



RT series (DC Coil)

16 Amp PC Board Miniature Relay

UL File E22575
 SF File LR15734
 NR 6106

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- SPST through DPDT contact arrangements.
- Immersion cleanable and flux tight versions available.
- VDE 10mm spacing, 5kV dielectric, coil to contacts.
- UL Class F (155°C) coil insulation system.
- Conforms to UL 508, 1873, 353 and 1950.
- Low profile: 15.7mm height.
- Sensitive coil; 400mW.
- Withstand surge voltage of 10,000V.
- Potter & Brumfield or Schrack brand.

Contact Data

Arrangements: 1 Form A (SPST-NO) Wiring Diagram Code 1, 2, 3.
 2 Form A (DPST-NO) Wiring Diagram Code 5.
 1 Form C (SPDT) Wiring Diagram Code 1, 2, 3.
 2 Form C (DPDT) Wiring Diagram Code 5.

Material: Silver-nickel 90/10.

Minimum Load: 12V/100mA.

Expected Mechanical Life: 10 million operations.

Initial Contact Resistance: 100 milliohms max @ 1A 12VDC.

Designed to meet UL/CSA/VDE ratings with relay properly vented. Remove vent nib after soldering and cleaning.

UL/CSA/VDE Ratings @ 25°C

| Code | NO/NC Load | Type | Operations |
|------------------------|--------------------------|--------------|------------|
| 1 | 10A/10A @ 277VAC | Resistive/GP | 100K |
| | 10A/10A @ 30VDC | Resistive | 100K |
| | 12A/12A @ 250VAC | Resistive/GP | 30K |
| | 12A/12A @ 30VDC | Resistive | 30K |
| | 3/4 HP @ 480VAC* | Motor | 6K |
| | 1/2 HP @ 240VAC* | Motor | 6K |
| | 1/3 HP @ 120VAC* | Motor | 6K |
| | 48 LRA/10 FLA @ 240VAC* | Motor | 30K |
| | TV-3 @ 120VAC* | Tungsten | 25K |
| | A300, 720VA @ 240VAC* | Pilot Duty | 30K |
| 3 | 16A/16A @ 250VAC | Resistive/GP | 50K |
| | 20A/20A @ 277VAC | Resistive/GP | 30K |
| | 20A/20A @ 24VDC | Resistive | 30K |
| | 16A/16A @ 30VDC | Resistive | 30K |
| | 1 HP @ 480VAC* | Motor | 6K |
| | 1 HP @ 240VAC* | Motor | 6K |
| | 1/2 HP @ 120VAC* | Motor | 6K |
| | 60 LRA/10 FLA @ 250VAC* | Motor | 30K |
| | TV-5 @ 120VAC* | Tungsten | 25K |
| | A300, 720VA @ 240VAC* | Pilot Duty | 30K |
| B300, 360VA @ 240VAC** | Pilot Duty | 30K | |
| 5 | 8A/8A @ 277VAC | Resistive/GP | 100K |
| | 8A/8A @ 30VDC | Resistive | 100K |
| | 10A/10A @ 250VAC | Resistive/GP | 30K |
| | 10A/10A @ 30VDC | Resistive | 30K |
| | 1/2 HP @ 240VAC* | Motor | 6K |
| | 1/4 HP @ 120VAC* | Motor | 6K |
| | 34.8 LRA/6 FLA @ 120VAC* | Motor | 30K |
| | 17.4 LRA/5 FLA @ 240VAC* | Motor | 30K |
| | B300, 360VA @ 240VAC* | Pilot Duty | 30K |
| | TV-3 @ 120VAC* | Tungsten | 25K |

* Form A only

** Form B only

Initial Dielectric Strength

Between Open Contacts: >1,000VAC (1 minute).

Between Poles (code 5): >2,500VAC (1 minute).

Between Coil and Contacts: >5,000VAC (1 minute).

Surge Voltage (DC): >10,000VAC x (1.2 x 50 µsec).

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Coil Data @ 25°C

Voltage: 5 to 110VDC.

Nominal Power @ 25°C: 400mW.

Duty Cycle: Continuous.

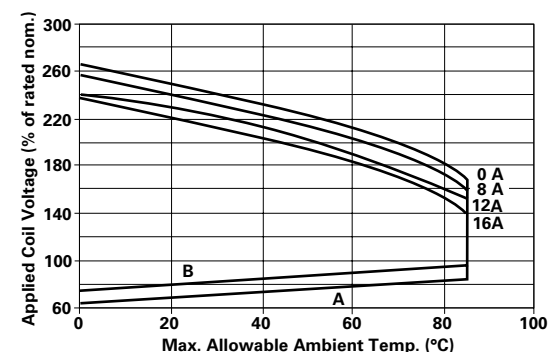
Initial Insulation Resistance: 10,000 megohms, min., at 25°C, 500VDC and 50% rel. humidity.

Coil Construction: UL Class F (155°C).

Coil Data @ 25°C

| Nominal Voltage VDC | DC Resistance in Ohms ±10% | Must Operate Voltage VDC | Nominal Coil Current (mA) – 50/60Hz. |
|---------------------|----------------------------|--------------------------|--------------------------------------|
| 005 | 62 | 3.5 | 80 |
| 006 | 90 | 4.2 | 66.7 |
| 009 | 202 | 6.3 | 44.4 |
| 012 | 360 | 8.4 | 33.3 |
| 018 | 810 | 12.6 | 22.2 |
| 024 | 1,440 | 16.8 | 16.7 |
| 048 | 5,760 | 33.6 | 8.3 |
| 060 | 9,000 | 42.0 | 8.0 |
| 110 | 30,250 | 77.0 | 4.3 |

Max. Ambient Temp. vs. Coil Voltage



A: Coil temperature = Ambient temperature.

B: 110% of nominal coil voltage at rated contact load.

Operate Data @ 25°C

Must Operate Voltage(DC): 70% of nominal.

Must Release Voltage(DC): 10% of nominal.

Operate Time (Excluding Bounce):
7 ms, typ., 15ms max. at nom. voltage.

Release Time (Excluding Bounce):
3 ms, typ., 6ms max. at nom. voltage.

Environmental Data

Temperature Range:

Storage: -40°C to +105°C.

Operating: -40°C to +85°C at rated current.

Vibration, Operational

N.O.: 0.065" (1.65mm) max. excursions from 10 - 55 Hz:

N.C.: 0.032" (0.82mm) max. excursions from 10 - 55 Hz:

with no contact opening >10µs.

Mechanical Data

Termination: Printed circuit terminals.

Enclosures: RT 1, 2, 3, 4: Flux-tight, top vented, plastic case.

RT B, C, D, E: Immersion cleanable, plastic case.

Weight: 0.35 oz. (10g) approximately.

Specifications and availability subject to change.

www.tycoelectronics.com
 Technical support:
 Refer to inside back cover.

