

50/40 Amp Automotive Plug-In / PCB Power Relay

PC792C



FEATURES

- Most Popular Automotive Relay Footprint
- 1A, 1C and 1U Contact Forms Available
- Contact Switching Capacity up to 150 Amps
- 50 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 150 A ⁽¹⁾	Make 120 A
	Break 50 A	Break 40 A
Max Continuous Current	50 A @ 25°C	40 A @ 25°C
	37.5 A @ 85°C	30 A @ 85°C
Max Continuous Current 1 Form U	2 X 30 Amps (at 20°C) 2 X 25 Amps (at 85°C)	
Max Switching Voltage	75 VDC	
Max. Switching Power	1120 W	
Minimum Load	0.1A @ 12VDC	

CONTACT RATINGS 24 VDC at 25°C

Contact Form	1 Form A or 1 Form C	
	Normally Open	Normally Closed
Max Switching Current	Make 75 A	Make 60 A
	Break 25 A	Break 20 A
Max Continuous Current	25 A @ 25°C	20 A @ 25°C
	18.75 A @ 85°C	15 A @ 25°C
Max Continuous Current 1 Form U	2 X 15 Amps (at 20°C) 2 X 12.5 Amps (at 85°C)	
Max Switching Voltage	75 VDC	
Max. Switching Power	1120 W	
Minimum Load	0.1A @ 12VDC	

CHARACTERISTICS

Operate Time	7 msec Typical
Release Time	2 msec Typical
Insulation Resistance	100 MΩ Min @ 500VDC
Dielectric Strength	50 Hz 500V _{RMS} 1 min. Between Contact and Coil
	50 Hz 500V _{RMS} 1 min. Between Contacts
Shock Resistance	147 m/s ² 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

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

Operating Temperature	-40°C to 125°C
Storage Temperature	-40°C to 155°C
Relative Humidity	85% at 40°C
Weight	35 grams

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

ORDERING INFORMATION

Example:	PC792C	-1C	-C1	-12	C	-N	-X
Model:	PC792C						
Contact Form:	1A, 1C or 1U (2 X 1A, 87 & 87b Isolated)						
Case Style:	C: Plug-In; C1: Plastic Bracket; C2: Metal Bracket; P: PC Pins						
Coil Voltage:	6, 12, 24						
Enclosure:	C: Dust Cover						
Parallel Component:	Nil: None; D: Diode; R: Resistor; N: Nickel Plated Terminals						
RoHS Compliant:	-X						

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

Box Quantity: 400; Inner Box: 100

COIL DATA

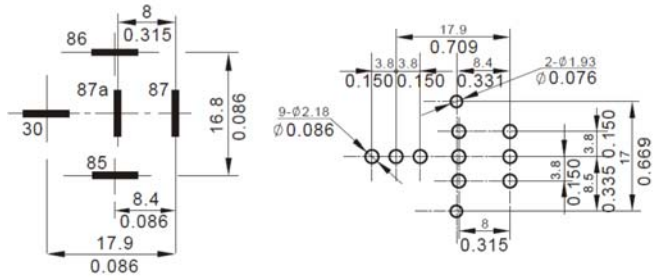
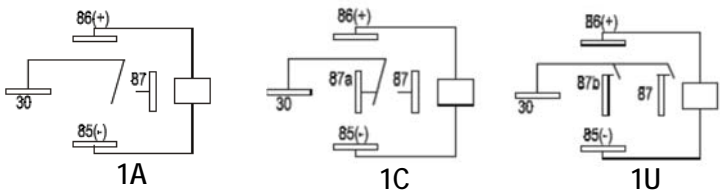
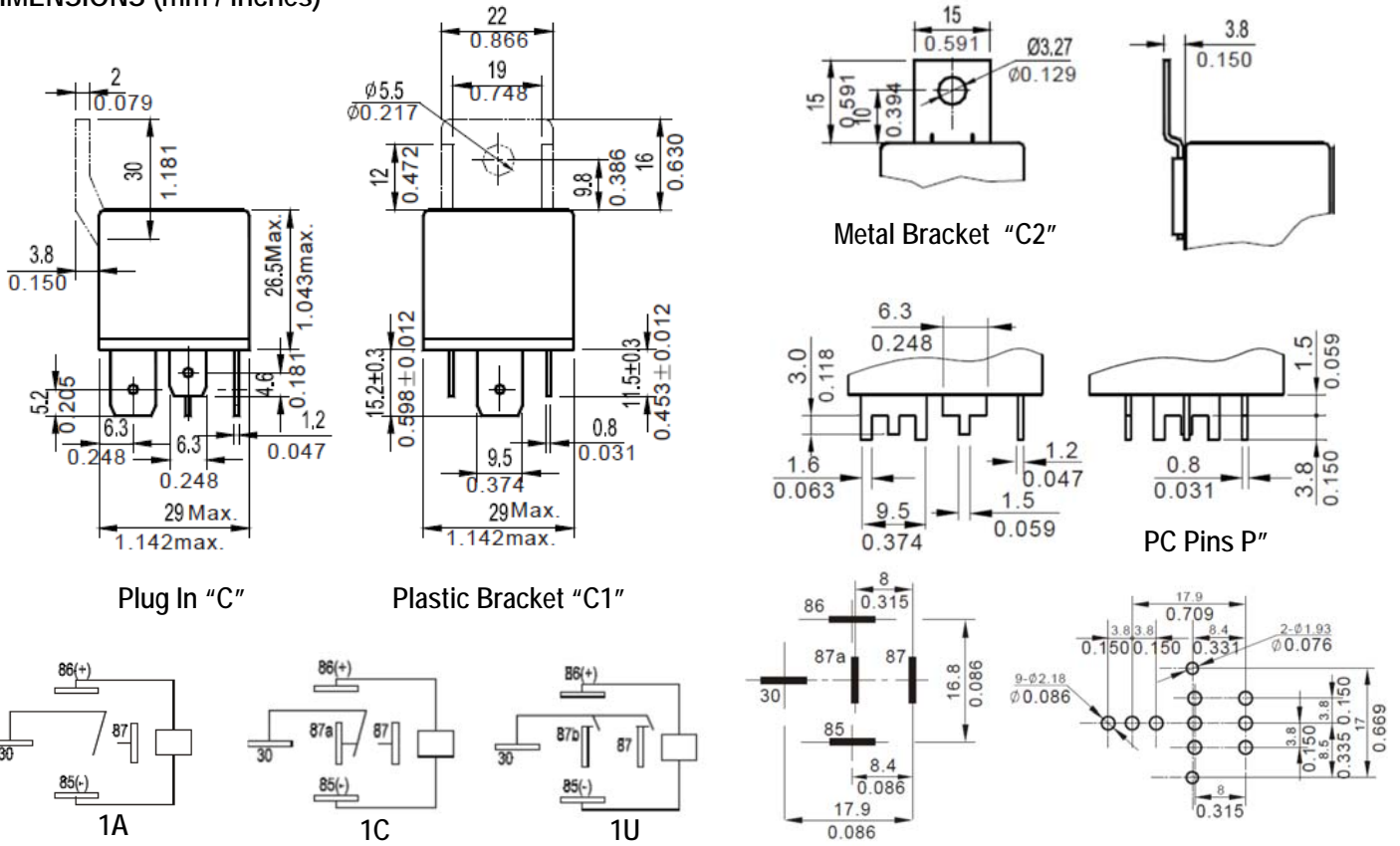
Coil Voltage (VDC)		Resistance (Ohms ± 10%)	Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)	Coil Power (W)
Rated	Max				
6	7.8	20	3.9	0.6	1.8
12	15.6	80	7.8	1.2	
24	31.2	320	15.6	2.4	

NOTES:

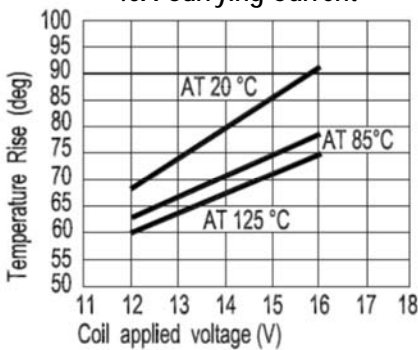
The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria.

Dimensions are in mm, Inches are listed for reference only.

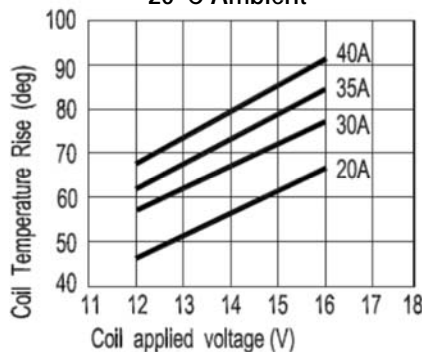
DIMENSIONS (mm / inches)



Coil Temperature Rise @ 40A Carrying Current



Coil Temperature Rise 20°C Ambient



Max Value for Switching Capacity

