

INTRODUCTION:

Adam Tech RPL relays are high power, modern relays, available in industry standard packages and can switch loads up to 30 amps. Available in both a PCB package and a combination PCB/Quick Connect terminal package, these relays are designed for applications such as Spa/Pool controls, HVAC, and large appliances.

FEATURES:

30 Amp Switching capability
PCB and PCB/Top mount packages
Industry Standard footprint

SPECIFICATIONS:

ELECTRICAL:

Contact arrangement: 1 Form A & 1 Form C
Contact material: Silver Alloy
Contact Rating (Resistive load): 30A @ 220V AC
30A @ 30V DC

Max. Switching Voltage: 220V AC / 30V DC

Max. Switching Power: 6600VA / 900W

Contact resistance: 50 mΩ max. Initial

Insulation resistance: 100 MΩ min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 2500V AC 50/60Hz for 1 min.

Between Contacts: 1500V AC 50/60Hz for 1 min.

Operating time: 15 ms max.

Release time: 10 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.5mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

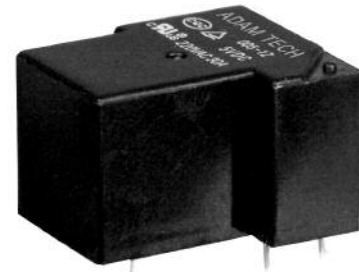
Ambient temperature: -55°C to +85°C

PACKAGING:

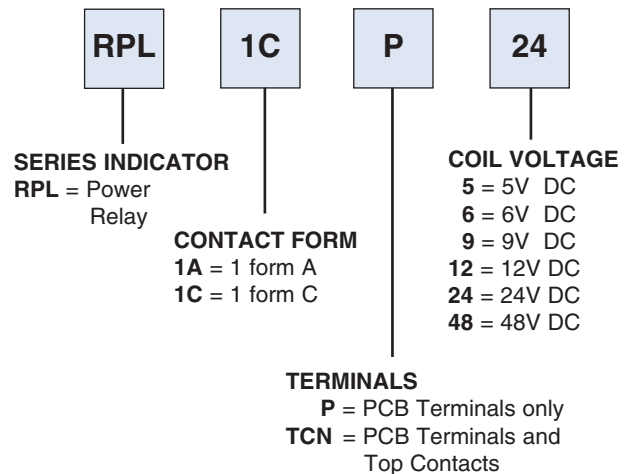
Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

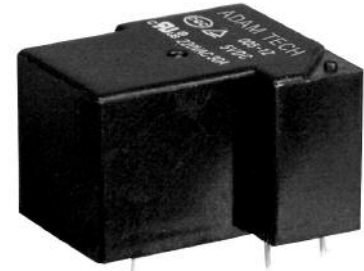
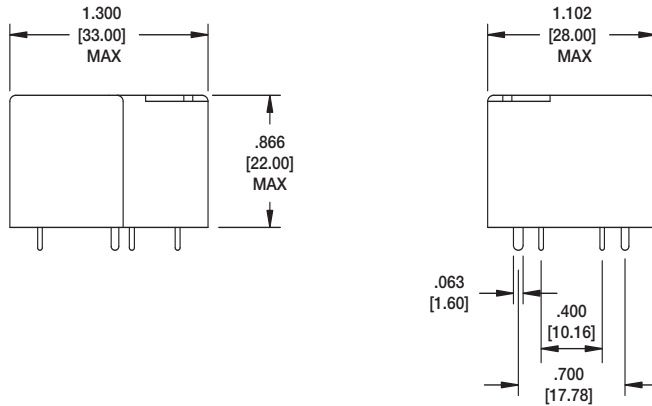
cUL Recognized File No. E305638



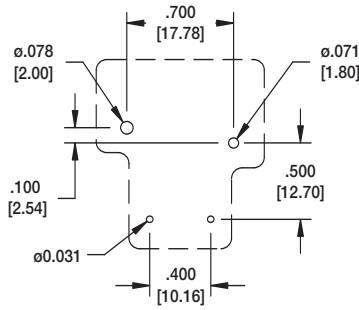
ORDERING INFORMATION POWER RELAY



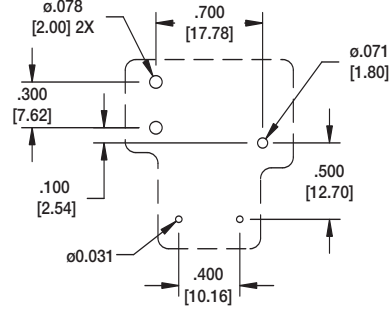
RPL SERIES



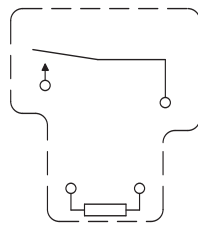
RPL-1C-P-12



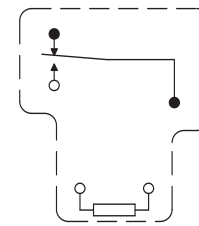
Recommended PCB Layout
1 Form A



Recommended PCB Layout
1 Form C

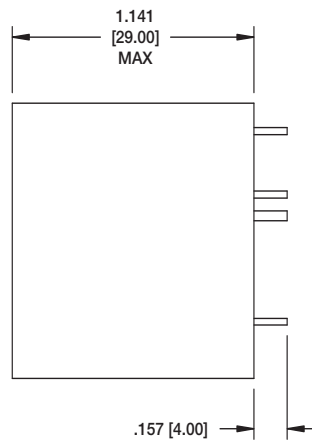
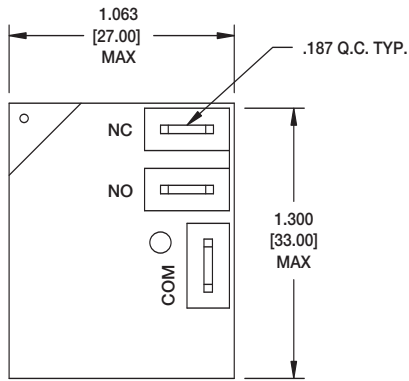


Schematic
1 Form A



Schematic
1 Form C

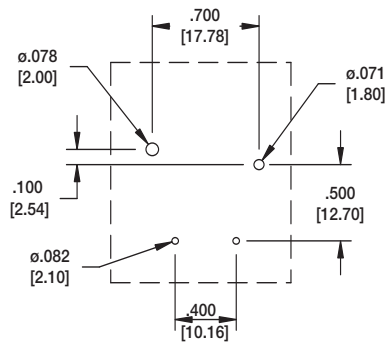
| Nominal Voltage V DC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Coil Resistance ($\pm 10\%$) | Nominal Operating Power mW | Max allowable Voltage V DC |
|-------------------------|--------------------------------|---------------------------------|-----------------------------------|-------------------------------|-------------------------------|
| 5 | 3.75 | 0.5 | 31 | 900 | 6 |
| 6 | 4.5 | 0.6 | 40 | 900 | 6.6 |
| 9 | 6.75 | 0.9 | 101 | 900 | 10.8 |
| 12 | 9.0 | 1.2 | 160 | 900 | 13.2 |
| 24 | 18.0 | 2.4 | 640 | 900 | 26.4 |
| 48 | 36.0 | 4.8 | 2,560 | 900 | 52.8 |



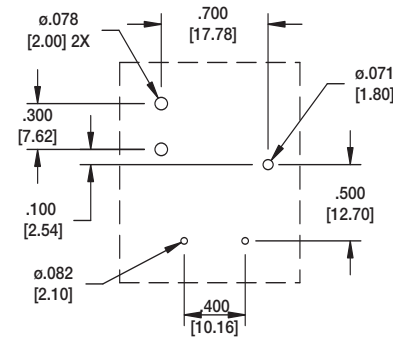
RPL SERIES (TOP CONTACTS)



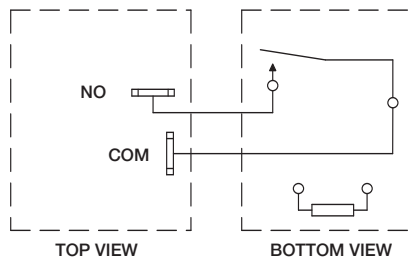
RPL-1C-TCN-12



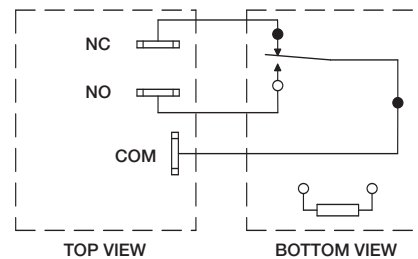
Recommended PCB Layout
1 Form A



Recommended PCB Layout
1 Form C



Schematic
1 Form A



Schematic
1 Form C

| Nominal Voltage V DC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Coil Resistance (±10%) | Nominal Operating Power mW | Max allowable Voltage V DC |
|-------------------------|--------------------------------|---------------------------------|---------------------------|-------------------------------|-------------------------------|
| 5 | 3.75 | 0.5 | 31 | 900 | 6 |
| 6 | 4.5 | 0.6 | 40 | 900 | 6.6 |
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