

# 10 Amp Power Relay for Industrial Applications PC180

### FEATURES

- 10 Amp 250VAC/VDC UL Rating
- 2 Pole or 3 Pole
  - In 1, 2-1, or 5-1 Pinouts
- AC & DC Coils Available
- Lockable Test Button is Color Coded; AC = Red, DC = Blue
- Optional Bidirectional LED
- Available with Gold Plated Contacts
- Several Variations of DIN Rail Sockets Available
- Socket Modules, ID Tags and Slip also Available
- RoHS Compliant



Load Type	Voltage	2 Form C	3 Form C
Resistive	250 VAC 30 VDC	10 A	
General	250 VAC 30 VDC	7 A	
Max. Switching Power		2,500 VA 300 W	

### CONTACT DATA

Material	Silver Alloy	
Initial Contact Resistance	≤ 50 mΩ	
Service Life	Mechanical	2 X 10 <sup>7</sup> Operations
	Electrical	1 X 10 <sup>5</sup> Operations

### CHARACTERISTICS

Operate Time	30 ms Max
Release Time	20 ms Max
Insulation Resistance	100 MΩ min (at 500 VDC)
Dielectric Strength	2,500 Vrms, 1 min. Between Coil and Contacts
	2,500 Vrms, 1 min. Between Open Poles
	1,000 Vrms, 1 min. Between Open Contacts
Shock Resistance	100 m/s <sup>2</sup> 11 ms,
Power Consumption	DC Coil 1.5 W, AV Coil 2.7 VA

### CHARACTERISTICS CONTINUED

Vibration Resistance	10 Hz - 55 Hz DA 1.0 mm
Terminal Strength	8N; 4N PC Type*
Solderability	260°C for 5 seconds*
Operating Temperature	-10 to 55°C
Relative Humidity	35% - 85% (at 30°C)
Weight	85 grams

### ORDERING INFORMATION

Model:	<b>PC180</b>	PC180	-2C			-24A	G	-LT	X
Contact Form:	<b>2C: 2C DPDT, 3C: 3C 3PDT</b>								
Terminal / Pin Type:	<b>Nil: PC Pins in Octal Configuration</b>								
Wiring:	<b>Nil: -1 (Coil pins: 2C: 2 &amp; 7, 3C: 2 &amp; 10) 2: 2-1 (Coil pins: 2C: 1 &amp; 8, 3C: 1 &amp; 11) 5: 5-1 (Coil pins 3C Only: 2 &amp; 10)</b>								
Coil:	<b>XXXA: AC Coils 6, 12, 24, 36, 48, 115, 230, 240 (50/60 Hz) XXXD: DC Coils 6, 9, 12, 24, 36, 48, 110, 220 VDC</b>								
Contacts:	<b>Nil: Silver Alloy G: Gold Clad Silver Alloy</b>								
Options	<b>LT: LED + Test Button LTD: LED + Test Button + Diode</b>								
RoHS Compliant:	<b>X: RoHS Compliant</b>								

**COIL DATA**

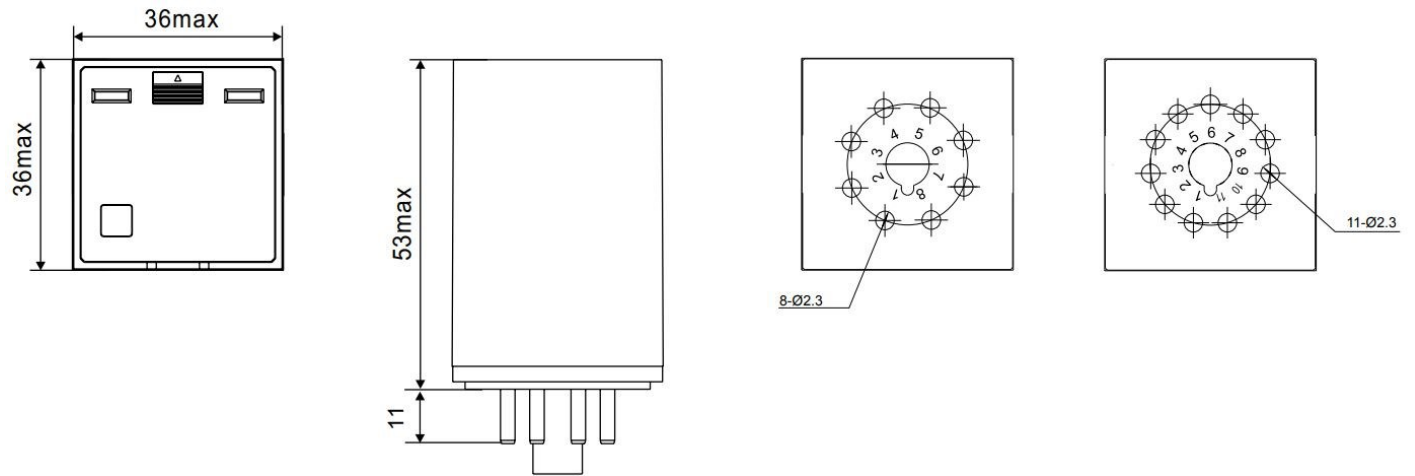
Voltage Type Coil Power	Coil Voltage		Resistance Ohms ± 10%	Must Operate Voltage Max. (VDC)	Must Release Voltage Min. (VDC)
	Rated	Max			
DC 1.5 W	6	6.6	23.7	4.8	0.6
	12	13.2	96	9.6	1.2
	24	26.4	430	19.2	2.4
	36	39.6	860	28.8	3.6
	48	52.8	1,640	38.4	4.8
	110	121	7,360	88.0	11.0
	220	242	29,500	176.0	22.0
AC 2.7 VA	6	6.6	3.9	4.8	0.6
	12	13.2	17	9.6	1.2
	24	26.4	62.5	19.2	2.4
	36	39.6	144	28.8	3.6
	48	52.8	305	38.4	4.8
	115	127	1,250	92.0	11.5
	230	253	5,900	184.0	23.0
	240	264	6,500	192.0	24.0

**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.

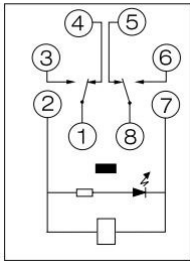
Dimensions are in mm, Inches are listed for reference only.

**DIMENSIONS (mm)**

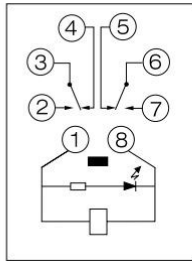


WIRING DIAGRAM

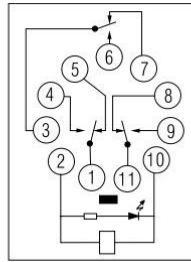
Form 2C-1



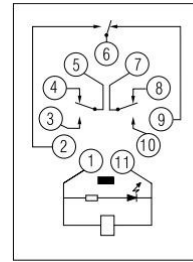
Form 2C-2



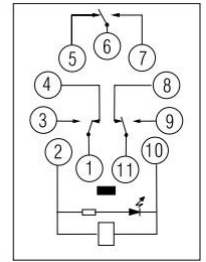
Form 3C-1



Form 3C-2

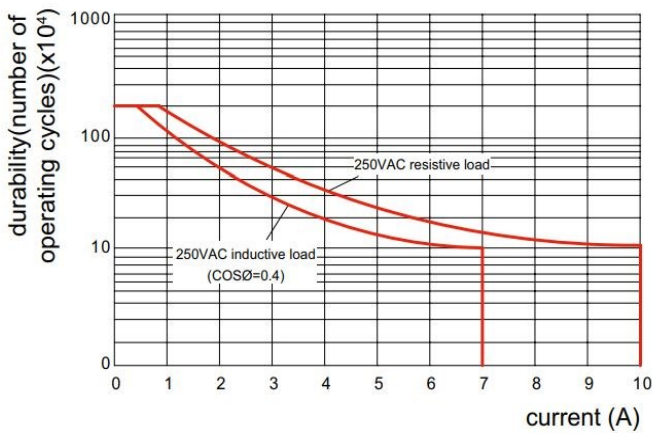


Form 3C-5

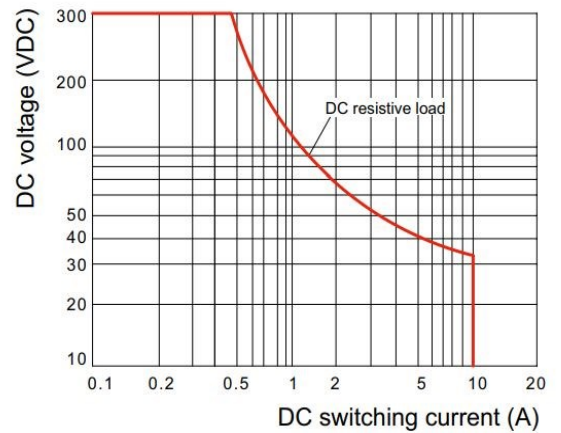


Reference Data

Electrical durability contacts (resistive load)



Maximum switching capacity on resistive load



**SOCKETS**

**SC180-8-DIN-SF (or 11)**



12 AMPS 300 VOLTS



**SC180-8-DIN-S (or 11)**



12 AMPS 300 VOLTS



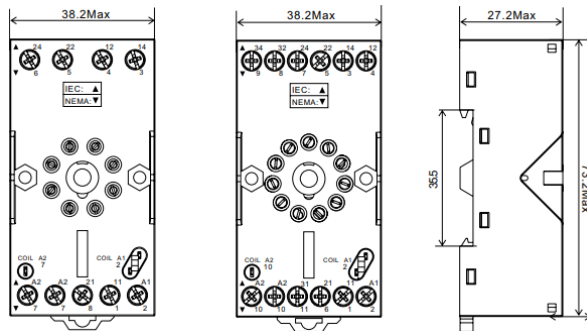
**CHARACTERISTICS**

Nominal	Current	12 A
	Voltage	300 V
Dielectric Strength		2500 V/S
Max Tightening Torque		1 N*m
Wire Size		20-14/0.5-2.5 AWG/mm <sup>2</sup>
Ambient Temperature		-40-85 °C
Weight		50-55 g

**CHARACTERISTICS**

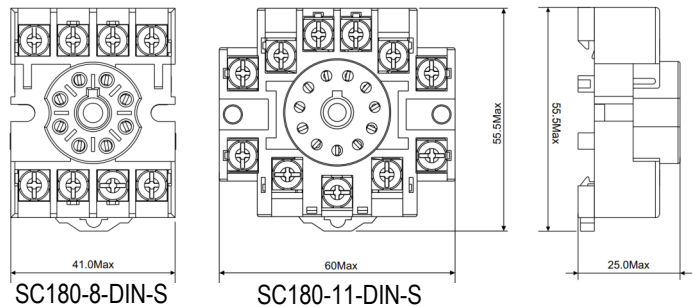
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	Voltage	300 V
Dielectric Strength		2500 V/S
Max Tightening Torque		1 N*m
Wire Size		20-14/0.5-2.5 AWG/mm <sup>2</sup>
Ambient Temperature		-40-85 °C
Weight		37-50 g

**DIMENSIONS**



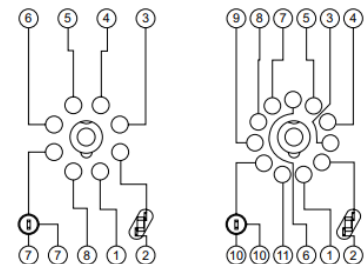
SC180-8-DIN-SF    SC180-11-DIN-SF

**DIMENSIONS**



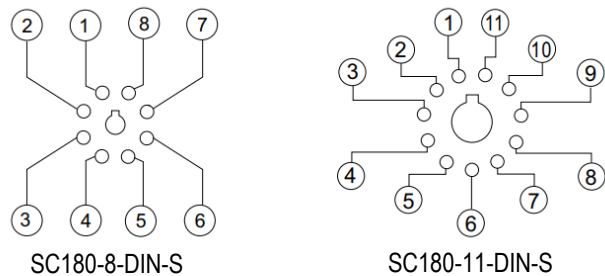
SC180-8-DIN-S    SC180-11-DIN-S

**WIRING DIAGRAMS**



SC180-8-DIN-SF    SC180-11-DIN-SF

**WIRING DIAGRAMS**



SC180-8-DIN-S    SC180-11-DIN-S

**ORDERING INFORMATION**

Example	SC180	-8	-DIN-SF
Model:	<b>SC180</b>		
Number of Pins:	8: 8 Pins; 11: 11 Pins		
Termination	DIN-SF: Screw Terminals and Flange Mount DIN-S: Screw Terminals		