Automotive Relays

Features

Small size & high contact rating 150A High temperature design Ideal for using in automobile Plug in terminal



Ordering information

| $\frac{FRC6}{1} \underset{2}{\overset{B}{}} \underset{3}{\overset{A}{}} - \underset{4}{\overset{1}{}} \underset{6}{\overset{N}{}} \underset{7}{\overset{DC12V}{\overset{DC12V}{\overset{N}{}}}$ | | | | |
|---|---|--|--|--|
| 1 Relay model | 6 Coil suppression: NIL: Standard type; | | | |
| 2 Contact rating: NIL: 100A 12VDC; B: 150A 12VDC | N : With diode; R: Resistor; | | | |
| 3 Contact arrangement: A: 1 Form A; C: 1 Form C | T : With transil (DB-03) | | | |
| 4 Mounting termination: 1: Plain dust cover | 7 Rated voltage | | | |
| 5 Termination: NIL: 9.5mm (for pins#30, 87 & 87a); | Note: RoHS : RoHS compliant relay | | | |
| 1 : 6.3mm (for pins #30, 87 & 87a) [only | RoHS-I : AgNi contact | | | |
| available for 50A 24VDC] | RoHS-N: AgSnO ₂ contact | | | |

Coil rating

| Rated voltage | Coil resistance | Rated current | Must operate voltage | Must dropout voltage | Maximum voltage | Power consumption (W) | Operate time | Release time |
|----------------------------|-------------------------|------------------|------------------------------|----------------------------|--------------------|-----------------------------|-----------------|-----------------|
| (V) | Ω+/-10% | (mA) | % of rated voltage (at 20°C) | | Approx. | (ms) | (ms) | |
| 12 24 | 50 195 | 240 123 | 65 Max. | 10 Min. | 130 Max. | 2.9 | <10 | <5 |
| *If with resist 12VDC with | stor: 1 680Ω +/- 10% | | - | - | | | | |

24VDC with 2,700Ω +/- 10%

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay. 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Characteristics

| Contact arrangem | ient | SPST (1 Form A); SPDT (1 Form C) | | | | | |
|----------------------------|------------|---|--|--|--|--|--|
| Contact material | | Silver alloy | | | | | |
| Contact resistance | | 30mΩ Max. | | | | | |
| Contact rating (resistive) | | FRC6 : N.O.: 100A 12VDC, 50A 24VDC; N.C.: 80A 12VDC, 40A 24VDC | | | | | |
| | | FRC6B: N.O.: 150A 12VDC, 70A 24VDC; N.C.: 100A 12VDC, 50A 24VDC | | | | | |
| Switching power | | 1,800W Max. | | | | | |
| Switching voltage | | DC 75V Max. | | | | | |
| Switching current | | 150A Max. | | | | | |
| Voltage drop | | ≤200mV (at contact rating) | | | | | |
| Insulation resistance | | 100MΩ Min. (500VDC) | | | | | |
| Dielectric strength | | 500VAC (50Hz/min) | | | | | |
| Shock resistance | | 147m/s ² 11ms | | | | | |
| Vibration resistance | | 1.5mm Double amplitude 10-40Hz | | | | | |
| Ambient temperature | | -40°C to +85°C (Special request up to 125°C) | | | | | |
| Humidity | | 85% RH, 40°C | | | | | |
| Operation life | Mechanical | 10 ⁷ | | | | | |
| | Electrical | 10 ⁵ (at rated load) | | | | | |
| Weight | | 60g Approx. | | | | | |

(Specifications are subject to change without notices.)

