# MINIATURE INTERMEDIATE POWER RELAY

- 30A switching capabilities
- Creepage distance: 8mm
- 4KV dielectric strength (between coil and contacts)
- Meets Class F construction
- Dust cover & sealed IP67 types available PCB & QC layouts
- Environmental protection product available (RoHs & WEEE compliant)

## CONTACT DATA

| | |
|---|---|
| Contact Arrangement | 2A , 2C |
| Initial Contact Resistance Max. | 50mΩ (at 1A 6VDC) |
| Contact Material | $AgSnO_2$, AgCdO |
| Contact Rating (Res. Load) | NO:30A 250VAC; 20A 28VDC<br>NC: 3A 277VAC/28VDC |
| Max. switching voltage | 277VAC/30VDC |
| Max. switching current | 30A |
| Max. switching power | 7500VA/560W |
| Mechanical life | $5 \times 10^6$ OPS |
| Electrical life | $1 \times 10^5$ OPS |

## CHARACTERISTICS

| | | |
|---|---|---|
| Initial Insulation Resistance | | 1000MΩ, 500VDC |
| Dielectric Strength | Between coil and contacts | 4000VAC 1min. |
| | Between open contacts | 1500VAC 1min. |
| | Between contact poles | 2000VAC 1min. |
| Surge Voltage between contacts and coil | | 10000VAC |
| Operate time (at nomi. Vot.) | | Max. 25ms ( DC type) |
| Release time (at nomi. Vot.) | | Max. 25ms ( DC type) |
| Temperature rise (at nomi. Vot.) | | Max. AC: 85°C<br>Max. DC: 65°C |
| Shock Resistance | Functional | 100 $m/s^2$ |
| | Destructive | 1000 $m/s^2$ |
| Vibration Resistance | | DA 1.65mm, 10 to 55Hz |
| Humidity | | 35% to 85%, +40°C |
| Ambient temperature | | AC: -40°C to +65°C<br>DC: -40°C to +85°C |
| Termination | | PCB & QC |
| Unit weight | | Approx, 86g |
| Construction | | |

## SAFETY APPROVAL RATINGS

| | | |
|---|---|---|
| UL | N.O. | 30A 277VAC<br>1HP 120VAC<br>2.5HP 240VAC<br>110 LRA/25.3 FLA, 240VAC (DC COIL) |
| | N.C. | 3A 277VAC |

## COIL

| | |
|---|---|
| | DC: 1.7W AC: 4.0VA |

## COIL DATA

| Nominal Voltage VDC | Pick-up Voltage VDC | Drop-out Voltage VDC | Max. allowable Voltage (at 20°C)VDC | Coil Resistance Ω |
|---|---|---|---|---|
| 5 | 3.8 | 0.5 | 5.5 | 15.3 ± 10% |
| 6 | 4.5 | 0.6 | 6.6 | 22 ± 10% |
| 12 | 9 | 1.2 | 13.2 | 86 ± 10% |
| 24 | 18 | 2.4 | 26.4 | 350 ± 10% |
| 48 | 36 | 4.8 | 52.8 | 1390 ± 10% |
| 110 | 82.5 | 11 | 121 | 7255 ± 10% |

(50Hz)

| Nominal Voltage VAC | Pick-up Voltage VAC | Drop-out Voltage VAC | Max. allowable Voltage (at 20°C)VAC | Coil Resistance Ω |
|---|---|---|---|---|
| 24 | 19.2 | 4.8 | 26.4 | 45 ± 10% |
| 120 | 96 | 24 | 132 | 1125 ± 10% |
| 208 | 166.4 | 41.6 | 228.8 | 3278 ± 10% |
| 220 | 176 | 44 | 242 | 3800 ± 10% |
| 240 | 192 | 48 | 264 | 4500 ± 10% |
| 277 | 221.6 | 55.4 | 304.7 | 5960 ± 10% |

(60Hz)

| Nominal Voltage VAC | Pick-up Voltage VAC | Drop-out Voltage VAC | Max. allowable Voltage (at 20°C)VAC | Coil Resistance Ω |
|---|---|---|---|---|
| 24 | 19.2 | 4.8 | 26.4 | 39 ± 10% |
| 120 | 96 | 24 | 132 | 950 ± 10% |
| 208 | 166.4 | 41.6 | 228.8 | 2841 ± 10% |
| 240 | 192 | 48 | 264 | 3800 ± 10% |
| 277 | 221.6 | 55.4 | 304.7 | 5485 ± 10% |

**Note:**(1)Voltage change of AC relay coil is not higher than 10% of rated coil voltage.

## ORDERING INFORMATION

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 692 | / | 012 | D | 2C | 2 | 2 | F | XXX |

**Type**

**Coil voltage** **DC:** 5 to 110VDC **AC:** 24 to 277VAC

**Coil input** **D:** DC **A5:** AC 50Hz **A6:** AC 60Hz

**Contact arrangement** **2A:** 2 Form A **2C:** 2 Form C

**Termination** **1:** PCB **2, 3:** QC

**Contact Material** **1:** $AgSnO_2$ **2:** AgCdO

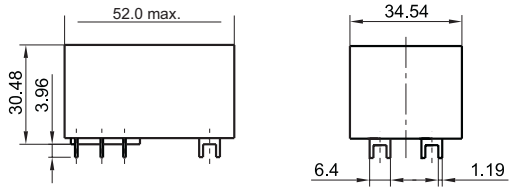
**Structure** **F:** Dust cover **S:** Sealed IP67

**Special request code** ( For example: 551: Lead-free 555: RoHs & WEEE compliant )

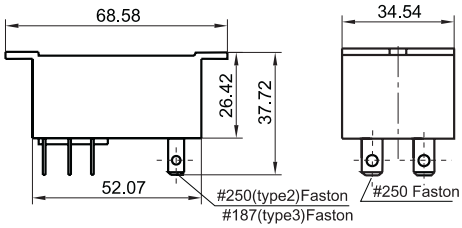
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Outline Dimensions

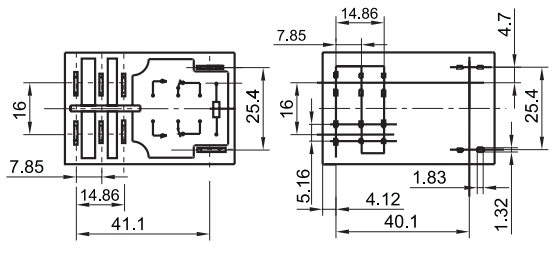
1 TYPE

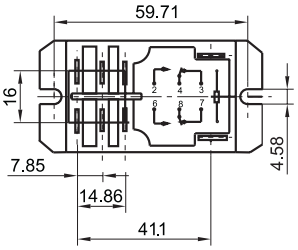



2 TYPE

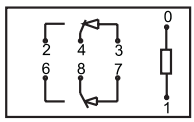



PCB layout



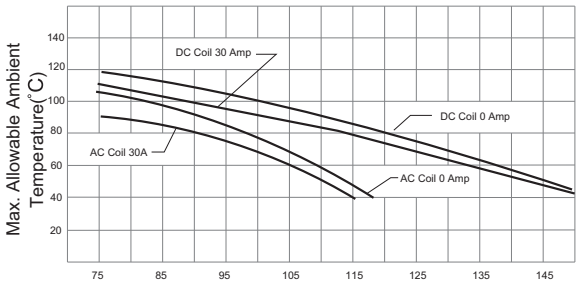




Wiring Diagram




## CHARACTERISTICS CURVE

MAX. ALLOWABLE AMBIENT TEMPERATURE(˚C )




Percentage Of Nominal Coil Voltage(@ 20˚C)