



Passionate about protection and control

HVAC SOLUTIONS

*MONITORING, CONTROL
& PROTECTION SOLUTIONS
FOR*

SCROLL/SCREW
COMPRESSORS

AIR HANDLING
UNITS

CHILLERS

ROOFTOP SYSTEMS

HEAT PUMPS

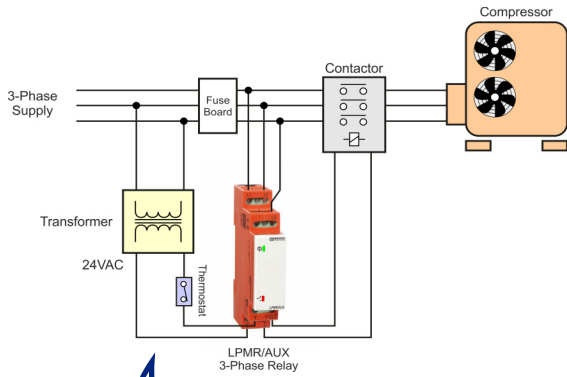
REFRIGERATION
SYSTEMS



ULTIMATE PROTECTION SOLUTIONS

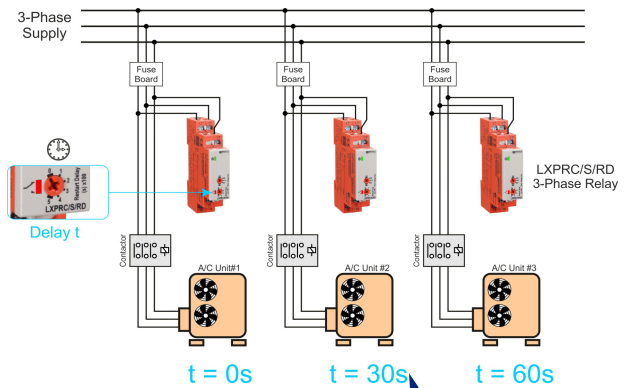
3-Phase Compressor protection (with Aux. supply)

Powered by an external 24V auxiliary source (i.e. from control panel transformer), provides monitoring of the 3-phase compressor supply. **Protects compressor** against **single-phasing** (phase loss/blown fuse), **rotating in the wrong direction** (phase reversal) and **overheating** (voltage imbalance).



Staggered starting of multiple compressors

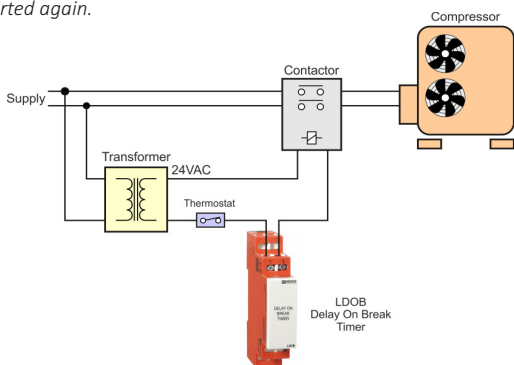
Prevents multiple compressors starting simultaneously but adding an intentional delay before starting. Each compressor is fitted with its own 3-phase monitoring relay and the **restart delay** period is staggered based on size and capacity of the compressor. In addition, each relay still provides compressor protection against **phase loss, phase reversal** and **under/over voltage** protection.



- ✓ **MONITOR**
- ✓ **CONTROL**
- ✓ **PROTECT**

Compressor anti-short cycle (lock-out) protection

Connected on the low-voltage side of the control panel transformer in between the thermostat and compressor contactor, the timer prevents rapid recycling of the compressor by initiating a time delay when the thermostat opens. This is also known as a "lock-out" delay. The time delay must have finished before the compressor can be started again.



Maximum protection for your HVAC equipment

A range of products designed to ensure smooth running of your HVAC installation offering re-assurance and piece of mind that costly damage will be prevented in the event of a fault.

Monitor - Permanently installed relays can constantly monitor for faults and detect conditions that may lead to the risk of damage or disruption

Control - Switch the equipment when absolutely necessary

Protect - Your equipment to guarantee trouble-free operation

These are the key elements to ensuring your application will run as you'd expect.

THREE PHASE & TIME DELAY

IDEAL FOR.....



CHILLERS



ROOFTOP UNITS



AIR HANDLING UNITS



HEAT PUMPS



LXPRC/S/RD

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Compressor Protection (with delayed restart)

Key Features:

- Selectable nominal voltages - 2 ranges available **200 - 240VAC** or **380 - 460VAC L>L**
- Monitors own supply - detects if phases exceed the fixed Under or Over voltage trip levels
- Detects incorrect phase sequence and loss
- Adjustable Restart time delay (**1 - 500s**)

Benefits:

- ✓ Protects compressor against loss of phase (single-phasing) and reverse running
- ✓ Choice of selectable nominal voltages for global applications
- ✓ Adjustable Restart delay - allows for staggering of multiple compressors



3-PHASE MONITORING



Dims: to DIN 43880
W. 17.5mm

LXPRC/S/F

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Compressor Protection (with adjustable timer)

Key Features:

- Designed for **415V L>L** supplies
- Monitors own supply and detects if one or more phases exceed the fixed Under or Over voltage trip levels (+/-10% of selected nominal)
- Detects incorrect phase sequence and loss
- Adjustable time delay to prevent nuisance tripping

Benefits:

- ✓ Easy to install
- ✓ Minimal setting up required



3-PHASE MONITORING



Dims: to DIN 43880
W. 17.5mm

LPMR/AUX

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Compressor Protection (with auxiliary supply)

Key Features:

- Wide 3-phase monitoring voltage range **190 - 600VAC L>L**
- Low voltage auxiliary supply **24VAC**
- Detects voltage unbalance, phase reversal and phase loss

Benefits:

- ✓ Low cost and simple to install
- ✓ No setting up required
- ✓ Compact dimensions



3-PHASE MONITORING

Dims: to DIN 43880
W. 17.5mm

LDOB

AVAILABLE Q3 2020

Compressor Lockout/Anti-Short Cycle/Random Start

Key Features:

- Designed for **24VAC** supplies
- Simple 2-wire connection
- Fixed time delay with choice of 3 or 5 minutes

Benefits:

- ✓ Protects compressors from damage caused by rapid short cycling
- ✓ Easy to install
- ✓ No user adjustments
- ✓ Solid state for maximum reliability



TIMING

Dims: to DIN 43880
W. 17.5mm

Protection *Earth Leakage*

Protect installations against injury to personnel and damage to equipment due to earth leakage faults.

- Benefits:
- ✓ Maximises safety



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Monitoring *Voltage and Current*

Monitoring relays for under or over voltage and current sensing.

- Benefits:
- ✓ Protect compressors and motors from single phasing and current unbalance
 - ✓ Multi-voltage supply



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Timing *Single or Multifunction*

Choice of timing relays for control of specific HVAC equipment such as compressors, exhaust fans, etc.

- Benefits:
- ✓ Key timing functions available
 - ✓ Multi-voltage supply
 - ✓ Compact dimensions
 - ✓ Easy to install



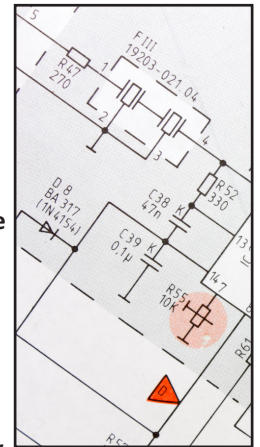
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Bespoke *Customised Solutions*

Need something different for your HVAC 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



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