

Rocker Switch with External Reset Function for High capacity Switching

- Energy-saving reset function triggered with external signals.
- Incorporates unique switching mechanism switching 20 A with excellent inrush-current durability.
- Double-pole, double-throw (DPDT) contact.
- Contact gap of 3 mm minimum.
- UL and cUL standard approved.
Conforms to EN standards.



RoHS Compliant

Caution
Refer to Precautions

List of Models

Contact Form	<p>DPDT</p>	Quantity per box
Color of cases	Black	50
Cap color	Black	
Model	A8G-107-1-24	

Ratings

Rated load	Non-inductive		Inductive	
	Resistive load	Lamp load	Inductive load	Motor load
250 VAC	20A	10A	8A	8A

- Note:**
1. The non-inductive lamp load has an inrush current 10 times steady current.
 2. The inductive load has a power factor of 0.4 minimum (AC).
 3. The motor load has an inrush current 6 times steady current.

The above ratings were tested under the following conditions:

1. Ambient temperature: 20±2 °C
2. Ambient humidity: 65±5 %RH
3. Switching frequency: 7 times/min.

Reset Coil

Rated voltage (operating voltage range)	Reset voltage (coil temperature: 20°C±2°C)	Rated energized current (coil temperature: 20°C±2°C)	Coil resistance (coil temperature: 20°C±2°C)	Permissible voltage applied period
24 VDC±10% (21.6 to 26.4 VDC)	21.6 V max.	185 mA±20%	130 Ω±20%	100 ms for min 1 s max.

- Note:**
1. Current must not flow for more than 10 s, otherwise the performance of the coil may be affected.
 2. If a semiconductor element is used to control the reset coil, the residual voltage caused by leakage current must be 2.4 VDC max.

Approved Standards

UL (UL61058-1)/cUL (CSA C22.2 No.61058-1)

20A 250 VAC

KEMA (EN61058-1)

20(8)A 250 VAC

Characteristics

Permissible operating frequency	Mechanical	20 operations/min max.
	Electrical	Switching frequency: 7 times/min.; Coil operation: 7 times/min.
Insulation resistance		100 MΩ min. (at 500 VDC with insulation tester)
Contact resistance (initial value)		100 mΩ max. (6 to 8 VDC, 1 A, voltage drop method)
Dielectric strength	Between terminals of the same polarity	2,000 VAC, 50/60 Hz, for 1 min
	Between terminals of the different polarity	2,000 VAC, 50/60 Hz, for 1 min
	Between charged metal parts and the ground terminal	4,000 VAC, 50/60 Hz, for 1 min
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Malfunction	98 m/s ² (10G)
	Destruction	500 m/s ² (50G) max.
Durability	Mechanical	Switching operation 100,000 times min.
	Electrical	Switching operation 50,000 times min.
Inrush current		100 A max.
Degree of protection		IEC IP40
Contact release time (see note)		100 ms max.
Ambient operating temperature		-10 to +55 °C (with no icing or condensation)
Ambient operating humidity		45 to 85 %RH

Note: For the condition in individual standard, contact your OMRON sales representative.

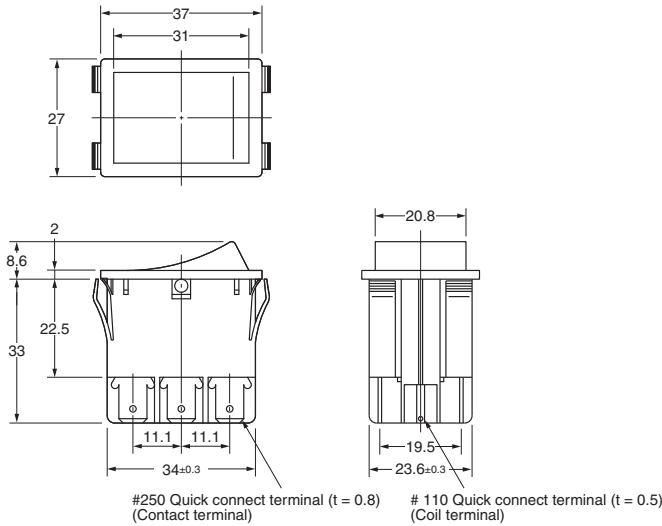
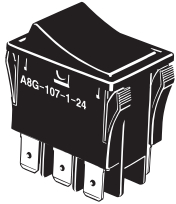
Contact release time is the period of time during which contacts 1 and 2 and contacts 4 and 5 are released after voltage is imposed on the coil.

Operation

Item	No excitation, load 1 turned off, and load 2 turned on	No excitation, load 1 turned on, and load 2 turned off	Excitation, load 1 turned off, and load 2 turned on
Operation		<p>The permanent magnet keeps the moving iron and iron core in contact.</p>	<p>The coil is excited and the moving iron is reset with the reset spring.</p>
Circuit configuration			<p>24 VDC applied to coil terminal</p>

■Dimensions (Unit: mm)

A8G

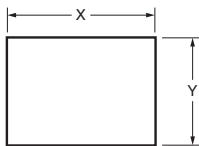


Note: Unless otherwise specified, a tolerance of ±0.8 mm applies to all dimensions.

■Operating Characteristics

Operating force (OF) max.	19.6 N {2,000 gf}
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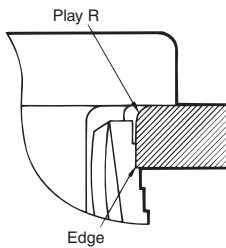
■Panel Cutout



Panel thickness	X	Y
1.6 to 3.0 mm	34.4 ^{+0.2} ₀ mm	24.4 ^{+0.3} ₀ mm

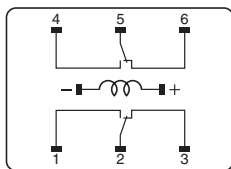
Note: Recommended panel material: SPCC

Consult your OMRON representative when using a panel with a thickness other than the above.



When processing the panel, be sure that the Play R is on the switch operation side. Be sure that the Edge is on the reverse side of panel when processing.

■Contact Form



1 to 6: Contact terminals
-, +: Coil terminals

Note: When 24 VDC is applied to the coil, contacts 2 and 3 and contacts 5 and 6 are ON.

■Precautions

Be sure to read the Safety precautions common to all Rocker Switches for correct use.

Please check each region's Terms & Conditions by region website.

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