

## Product Overview

# Compact High-Voltage DC Power Relay

**G2RG-X**



## ■ What's new?

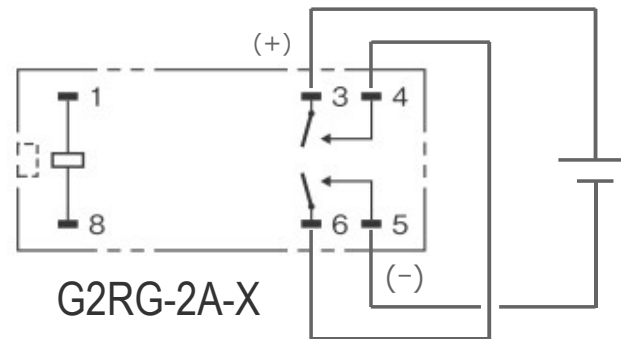
- G2RG-X is developed for inrush current prevention circuit in energy related equipment such as energy storage system (ESS).
- 10A, 500VDC high-voltage switching with a magnetic arc control design.
- Low power consumption (0.8W) with a single coil structure.
- Compact body and small footprint (13.5mm X 29.0mm)



## ■ Advantages for customers

1. Supports [simplified circuit design](#) and [energy saving](#) with a single coil structure.

Circuit connection example (2-pole series wiring)



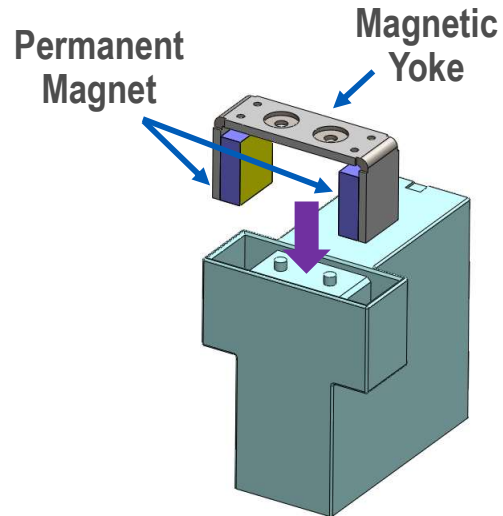
2. Helps [miniaturize PC boards](#) with a small footprint.

Footprint: 13.5 mm X 29.0 mm

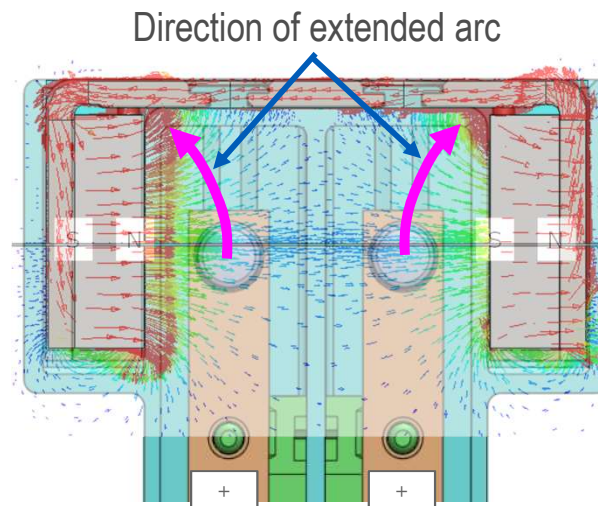
## ■ Omron advanced technologies

The generated electrical arc should be extended for stable circuit breaking in high DC switching. Our arc control structural design realizes a miniaturization of the reliable high DC power relay.

- ① Electrical arc is extended by permanent magnets near the contacts.
- ② The magnetic field is designed to control suitable direction of arc.  
The magnetic yoke blocks influence of external magnetic fields.
- ③ The adequate empty space for the arc extension reduces deterioration of electrical endurance.

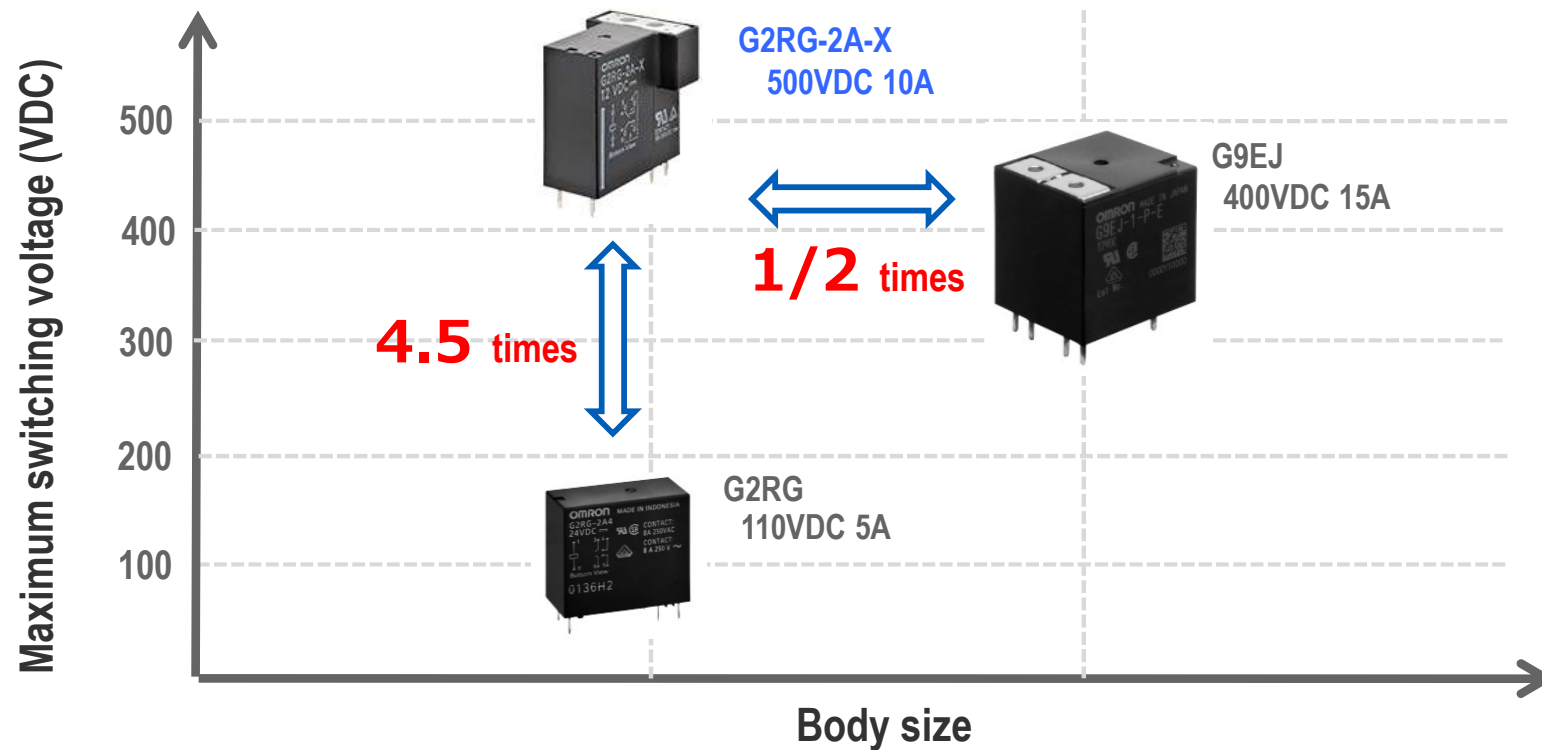


### Magnetic Field Analysis

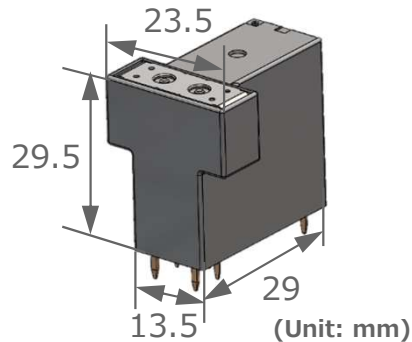


## ■ Product lineup

High voltage (500VDC) power relay with a compact body.



## ■ Preliminary product specifications



Terminal Assignment  
Internal Connections  
(BOTTOM VIEW)

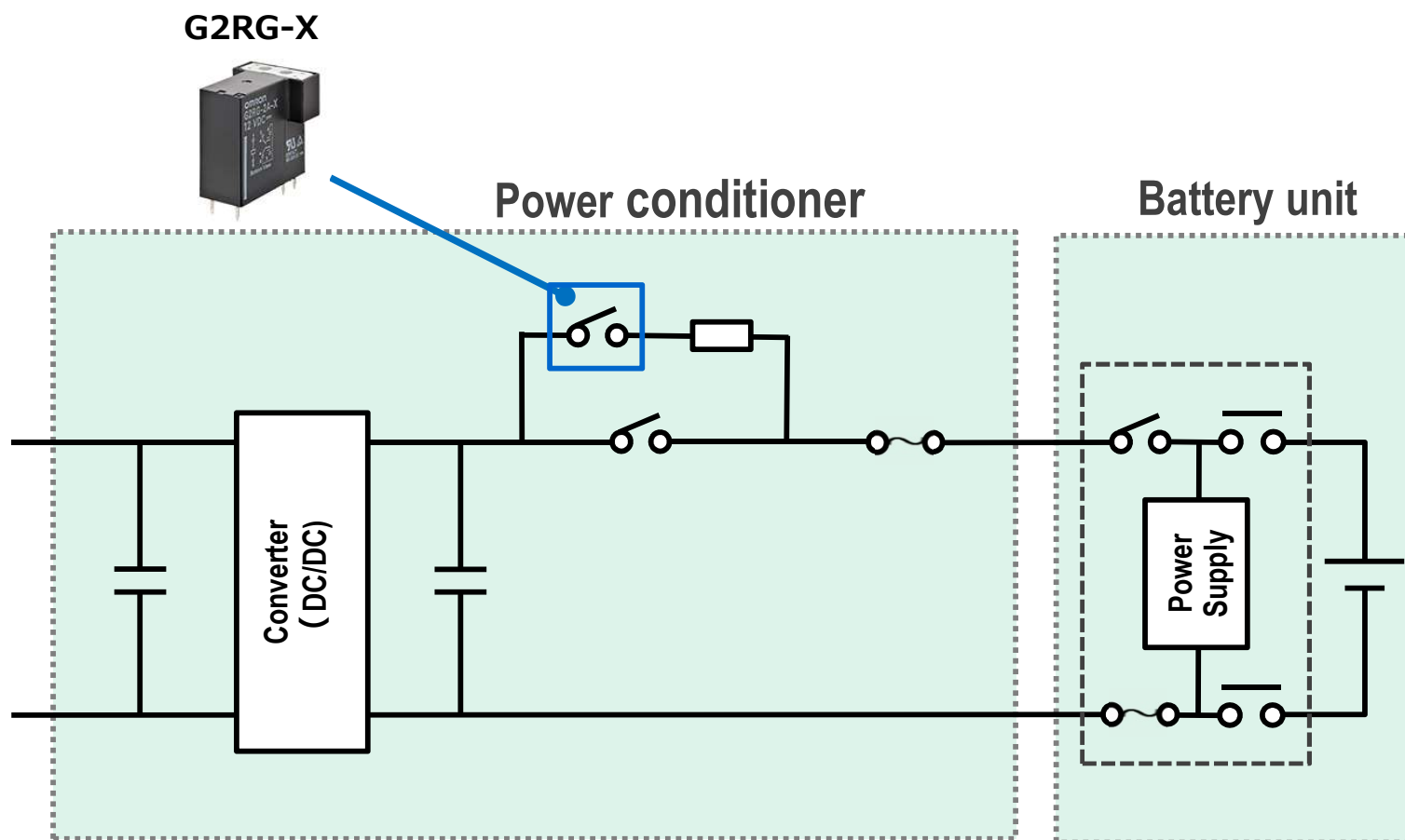


### G2RG-2A-X

Item	Specifications
Contact gap	3 mm at 2-pole series wiring * A single contact: 1.5 mm min.
Contact type	Double break
Contact polarity	Polarized
Rated load (Resistive load)	<b>500 VDC 10 A</b> at 2-pole series wiring
Electrical durability	10,000 operations
Coil consumption power	0.8 W
Enclosure rating	Flux protection
Ambient operating temperature	-40~+85°C

# ■ Application example

## Inrush current prevention circuit for ESS





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## OMRON Corporation

Electronic and Mechanical Components Company

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