Reset Rocker Switch

## 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 | DPDT |  |
| :--- | :---: | :---: |
|  |  |  |
|  |  |  |
|  | Black |  |
| Cap color | Black | 50 |
| Model | A8G-107-1-24 |  |

## Ratings

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

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: $20 \pm 2^{\circ} \mathrm{C}$
2. Ambient humidity: $65 \pm 5 \% \mathrm{RH}$
3. Switching frequency: 7 times $/ \mathrm{min}$.

## Reset Coil

| Rated voltage (operating voltage range) | Reset voltage (coil temperature: $20^{\circ} \mathrm{C} \pm 2^{\circ} \mathrm{C}$ ) | Rated energized current (coil temperature: $\left.20^{\circ} \mathrm{C} \pm 2^{\circ} \mathrm{C}\right)$ | Coil resistance (coil temperature: $20^{\circ} \mathrm{C} \pm 2^{\circ} \mathrm{C}$ ) | Permissible voltage applied period |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 24 \text { VDC } \pm 10 \% \\ & \text { (21.6 to } 26.4 \text { VDC) } \end{aligned}$ | 21.6 V max. | $185 \mathrm{~mA} \pm 20 \%$ | $130 \Omega \pm 20 \%$ | 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, cUL (UL 1054/CSA C22.2 No.55)
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 |  | $100 \mathrm{M} \Omega$ min. (500 VDC) |
| Dielectric strength | Between terminals of the same polarity | 2,000 VAC, $50 / 60 \mathrm{~Hz}$, for 1 min |
|  | Between terminals of the different polarity | 2,000 VAC, $50 / 60 \mathrm{~Hz}$, for 1 min |
|  | Between charged metal parts and the ground terminal | 4,000 VAC, $50 / 60 \mathrm{~Hz}$, for 1 min |
| Vibration resistance | Malfunction | 10 to $55 \mathrm{~Hz}, 1.5-\mathrm{mm}$ double amplitude |
| Shock resistance | Malfunction | $98 \mathrm{~m} / \mathrm{s}^{2}(10 \mathrm{G})$ |
|  | Destruction | $500 \mathrm{~m} / \mathrm{s}^{2}$ (50G) max. |
| Durability | Mechanical | Switching operation 100,000 times min. |
|  | Electrical | Switching operation 50,000 times min. |
| Contact release time (see note) |  | 100 ms max. |
| Ambient operating temperature |  | -10 to $+55^{\circ} \mathrm{C}$ (with no icing or condensation) |
| Ambient operating humidity |  | 45 to 85 \%RH |

Note: For the codition 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 |  | The pernanent magnet keeps the moving iron and iron core in contact. | Automatic reset <br> The coil is exited and the moving iron is reset with the reset spring. |
| Circuit configuration |  |  |  |

DDimensions (Unit: mm)
A8G

\#250 Quick connec
(Contact terminal)
(Coil terminal)

Note: Unless otherwise specified, a tolerance of $\pm 0.8 \mathrm{~mm}$ applies to all dimensions.

## ■Operating Characteristics

| Operating force (OF) max. | $19.6 \mathrm{~N}\{2,000 \mathrm{gf}\}$ |
| :--- | :--- |

## -Panel Cutout



| Panel thickness | $\mathbf{X}$ | $\mathbf{Y}$ |
| :--- | :---: | :---: |
| $\mathbf{1 . 6}$ to 3.0 mm | $34.4_{0}^{+0.2} \mathrm{~mm}$ | $24.4_{0}^{+0.3} \mathrm{~mm}$ |

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



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.

[^0]Note: Do not use this document to operate the Unit.

## X-ON Electronics

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LTILA6E-1S-WH-RC-FN12VXCR1 6-1571986-9 8007K26N324V52 8055K23Z7V 8055K32Z7V 8055K52Z7V 8138K20E6M50 84206L 84312LX PREDD5-07F-BB0GW 999-16716-002 999-16716-003 999-16716-004 A101J1V3Q004 A101J2ZQ004 A101J4ZQ004 A101J51CB0004 A103J1ZQ004 A201J1AQ004 A201J3ZB004 A201J50ZQ004 A203J51ZQ0004 A435S1YZQ H8500XBBBBL-A H8653VBBG2577W HB130CHNWWNAAC R13112ABB-602W 1251.0303 AE205J60V3B004 1352.0107 1500G51E 1571099-3 1571987-4 1571987-5 1571989-7 1571988-5 B123J77V7B2 B226J50W4Q22P B433J37ZQ22M 160212E 1634200-7 1801.1164 1839.1502 PANEL-PLUG-VHP-BLACK PANEL-PLUG-VHP-WT K1ABBSCADN K2ABAAAAAA KG312A2DXD246X 250011E714 2600HM11E


[^0]:    - Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
    - Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

