# 80/60 Amp Automotive Plug-In / PCB Maxi ISO Relay — PC795




## FEATURES

- Most Popular Automotive Relay
- 1A, 1C and 1U Contact Forms Available
- Contact Switching Capacity up to 240 Amps
- 80 Amps @ 14VDC Continuous Carrying Current
- 125°C Operating Temperature
- Plain Case, Bracket or PCB Options
- 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 240 A | Make 180 A |
| | Break 80 A | Break 60 A |
| Max Switching Power | 1,120 W | |
| Max Switching Voltage | 75 VDC | |
| Max Continuous Current | 80 A | 60 A |
| Minimum Load | 0.5A @ 12VDC | |
| Form 1U | 2 x 25 A @ 14VDC | |

## CONTACT RATINGS 24 VDC at 25°C

| Contact Form | 1 Form A or 1 Form C | |
|---|---|---|
| | Normally Open | Normally Closed |
| Max Switching Current | Make 120 A | Make 90 A |
| | Break 40 A | Break 30 A |
| Max Switching Power | 1,120 W | |
| Max Switching Voltage | 75 VDC | |
| Max Continuous Current | 30 A | 25 A |
| Max Continuous Current 24W* | 45 A | 35 A |
| Minimum Load | 0.5A @ 12VDC | |
| Form 1U | 2 x 15 A @ 24VDC | |

*Maximum Continuous Current utilizing the High Performance >0.8 mm Contact Gap and 2.6 W Coil for greater contact pressure

## CHARACTERISTICS

| | |
|---|---|
| Operate Time | 7 msec Typical |
| Release Time | 2 msec Typical |
| Insulation Resistance | 100 MΩ min @ 500VDC |
| Dielectric Strength | 50 Hz 500$V_{RMS}$ 1 min. Between Contact and Coil |
| | 50 Hz 500$V_{RMS}$ 1 min. Between Contacts |
| Shock Resistance | 147 m/s² 11 msec |
| Vibration Resistance | 10-40 Hz Double Amplitude 1.5mm |
| Terminal Strength | 8 N, 4N (PC Type) |
| Solderability | 235°C ± 2°C 3 sec ± 0.5 sec |
| Power Consumption | 1.8 W, 2.3 W, 2.6 W |
| Relative Humidity | 85% at 40°C |

## CONTACT DATA

| | | |
|---|---|---|
| Material | | AgSnO2 |
| Initial Contact Resistance | | ≤ 20mΩ initial |
| 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 |
| Weight | 47 grams |

## ORDERING INFORMATION

Example: PC795 -1C C -12 S -X

Model: **PC795**

Contact Form:
**1A**, **1C** or **1U** (1 Form A with 2 #87 Terminals)

Case Style: **C**: Plug-In; **C1**: Plastic Bracket; **C2**: Metal Bracket
**P**: PCB; **P1**: PCB w/Plastic Bracket; **P2**: PCB w/Metal Bracket

Coil Voltage: **6, 12, 24, 24W** (Form 1A Only, >.8mm Contact Gap)

Enclosure: **C**: Dust Cover, **S**: Sealed

Coil Power: **Nil**: 1.8W, **2.3**: 2.3W, **2.6**:2.6W (1.8W is standard)

Parallel Component: **Nil**: None; **D**: Diode; **R**: Resistor; **N**: Nickel Plated Contacts

RoHS Compliant: **-X**

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

Box Quantity: 400; Inner Box: 100

3220 Commander Drive, Suite 102 Carrollton, TX 75006
Sales: (972) 713-6272 (888) 997-3933 Fax: (972)735-0964
www.PickerComponents.com
e-mail: sales@pickercomponents.com

Dimensions are listed for reference purposes only.
Specifications and Availability subject to change without notice.

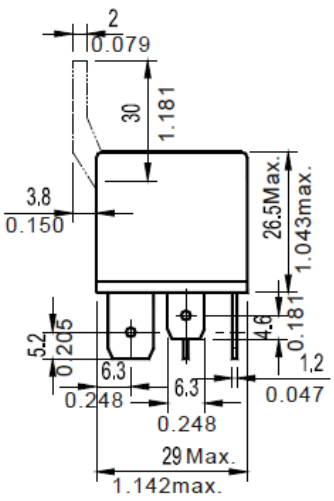
## COIL DATA

| Coil Voltage (VDC) | | Resistance (Ohms ± 10%) Coil Power | | | Must Operate Voltage Max (VDC) | Must Release Voltage Min. (VDC) |
|---|---|---|---|---|---|---|
| Rated | Max | 1.8W | 2.3W | 2.6W | | |
| 6 | 7.8 | 20 | 15.6 | 13.8 | 3.9 | 0.6 |
| 12 | 15.6 | 80 | 62.6 | 55.4 | 7.8 | 1.2 |
| 24 | 31.2 | 320 | 250.4 | 221.5 | 15.6 | 2.4 |

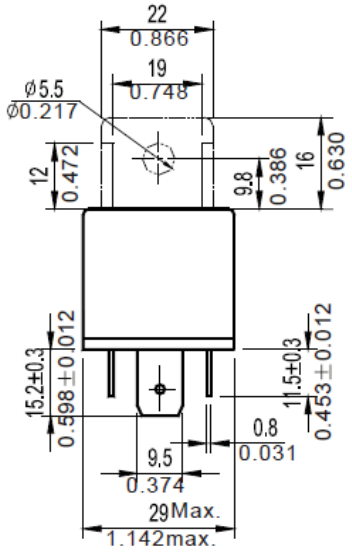
### NOTES:

The use of any coil voltage less that 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.

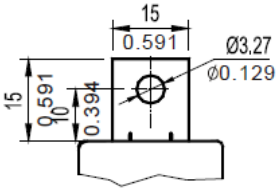
## DIMENSIONS (mm / inches)



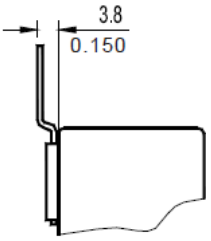

Plug In "C"

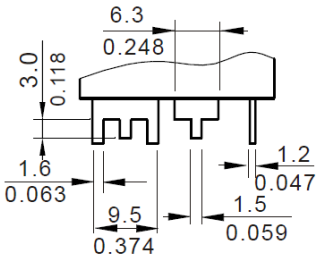


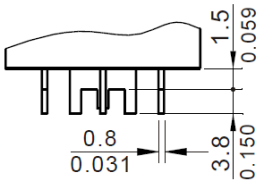

Plastic Bracket "C1"



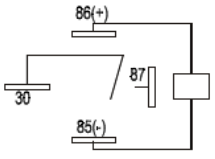

Metal Bracket "C2"



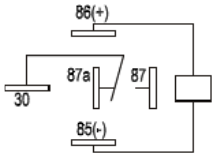



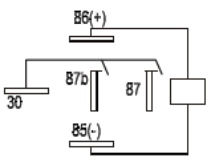

PC Pins P"



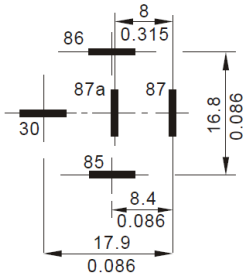

1A

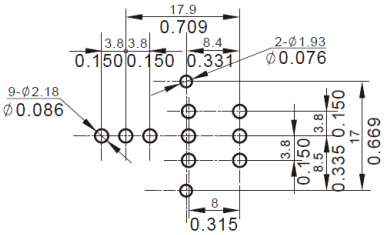



1C

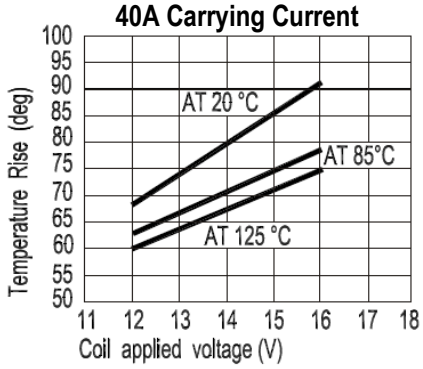



1U

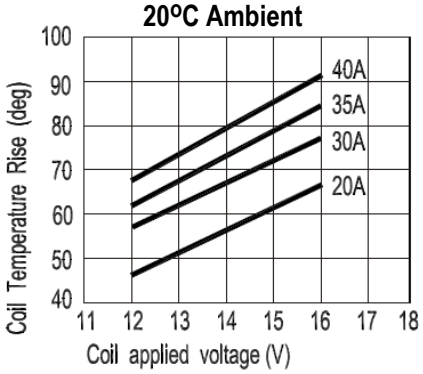


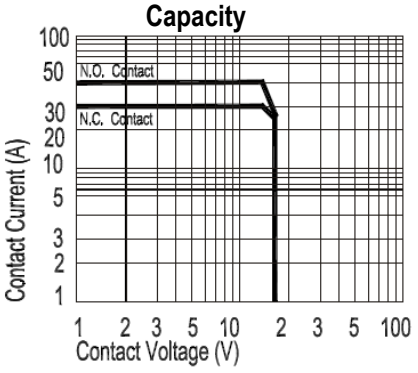

### Coil Temperature Rise @ 40A Carrying Current




### Coil Temperature Rise 20ºC Ambient




### Max Value for Switching Capacity




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