OMRON G2RG-X PCB POWER RELAY

Compact 500VDC relay for charging circuits

The OMRON G2RG-X is a highly compact 500VDC power relay aimed at the pre-charge circuits in electric vehicle chargers, battery back-up systems for solar panels and other high current DC applications.

It features a 500VDC, 10A switching capacity within a compact body measuring 13.5 x 29.0 x 26.5mm. The exceptional performance in a small component is a result of OMRON's arc control structure and a 3.0mm contact gap. Further features include a high level of isolation, with an insulation distance of over 8mm and an impulse withstand voltage of 10kV between coil and contacts.

With a high switching capacity and high isolation, the G2RG-X is ideal for inrush current control in energy storage systems, inverters, servos, power supplies and UPS.

Key Features

- 500VDC, 10A switching capacity
- 3.0mm contact gap
- High isolation
- 10kV impulse withstand voltage
- UL and TÜV certified

Key Applications

- Energy storage systems
- Inverters
- Servos
- Power supplies
- Uninterruptible power supply (UPS)

Key Benefits

- High capacity switching
- Compact size
- High isolation

OMRON G6QE PCB POWER RELAY

Miniature relay with a 36A switching capacity

The G6QE is a miniature PCB power relay with a high switching capacity of 36A and a 10kV impulse withstand voltage. This low height single-pole power relay also has a 12% reduced power consumption compared with rated coil consumption. It provides energy saving by allowing the holding voltage method, which also lowers heat generation in the application. At a size of just 30.5 x 16 x 20.5mm the G6QE power relay is not only miniature but also incredibly versatile and can be used in a wide variety of applications including building automation, home appliances, industrial machinery and commercial applications such as power supply and inverters.

Key Features

- Switching capacity:
  36A at 250VAC (10k operations);
  30A at 250VAC (100k operations)
- 10kV impulse withstand voltage
- Conforms to cULus, EN and CQC

Key Applications

- Power supply
- Inverters
- Building automation
- Factory automation

Key Benefits

- High switching capacity
- Miniature size
- 12% reduced power consumption compared with rated coil consumption

OMRON G7EB PCB POWER RELAY

Cool running high-power relay

The OMRON G7EB has a switching capacity up to 100A at 800VAC, as well as 100A at 60VDC. Its ultra-low 5mΩ contact resistance greatly reduces heat generation within the component and minimizes energy waste. As a result, the G7EB experiences a temperature rise to about +40°C with a 100A carry current. This 40.5 x 50.5 x 37mm relay helps reduce overall system size, while its reduced requirement for heat sinks, as a result of its cool operation, yields further space savings for the system designers.

The G7EB is aimed at distribution power conditioning systems (PCS), as well as test equipment such as semiconductor testers. It is available with both industry standard and OMRON proprietary pin layouts.

Key Features

- Switching capacity: 100A at 800VAC; 100A at 60VDC
- Low contact resistance (5mΩ)
- Ambient temperature 85°C
- 10kV impulse withstand voltage
- Contact gap ≥3.6mm

Key Applications

- Power conditioning systems (PCS)
- Inverters
- Uninterruptible power supply (UPS)
- Test & measurement equipment

Key Benefits

- Reduces heat generation
- Energy efficient
- Helps reduce overall system size

OMRON G7L-X PCB POWER RELAY

Compact power relay for DC high capacity switching

The OMRON G7L-X series are compact PCB power relays (52.5mm × 35.5mm × 41.0mm) that achieve high-capacity breaking and switching between 600 to 1,000VDC. Designed for safety with 6.0mm contact gap, the two-pole contacts offer 20A or 25A maximum switching current. The G7L-X applications include energy storage systems, photovoltaic power systems, UPS, inverters and DC links.

Key Features

- 600 to 1,000VDC breaking and switching
- Designed for safety with 6.0mm contact gap (two-pole series wiring)
- Conforms to UL and EN

Key Applications

- Energy storage systems
- PV power systems
- Inverters
- Uninterruptible power supply (UPS)

Key Benefits

- DC high-capacity switching for both normal and reverse polarity
- Contributes to lower power consumption

OMRON G9EJ DC POWER RELAY

DC power relays for high capacity interruption

The OMRON G9EJ are compact DC power relays capable of switching 25A at 400VDC. These power relays actualize a high capacity interruption through the function of the magnetic arc by adopting high-efficiency magnetic circuit. The G9EJ relays are also capable of actualizing improvement of inrush-withstand performance and durability by adopting OMRON's own contact driving system. They are lightweight and compact at a size of 31 x 27 x 30mm, while their operating temperature is between -40°C to 85°C. Applications include DC management, lighting systems, domotics, lifts and elevators.

Key Features

- Switching capacity: 25A at 400VDC
- Improvement of inrush-withstand performance and durability
- Compact size: 31 x 27 x 30mm
- Operating temperature is between -40°C to 85°C

Key Applications

- DC management
- Lighting systems
- Domotics
- Lifts and elevators

Key Benefits

- High capacity interruption
- Lightweight and compact