

45 Amp Power PCB Relay - 1.8mm Gap, 2.25 Watt Coil

PTRV



FEATURES

- Popular Power PCB Relay Footprint - T90
- 45 Amp 277 VAC Resistive Rating
- Contact Gap > 1.8mm
- Conforms To IEC62109-2 & VDE 0126-1-1
- 2.25 W Coil For High Shock & Vibration Tolerance
- UL Class F Insulation Standard
- Meets UL 508 and UL 873 Spacing
- RoHS Compliant

Applications

- Photo Voltaic Systems (PV Inverter)
- Motor Controls
- Compressors
- Appliances

FACTORY RATINGS

| | | |
|-----------|---------|--------------------|
| Load Type | Voltage | 1 Form A (SPST-NO) |
| Resistive | 277 VAC | 45 A |

*Meets UL 508 and UL 873 Spacing - 3.18 mm Through Air, 6.36 mm Over Surface.

CHARACTERISTIC

| | |
|-----------------------------|--|
| Operate Time | 15 ms Max. |
| Release Time | 10 ms Max |
| Insulation Resistance | 1,000 MΩ min, at 500 VDC |
| Dielectric Strength | 4,000 V 50 Hz 1 Min Between Coil and Contacts 1,500 V 50 Hz 1 min. Between Contacts |
| Shock Resistance | 200 m/s ² , 11 ms |
| Vibration Resistance | 10 - 55 Hz Double Amplitude, 1.5mm |
| Terminal Strength | 10N |
| Power Consumption | 2.25 W |
| Solderability | 260°C for 5 seconds |
| Operating Temperature Range | -55°C to 85°C |
| Relative Humidity | 85% @ 40°C |
| Weight | 27 g |
| Material Compliant To | EU RoHS V2, EU REACH V3 |

CROSS REFERENCES

| |
|--|
| TE (P&B) T9V |
| T9VV1K15-12S Crosses to PTRV-1A-12ST-X |



CONTACT DATA

| | | |
|----------------------------|-------------------------|--------------------------------|
| Material | AgSnO ₂ | |
| Initial Contact Resistance | 30 mΩ Max. @ 1 A, 6 VDC | |
| Maximum Switching Voltage | 300 VAC | |
| Maximum Switching Current | 45 A | |
| Maximum Switching Power | 12,500 VA | |
| Service Life @ 85°C | Mechanical | 5 X 10 ⁶ Operations |
| | Electrical | 6 X 10 ³ Operations |

ORDERING INFORMATION

| | | | | | | |
|----------------------|--|-----|-----|---|---|----|
| Example: | PTRV | -1A | -12 | S | T | -X |
| Model: | PTRV | | | | | |
| Contact Form: | 1A | | | | | |
| Coil Voltage: | 12, 24 | | | | | |
| Configuration: | Nil : Open Frame; S : Sealed | | | | | |
| Insulation Material: | Nil : Class F | | | | | |
| Contact Material: | T : AgSnO ₂ | | | | | |
| RoHS Compliant: | -X | | | | | |

Box Quantity: 600; Inner Box 300

COIL DATA

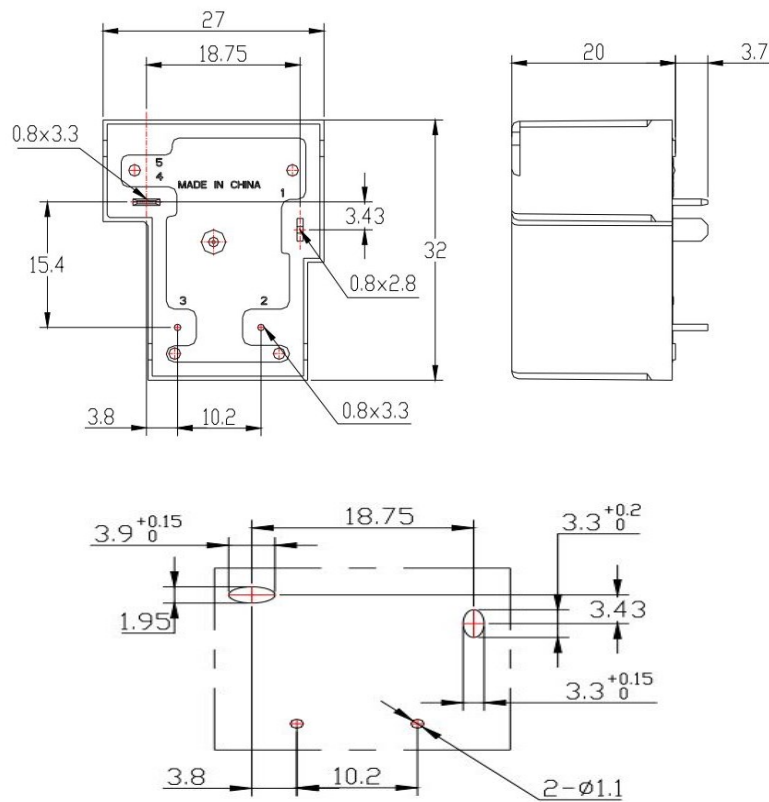
| Coil Voltage | | Resistance (Ohms ± 10%) | Must Operate Voltage Max (VDC) | Must Release Voltage Min. (VDC) | Coil Power (W) | Operate Time (ms) | Release Time (ms) |
|--------------|------|----------------------------|--------------------------------------|---------------------------------------|----------------------|----------------------|----------------------|
| Rated | Max | | | | | | |
| 12 | 15.6 | 64.0 | 9.00 | 1.2 | 2.25 | ≤ 15 | ≤ 10 |
| 24 | 31.2 | 255 | 18.00 | 2.4 | | | |

NOTES:

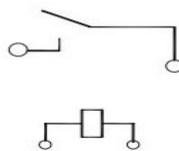
The use of any coil voltage less than the rated voltage will compromise the operation of the relays.
 Must Operate Voltage and Must Release Voltages are for test purposes only and are not to be used as design criteria.

DIMENSIONS (mm/inches)

Dimensions are in mm. Inches are listed for reference only.
 Knock off, on top corner, nib for ventilation after soldering and water wash.



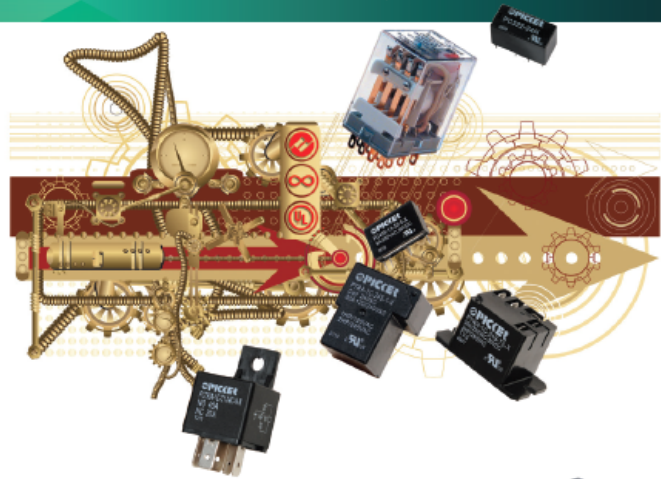
Mounting (Bottom view)



Wiring diagram(Bottom view)



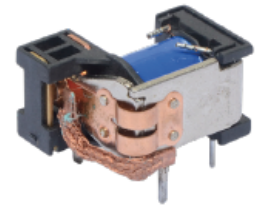
T90 Style Relays



50 Amp

PTRV 50/35 Amp 1,500 W, 12,000 VA

- Larger Contacts than PTRD
- *Braided Copper Wire Added to Dissipate Heat from Contacts to the Coil Frame and PCB Pins*
- 50 Amp 240 VAC 10,000 Cycle UL Resistive Rating
- Class F Material -40° to 125° C Standard



45 Amp

New

PTRV 45 Amp 277 VAC 12,500 VA

- >1.8 mm Contact Gap
- 2.25 Watt Coil for Vibration Tolerance
- Class F Material -40° to 85° C Standard
- Designed for PV Inverter & Motor Control Applications



40 Amp

PTRD 40/30 Amp 1,200 W, 10,000 VA **PTRA AC Coil Options from 12 to 277 VAC**

- Larger Contacts than PTRH
- 40 Amp 240 VAC UL Resistive Rating
- 25 Amp 277 VAC 100K Cycles UL Resistive Rating
- Class F Material -40° to 125° C Standard



30 Amp

PTRH 30/20 Amp 900 W, 7,500 VA

- 30 Amp 277 VAC UL General Purpose Rating
- 30 Amp 250 VAC 100K Cycle UL Resistive Rating
- Class B -40° to 100° C Standard, Optional Class F

Packaging Options (i.e. PTRH-T)



Dust Cover or Sealed with Scratch off Nib



-T (T2 & T3) with PC Pins and Contact QC



-T (T4 & T5) w/QC Tabs & Mounting Ears



-OT (OT2 & OT3) with PC Pins and Contact QC



-OT (OT4 & OT5) w/QC Tabs & Mounting Ears

888-997-3933 • PickerComponents.com
Sales@PickerComponents.com

