1/35
60	1	0.025 < 25 A	ELRC-1/60
80	1	0.025 < 25 A	ELRC-1/80
110	1	0.025 < 25 A	ELRC-1/110



<b>ELR-3E Earth leakage relay - Type A</b> Control supply 110-125V ac/dc, 220-240V ac, 380-415V ac			
Monitoring: Voltage < 415V 50/60Hz			
Modules	Contacts C/O	Setting range	Reference
3	1	0.03 < 1 A	ELR-3E

**ELR-3E**  
DIP switch adjustment



<b>ELR-3C Earth leakage relay - Type A</b>			
<b>Control supply 110-125V ac/dc, 220-240V ac, 380-415V ac</b>			
Monitoring: Voltage < 415V 50/60Hz			
Modules	Contacts C/O	Setting range	Reference
2.5	1	0.025 < 25 A	ELR-3C

**ELR-3C**  
Potentiometer  
adjustment



<b>CT-1/... Residual current transformer Type A</b>			
<b>for use with ELR-3E &amp; ELR-3C relays</b>			
Monitoring: Voltage < 415V 50/60Hz			
Internal Diam. in mm	Rated Voltage	Minimum Meas. Current in mA	Reference
35	415V	25	CT-1/35
60	415V	25	CT-1/60
80	415V	100	CT-1/80
110	415V	250	CT-1/110



<b>ELR-3B Earth leakage relay - 0.03 &lt; 3A - Type B</b>				
<b>Control supply - 220-240V ac</b>				
Monitoring: Voltage < 415V 50/60Hz / CT Type B				
Modules	Contacts C/O	Control Supply	Setting range	Reference
3	2	230V AC	0.03 < 3A	ELR-3B

**ELR-3B includes a display to quickly view settings, leakage current and alarms.**



**ELR-3B must be used in conjunction with a separate Control Type B CTB-1 transformer.**

<b>ELR-3B10 Earth leakage relay - 0.3 &lt; 10A - Type B</b>				
<b>Control supply - 220-240V ac</b>				
Monitoring: Voltage < 415V 50/60Hz / CT Type B				
Modules	Contacts C/O	Control Supply	Setting range	Reference
3	2	230V AC	0.3 < 10A	ELR-3B10

<b>CTB-1/... Residual current transformer Type B</b>			
<b>for use with ELR-3B &amp; ELR-3B10 relays</b>			
Internal Diam. in mm	Minimum* Setting mA	Minimum Meas. Current in mA	Reference
35	30	25	CTB-1/35
60	≥ 300	25	CTB-1/60
80	≥ 300	100	CTB-1/80
110	≥ 300	100	CTB-1/110
160	≥ 500	100	CTB-1/160

\* Minimum recommended setting for ELR-3B associated with CTB diameter



*ELR-3BN settings via cap touch keys with detailed leakage current display and status alarms etc.*

<b>ELR-3BN Earth leakage relay - 0.03 &lt; 10A - Type B</b> <i>Control supply 110-240V ac</i>				
Monitoring: Voltage < 415V 50/60Hz / CT Type B				
Modules	Contacts C/O	Control Supply	Setting range	Reference
3	2	110-240V AC	0.03 < 10A	ELR-3BN



*ELR-3BN must be used in conjunction with a separate Control Type B CTB-2/... transformer: See below for ordering*

<b>CTB-2/... Residual current transformer Type B</b> <i>for use with ELR-3BN relays</i>			
Internal Diam. in mm	Minimum* Setting mA	Minimum Meas. Current in mA	Reference
22	30	30	CTB-2/22A**
22	30	30	CTB-2/22B**
35	30	30	CTB-2/35
60	30	30	CTB-2/60
80	≥ 100	100	CTB-2/80
110	≥ 100	100	CTB-2/110
160	≥ 500	500	CTB-2/160A**
160	≥ 500	500	CTB-2/160B**
210	≥ 500	500	CTB-2/210

\* Minimum recommended setting for ELR-3B associated with CTB diameter  
 \*\*For 22mm and 160mm, two CTs required per relay



**Have a question? Please contact us today**  
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