OMRON

24 VDC Circuit Protector S8V-CP



4 or 8 Channels versions available with adjustable rated output current ranging from 2 to 10 A





Compact DC Circuit Protection



Secure DC line protection in the event of a short circuit or current overload on a DC 24V line

The increased use of DC devices is accelerating the demand for a high power rating of power supplies. In accordance with this trend, it's essential to maintain safety in branch circuit design and provide reliable protection for abnormal circuits.



Value Design for Panel

Our shared Value Design for Panel (herein after referred to as "Value Design") concept for the specifications of products used in control panels will create new value to our customer's control panels. Combining multiple products that share the Value Design concept will further increase the value provided to control panels. Protects up to eight branch circuits in the 42-mm low profile design

.... INPU omron S8V-CP0824 CHANNEL 10 Constant current monitoring +2reduces variations and errors in tripping characteristics +3 +4 +5 +6 Easy wiring with the Push-In Plus +7 terminal blocks +8 SIGNAL RST Remote Reset signal input for convenient resets Two MOSFET relay outputs for external alarm notifications. 30 VDC max

DC Electronic Circuit Protector S8V-CP

4ch S8V-CP0424 4ch S8V-CP0424S (UL Class 2 with a fixed rated output current 3.8 A) 8ch S8V-CP0824 Photo: S8V-CP0824

No need for conversions or new parts when device design changes, as the S8V-CP fits a broad current range



Setting the rated output current available for 2 A, 3 A, 4 A, 6 A, 8 A, and 10 A. * Also available is UL Class 2 compatible type with the fixed 3.8 A.

Pushbutton with indicator

Just press the button to toggle ON/OFF for each branch circuit



3-step LED indication for easy indication of the status of each branch circuit





Yellow blinking or red blinking : output tripping / alarm output

The ideal solution for common challenges in electric circuit safety design

Design

- It can be complicated to successfully achieve a safe branch design.
- Small diameter cables are preferable for easy wiring.

Selection

 The selection is difficult as the tripping characteristics of thermomagnetic circuit protectors may widely vary by the temperature and unit variations.

Assembly

• More space is needed when more branch circuits are added.

Start-up and Maintenance

 If an abnormality occurs, the power supply activates its protection function to stop the all circuits prior to the tripping function activation of the thermomagnetic circuit protectors.



Replacement of the thermomagnetic circuit protector is easy

While maintaining the characteristics of the thermomagnetic circuit protector, the S8V-

CP reduces variation and error rates.



An example of the operating characteristics of the thermomagnetic circuit protector



The operating characteristics of DC Electronic Circuit Protector

The output of an alarm signal enables the communication of abnormal occurrences to an upstream controller.



The sequential startup of branch circuits minimizes startup issues with the inrush current.



Lineup





S8V-CP0824

UL Class 2 with a fixed rated output current 3.8 A

Model	Number of Outputs	Rated Input Voltage	Rated Output Current
S8V-CP0424	4ch		2A, 3A, 4A, 6A, 8A, 10A
S8V-CP0424S	4ch (ULClass2)	24V	3.8A
S8V-CP0824	8ch		2A, 3A, 4A, 6A, 8A, 10A

S8V-CP04249



New value for control panels

Omron will help integrate both of designs and wirings with peripheral devices, such as noise filters, power supplies.



By adding devices in the newly available space, you can mount more devices in the same size of control panel to increase control panel functionality.

We'll help you downsize control panels by reducing the width between wiring ducts and dead space.

Related Products



S8VK-S A small body for more compact control panels



S8VK-WA Three-phase 200V Power Supplies. Easy for balanced design



S8VK-X IoT Support for control panels, Compatible with EIP, Power Supplies with the



S8V-NF Easy setting, Noise filter



XW6T Common terminal blocks with visible indicators

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The processes and costs for the UL certificate can be reduced.

UL Class2 [S8V-CP04245]

What is the UL Class 2 output?

It is the classification that indicates "power supplies and the related products with safety outputs of which voltage, current, and power are limited to a certain level, so that not to cause an electric shock or fire," and is evaluated by UL1310.

For the UL Class 2 output, the voltage, current, and power are provided as follows:

Any loads and parts to be connected to this UL Class 2 output can be used without UL certificate.

 $\cdot \text{DC30}$ V or lower of output voltage

•8 A or lower of output current

 \cdot 100 VA or lower of output power

What is S8V-CP0424S (UL Class 2 output type)?

To meet the conditions of this UL Class 2 output, the rated output current is fixed at 3.8 A.

·24 V of output voltage → meets DC30 V or lower

- •3.8 A of output current
 → meets 8 A or lower
- ·24 V * 3.8 A of output power = 91.2 VA → meets 100 VA or lower

The processes and costs for applying to a safety standard for the devices can be reduced.

As S8V-CP0424S has already certified the UL Class 2 output, the UL evaluation of the circuit to be connected to this output is no need, meaning that helps reduce processes and costs for the UL certificate. Any loads and parts to be connected to this UL Class 2 output can be used without UL certificate. Furthermore, that also helps for cost down and easy selection of the parts, because any wiring materials without UL certificate are usable in the control panel.

OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • automation.omron.com

OMRON CANADA, INC. • HEAD OFFICE Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • automation.omron.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE Ciudad de México • 52.55.5901.4300 • 01.800.386.6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE San Pedro Garza García, N.L. • 81.12.53.7392 • 01.800.386.6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

Eugenio Garza Sada, León, Gto • 01.800.386.6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE São Paulo, SP, Brasil • 55.11.2101.6300 • www.omron.com.br

OMRON ARGENTINA • SALES OFFICE

Buenos Aires, Argentina • +54.11.4521.8630 • +54.11.4523.8483 mela@omron.com

OTHER OMRON LATIN AMERICA SALES

+54.11.4521.8630 • +54.11.4523.8483 • mela@omron.com

T277I-E3-01

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