

# PVT

## Three Phase Voltage Relay (Microprocessor)



- 15 Amp Contacts
- 600V Contact (Available)
- Dual Voltage Model
- Removable Terminal Blocks
- Over & Undervoltage
- Phase Loss
- Phase Imbalance
- Phase Rotation
- Adj. Re-Start Timer



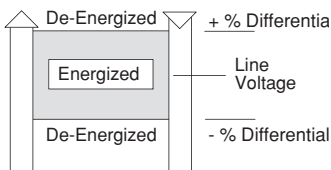
### Operation

The PVT's output contacts are energized when:

1. All phases are present,
2. Voltages are within differential %,
3. Phases are in the proper rotation,
4. Phases are balanced, and
5. Re-Start timer has timed out.

The PVT uses a re-start timer to allow the three phase line to stabilize after a fault and delays re-starting of pumps, compressors and other equipment.

The PVT also has a switch selectable voltage option (Series 201) that provides both 208 to 240VAC and 420 to 480VAC, 3Ø in one unit. The installer to select the proper voltage.



### Specifications

#### Electrical

**Line Voltage:**  
110VAC to 600VAC, 3Ø

**Frequency:** 49Hz to 63Hz

**Line Voltage Ranges:**  
200 Series - 208VAC to 245VAC, 3Ø  
300 Series - 380VAC to 415VAC, 3Ø  
400 Series - 420VAC to 480VAC, 3Ø  
600 Series - 575VAC to 600VAC, 3Ø

#### Maximum Overvoltage:

15% of highest nominal voltage

#### Over & Undervoltage:

7% to 15%, Adj. around set point

#### Phase Imbalance:

5% Typical

#### Phase Rotation:

A - B - C

#### Phase Loss:

<75% of set point

#### Time Delays:

Re-Start: Adj. 1 Sec. to 300 Sec

#### Drop-Out:

- 5 Sec. fixed (Over & Under Voltage, Phase Imbalance, Phase Loss)
- Instantaneous (Loss of all Phases)

#### LED Indicators:

Fault LED: Red: Phase Reversal

Green: Phase Loss

#### Relay LED

#### Output Contacts:

Gen. Purpose: 15 Amps@250VAC\*

Horse Power:

1/2HP @ 120VAC

1HP @ 240VAC

V-A Rating: 720VA Max.

Rating Code: A150, A300 & A600

1C: Single Pole Double Throw

2C: Double Pole Double Throw

HV: SPDT, 2 Amps @ 600VAC (6,000 cyc)

#### Physical

**Mounting:** Din Rail or Surface

**Shock Rating:** 17g@21 Milliseconds

**Termination:** Screw Terminals

Removable (Plug-In)

**Packaging:** Dust Cover

**Weight:** 8 Oz. Approx.

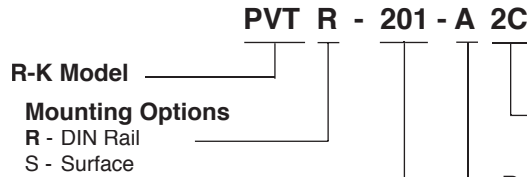
#### Ambient Temperatures

**Operating:** -40°C to 65°C

**Storage:** -40°C to 85°C

\* All circuits must have a common supply to maintain a 15 Amp rating per contact. Otherwise total may not exceed 20 Amps.

### Ordering Information



#### 3Ø Input Voltages

200 - 200 to 240VAC

201 - Switch Selectable

& 208 to 240VAC

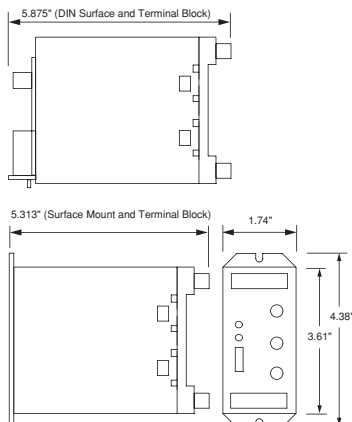
420 to 480VAC

300 - 380 to 415VAC

400 - 440 to 480VAC

600 - 575 to 600VAC

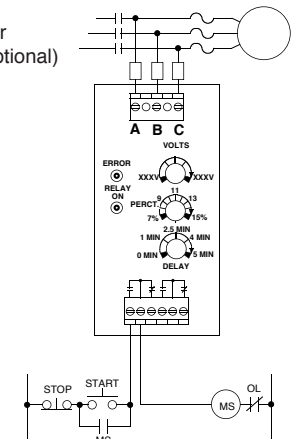
### Dimensions



### Connections

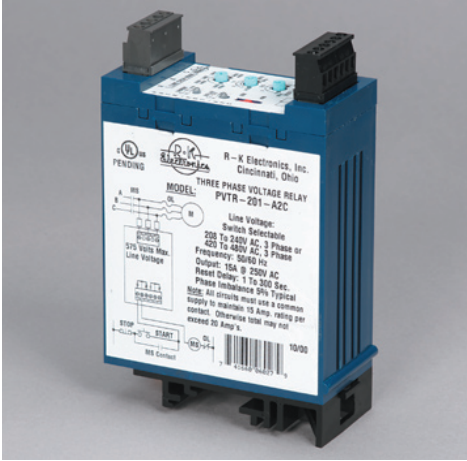
The PVTs should be connected to the line voltage on the load side on the last line fuse before the motor and on the line side of the starter (MS).

M = Motor  
MS = Motor Starter  
Fuses = ≤1 amp (optional)  
OL = Overloads



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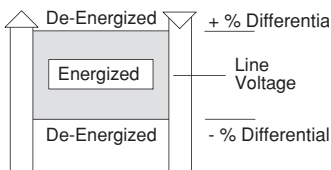
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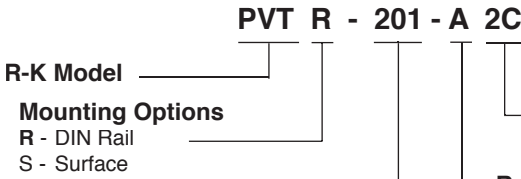
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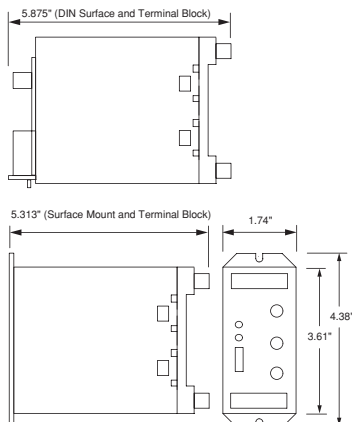


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400 - 440 to 480VAC  
600 - 575 to 600VAC

**Output Contacts**  
1C - 15A @ 250VAC, SPDT  
2C - 15A @ 250VAC, DPDT  
HV - 2A @ 600VAC, SPDT

**Restart Delay**  
A - Adjustable  
S - Special

### Dimensions



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