

Power Supply Selection Guide



OMRON power supplies

The journey of value built together with customers

Stage 1 Stable operation and high quality for factory automation



Stage 2 User-friendliness



Qualified product for
factory automation

S8VS Series



Visualizing the status of
power supplies

S8VS Series With Indication Monitor



Supporting customers'
global business deployment

S8VK-G/T Series



Higher noise and vibration resistance for factory automation applications

Unique value creation, taking into account maintainability for users and the installation environment

Stage 3 Leading to innovative machine design and manufacturing

Proposing product portfolio that allows time saving and improved work efficiency in the machine design and manufacturing processes

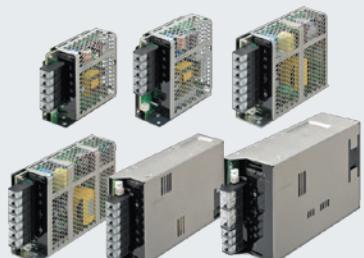
Stage 4 For energy-efficient manufacturing

Save energy & resource through reduced power consumption & material efficiency



A comprehensive line-up designed to deliver flexibility and choice

S8FS-G Series



Pursuing reduction in manufacturing man-hours

S8VK-S/W/X, S8V-NF/CP Series



High-efficiency technologies enabling miniaturization and energy/resource saving

S8VK-W, S8AS2 Series



Lineup

DIN rail mounting type

Capacity	Single-phase 100 to 240 VAC					Three-phase/ single-phase 200 to 240 VAC	Three-phase/two-phase 380 to 480 VAC	
15 W				5 V 12 V 24 V	5 V 12 V 24 V			
30 W		5 V		24 V	5 V 12 V 24 V	5 V 12 V 24 V		
60 W		12 V		24 V	12 V 24 V	24 V		
90 W		24 V				24 V		
120 W		24 V	24 V	24 V	24 V	24 V		24 V
180 W						24 V		
240 W	24 V	24 V	24 V	24 V 48 V	24 V	24 V	24 V 48 V	24 V
480 W	24 V	24 V	24 V	24 V 48 V	24 V	24 V	24 V 48 V	24 V
960 W						24 V	24 V 48 V	24 V
2000 W						24 V 48 V		
Series	S8AS2	S8VK-X	S8VK-S	S8VK-G	S8VS	S8VK-WA	S8VK-WB	S8VK-T
Features	A top-end model with integrated distributed output terminals, current protection, and status monitoring	A compact model providing power supply status monitoring by Ethernet	A compact model designed with Value Design for Panel to pursue production efficiency in control panel manufacturing	A global model designed based on globally recognized design criteria that conforms to various safety standards	A qualified model for long-term use, by providing display and maintenance forecast monitor functions	A compact model designed with Value Design for Panel to pursue production efficiency in control panel manufacturing	A global model designed based on globally recognized design criteria that conforms to various safety standards	A global model designed based on globally recognized design criteria that conforms to various safety standards
Listing page	> P6	> P8	> P10	> P12	> P14	> P10	> P10	> P12
Wiring method	Push-In Plus	Push-In Plus	Push-In Plus	Screw (Rise-up)	Screw	Push-In Plus	Push-In Plus	Screw (Rise-up)
Installation Method	DIN rail mounting							
Ambient Operating Temperature	-40 to 70°C	-40 to 70°C	-40 to 70°C	-40 to 70°C	-10 to 60°C	-40 to 70°C	-40 to 70°C	-40 to 70°C
Warranty period	5 years	5 years	5 years	3 years	3 years	5 years	5 years	3 years
Safety Standards	   							
eCAD Partners	 Zuken Inc.  EPLAN							
Other	   	   	   	  	   	   	   	  

Built-in type

Capacity	Single-phase 100 to 240 VAC
15 W	5V 12V 15V 24V
30 W	5V 12V 15V 24V
50 W	5V 12V 15V 24V
100 W	5V 12V 15V 24V
150 W	5V 12V 15V 24V 48V
300 W	12V 15V 24V 48V
600 W	12V 15V 24V 48V
Series	S8FS-G 
Features	A thin, simple structure model suitable for installation into equipment
Listing page	> P16
Wiring method	Screw, connector
Installation Method	DIN rail mounting, direct screw mounting
Ambient Operating Temperature	-20 to 70°C
Warranty period	3 years
Safety Standards	   
eCAD Partners	 
Other	

Icon Description

								
DC input	Class2 Output	Maintenance Forecast Monitor	Maintenance point indicator	Undervoltage Signal	Boost current 120%	Boost current 150%	With display	Lloyd's Register

Related equipment

> P18

DC Electronic Circuit Protector S8V-CP

Facilitates DC circuit safety design and multi-channel design allows space saving.



Noise Filter

S8V-NF

Easy installation / Space saving / Reduced risk of electric shock



Redundancy Unit

S8VK-R

Reduces the complexities in selecting and wiring external diodes when building power supply redundant operation system with two power supplies



Buffer Unit

S8T-DCBU-02

Prevents equipment stoppage, data loss, or other problems resulting from momentary power failures





An advanced Power Supply system integrating a power supply, protectors, and connections changes the standard practice in the field.

Integrating three enhanced functions into one package to solve problems in the field



In the manufacturing industries centered on the automotive sector, more production lines are becoming automated, electrified, and computerized, leading to an increase in devices and wires connected to control panels. This surely increases the workload of design teams and field operators. OMRON has updated S8AS, an integrated Power Supply that combines a DC power supply important to control panels with electronic circuit protector (CP) and terminal block functions. This all-in-one Power Supply will improve the efficiency of control panel-related electrical work from design to maintenance, helping solve problems in the field.

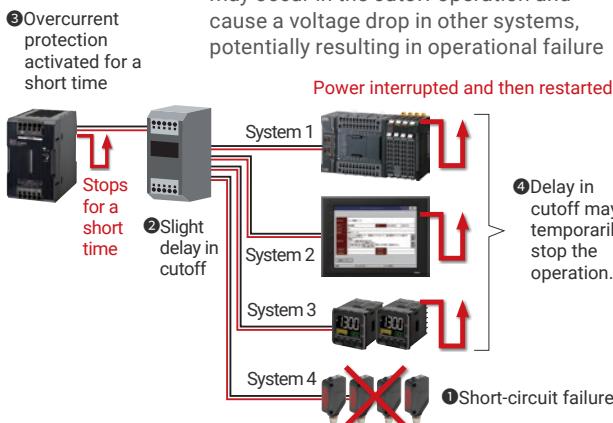


Stabilized power circuits by electronic circuit protectors with excellent cutoff performance

Electronic circuit protectors with excellent tripping performance can stabilize circuits at power-on or in case of a device error.

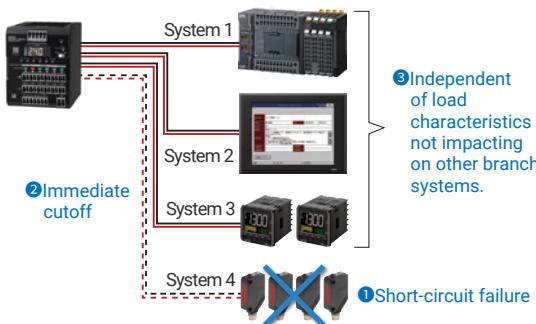
Standard electronic CP

Careful examination is necessary to decide an appropriate combination based on the power supply and load characteristics. Otherwise, a slight delay may occur in the cutoff operation and cause a voltage drop in other systems, potentially resulting in operational failure



S8AS2's electronic CP

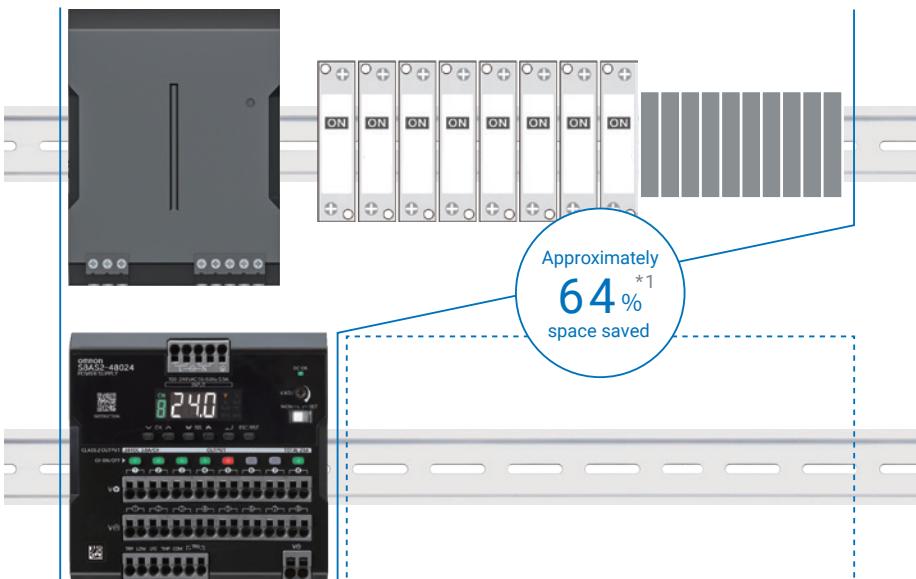
The electronic CP integrated into S8AS2 can ideally control the cutoff operation using our proprietary technology that enables it to adapt to the power supply characteristics. It can provide a reliable cutoff for a wide range of load characteristics.



Reduced system size with high-efficiency, low-heat-generation power circuits

Previous

Power Supply (480 W) x 1
+ Standard mechanical CP x 8
+ Standard terminal block x 10



S8AS2

S8AS2 (480 W) x 1 only

*1. CP and terminal section:
8 circuits (systems)

Device consolidation to reduce the number of parts and shorten the installation and wiring work

Previous

Power Supply (480 W) +Mechanical CP +
Terminal block

One Power Supply, eight CPs and ten terminal blocks are installed in a control panel, and wiring is necessary on the load side and between the devices.



Wiring and short-circuit bars are required
between devices

S8AS2

S8AS2 (480 W) only

S8AS2 is installed in a control panel, and wiring is done on the load side. **No wiring is necessary between devices.**



Integrated design eliminates the need for wiring
between devices

Installation and
wiring work
Approximately
1/10^{*2}

*2. Based on
our survey

Main specifications



Push-In
Plus



DIN rail



Ambient
temperature
-40 to 70°C



Warranty
5 years



Undervoltage
Signal



With
display



UL Class 2



Replace
Alarm



Side-by-side
mounting



Conforms to
transformer
standards



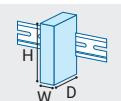
Value Design
for
Panel

Ordering Information

With display monitor

About dimensions shown

In the case of standard mounting, the width (W) and height (H) are given with the distance from the DIN rail serving as the depth (D).



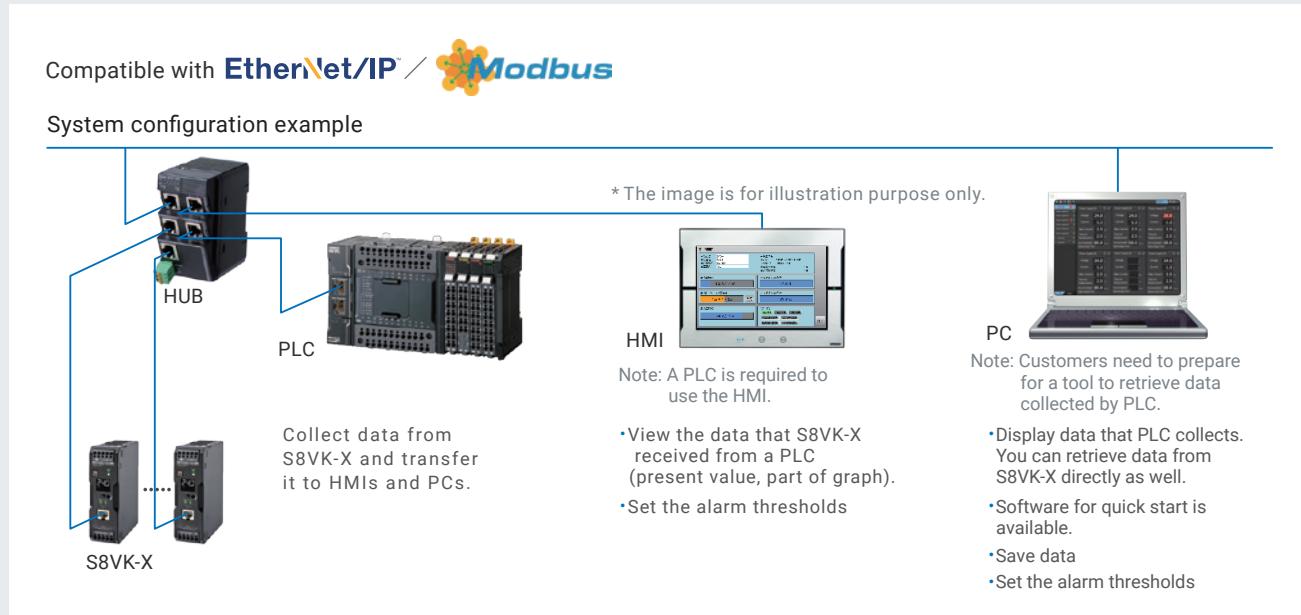
Capacity	Rated Input Voltage	Output voltage (DC)	Maximum Output current (Per output branch)	Efficiency ^{*3} (230 VAC input)	Number of output branches	Parameter settings	Total output current	Dimensions :WxHxD(mm)	Model				
240 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V	24 V	3.8 A	95% typ. (Power supply section only: 96% typ.)	6 branches	Changeable	10 A	92.6x115x131.4	S8AS2-24024-06S				
480 W					8 branches	Not changeable	20 A	115x115x131.4	S8AS2-24024-06SN				
						Changeable			S8AS2-48024-08S				
						Not changeable			S8AS2-48024-08SN				

*3. Rated input/output conditions: at rated input voltage, rated frequency, rated output voltage, and rated total output current.



A new equipment maintenance system becomes feasible by visualizing power supply status

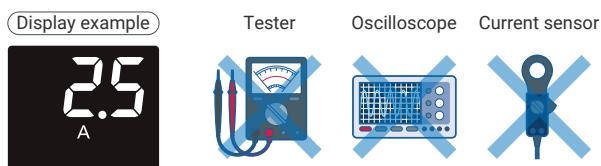
Compatible with the communication methods used globally in a variety of applications



Visualizing and managing the status of power supplies centrally

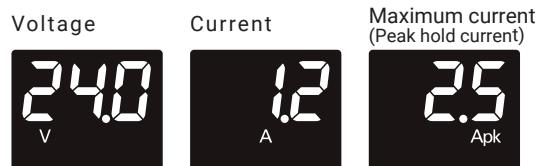
Advantages during design and measurement

You can easily check the expected output voltage and the designed current (steady-state and maximum) without using measuring equipment.



Advantages during operation

You can check the output voltage and current of power supplies on site without using a tester. You can also check the maximum current value.



Advantages during malfunction and maintenance

You can report and give commands, while checking the output voltage and current by operating the monitor without using a tester.



Advantages during replacing

S8VK-X calculates the deterioration of the internal electrolytic capacitor based on its component's temperature. It is indicated on the display as well as via the communications system.



Communications and display items

Item	Monitor display	Communication			Modbus TCP	
		EtherNet/IP™		Tag data link		
		CIP message	Tag data link			
Output voltage	✓	Read		Read	Read	
Output current	✓	Read		Read	Read	
Output peak hold current	✓	Read and write ^{*1}		Read	Read and write ^{*1}	
Years until replacement Percentage until replacement	✓	Read		Read	Read	
Total run time	✓	Read		Read	Read	
Continuous run time	—	Read		Read	Read	
Self-diagnostics	Overheating alarm	✓	Read		Read	
	Measured value error	✓	Read		Read	
	Memory error	✓	Read		Read	
Product model	—	Read		—	Read	
Serial number	—	Read		—	Read	
Firmware version	—	Read		—	Read	
IP address Subnet mask Default gateway	—	Read and write		—	Read and write	
MAC address	—	Read		—	Read	

*1. Pressing the reset key or communications writing (Ethernet/IP CIP message or Modbus/TCP) resets the value to 0.

Main specifications

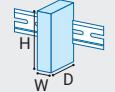
															
Push-In Plus	DIN rail	Ambient temperature -40 to 70°C	Warranty 5 years	With display	Class2 Output	Boost current 120%	Boost current 150%	Coated PCBs	Altitudes up to 3,000 m	Side-by-side mounting	Conforms to transformer standards				

Ordering Information

With Indication Monitor

About dimensions shown

In the case of standard mounting, the width (W) and height (H) are given with the distance from the DIN rail serving as the depth (D).



Without Indication Monitor

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*2} (230 VAC input)	Maximum boost current	Dimensions : WxHxD(mm)	Model
90 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC90 to 350 V	24 V	3.75 A	87% typ.	—	55 x 90 x 86	S8VK-X09024A-EIP
120 W			5 A	92% typ.	6 A	55 x 90 x 86	S8VK-X12024A-EIP
240 W			10 A	93% typ.	15 A	38 x 124 x 117	S8VK-X24024A-EIP
480 W			20 A	94% typ.	30 A	60 x 124 x 117	S8VK-X48024A-EIP

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*2} (230 VAC input)	Maximum boost current	Dimensions : WxHxD(mm)	Model
30 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC90 to 350 V	5 V	5 A ^{*3}	77% typ.	6 A	40 x 90 x 86	S8VK-X03005-EIP
60 W		12 V	4.5 A ^{*4}	86% typ.	5.4 A	40 x 90 x 86	S8VK-X06012-EIP
90 W		24 V	2.5 A	86% typ.	3 A	40 x 90 x 86	S8VK-X06024-EIP
120 W		24 V	3.75 A	88% typ.	—	55 x 90 x 86	S8VK-X09024-EIP
240 W			5 A	92% typ.	6 A	55 x 90 x 86	S8VK-X12024-EIP
480 W			10 A	93% typ.	15 A	38 x 124 x 117	S8VK-X24024-EIP
			20 A	94% typ.	30 A	38 x 124 x 117	S8VK-X48024-EIP

*2. The value is when both rated output voltage and rated output current are satisfied. *3. Output power is 25 W at rated output current.

*4. Output power is 54 W at rated output current.



A compact power supply series to save space and labor in the control panel manufacturing process

Saves Space, Allowing Control Panel Downsizing

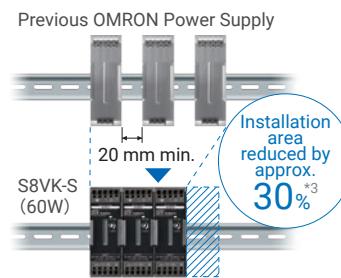
Product miniaturization

The space required for the power supply is reduced, allowing the control panel to be downsized and components to be added inside the control panel.



Side-by-side mounting^{*2}

Cooling space between power supplies is not necessary, reducing the installation area. This enables greater flexibility in control panel design.



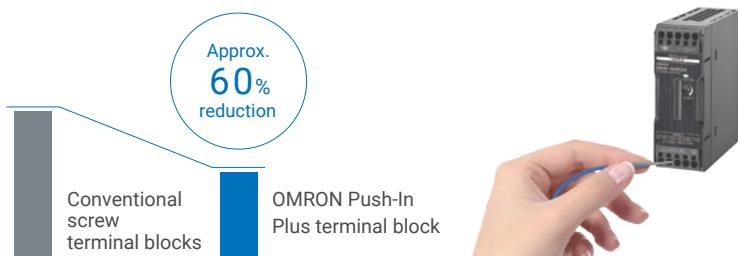
*1. Comparison S8VK-S 480 W model to previous OMRON Power Supply S8VK-G 480 W. *2. Conditions apply to models and derating for side-by-side mounting.
*3. Comparing mounting of three OMRON S8VK-G (60 W) units to side-by-side mounting of three S8VK-S (60 W) units.

Reduced Wiring Work

Push-In Plus Terminal Block

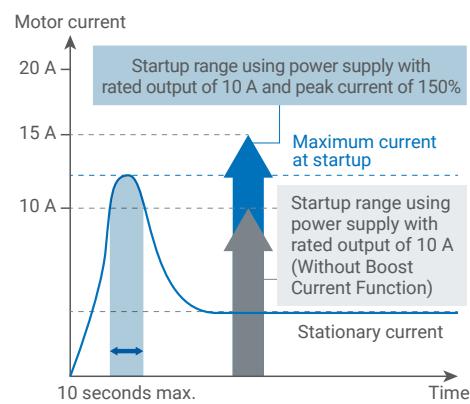
It's as easy as inserting an earphone jack. Tools are not required for wiring, reducing the time and work.

Note: Information for Push-In Plus and screw terminal blocks is based on OMRON's actual measurement value data.



The peak current (150%^{*4} to the rated current) solves the issue of momentary surge of current to motor load.

Motor-driven devices such as electric cylinders carry maximal instantaneous current when they start. When the maximum current exceeds the rated current of a power supply without Boost Current Function, overload protection is activated to limit the output current. To avoid this, you must select a power supply with a rated output larger than the maximum current. For example, if the maximum current exceeds 10 A, as in the figure on the right, you need a power supply with a rated output of 20 A. S8VK-WA is equipped with a Boost Current Function that allows a peak current (150% of rated output) to flow for 10 seconds, which ensures a stable startup by a power supply with a rated output current of 10 A as described in the figure on the right.



*4. Models supporting 240 W or more

LED indicators visualize input power supply / output current status, allowing for faster check-ups upon startup or during operation^{*1}

Situation	Output current exceeds rated current	Output short-circuit	No input/ Input voltage is lower than the specified value
LED display			

*1. Only for S8VK-WA/WB models.

Main specifications

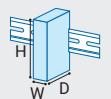
Push-In Plus	DIN rail	Ambient temperature -40 to 70°C	70°C	Warranty 5 yrs	240 W min.	S8WK-W	120 W max.	240 W min.	S8VK-S 60 W min.

Ordering Information

S8VK-S Single-phase input

About dimensions shown

In the case of standard mounting, the width (W) and height (H) are given with the distance from the DIN rail serving as the depth (D).



Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*1} (230 VAC input)	Maximum boost current	Dimensions : WxHxD(mm)	Model
30 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC90 to 350 V	24 V	1.3 A	86% typ.	1.56 A	32 x 90 x 86	S8VK-S03024
60 W			2.5 A	89% typ.	3 A	32 x 90 x 86	S8VK-S06024
120 W			5 A	92% typ.	6 A	55 x 90 x 86	S8VK-S12024
240 W			10 A	93% typ.	15 A	38 x 124 x 117.8	S8VK-S24024
480 W			20 A	93% typ.	30 A	60 x 124 x 117.8	S8VK-S48024

S8VK-W Three-phase input

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*1} (230 VAC input)	Maximum boost current	Dimensions : WxHxD(mm)	Model		
240 W	AC200 to 240 V Input voltage allowable range: AC170 to 264 V DC240 to 350V	24 V	10 A	93% typ. ^{*2}	15 A	55 x 124 x 117	S8VK-WA24024		
480 W			20 A	94% typ. ^{*2}	30 A	65 x 124 x 117	S8VK-WA48024		
960 W			40 A	95% typ. ^{*2}	60 A	118 x 124 x 117	S8VK-WA96024		
2000 W			85 A	95% typ. ^{*2}	127.5 A	190 x 124 x 129	S8VK-WA20224		
			45 A	96% typ. ^{*2}	67.5 A	190 x 124 x 129	S8VK-WA20248		
240 W	AC380 to 480 V Input voltage allowable range: AC320 to 576 V DC450 to 810 V	24 V	10 A	93% typ. ^{*3}	15 A	55 x 124 x 117	S8VK-WB24024		
480 W		48 V	5 A	93% typ. ^{*3}	7.5 A	55 x 124 x 117	S8VK-WB48024		
480 W		24 V	20 A	94% typ. ^{*3}	30 A	65 x 124 x 117	S8VK-WB48024		
480 W		48 V	10 A	95% typ. ^{*3}	15 A	65 x 124 x 117	S8VK-WB48048		
960 W		24 V	40 A	95% typ. ^{*3}	60 A	118 x 124 x 117	S8VK-WB96024		
960 W		48 V	20 A	96% typ. ^{*3}	30 A	118 x 124 x 117	S8VK-WB96048		

*1. The value is when both rated output voltage and rated output current are satisfied. *2. 230 VAC input *3. 400 VAC input



Global models that line up single phase input type & three phase input type and designed for worldwide usage, Resistant in tough environments

The series withstands an ambient temperature of 60°C with 100% load and even works at up to 70°C if the load is reduced. A stable power supply is secured even in low-temperature environments by guaranteed start-up at -40°C.



Ambient operating temperature

**-40 to
70°C**

*The image is an illustration.

Fulfilled specifications for machinery design requirement by EN/IEC 60204-1, a reference standard specified by European Machinery Directive

IP20-rated wiring section

A rise-up terminal block has been adopted to achieve IP20 protection without a terminal cover.



Supporting PELV circuit integration and wiring

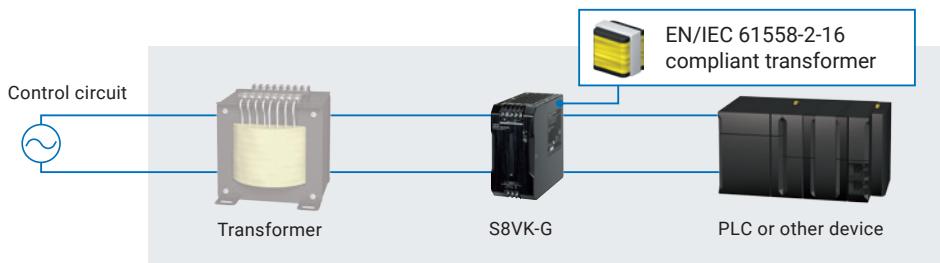
The series meets the requirements for PELV circuits as specified by EN/IEC 60204-1, which are required to supply power to control circuits. In general, using a PELV circuit as a power supply output requires grounding a negative terminal, so the unit provides two positive output terminals and three negative output terminals.



Incorporating the specifications of a transformer required for the power supply to control circuits into the internal transformer

The implementation and specifications of a transformer as specified by EN/IEC 60204-1, which are required to supply power to control circuits, have been incorporated into the internal transformer of the power supply (EN/IEC 61558-2-16). Therefore, no external transformer is necessary.

An EN/IEC 61558-2-16 compliant transformer is built into the Power Supply to eliminate the need for a transformer with compound windings for control circuits for which IEC 60204-1 Machinery Directive is specified. This helps reduce cost and space requirements



Main specifications

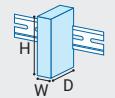


Ordering Information

S8VK-G Single-phase input

About dimensions shown

In the case of standard mounting, the width (W) and height (H) are given with the distance from the DIN rail serving as the depth (D).



Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*1} (200 VAC input)	Maximum boost current	Dimensions : WxHxD(mm)	Model	
15 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC90 to 350 V	5 V	3 A	76% typ.	3.6 A	22.5x90x86	S8VK-G01505	
		12 V	1.2 A	79% typ.	1.44 A	22.5x90x86	S8VK-G01512	
		24 V	0.65 A	81% typ.	0.78 A	22.5x90x86	S8VK-G01524	
		5 V	5 A	79% typ.	6 A	32x90x86	S8VK-G03005 ^{*2}	
30 W		12 V	2.5 A	83% typ.	3 A	32x90x86	S8VK-G03012	
		24 V	1.3 A	87% typ.	1.56 A	32x90x86	S8VK-G03024	
		12 V	4.5 A	85% typ.	5.4 A	32x90x106	S8VK-G06012	
		24 V	2.5 A	88% typ.	3 A	32x90x106	S8VK-G06024	
60 W		24 V	5 A	86% typ..	6 A	40x125x117.8	S8VK-G12024	
		24 V	10 A	91% typ.	12 A	60x125x145.6	S8VK-G24024	
		48 V	5 A	92% typ.	6 A	60x125x145.6	S8VK-G24048	
		24 V	20 A		24 A	95x125x145.6	S8VK-G48024	
480 W		48 V	10 A	93% typ.	12 A	95x125x145.6	S8VK-G48048	

S8VK-T Three-phase input

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*1} (200 VAC input)	Maximum boost current	Dimensions : W xHxD(mm)	Model
120 W	AC380 to 480V DC450 to 600V ^{*3} Input voltage allowable range: AC320 to 576V DC450 to 810V ^{*3}	24 V	5 A	89% typ.	6 A	40x125x117.8	S8VK-T12024
			10 A		12 A	60x125x145.6	S8VK-T24024
			20 A	93% typ.	24 A	95x125x145.6	S8VK-T48024
			40 A		48 A	135x125x145.6	S8VK-T96024

*1. The value is when both rated output voltage and rated output current are satisfied. *2. The output capacity of the S8VK-G03005 is 25 W.

*3. The 960 W model is not compatible with DC input.

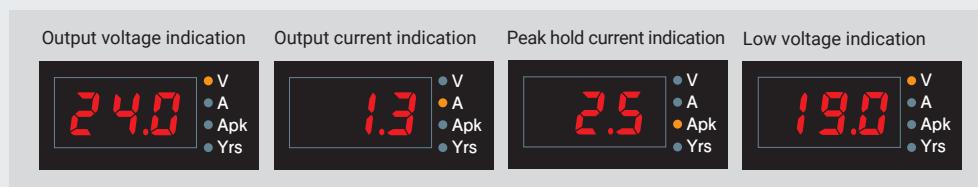


A long-selling power supply series ideal for long-term use by providing display and maintenance forecast monitor functions

Checking the power supply output status on-site without using a measuring instrument, which contributes to quick trouble-shooting

See the voltage and current status at a glance.

Know the status of machinery and equipment through visualization using displays, such as for the output voltage, output current, and peak hold current. Easily and quickly verify designs and troubleshoot problems.



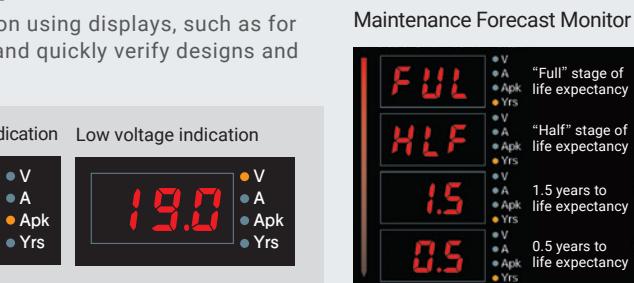
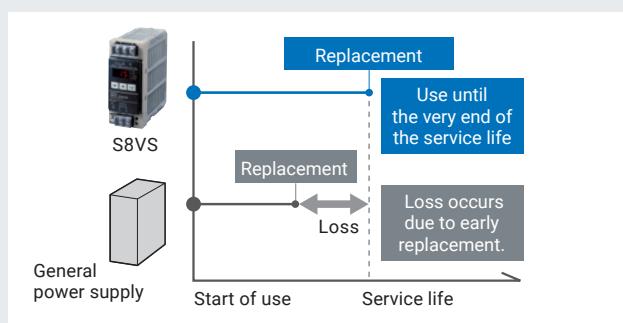
Easily verify designs without instruments.

Voltage and current displays enable easy design verification without repeatedly taking measurements with a tester



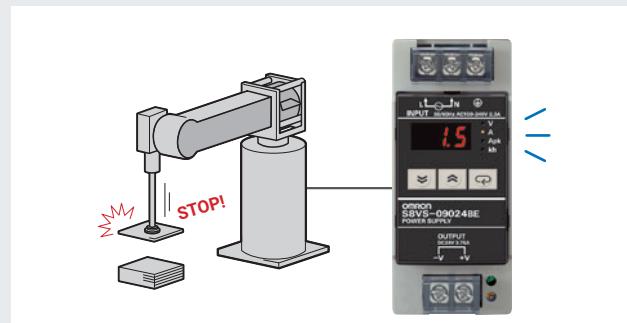
Error Monitoring with Output to a PLC

You can output error status to an event input to a PLC to monitor for errors outside of the control panel.



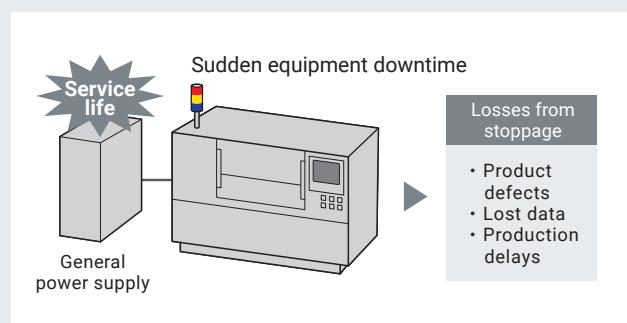
Quickly determine the causes of problems.

Simply check the status on the indication monitor to quickly respond to problems even when machinery stops suddenly.



Maintenance Forecast Notification with Indicator

Output a signal to an indicator outside of the control panel to provide notification of need for replacement. (The replacement time can be set in increments of 0.5 year.)



Main specifications

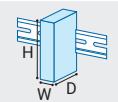
			90 W min. With Indication Monitor	60W mini.	15/30/60W 90W	60 W min. With Indication Monitor
Warranty 3 yrs	Undervoltage Signal	Display 8.8	With display	Class2 Output	UL Class 2	Maintenance point indicator
Ambient temperature -10 to 60°C						
Screw	DIN rail	60°C -10°C	Warranty 3 year	Undervoltage Signal	Display 8.8	UL Class 2
						Maintenance point indicator

Ordering Information

With Indication Monitor

About dimensions shown

In the case of standard mounting, the width (W) and height (H) are given with the distance from the DIN rail serving as the depth (D).



Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*2} (200 VAC input)	Indication Monitor	Alarm output ^{*3}	Dimensions : WxHxD(mm)	Model
60 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V ¹	24 V	2.5 A	85% typ.	Maintenance Forecast	Display notifications only	40×95×103.3	S8VS-06024A
					Total Run Time			S8VS-06024B
90 W		24 V	3.75 A	85% typ.	Maintenance Forecast	Sinking	50×115×116.2	S8VS-09024A
					Sourcing			S8VS-09024AP
90 W					Total Run Time	Sinking		S8VS-09024B
Class2					Maintenance Forecast	Sourcing		S8VS-09024BP
90 W		24 V	3.75 A Class2	85% typ.	Sinking		50×115×116.2	S8VS-09024AS
Class2					Sourcing			S8VS-09024APS
120 W					Total Run Time	Sinking		S8VS-09024BS
					Sourcing			S8VS-09024BPS
120 W		24 V	5 A	85% typ.	Maintenance Forecast	Sinking	50×115×116.2	S8VS-12024A
					Sourcing			S8VS-12024AP
180 W					Total Run Time	Sinking		S8VS-12024B
					Sourcing			S8VS-12024BP
180 W		24 V	7.5 A	87% typ.	Maintenance Forecast	Sinking	75×115×120.3	S8VS-18024A
					Sourcing			S8VS-18024AP
240 W					Total Run Time	Sinking		S8VS-18024B
					Sourcing			S8VS-18024BP
240 W		24 V	10 A	88% typ.	Maintenance Forecast	Sinking	100×115×120.2	S8VS-24024A
					Sourcing			S8VS-24024AP
480 W					Total Run Time	Sinking		S8VS-24024B
					Sourcing			S8VS-24024BP
480 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V	24 V	20 A	93% typ.	Maintenance Forecast	Sinking/Sourcing	150×115×122.2	S8VS-48024A
					Total Run Time	Sinking/Sourcing		S8VS-48024B

Without Indication Monitor

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*2} (200 VAC input)	Maximum boost current	Dimensions : WxHxD(mm)	Model
15 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V ¹	5 V	3 A	73% typ.	—	22.5×85×96.4	S8VS-01505 ^{*4}
			1.2 A	78% typ.	—		S8VS-01512
30 W		24 V	0.65 A	80% typ.	—		S8VS-01524
30 W		24 V	5 A	74% typ.	—	22.5×85×96.4	S8VS-03005 ^{*5}
60 W			2.5 A	80% typ.	—		S8VS-03012
90 W			2.5 A	80% typ.	—		S8VS-03024
90 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V ¹	24 V	1.3 A	86% typ.	—	40×95×103.3	S8VS-06024
120 W			2.5 A	83% typ.	—		S8VS-09024
180 W			3.75 A	84% typ.	—		S8VS-09024S
120 W		24 V	3.75 A	84% typ.	—	50×115×116.2	S8VS-12024
180 W			5 A	87% typ.	—		S8VS-18024
240 W			7.5 A	88% typ.	—		S8VS-24024
240 W		24 V	10 A	89% typ.	—	100×115×120.2	S8VS-24024
480 W			20 A	93% typ.	—		S8VS-48024

*1. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

*2. The value is when both rated output voltage and rated output current are satisfied.

*3. In the Alarm output column, "sinking" indicates an emitter COM and "sourcing" indicates a collector COM.

*4. The output capacity of the S8VS-01505 is 10 W. *5. The output capacity of the S8VS-03005 is 20 W.



A thin, simple structure suitable for installation into equipment directly without the control cabinet

Prevents Trouble during Installation and Maintenance

Cover to prevent screw dropout

The terminal block cover features a screw dropout prevention mechanism. Screws will not drop when connecting terminals, making work easier.



Cover to prevent foreign matter ingress

The front cover guards against ingress of foreign matter. This prevents accidental insertion of tools and protects against electric shocks.

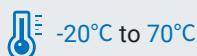


Stable Operation in a Wide Range of Environments

Features a 10-year*1 life expectancy, including for the fan

These units have a 10-year life expectancy, including for the cooling fan, which in the past required maintenance and replacement.

Ambient operating Temperature



Applicable in wide range of environments from low temperature to high temperature.

Vibration resistance to



Robust design to handle severe vibration conditions

Abnormal input voltages up to



Stable operation even on sites with poor power quality.

Altitudes up to



Reinforced insulation and application in environments with low atmospheric pressure.

*1. When used with the rated input voltage, load ratio of 50% or less, and ambient temperature of 40°C or below, and in the standard mounting conditions. *2. for 1s.

Stable, High Quality

75% of all the manufacturing processes have been mechanized. We have also mechanized inspection and confirmation processes.

Examples of Machine Introduction



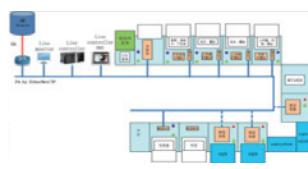
Automatic mounter



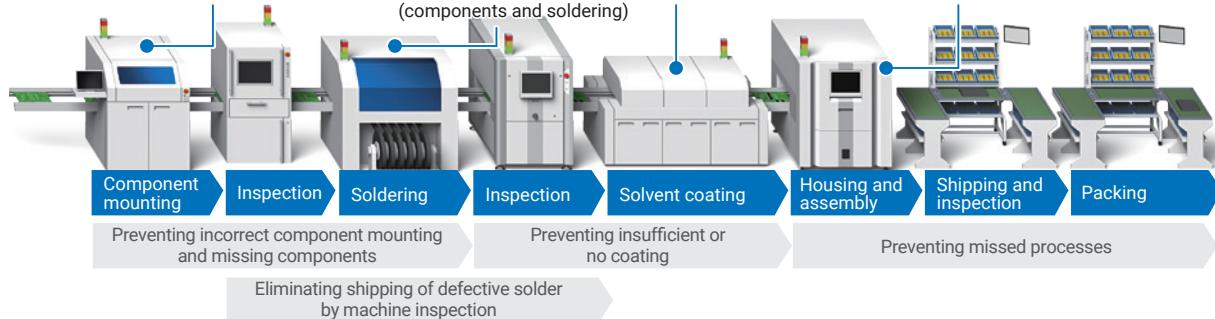
Image inspection (components and soldering)



Automatic coating



Automatic confirmation of assembly work



Main specifications

Screw	Connector	DIN rail	Screw mounting	70°C -20°C	Warranty 3 yrs	Input DC	Altitudes up to 3,000 m	Conforms to transformer standards

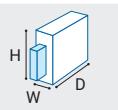
Ordering Information

With Cover/Direct Mounting

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*1} (200 VAC input)	Built-in fan	Dimensions : WxHxD(mm)	Model
15 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V	5 V	3 A	80% typ.	No	33x82x99	S8FS-G01505C
		12 V	1.3 A	84% typ.		33x82x99	S8FS-G01512C
		15 V	1 A	84% typ.		33x82x99	S8FS-G01515C
		24 V	0.65 A	86% typ.		33x82x99	S8FS-G01524C
		5 V	6 A	81% typ.		33x82x99	S8FS-G03005C
		12 V	3 A	86% typ.		33x82x99	S8FS-G03012C
		15 V	2.4 A	88% typ.		33x82x99	S8FS-G03015C
		24 V	1.5 A	89% typ.		33x82x99	S8FS-G03024C
		5 V	8 A ^{*2}	82% typ.		36x97x99	S8FS-G05005C
		12 V	4.3 A	86% typ.		36x97x99	S8FS-G05012C
30 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V	15 V	3.5 A	88% typ.		36x97x99	S8FS-G05015C
		24 V	2.2 A	89% typ.		36x97x99	S8FS-G05024C
		5 V	16 A ^{*3}	81% typ.		36x97x99	S8FS-G10005C
		12 V	4.3 A	86% typ.		36x97x99	S8FS-G10012C
		15 V	7 A	87% typ.		36x97x99	S8FS-G10015C
		24 V	4.5 A	89% typ.		38x97x129	S8FS-G10024C-500 ^{*5}
		5 V	21 A ^{*4}	81% typ.		38x97x129	S8FS-G15005C
		12 V	13 A	87% typ.		38x97x129	S8FS-G15012C
		15 V	10 A	88% typ.		38x97x129	S8FS-G15015C
		24 V	6.5 A	90% typ.		38x97x129	S8FS-G15024C-500 ^{*5}
100 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V	48 V	3.3 A	88% typ.		38x97x129	S8FS-G15048C
		12 V	25 A	85% typ.	Yes	41x102x170	S8FS-G30012C
		15 V	20 A	86% typ.		41x102x170	S8FS-G30015C
		24 V	14 A	87% typ.		41x102x170	S8FS-G30024C-500 ^{*5}
		48 V	7 A	87% typ.		41x102x170	S8FS-G30048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60012C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60015C
		24 V	27 A	90% typ.		61x120x190	S8FS-G60024C-500 ^{*5}
		48 V	13 A	92% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
150 W	AC100V to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 370 V	15 V	20 A	86% typ.		61x120x190	S8FS-G60048C
		24 V	14 A	87% typ.		61x120x190	S8FS-G60048C
		48 V	7 A	87% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C
		24 V	27 A	90% typ.		61x120x190	S8FS-G60048C
		48 V	13 A	92% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C
		24 V	27 A	90% typ.		61x120x190	S8FS-G60048C
300 W	AC100V to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 370 V	12 V	25 A	85% typ.		61x120x190	S8FS-G60048C
		15 V	20 A	86% typ.		61x120x190	S8FS-G60048C
		24 V	14 A	87% typ.		61x120x190	S8FS-G60048C
		48 V	7 A	87% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C
		24 V	27 A	90% typ.		61x120x190	S8FS-G60048C
		48 V	13 A	92% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C
600 W	AC100V to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 370 V	12 V	50 A	88% typ.	Yes	61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C
		24 V	27 A	90% typ.		61x120x190	S8FS-G60048C
		48 V	13 A	92% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C
		24 V	27 A	90% typ.		61x120x190	S8FS-G60048C
		48 V	13 A	92% typ.		61x120x190	S8FS-G60048C
		12 V	50 A	88% typ.		61x120x190	S8FS-G60048C
		15 V	40 A	90% typ.		61x120x190	S8FS-G60048C

About dimensions shown

The terminals are arranged vertically on the front, and the depth(D: excluding the terminal section), width(W), and height(H) are defined accordingly.



With Cover/DIN Rail Mounting

Capacity	Rated Input Voltage	Output voltage(DC)	Rated output current	Efficiency ^{*1} (200 VAC input)	Built-in fan	Dimensions : WxHxD(mm)	Model
15 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V	5 V	3 A	80% typ.	No	36.2x82x117.7	S8FS-G01505CD
		12 V	1.3 A	84% typ.		36.2x82x117.7	S8FS-G01512CD
		15 V	1 A	84% typ.		36.2x82x117.7	S8FS-G01515CD
		24 V	0.65 A	86% typ.		36.2x82x117.7	S8FS-G01524CD
		5 V	6 A	81% typ.		36.2x82x117.7	S8FS-G03005CD
		12 V	3 A	86% typ.		36.2x82x117.7	S8FS-G03012CD
		15 V	2.4 A	88% typ.		36.2x82x117.7	S8FS-G03015CD
		24 V	1.5 A	89% typ.		36.2x82x117.7	S8FS-G03024CD
		5 V	8 A ^{*2}	82% typ.		37.2x97x117.7	S8FS-G05005CD
		12 V	4.3 A	86% typ.		37.2x97x117.7	S8FS-G05012CD
30 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V	15 V	3.5 A	88% typ.		37.2x97x117.7	S8FS-G05015CD
		24 V	2.2 A	89% typ.		37.2x97x117.7	S8FS-G05024CD
		5 V	16 A ^{*3}	81% typ.		37.2x97x117.7	S8FS-G10005CD
		12 V	8.5 A	86% typ.		39.2x97x147.7	S8FS-G10012CD
		15 V	7 A	87% typ.		39.2x97x147.7	S8FS-G10015CD
		24 V	4.5 A	89% typ.		39.2x97x147.7	S8FS-G10024CD-500 ^{*5}
		5 V	21 A ^{*4}	81% typ.		39.2x97x147.7	S8FS-G15005CD
		12 V	13 A	87% typ.		39.2x97x147.7	S8FS-G15012CD
		15 V	10 A	88% typ.		39.2x97x147.7	S8FS-G15015CD
		24 V	6.5 A	90% typ.		39.2x97x147.7	S8FS-G15024CD-500 ^{*5}
100 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC80 to 370 V	48 V	3.3 A	88% typ.	Yes	42.5x102x201	S8FS-G15048CD
		12 V	25 A	85% typ.		42.5x102x201	S8FS-G30012CD
		15 V	20 A	86% typ.		42.5x102x201	S8FS-G30015CD
		24 V	14 A	87% typ.		42.5x102x201	S8FS-G30024CD-500 ^{*5}
		48 V	7 A	87% typ.		42.5x102x201	S8FS-G30048CD
		12 V	50 A	88% typ.		62.5x120x221	S8FS-G60012CD
		15 V	40 A	90% typ.		62.5x120x221	S8FS-G60015CD
		24 V	27 A	90% typ.		62.5x120x221	S8FS-G60024CD-500 ^{*5}
		48 V	13 A	92% typ.		62.5x120x221	S8FS-G60048CD
		12 V	50 A	88% typ.		62.5x120x221	S8FS-G60048CD
150 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 370 V	12 V	25 A	85% typ.	Yes	42.5x102x201	S8FS-G60048CD
		15 V	20 A	86% typ.		42.5x102x201	S8FS-G60048CD
		24 V	14 A	87% typ.		42.5x102x201	S8FS-G60048CD
		48 V	7 A	87% typ.		42.5x102x201	S8FS-G60048CD
		12 V	50 A	88% typ.		42.5x102x201	S8FS-G60048CD
		15 V	40 A	90% typ.		42.5x102x201	S8FS-G60048CD
		24 V	27 A	90% typ.		42.5x102x201	S8FS-G60048CD
		48 V	13 A	92% typ.		42.5x102x201	S8FS-G60048CD
		12 V	50 A	88% typ.		42.5x102x201	S8FS-G60048CD
		15 V	40 A	90% typ.		42.5x102x201	S8FS-G60048CD
300 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 370 V	12 V	25 A	85% typ.	Yes	42.5x102x201	S8FS-G60048CD
		15 V	20 A	86% typ.		42.5x102x201	S8FS-G60048CD
		24 V	14 A	87% typ.		42.5x102x201	S8FS-G60048CD
		48 V	7 A	87% typ.		42.5x102x201</td	

Related equipment

DC Electronic Circuit Protector
S8V-CP



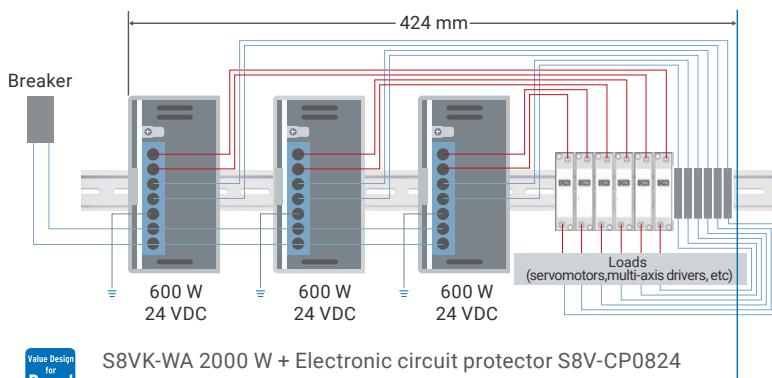
Main specifications

Push-In Plus	DIN rail	70°C -20°C	UL Class 2	Value Design for Panel
		Ambient temperature -20 to 70°C	Class2 Output	

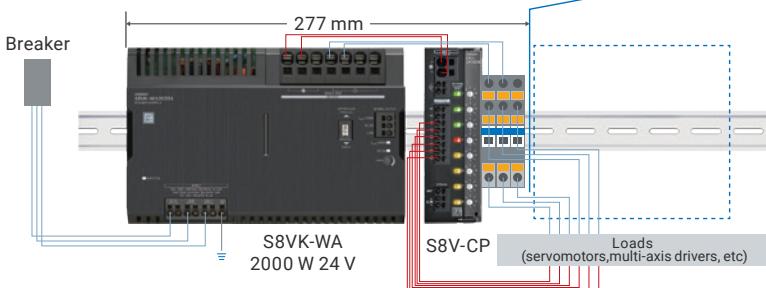
24V DC output circuits distribution including current limitation is feasible with space-saving

Reduced mounting space by using new DC distribution methods

Previous OMRON's 600 W model × 3 unit + mechanical circuit protector + terminal block



S8VK-WA 2000 W + Electronic circuit protector S8V-CP0824 + general terminal block



Easier setting and wiring reduce the work load of operators

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.

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



Green lit : Output ON

Yellow lit : Over current

Yellow blinking or red blinking : output tripping / alarm output

Noise Filter
S8V-NF



Main specifications

Push-In Plus	DIN rail	70°C -40°C	Warranty 5 yrs	Altitudes up to 3,000 m	Value Design for Panel
		Ambient temperature -20 to 70°C	5 years		

For easier, safer noise and surge prevention with reduced footprint

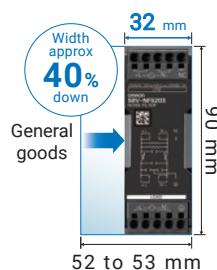
Easy installation

Just a single action to install on a DIN track



Space saving

Thinner design than conventional noise filters



Reduced risk of electrical shock

The enclosed conductor eliminates the need for a protective terminal cover



Push-In Plus terminal block

Redundancy Unit S8VK-R



Main specifications



Rise-up
Screw



DIN
rail



Ambient
temperature
-20 to 70°C



Warranty
3 yrs



Lloyd's
Register

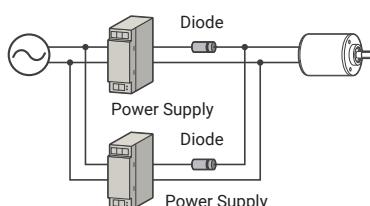
Reducing the complexities in selecting and wiring external diodes when building power supply redundant operation system

Regarding the power supply redundant operation

With two power supplies installed, the equipment can continue operation in the event of failure.

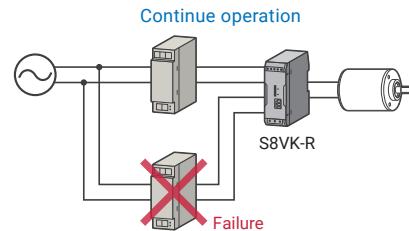
Before

External diodes
are required.



After

Redundancy
is easily
incorporated.



Buffer Unit S8T-DCBU-02



Main
specifications



Screw



DIN
rail

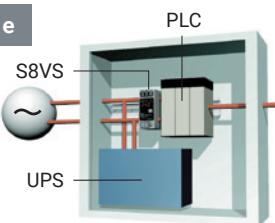


Ambient
temperature
-20 to 60°C

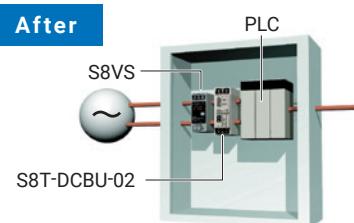
A buffer unit, a measure against a momentary power outage without a battery

Economic way and space-saving against UPS

Before



After



- Complies with SEMI F47 standard.
- No need for time and effort for battery maintenance like with a UPS
- Guaranteed backup time of 500 ms (at an output current of 2.5 A)
- Easy backup capacity expansion (time and current) through connection (up to four units)

Ordering Information

S8V-CP

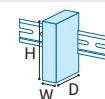
Rated Input Voltage	Number of Outputs	Rated output current	UL Class 2 output certified	Dimensions:WxHxD(mm)	Model
DC24 V	4 output	2,3,4,6,8,10 A	No	44.8x90x90.8	S8V-CP0424
		3.8 A	Yes	44.8x90x90.8	S8V-CP0424S
	8 outputs	2,3,4,6,8,10 A	No	42x127 x 118.1	S8V-CP0824

S8V-NF

Rated Input Voltage	Rated current	Dimensions :WxHxD(mm)	Model
AC250 V	3 A	32x90x86	S8V-NFS203
DC250 V	6 A		S8V-NFS206

About dimensions shown

In the case of standard mounting, the width (W) and height (H) are given with the distance from the DIN rail serving as the depth (D).



S8VK-R

Rated Input Voltage	Rated current	Dimensions :WxHxD(mm)	Model
DC5 to 30 V	10 A	32x90x110	S8VK-R10
DC10 to 60 V	20 A	40x125x122.2	S8VK-R20

S8T-DCBU-02 Buffer Block

Rated Input Voltage	Output voltage(during backup operation)	Output current	Dimensions :WxHxD(mm)	Model
DC24 V	22.5 V	2.5 A	43x120x120	S8T-DCBU-02

Bus Line Connector (For connecting up to N units of separately sold S8T: maximum 4 units)

specification	Number of packages	Model
Connector with DC line connected.	1 Connector	S8T-BUS03
	10 Connectors ¹⁾	S8T-BUS13

¹⁾ 1 package contains 10 S8T-BUS03 Connectors.

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