Features

Four adjustment pots provide versatility for all kinds of applications.

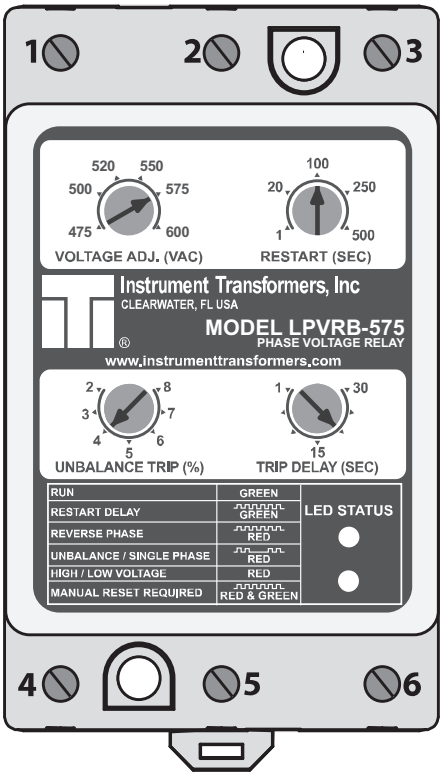
Range from 475-600 VAC 50/60 Hz provides the versatility needed to handle global applications.

Diagnostic LEDs indicate trip status and provide simple trouble shooting.

Microcontroller based circuitry provides better accuracy and higher reliability than analog designs.

Transient protected to meet IEEE and IEC standards and operate under tough conditions.

Will detect single phase condition regardless of regenerated voltages.



PHASE VOLTAGE RELAY

Model LPVRB-575

Three Phase Voltage Monitor

•

Engineered Protection

•

Microcontroller Based

The **Model LPVRB-575** is designed to protect 3-phase loads from damaging power conditions. Its wide operating range combined with UL and CE compliance enables quick access to domestic and global markets.

A unique microcontroller-based voltage and phase sensing circuit constantly monitors the three phase voltages to detect harmful power line conditions. When a harmful condition is detected, the LPVRB-575's output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to an acceptable level for a specified amount of time (Restart Delay) or after a manual reset. The trip and restart delays prevent nuisance tripping due to rapidly fluctuating power line conditions.

An adjustment is provided to set the nominal line voltage from 475-600 VAC. Other adjustments include a 1-30 second trip delay, a 1-500 second restart delay, and a 2-8% voltage unbalance trip point adjustment.

Two LEDs indicate the status of the Model LPVRB-575; Run Light, Under Voltage, Over Voltage, Phasing Fault/ Reverse Phase, and Manual Reset.

The LPVRB-575 ships with a jumper installed for automatic restart. A connector with two 12" wires is included for manual reset switch.

Protects 3-Phase motors from:

- Loss of any Phase
- Low Voltage
- High Voltage
- Voltage Unbalance
- Phase Reversal
- Rapid Cycling

Additional Features:

- Compact Design
- UL and cUL listed
- CE Compliant
- Finger Safe Terminals
- 5 year Warranty
- Made in USA
- Standard Surface or DIN Rail Mount
- Standard 1-500 sec. Variable Restart Delay
- Standard 2-8% Variable Voltage Unbalance
- Standard 1-30 sec. Variable Trip Delay
- One 10 Amp General Purpose Form C Relay
- Optional Manual Reset

Instrument Transformers, Inc

1907 Calumet Street • Clearwater, FL 33765
(727) 298-2000 • FAX (727) 298-2086
www.instrumenttransformers.com

PHASE VOLTAGE RELAY

Specifications
•
Operating Points
•
Special Options

Model LPVRB-575

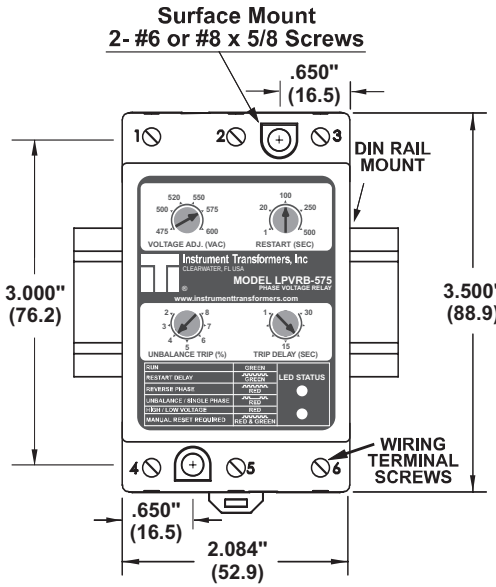
Three Phase Voltage Monitor

Specifications

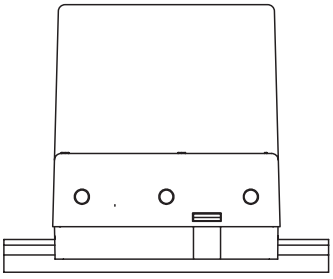
3-Phase Line Voltage .....475 - 600 VAC
Frequency .....50* or 60 Hz
Low Voltage (% of set point)
•Trip .....90% ±1%
•Reset .....93% ±1%
High Voltage (% of set point)
•Trip .....110% ±1%
•Reset .....107% ±1%
Voltage Unbalance (NEMA)
•Trip .....2 - 8% adjustable
•Reset .....Trip setting minus 1% (5 - 8%)
Trip setting minus .5% (2 - 4%)
Trip Delay Time
•Low, High and Unbalanced Voltage .....1 - 30 seconds adjustable
•Single Phasing Faults .....1 second fixed
Restart Delay Time (When manual reset pins are shorted.)
•After a Fault .....1 - 500 seconds adjustable
•After a Complete Power Loss .....1 - 500 seconds adjustable
Output Contact Rating
•1-Form C .....10 A General Purpose @ 240 VAC
Pilot Duty 480VA @ 240 VAC, B300
Power Consumption .....6 Watts (max)
Weight .....14 oz.
Enclosure .....Polycarbonate
Terminal Torque .....6 in.-lbs.
Wire Type .....Stranded or solid 12-20 AWG, one per terminal
Safety Marks
•UL UL508
•CE .....IEC 60947-6-2
Standards Passed
•Electrostatic Discharge (ESD) .....IEC 1000-4-2, Level 3, 6kV contact, 8kV air
•Radio Frequency Immunity, Radiated .....150 MHz, 10V/m
•Fast Transient Burst .....IEC 1000-4-4, Level 3, 3.5 kV input power & controls
Surge
•IEC .....IEC 1000-4-5, Level 3, 4kV line-to-line;
Level 4, 4kV line-to-ground
•ANSI/IEEE .....C62.41 Surge and Ring Wave Compliance
to a level of 6kV line-to-line
•Hi-potential Test .....Meets UL508 (2 x rated V +1000V for 1 minute)

Environmental
Temperature Range .....Ambient Operating: -20° - 70° C (-4° - 158°F)
Ambient Storage: -40° - 80° C (-40° - 176°F)
Class of Protection .....IP20, NEMA 1 (FINGER SAFE)
Relative Humidity .....10-95%, non-condensing per IEC 68-2-3
Special Options
Manual Reset .....External momentary push button required.

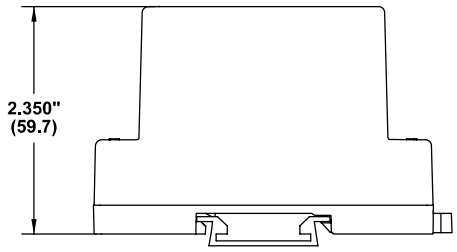
*Note: 50 Hz will increase all delay timers by 20%



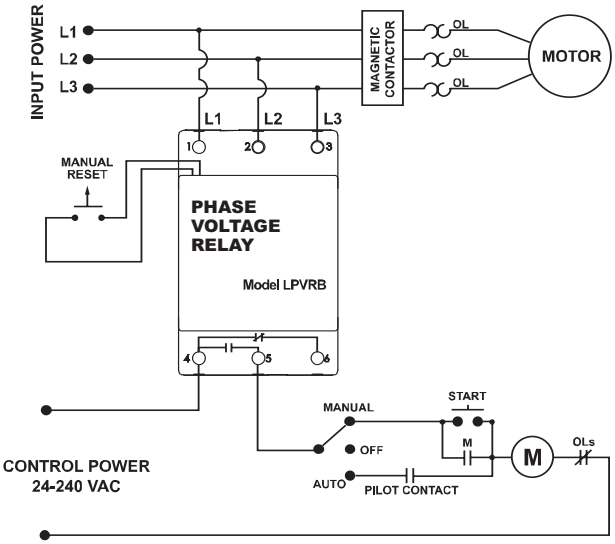
FRONT VIEW



BOTTOM VIEW



SIDE VIEW



TYPICAL WIRING DIAGRAM

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