



BROYCE CONTROL

Passionate about protection and control

LV ELECTRICAL SOLUTIONS

MONITORING, CONTROL
& PROTECTION SOLUTIONS
FOR

SWITCHBOARDS

DISTRIBUTION
PANELS

MOTOR CONTROL
CENTRES

CONTROL PANELS

ATS PANELS

WIRING SYSTEMS
& BUSBARS



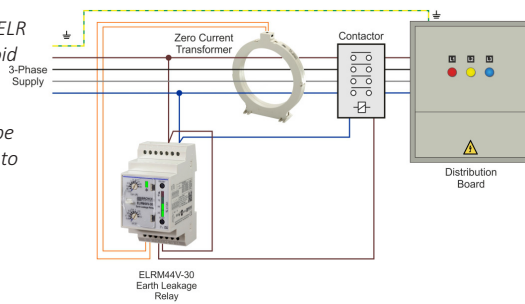
✓ MONITOR

✓ CONTROL

✓ PROTECT

Distribution board circuit protection

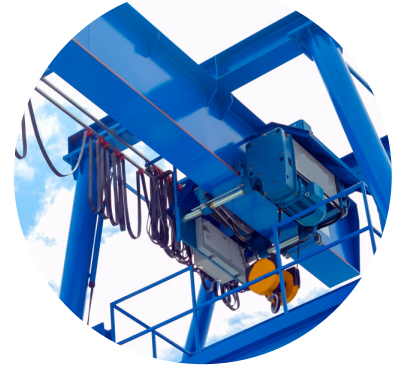
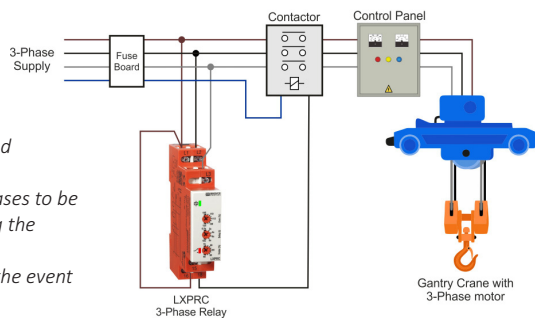
Full protection of an electrical distribution board is possible using an Earth Leakage Relay. As the ELR is monitoring the main incoming supply, the toroid /zero current transformer is sized according to the amperage of the supply i.e. 250A, 400A, etc. In this example, the Earth Leakage Relay would be typically set to a trip setting of 300mA or higher to **protect mainly against fire and other faults**



Gantry crane 3-phase voltage monitoring and protection

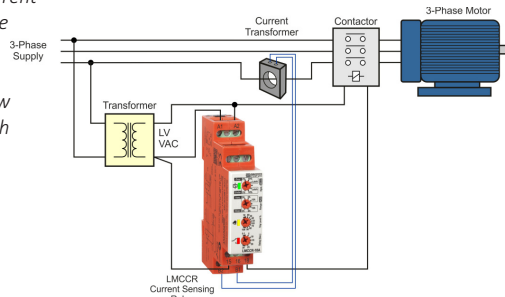
Protecting the crane motor against **single-phasing** (phase loss/blown fuse), **stalling** (under voltage) and **overheating** (voltage imbalance or over voltage).

The 3-phase monitoring relay ensures the voltage supplied to the motor is kept within pre-determined limits to ensure damage is prevented. This particular relay is used as it allows for the phases to be reversed which is required for raising and lowering the crane. Adjustable time delay avoids nuisance tripping in the event of a momentary dip in the supply.



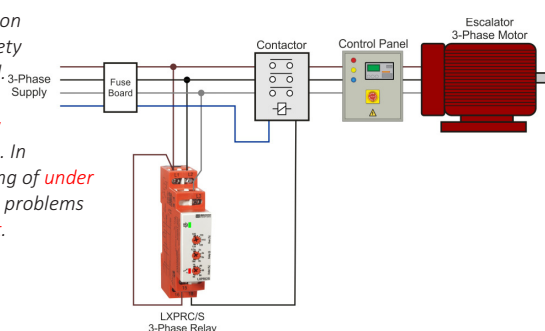
3-Phase Motor current monitoring

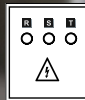
A simple current monitoring example whereby current is only sensed in one of the 3-phases. Based on the assumption that the current is always balanced between phases, this example ensures protection of the motor against **under current** (caused by low voltage) or **over current** conditions (caused by high voltages).



Escalator 3-Phase motor protection

Allowing an escalator to run in the wrong direction due to reversal of phases can lead to serious safety concern - especially where people are concerned. Prevention of such an event can be guaranteed by the use of a **3-phase voltage monitoring relay** which monitors the supply for reversal of phases. In addition, the relay can also include the monitoring of **under voltage** and **over voltage** which itself can lead to problems with the motor either **stalling** or running **too fast**.





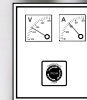
CONTROL PANELS



DISTRIBUTION BOARDS



ATS PANELS



MOTOR CONTROL CENTRES

ELRM44V-30

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Earth Leakage Protection (Type A)

Key Features:

- Selectable trip level and time delay allowing for discrimination between several units
- Dual relay outputs for connecting to switching devices i.e. shunt trips, under voltage releases, contactors
- Suitable for monitoring single and three-phase supplies

Benefits:

- ✓ Protects both personnel and equipment
- ✓ DIN rail mounting for easy integration in to distribution boards, consumer units, etc
- ✓ Compliant with IEC 60755



Dims: to DIN 43880
W. 44mm

EARTH LEAKAGE MONITORING

BZCT & BZCTR

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Circular and Rectangular Toroids

Key Features:

- Choice of sizes - depending on installation and circuit ratings
 - Circular toroids: 6 sizes - 35, 50, 70, 120, 160 and 210mm
 - Rectangular toroids: 3 sizes - 115 x 305, 150 x 350 and 160 x 470mm
- Optional mounting methods
- Compatible with all Broyce Earth Leakage Relays

Benefits:

- ✓ No setting up required



EARTH LEAKAGE MONITORING

LXPRC/S

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3-Phase Voltage Monitoring

Key Features:

- Safeguards equipment against phase loss, phase reversal and under/over voltage deviations
- Protects against uneven load distribution if a phase fails
- Choice of voltages to suit global applications
- User adjustable settings allowing unit to be tailored to application

Benefits:

- ✓ Minimises the risk of costly damage to equipment
- ✓ DIN rail mounting for easy integration in to distribution boards, consumer units, etc
- ✓ Compact dimensions



3-PHASE MONITORING

UL LISTED

Dims: to DIN 43880
W. 17.5mm

LXPRT

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3-Phase Monitoring

Key Features:

- Protects equipment against phase loss, phase reversal and undervoltage
- Ideal for motor applications to protect against single-phasing and motors rotating in the wrong direction

Benefits:

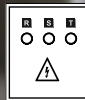
- ✓ Monitors own supply - does not require any auxiliary connections
- ✓ Easy to install



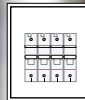
3-PHASE MONITORING

UL LISTED

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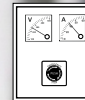
CONTROL
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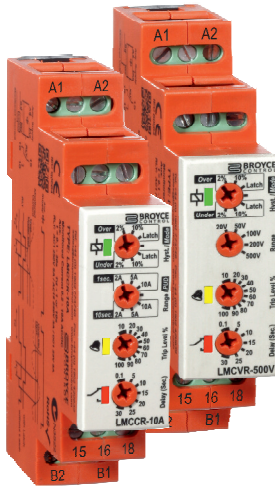
Monitoring

Voltage and Current

Monitoring relays for under or over voltage and current sensing.

Benefits:

- ✓ Protect circuits and loads from potential faults
- ✓ Multi-voltage supply



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Timing

Single or Multifunction

Choice of timing relays for control of lighting circuits, fans, motors, etc.

Benefits:

- ✓ Key timing functions available (Delay On, Interval, Delay Off, Star/Delta)
- ✓ Multi-voltage supply
- ✓ Compact dimensions
- ✓ Easy to install



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Further Product Options

Phase Presence Indicator

Benefits:

- ✓ Provides clear visual indication of a 3-phase supply
- ✓ Indicates a fault i.e. phase missing or phases reversed

Surge Protection

Benefits:

- ✓ Protects circuits against voltage spikes, transients, etc

Consult Sales for further information

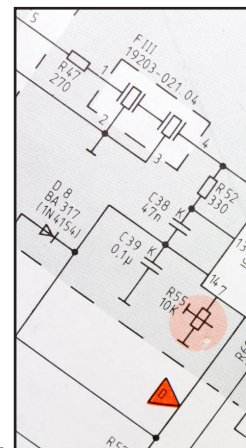
Bespoke

Customised Solutions

Need something different for your application? We can customise and offer a solution to meet your requirements.

Benefits:

- ✓ Product operates as you require
- ✓ Keeps product simple
- ✓ Option to brand for your company



MORE INFO ONLINE: www.broycecontrol.com

Inspired by over 50 years of exceptional customer service



Broyce Control Ltd. Pool Street, Wolverhampton,
West Midlands, WV2 4HN. U.K.

Tel: +44 (0) 1902 773746 Fax: +44 (0) 1902 420639

Email: sales@broycecontrol.com Web: www.broycecontrol.com



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