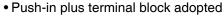


DC Electronic Circuit Protector (24 VDC 4 Outputs/8 Outputs Type)

Simplified safety design of DC circuits Reliable DC circuit protection in the event of short circuits or overcurrent Saves space even with multi-channels Sequential start-up of outputs to avoid start-up trouble



- Push button with indicator to help you understand each output status at a glance
- Switch lets you set the rated output current appropriately for each output depending on load
- · Lineup of a UL Class 2 output-compatible model







For the most recent information on models that have been certified for safety standards, refer to your OMRON website.



Refer to Safety Precautions on page 10.

Model Number Structure

Model Number Legend Not all combinations are possible. Refer to List of Models in Ordering Information, below.

S8V-CP □□ 24 [Series name (2) (3)

(1) Number of Outputs

Code	Number of Outputs		
04	4 outputs		
08	8 outputs		

(2) Rated input voltage

Code	Rated input voltage	
24	24 VDC	

(3) UL Class 2 output

Code	UL Class 2 output certified		
S	Yes		
No	No		

List of Models

Unit

Number of Outputs	UL Class 2 output	Model
4 outputs	No	S8V-CP0424
4 outputs	Yes	S8V-CP0424S
8 outputs	No	S8V-CP0824



Ratings, Characteristics, and Functions

		Model	S8V-CP0424	S8V-CP0424S	S8V-CP0824	
Number of Outputs		4	4	8		
Item	UL Class 2 output		No	Yes	No	
Rated input voltage (Input voltage allowable range)		24 VDC (20 to 30 VDC)	24 VDC (20 to 28.8 VDC)	24 VDC (20 to 30 VDC)		
I/O characteristics	Allowable input current *1		40 A	15.2 A	70 A	
	Max. rated output current (per output)		10 A	3.8 A	10 A	
	Internal voltage drop *2		180 mV typ.	180 mV typ.	200 mV typ.	
	Output leakage current		10 mA max.			
	Power consumption (at input voltage 24 VDC) *3	When all outputs are connected	8 W typ. (at 10 A x 4 CH)	4 W typ. (at 3.8 A x 4 CH)	15 W typ. (at 10 A x 7 CH)	
		When all outputs are tripped	0.7 W typ.	0.8 W typ.	1.1 W typ.	
	Start-up time *4	Initialization time	250 ms typ.			
	Start-up tille #4	Start-up delay time	50 ms to 5 s			
	Current tripping function *6	Rated output current	2 A, 3 A, 4 A, 6 A, 8 A, 10 A	3.8 A	2 A, 3 A, 4 A, 6 A, 8 A, 10 A	
		Cutoff current	2.5 A, 3.5 A, 4.5 A, 6.5 A, 8.5 A, 10.5 A	3.8 A	2.5 A, 3.5 A, 4.5 A, 6.5 A, 8.5 A, 10.5 A	
Functions *5	Over voltage tripp	ing function *6	No	Yes	No	
	Push button (ON/OFF/RESET) with indicator		Yes (LED colors: Red/Green/Yellow)			
	Reset signal input (RST)		Yes (High level: 20 to 30 VDC, Low level: 0 to 5 VDC)			
	Alarm signal output (ALM1/ALM2)		Yes (MOS FET relay output 30 VDC max., 50 mA max.)			
Insulation	Dielectric strength		1.0 kVAC for 1 min (between all terminals and DIN rail mounting parts), current cutoff 20 mA			
insulation	Insulation resistance		100 $\text{M}\Omega$ min. (between all terminals and DIN rail mounting parts) at 500 VDC			
	Ambient operating temperature		-25 to 70°C (Derating is required according to the temperature.) (with no condensation or icing)			
	Storage temperature		-40 to 85°C (with no condensation or icing)			
Environment	Ambient operating humidity		5% to 96% (storage humidity: 5% to 96%)			
	Vibration resistance		10 to 55 Hz, maximum 5 G, 0.42 mm half amplitude for 2 h each in X, Y, and Z directions			
	Shock resistance		294 m/s², 3 times each in ±X, ±Y, ±Z directions			
Daliabilia.	MTBF *7		135,000 hrs typ.	60,000 hrs typ.	60,000 hrs typ.	
Reliability	Life expectancy *8		10 years min.			
	Weight		160 g max.	170 g max.	420 g max.	
Construction	Cooling fan		No			
	Degree of protection		IP20 by IEC60529			
Standards	ЕМІ		Conforms to EN 61000-6-3			
	EMS		Conforms to EN 61000-6-2			
	Safety standards		UL 508 (CSA22.2 No.14-10) Listing Pol2 UL 2367 Recognition (Max. 100W per output, per Class 2 limitations) Pol2 *9 CE (EN 61000-6-2, EN 61000-6-3)			

^{*1.} For power input terminals, use 35 A max. per pole.

^{*2.} A voltage drop will occur in the S8V-CP. Consider the voltage drop at the output.

*3. When selecting the power supply, be sure to include the power consumption of the S8V-CP and not just the power consumption of the load.

^{*4.} Outputs start in order from +VO1 to +VO8. +VO1 starts after the initialization time. Start-up delay time of each output is automatically decided depending on the load. If the start-up delay time is over 5 s, the next output is forcibly started.

^{*5.} Refer to *Tripping Functions* on page 3 for details.

^{*6.} Refer to Current Tripping Characteristics and Current and Voltage Tripping Characteristics on page 7 for details.

^{*7.} MTBF is calculated according to JEITA RCR-9102.

^{*8.} Refer to Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance on page 14 for details.

^{*9.} UL Class 2 output applies for the S8V-CP0424S model only.