

150/100 Amp Automotive Plug-In / PCB Maxi ISO Relay

PC7150



FEATURES

- Popular Maxi ISO Automotive Relay Footprint
- 1A and 1C Contact Forms Available
- Contact Switching Capacity up to 450 Amps
- 150 Amps Continuous Carrying Current
- Up to 125°C Operating Temperature
- Internal Diodes or Resistors Available
- Plain Case, Metal Mounting Bracket and PC Pins
- Sockets Available
- Lead Free and RoHS Compliant

CONTACT RATINGS 14 VDC at 25°C

| Contact Form | 1 Form A or 1 Form C | |
|------------------------|---------------------------|---------------------------|
| | Normally Open | Normally Closed |
| Max Switching Current | Make 450 A ⁽¹⁾ | Make 300 A ⁽¹⁾ |
| | Break 150 A | Break 100 A |
| Max Continuous Current | 150 A @ 25°C | 100 A @ 25°C |
| | 112.5 A @ 85°C | 75 A @ 85°C |
| Max Switching Voltage | 75 VDC | |
| Max. Switching Power | 1800 W | |
| Minimum Load | 0.5A @ 12 VDC | |

CHARACTERISTICS

| | |
|-----------------------|---------------------------------------|
| Operate Time | 7 msec Typical |
| Release Time | 2 msec Typical |
| Insulation Resistance | 100 MΩ Min @ 500VDC |
| Dielectric Strength | 50 Hz 1000 V Between Contact and Coil |
| | 50 Hz 750 V Between Contacts |
| Shock Resistance | 147 m/s ² 11 msec |
| Vibration Resistance | 10-40 Hz Double Amplitude 1.5mm |
| Terminal Strength | 30 N |
| Solderability | 260°C for 5 seconds |
| Power Consumption | 2.9 W |

CONTACT RATINGS 28 VDC at 25°C

| Contact Form | 1 Form A or 1 Form C | |
|------------------------|---------------------------|---------------------------|
| | Normally Open | Normally Closed |
| Max Switching Current | Make 225 A ⁽¹⁾ | Make 150 A ⁽¹⁾ |
| | Break 75 A | Break 50 A |
| Max Continuous Current | 75 A @ 25°C | 50 A @ 25°C |
| | 56.25 A @ 85°C | 37.5 A @ 85°C |
| Max Switching Voltage | 75 VDC | |
| Max. Switching Power | 1800 W | |
| Minimum Load | 0.5A @ 24 VDC | |

CONTACT DATA

| | | |
|----------------------------|---------------------------|--------------------------------|
| Material | AgSnO ₂ | |
| Initial Contact Resistance | 100 MΩ Max @ 0.1 A, 6 VDC | |
| Service Life | Electrical | 1 x 10 ⁵ Operations |
| | Mechanical | 1 x 10 ⁷ Operations |

CHARACTERISTICS Continued

| | |
|-----------------------|--------------------------|
| Operating Temperature | -40°C to 125°C |
| Storage Temperature | -40°C to 155°C |
| Relative Humidity | 85% at 40°C |
| Weight | 60 grams |
| Flammability | UL-94-VO Meets FMVSS 302 |

⁽¹⁾With current load applied for a maximum of 3 seconds at a maximum duty cycle of 10%

ORDERING INFORMATION

| | | | | | | | | |
|---------------------|--|-----|-----|-----|---|----|---|----|
| Example: | PC7150 | -1C | -C2 | -12 | C | -R | N | -X |
| Model: | PC7150 | | | | | | | |
| Contact Form: | 1A, 1C | | | | | | | |
| Case Style: | C: Plug-In; C2: Metal Bracket; P: PC Pins | | | | | | | |
| Coil Voltage: | 12, 24, 48 | | | | | | | |
| Enclosure: | C: Dust Cover, S1: Flux Tight⁽²⁾ | | | | | | | |
| Parallel Component: | Nil: None; D: Diode; R: Resistor | | | | | | | |
| Terminal Plating: | N: Tin Plated Terminals Standard on all Plug In Models; Nil: PC PIN Version | | | | | | | |
| RoHS Compliant: | -X | | | | | | | |

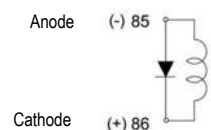
⁽²⁾ Flux Tight relays are constructed such that Flux will not enter the relay in an automated soldering process, they are NOT Suitable for water wash cleaning.

Box Quantity: 200; Inner Box:100

Coil Options

Resistor Values:
6V - 180 ohm
12V - 680 ohm
24V - 2,700 ohm
Diode: 1N4005

Orientation of Optional Diode



*Contact Picker if You Require the Opposite Polarity or a Dual Diode

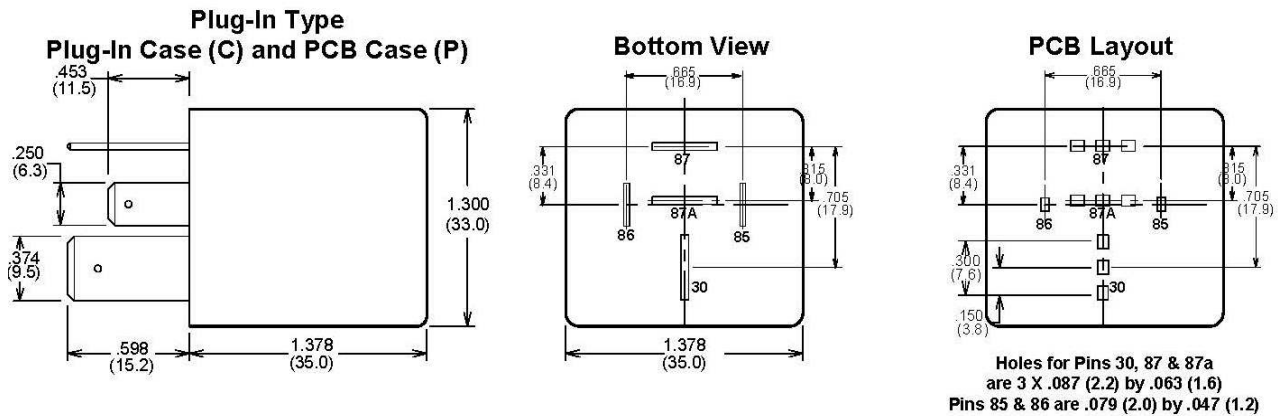
COIL DATA

| Coil Voltage (VDC) | | Must Operate Voltage Max (VDC) | Must Release Voltage Min (VDC) | Resistor Values (Ohms ± 10%) | Coil Resistance (Ohms ± 10%) | | Rated Current (mA) | | Coil Power (W) | |
|--------------------|------|--------------------------------|--------------------------------|------------------------------|------------------------------|---------------|--------------------|---------------|------------------|---------------|
| Rated | Max | | | | Without Resistor | With Resistor | Without Resistor | With Resistor | Without Resistor | With Resistor |
| 12 | 15.6 | 7.8 | 1.2 | 680 | 50 | 47 | 240 | 258 | 2.9 | 3.2 |
| 24 | 31.2 | 15.6 | 2.4 | 2700 | 195 | 182 | 123 | 132 | | |
| 48 | 62.4 | 31.2 | 4.8 | 10000 | 794 | 736 | 60 | 65 | | |

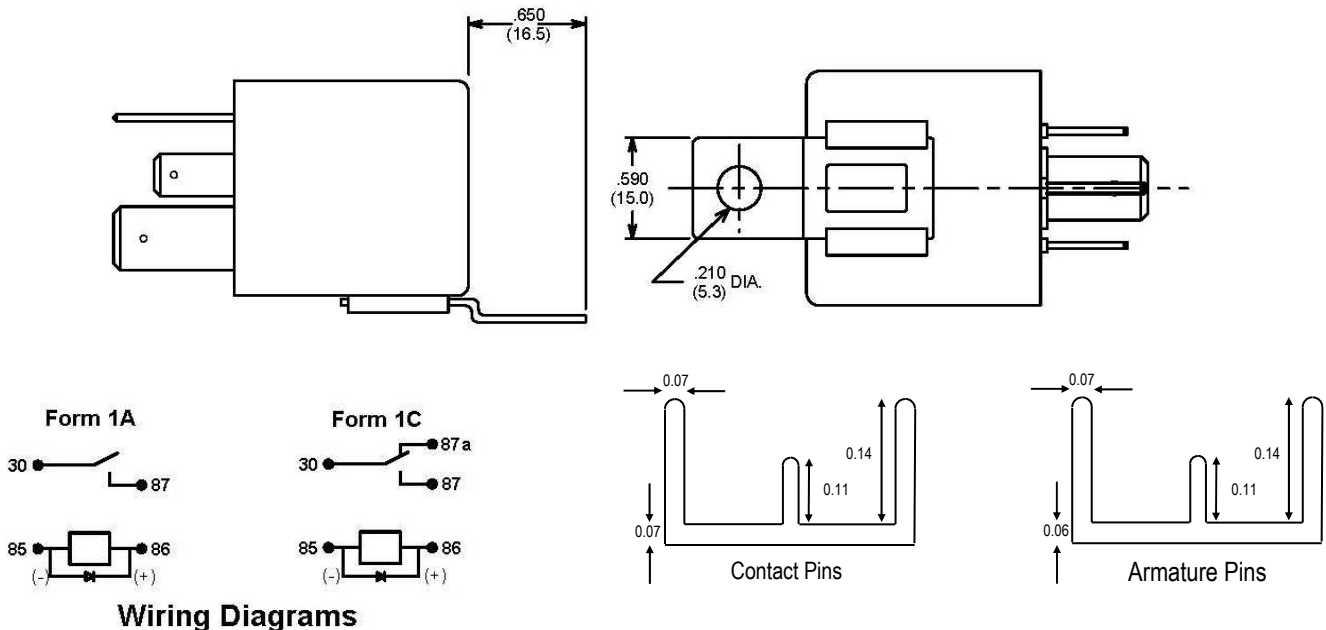
NOTES:

The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria. Dimensions are in mm, Inches are listed for reference only.

DIMENSIONS (inches/mm)



Metal Bracket Type



Notes:

Tolerances ± .010 unless otherwise noted
 Maximum make current refers to inrush of a lamp load