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

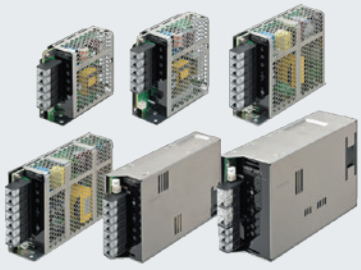
Proposing product portfolio that allows time saving and improved work efficiency in the machine design and manufacturing processes

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
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
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℃	-40 to 70℃	-40 to 70℃	-40 to 70℃	-10 to 60℃	-40 to 70℃	-40 to 70℃	-40 to 70℃
Warranty period	5 years	5 years	5 years	3 years	3 years	5 years	5 years	3 years
Safety Standards	CERTIFIED, c UL us, CE, RCM							
eCAD Partners	E3 series Zuken Inc., EPLAN							
Other	DC LOW Signal, Display, UL Class 2, Replace Alarm	Display, UL Class 2, Replace Alarm, 120% Boost, 150% Boost, Input DC	DC LOW Signal, 120% Boost, 150% Boost, Input DC, LR	120% Boost, Input DC, LR	DC LOW Signal, Display, UL Class 2, Replace Alarm	DC LOW Signal, Trouble Check, 150% Boost, Input DC	DC LOW Signal, Trouble Check, 150% Boost, Input DC	120% Boost, Input DC, LR

Built-in type

Capacity	Single-phase 100 to 240 VAC
15 W	5 V 12V 15V 24V
30 W	5 V 12V 15V 24V
50 W	5 V 12V 15V 24V
100 W	5 V 12V 15V 24V
150 W	5 V 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	UL CERTIFIED, cULus, CE, EAC
eCAD Partners	E3 series, EPLAN
Other	Input DC

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

Icon Description

Input DC	UL Class2	Replace Alarm	Trouble Check	DC LOW Signal	120% Boost	150% Boost	Display 8.8	LR
DC input	Class2 Output	Maintenance Forecast Monitor	Maintenance point indicator	Undervolt-age Signal	Boost current 120%	Boost current 150%	With display	Lloyd's Register

Smart Power Supply
S8AS2 Series

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.

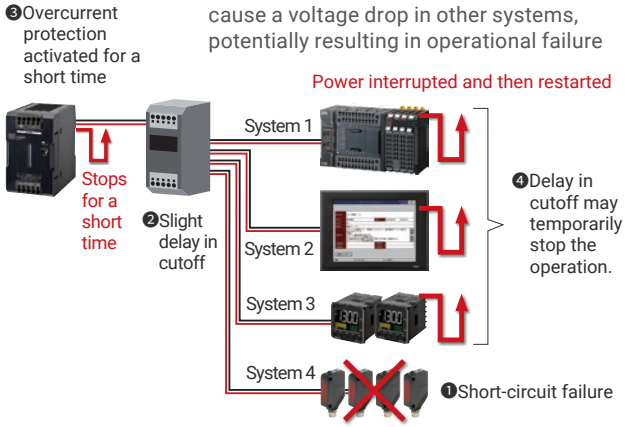
Power Supply High efficiency + **Protector** Improved tripping performance + **Connection** Various connection terminals

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.

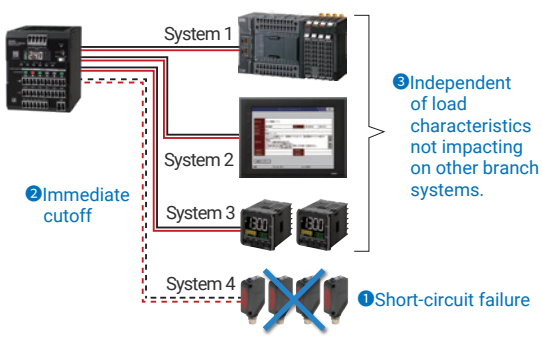
Standard electronic CP

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

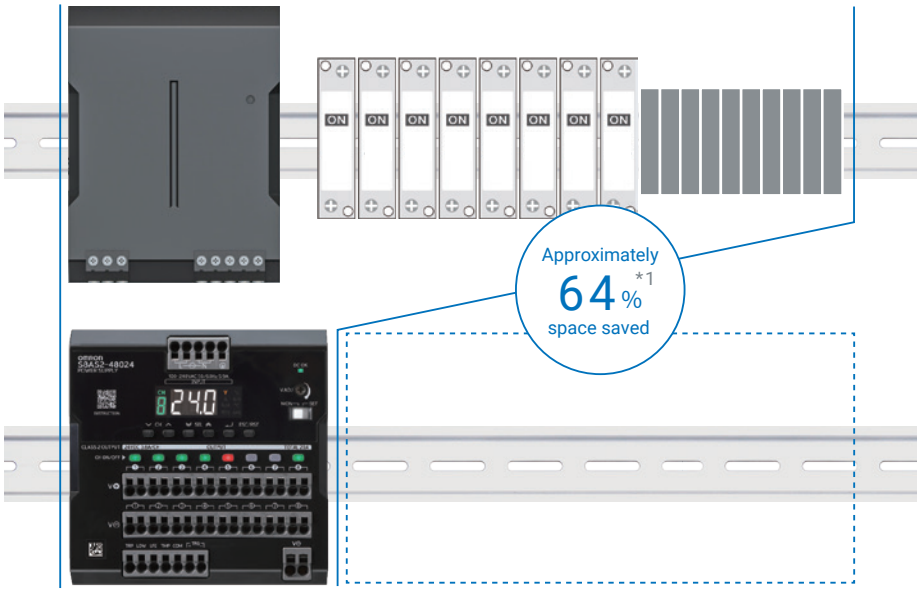
Previous

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

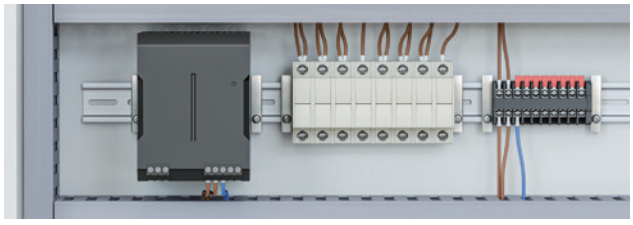
One Power Supply, eight CPs and ten terminal blocks are installed in a control panel, and wiring is necessary on the load side and between the devices.

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.

Installation and wiring work Approximately 1/10*2

*2. Based on our survey



Wiring and short-circuit bars are required between devices

Integrated design eliminates the need for wiring between devices

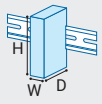
Main specifications

Push-In Plus | DIN rail | Ambient temperature -40 to 70°C | Warranty 5 years | Undervolt-age Signal | With display | Class2 Output | Maintenance Forecast Monitor | Side-by-side mounting | Conforms to transformer standards

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	92.6x115x 131.4	S8AS2-24024-06S
						Not changeable			S8AS2-24024-06SN
480 W					8 branches	Changeable	20 A	115x115x 131.4	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.

Switch Mode Power Supply

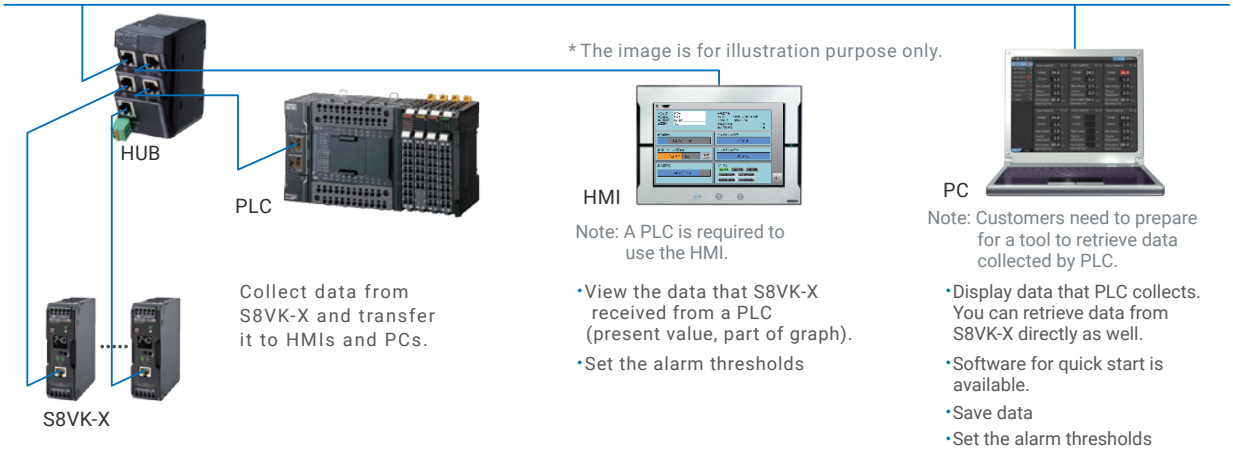
S8VK-X Series

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

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

Compatible with EtherNet/IP / Modbus

System configuration example



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.

Display example

Tester

Oscilloscope

Current sensor

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.

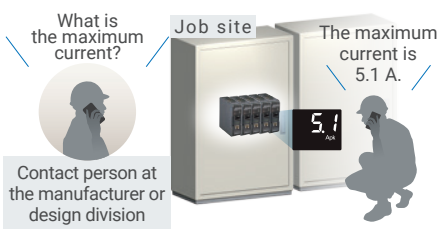
Voltage

Current

Maximum current (Peak hold current)

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.



Also you can check the number of years before replacement.

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.

Years until replacement

Percentage until replacement

Communications and display items

Item		Monitor display	Communication		
			EtherNet/IP™		Modbus TCP
			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	Read
	Measured value error	✓	Read	Read	Read
	Memory error	✓	Read	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.

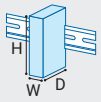
Main specifications

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

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).



With 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.	—	55×90×86	S8VK-X09024A-EIP
120 W			5 A	92% typ.	6 A	55×90×86	S8VK-X12024A-EIP
240 W			10 A	93% typ.	15 A	38×124×117	S8VK-X24024A-EIP
480 W			20 A	94% typ.	30 A	60×124×117	S8VK-X48024A-EIP

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
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	40×90×86	S8VK-X03005-EIP
60 W		12 V	4.5 A*4	86% typ.	5.4 A	40×90×86	S8VK-X06012-EIP
		24 V	2.5 A	86% typ.	3 A	40×90×86	S8VK-X06024-EIP
90 W		24 V	3.75 A	88% typ.	—	55×90×86	S8VK-X09024-EIP
120 W			5 A	92% typ.	6 A	55×90×86	S8VK-X12024-EIP
240 W			10 A	93% typ.	15 A	38×124×117	S8VK-X24024-EIP
480 W			20 A	94% typ.	30 A	38×124×117	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

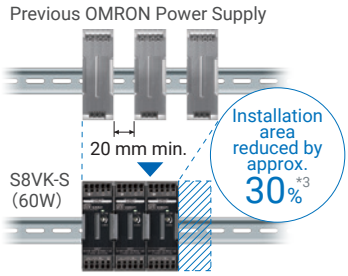
Saves Space, Allowing Control Panel Downsizing

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.



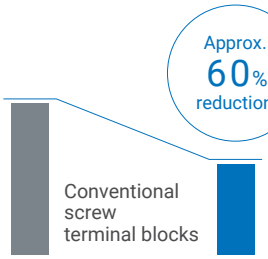
*1. Comparison S8VK-S 480 W model to previous OMRON Power Supply S8VK-G 480 W. *2. Conditions apply to models and derating for side-by-side mounting.
*3. Comparing mounting of three OMRON S8VK-G (60 W) units to side-by-side mounting of three S8VK-S (60 W) units.

Reduced Wiring Work

Push-In Plus Terminal Block

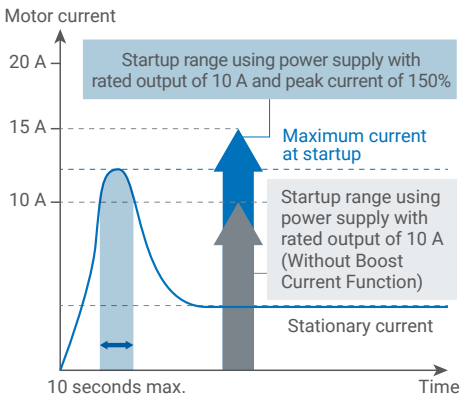
It's as easy as inserting an earphone jack. Tools are not required for wiring, reducing the time and work.

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.

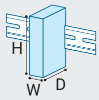
Main specifications

Push-In Plus · DIN rail · Ambient temperature -40 to 70°C · Warranty 5 years · Undervoltage Signal (240 W min.) · DC input · Maintenance point indicator (S8WK-W) · Boost current 120% (120 W max.) · Boost current 150% (240 W min.) · Coated PCBs · Altitudes up to 3,000 m · Side-by-side mounting · Conforms to transformer standards · Lloyd's Register (S8VK-S 60 W min.) · Value Design for Panel

Ordering Information

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-S Single-phase input

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	AC200 to 240 V (Input voltage allowable range: AC170 to 264 V DC240 to 384 V)	24 V	85 A	95% typ.*2	127.5 A	190 x 124 x 129	S8VK-WA20224
		48 V	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
		48 V	5 A	93% typ.*3	7.5 A	55 x 124 x 117	S8VK-WB24048
480 W		24 V	20 A	94% typ.*3	30 A	65 x 124 x 117	S8VK-WB48024
		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
		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.

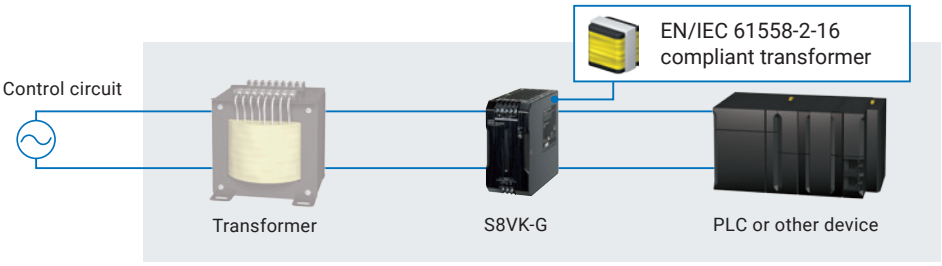
Supporting PELV circuit integration and wiring

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



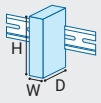
Main specifications

Rise-up Screw | DIN rail | Ambient temperature -40 to 70°C | Warranty 3 years | DC input | Boost current 120% | Conforms to transformer standards | Lloyd's Register

Ordering Information

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-G Single-phase input

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	22.5×90×86	S8VK-G01505
		12 V	1.2 A	79% typ.	1.44 A	22.5×90×86	S8VK-G01512
		24 V	0.65 A	81% typ.	0.78 A	22.5×90×86	S8VK-G01524
30 W		5 V	5 A	79% typ.	6 A	32×90×86	S8VK-G03005*2
		12 V	2.5 A	83% typ.	3 A	32×90×86	S8VK-G03012
		24 V	1.3 A	87% typ.	1.56 A	32×90×86	S8VK-G03024
60 W		12 V	4.5 A	85% typ.	5.4 A	32×90×106	S8VK-G06012
		24 V	2.5 A	88% typ.	3 A	32×90×106	S8VK-G06024
120 W		24 V	5 A	86% typ..	6 A	40x125x117.8	S8VK-G12024
240 W		24 V	10 A	91% typ.	12 A	60x125x145.6	S8VK-G24024
240 W		48 V	5 A	92% typ.	6 A	60x125x145.6	S8VK-G24048
480 W		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
240 W			10 A		12 A	60x125x145.6	S8VK-T24024
480 W			20 A	93% typ.	24 A	95x125x145.6	S8VK-T48024
960 W			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.

Switch Mode Power Supply

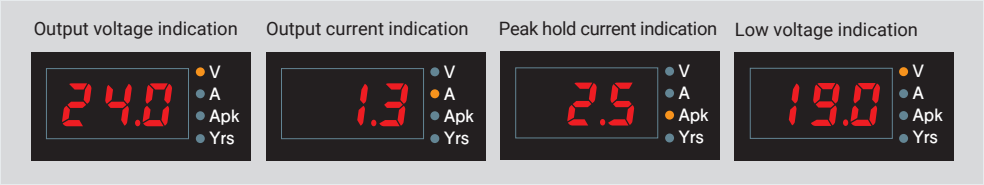
S8VS Series

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

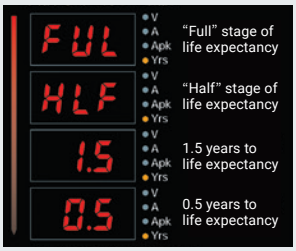
Checking the power supply output status on-site without using a measuring instrument, which contributes to quick trouble-shooting

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.

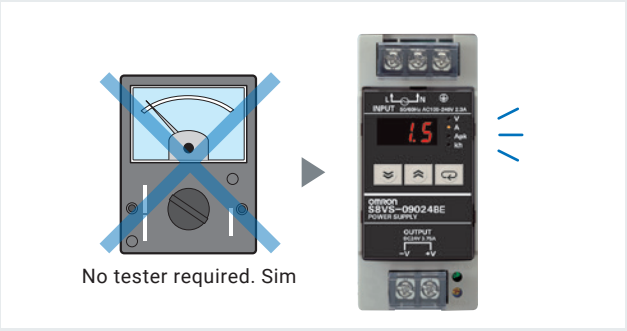


Maintenance Forecast Monitor



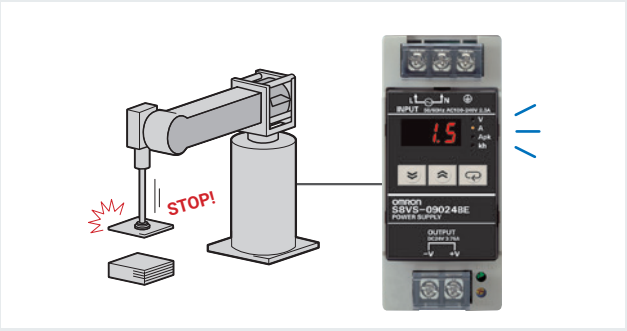
Easily verify designs without instruments.

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



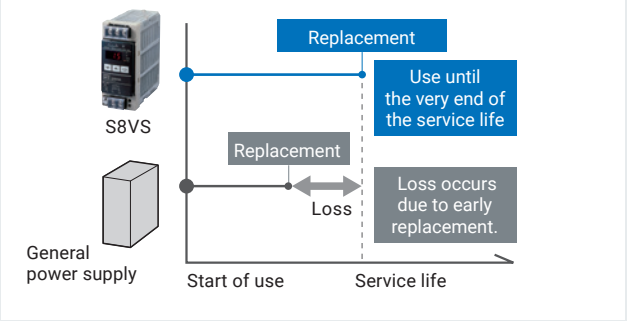
Quickly determine the causes of problems.

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



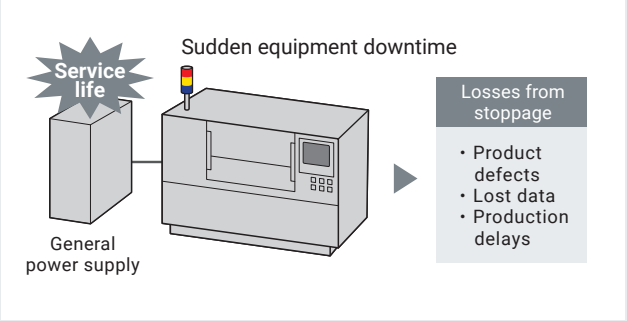
Error Monitoring with Output to a PLC

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



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

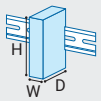
Screw	DIN rail	Ambient temperature -10 to 60°C	Warranty 3 year	Undervoltage Signal	With display	Class2 Output	Maintenance point indicator

90 W min. With Indication Monitor | 60W mini. | 15/30/60W 90W | 60 W min. With Indication Monitor

Ordering Information

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).



With Indication Monitor

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
					Total Run Time	Sinking		S8VS-09024B
						Sourcing		S8VS-09024BP
90 W Class2		24 V	3.75 A Class2	85% typ.	Maintenance Forecast	Sinking	50×115×116.2	S8VS-09024AS
						Sourcing		S8VS-09024APS
					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
					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
					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
					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
		12 V	1.2 A	78% typ.	—		S8VS-01512
		24 V	0.65 A	80% typ.	—		S8VS-01524
30 W		5 V	5 A	74% typ.	—	22.5×85×96.4	S8VS-03005*5
		12 V	2.5 A	80% typ.	—		S8VS-03012
		24 V	1.3 A	86% typ.	—		S8VS-03024
60 W		24 V	2.5 A	83% typ.	—	40×95×103.3	S8VS-06024
90 W			3.75 A	84% typ.	—	50×115×116.2	S8VS-09024
90 W Class2			3.75 A	84% typ.	—	50×115×116.2	S8VS-09024S
120 W			5 A	87% typ.	—	50×115×116.2	S8VS-12024
180 W			7.5 A	88% typ.	—	75×115×120.3	S8VS-18024
240 W			10 A	89% typ.	—	100×115×120.2	S8VS-24024
480 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V		20 A	93% typ.	—	150×115×122.2	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
-20°C to 70°C
Applicable in wide range of environments from low temperature to high temperature.

Vibration resistance to
4.5 G
Robust design to handle severe vibration conditions

Abnormal input voltages up to
300 VAC*2
Stable operation even on sites with poor power quality.

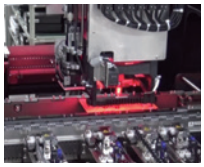
Altitudes up to
3,000 m
Reinforced insulation and application in environments with low atmospheric pressure.

*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

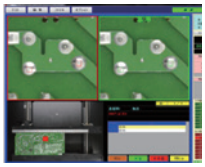
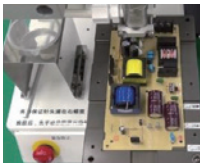
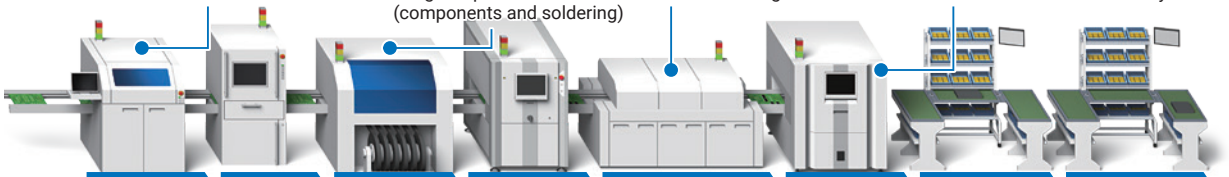


Image inspection (components and soldering)


Automatic coating


Automatic confirmation of assembly work



Component mounting → Inspection → Soldering → Inspection → Solvent coating → Housing and assembly → Shipping and inspection → Packing

Preventing incorrect component mounting and missing components

Preventing insufficient or no coating

Preventing missed processes

Eliminating shipping of defective solder by machine inspection

Main specifications


Screw


Connector


DIN rail


Screw mounting

Ambient temperature -20 to 70°C

Warranty 3 years

DC input

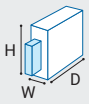

Altitudes up to 3,000 m


Conforms to transformer standards

Ordering Information

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/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	33×82×99	S8FS-G01505C
		12 V	1.3 A	84% typ.			S8FS-G01512C
		15 V	1 A				S8FS-G01515C
		24 V	0.65 A	86% typ.			S8FS-G01524C
30 W		5 V	6 A	81% typ.		33×82×99	S8FS-G03005C
		12 V	3 A	86% typ.			S8FS-G03012C
		15 V	2.4 A	88% typ.			S8FS-G03015C
		24 V	1.5 A	89% typ.			S8FS-G03024C
50 W		5 V	8 A*2	82% typ.		36×97×99	S8FS-G05005C
		12 V	4.3 A	86% typ.			S8FS-G05012C
		15 V	3.5 A	88% typ.			S8FS-G05015C
		24 V	2.2 A	89% typ.			S8FS-G05024C
100 W		5 V	16 A*3	81% typ.		38×97×129	S8FS-G10005C
		12 V	8.5 A	86% typ.			S8FS-G10012C
		15 V	7 A	87% typ.			S8FS-G10015C
		24 V	4.5 A	89% typ.			S8FS-G10024C-500*5
150 W		5 V	21 A*4	81% typ.		38x97x159	S8FS-G15005C
		12 V	13 A	87% typ.			S8FS-G15012C
		15 V	10 A	88% typ.			S8FS-G15015C
		24 V	6.5 A	90% typ.			S8FS-G15024C-500*5
		48 V	3.3 A	88% typ.			S8FS-G15048C
300 W	AC100V to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 370 V	12 V	25 A	85% typ.	Yes	41×102×170	S8FS-G30012C
		15 V	20 A	86% typ.			S8FS-G30015C
		24 V	14 A	87% typ.			S8FS-G30024C-500*5
		48 V	7 A				S8FS-G30048C
600 W	AC100V to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 350 V	12 V	50 A	88% typ.		61×120×190	S8FS-G60012C
		15 V	40 A				S8FS-G60015C
		24 V	27 A	90% typ.			S8FS-G60024C-500*5
		48 V	13 A	92% typ.			S8FS-G60048C

Note. Front-mounting is not possible. To mount a Power Supply from the front, purchase a DIN Rail-mounting Power Supply and a Front-mounting Bracket (sold separately).

With Cover/Direct Mounting (Connector type)

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	24 V	0.65 A	86% typ.	No	33x82x99	S8FS-G01524CE
30 W			1.5 A	89% typ.		33x82x99	S8FS-G03024CE
50 W			2.2 A			36x97x99	S8FS-G05024CE
100 W			4.5 A			38x97x129	S8FS-G10024CE
150 W			6.5 A	90% typ.		38x97x159	S8FS-G15024CE

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	36.2×82×117.7	S8FS-G01505CD
		12 V	1.3 A	84% typ.			S8FS-G01512CD
		15 V	1 A				S8FS-G01515CD
		24 V	0.65 A	86% typ.			S8FS-G01524CD
30 W		5 V	6 A	81% typ.		36.2×82×117.7	S8FS-G03005CD
		12 V	3 A	86% typ.			S8FS-G03012CD
		15 V	2.4 A	88% typ.			S8FS-G03015CD
		24 V	1.5 A	89% typ.			S8FS-G03024CD
50 W		5 V	8 A*2	82% typ.		37.2×97×117.7	S8FS-G05005CD
		12 V	4.3 A	86% typ.			S8FS-G05012CD
		15 V	3.5 A	88% typ.			S8FS-G05015CD
		24 V	2.2 A	89% typ.			S8FS-G05024CD
100 W		5 V	16 A*3	81% typ.		39.2×97×147.7	S8FS-G10005CD
		12 V	8.5 A	86% typ.			S8FS-G10012CD
		15 V	7 A	87% typ.			S8FS-G10015CD
		24 V	4.5 A	89% typ.			S8FS-G10024CD-500*5
150 W		5 V	21 A*4	81% typ.		39.2x97x177.7	S8FS-G15005CD
		12 V	13 A	87% typ.			S8FS-G15012CD
		15 V	10 A	88% typ.			S8FS-G15015CD
		24 V	6.5 A	90% typ.			S8FS-G15024CD-500*5
		48 V	3.3 A	88% typ.			S8FS-G15048CD
300 W	AC10 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-G30012CD
		15 V	20 A	86% typ.			S8FS-G30015CD
		24 V	14 A	87% typ.			S8FS-G30024CD-500*5
		48 V	7 A				S8FS-G30048CD
600 W	AC100 to 240 V Input voltage allowable range: AC85 to 264 V DC120 to 350 V	12 V	50 A	88% typ.		62.5x120x221	S8FS-G60012CD
		15 V	40 A				S8FS-G60015CD
		24 V	27 A	90% typ.			S8FS-G60024CD-500*5
		48 V	13 A	92% typ.			S8FS-G60048CD

*1. The value is when both rated output voltage and rated output current are satisfied. *2 The output electric power is 40 W. *3. The output electric power is 80 W. *4. The output electric power is 105 W. *5. This model differs in some specifications from other S8FS-G series models. For details, please refer to the S8FS-G Switching Power Supply Datasheet (Cata.No. T207-E1).

Related equipment

DC Electronic Circuit Protector
S8V-CP

Main specifications

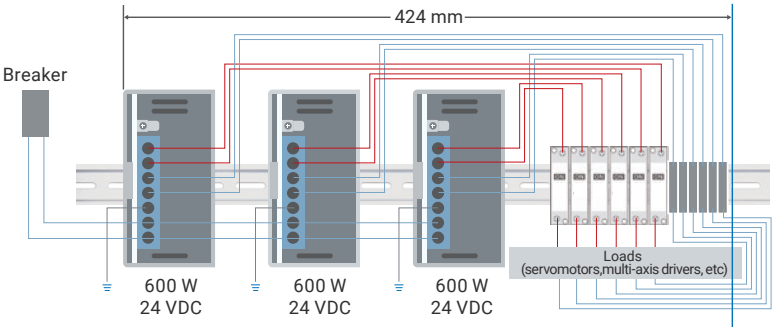
4ch outputs only

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

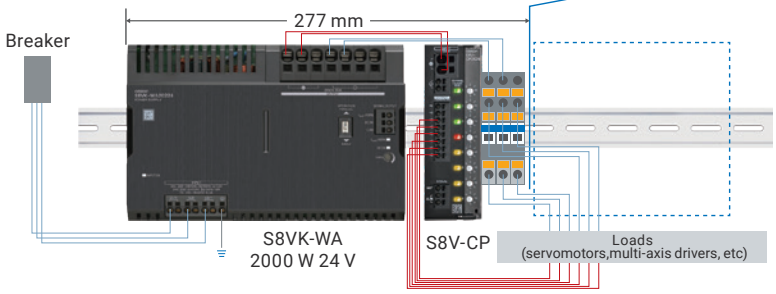
24V DC output circuits distribution including current limitation is feasible with space-saving

Reduced mounting space by using new DC distribution methods

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



Value Design for Panel 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 | Ambient temperature -20 to 70°C | Warranty 5 years | Altitudes up to 3,000 m | Value Design for Panel

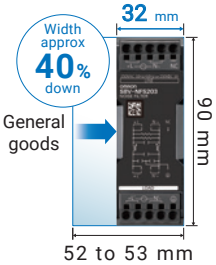
For easier, safer noise and surge prevention with reduced footprint

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 years | Lloyd's Register

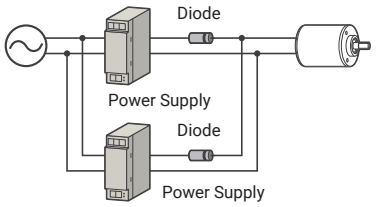
Reducing the complexities in selecting and wiring external diodes when building power supply redundant operation system

Regarding the power supply redundant operation

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

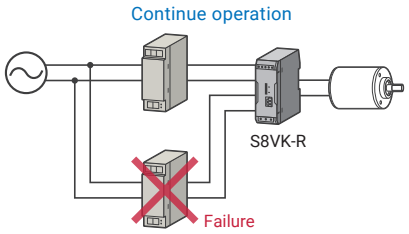
Before

External diodes are required.



After

Redundancy is easily incorporated.



Buffer Unit
S8T-DCBU-02

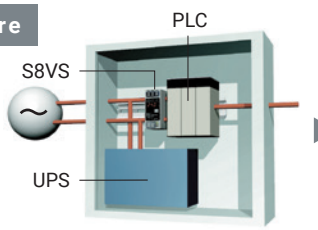
Main specifications

Screw | DIN rail | Ambient temperature -20 to 60°C

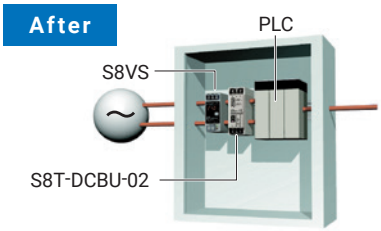
A buffer unit, a measure against a momentary power outage without a battery

Economic way and space-saving against UPS

Before



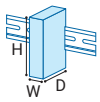
After



- 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

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).



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	44.8×90×90.8	S8V-CP0424
		3.8 A	Yes	44.8×90×90.8	S8V-CP0424S
	8 outputs	2,3,4,6,8,10 A	No	42×127 x 118.1	S8V-CP0824

S8V-NF

Rated Input Voltage	Rated current	Dimensions :WxHxD(mm)	Model
AC250 V DC250 V	3 A	32×90×86	S8V-NFS203
	6 A		S8V-NFS206

S8VK-R

Rated Input Voltage	Rated current	Dimensions :WxHxD(mm)	Model
DC5 to 30 V	10 A	32×90×110	S8VK-R10
DC10 to 60 V	20 A	40×125×122.2	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	43×120×120	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. One package contains 10 S8T-BUS03 Connectors.

Note: Do not use this document to operate the Unit.

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