

# Worldwide reliable and easy operation

S8VK power supplies



- •The most compact design on the market
- Resistant in tough environments
- Push-In Plus technology for easy wiring

industrial.omron.eu/s8vk

# Compact power supplies...

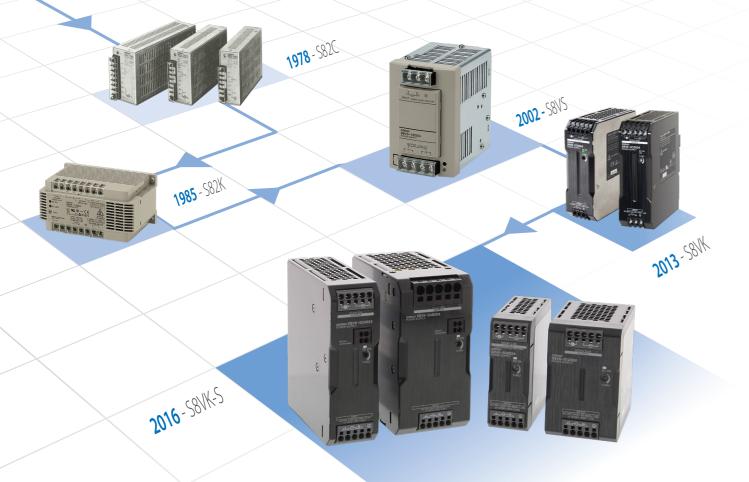
NEW MODELS have been added to the popular S8VK series. We now offer S8VK-S with 60W, 120W, 240W, 480W power ratings. All models are:

- Available with Push-In Plus technology. Reducing wiring time by up to 60%. Simply because you push in the wires with your hand, and although you only need a light force, the wire is more secure than when using a regular screw terminal.
- · The world's smallest class of compact body with 50% less volume for the 480W versions and 36% less volume for the 120W version when compared to previous power supply S8VK-G.

Today, to ensure you get the perfect solution to match your needs, the series includes the following models:

- Single-phase units (S8VK-S, -C, and -G)
- Three-phase unit (S8VK-T)
- Redundancy unit (S8VK-R)

The standard S-type comes with coated as within the standard version for protection against harsh environments, and all other models are available with coating on request.



# ...that make a world of difference!



Three compelling reasons why the S8VK is the right power supply for you:

## Resistant in tough environments

Its robust design and construction withstands the harshest environments and provide stable operation over a wide operating temperature range. High MTBF figures keep your S8VK power supply running where others fail.

## Easy and fast installation

Installation is easier and faster than ever, with Push-In Plus technology on the S8VK-S. No tightening and retightening of screws is necessary – simply push in the wire and the special mechanism within the terminal keeps it firmly in place.

## The most compact design on the market

Designed with space saving in mind, the S8VK series is our most compact power supply range ever and the most compact available on today's market.

# Resistant in tough environments

# Altitudes up to 3,000 m Reinforced insulation and

application in environments with

## **Abnormal input** voltages up to 300 VAC\*

Stable operation even on sites with poor power quality.

Wide ambient operating temperature range of -40 to 70°C.

Applicable in tough environments from extreme cold to extreme hot.

## **Vibration** resistance to 5G

Robust design to handle severe vibration conditions.

Stable operation in a wide range of environments



## Wide range of certified standards

Design standards for reliable application in many countries around the world.









## **Resists dust and** corrosive gases

Coated PCBs for stable operation in tough environments.

# Side-by-side mounting for more design flexibility

Downsizing achieved with high-efficiency, low-loss technology. Our unique thermal control technology enables side-by-side mounting. Less installation area helps you downsize control panels.

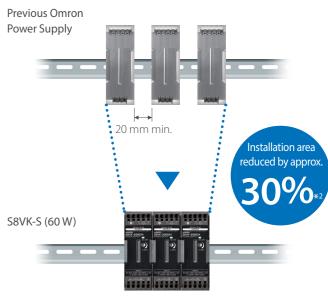


50% less volume for the S8VK-S with 480W 36% less volume for the S8VK-S with 120W In comparison with previous model S8VK-G

### Technology for greater efficiency and less loss

Technology developed for the S8VK-G has been advanced even further to reduce switching loss and to reduce the loss from heat-generating components, such as transformers and diodes. This has enabled downsizing and high-density mounting of mounted components.

### Side-by-side mounting to reduce installation area



Can be used at the ambient operating temperature of 70°C\*3

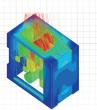
- \*1. According to our investigation in November 2015
- \*2. Comparison to previous OMRON Power Supply.
- \*3. Refer to the derating curve in the S8VK-S Datasheet

### Sophisticated thermal control technology

Our unique thermal modeling knowhow was used to establish fast and accurate thermal simulation methods. The result is optimum component layout with controlling heat flow. By optimizing the shape and size of the heat sink, both downsizing and side-by-side mounting of the Power Supplies was achieved.









# Easy and fast installation

### Making your life easier

Look no further than the aspect of installation for an example of the attention to detail that we have gone to in developing a product that will help to make your life easier. Simply click onto a standard DIN rail using one hand to mount in a flash. Effortless and time saving! In addition, the S8VK features a double set of DC output terminals (three for the negative terminal), which means you also spend less time and effort on wiring.





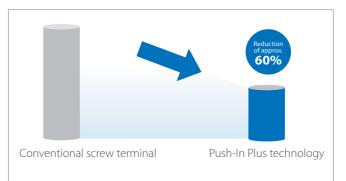
# Long-life guaranteed

Designed to international safety standards for global markets, the S8VK even has approvals for marine applications and carries a full, across-the-board, warranty on all models no matter which country your machine is exported to! Because of high MTBF figures, the S8VK power supply will keep running when others fail.

# Push-In Plus technology for easy wiring

### Fast wiring via Push-In Plus technology

Just insert the wires – no tools required. Do all your wiring in less than half the time needed with screw type terminals.



# \* Information for Push-In Plus and screw technology is based on our actual measurement value data.

### Screwdriver held in place to free your hands

Optimized shape to hold the screwdriver was created by the resin parts and the spring. Work goes smoothly when connecting stranded wires directly to the terminal because it's easier to aim at the desired terminal.

## Easy to insert

Our Push-in Plus technology is as easy as inserting to an earphone jack – reducing your work load and improving wiring quality at the same time.

### Held firmly in place

Even though less insertion force is required than other Power Supply with Push-in technology, the wires are held firmly in place – thanks to the advanced mechanism design and manufacturing technology.

IEC standard (cable diameter)	Push-in Plus technology	Screw terminals
20 N min. (AWG20,0.5 mm²)	125 N*	112 N*

<sup>\*</sup> Data from our own research

# Ideas to save space in Control Panels

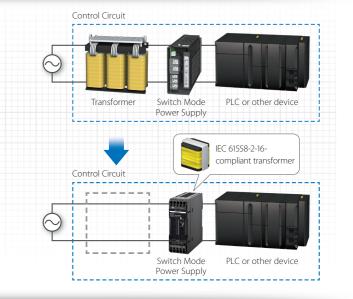
### **Eliminating Transformers for Control Circuits**

(For applications with Switch Mode Power Supplies that use a IEC 61558-2-16-compliant transformer)

IEC 60204-1 in the Machinery Directive specifies that, if AC power is supplied to a control circuit, a transformer must be used in the control circuit and the transformer must have separate (compound) windings.

# The Control Circuit Transformer Built into the S8VK Eliminates the Need for an Independent Transformer

IEC 60204-1 also states that a switch mode power supply that uses a transformer with separate (compound) windings satisfies the above condition. That means that a transformer in a control circuit can be eliminated by using this type of switch mode power supply.



# OMRON 9

# World's smallest, most robust and easiest to install

Reduce the size of your control panels, build them faster and increase their reliability especially in harsh environments - by taking advantage of the S8VK-S series of high performance power supplies.



- · Up to 50% smaller than predecessor
- · 60% faster wiring thanks to new Push-In Plus wiring
- Robust design can withstand the harshest environments (5G vibration resistance, altitude guarantee up to 3000m, wide operating temperature from -40°C to 70°C, PCB coating protects against dust, corrosive gas & humidity
- PCB coating comes as standard specification
- Power Boost function provides up to 120% (60W, 120W) and 150% (240W, 480W) of rated current
- · Undervoltage Alarm function (240W, 480W)
- Wide range of certified standards, now completed with UL/EN/IEC 60950-1 and EN50178 for 3000m altitude, DNV-GL marine approval and ATEX.





# Product Line-up

### S8VK-S

- Perfect fit for small control panels
- Coated PCBs for better resistance to environment
- Push-In Plus technology for easy wiring

### Power rating/output voltage



Power rating	Rated input voltage	Rated output voltage	Rated output current	Undervoltage alarm output	Maximum boost current	Size (W×H×D) (mm)	Model
60 W	100 to 240 VAC (allowable range: 85 to 264 VAC or 90 to 350 VDC)	24 V	2.5 A	No	3 A	32×90×90	S8VK-S06024
120 W		24 V	5 A	No	6 A	55×90×90	S8VK-S12024
240 W		24 V	10 A	Yes	15 A	38×124×117.8	S8VK-S24024
480 W		24 V	20 A	Yes	30 A	60×124×117.8	S8VK-S48024

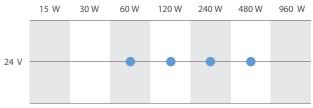
### S8VK-C

### Single-phase

- · Cost-effective
- Universal input and Safety standards for worldwide applications



## Power rating/output voltage



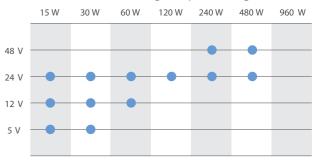
### S8VK-G

### Single-phase input

- Reliable and easy operation worldwide
- Resistant in tough environments
- · Easy and fast installation



## Power rating/output voltage



### S8VK-T

### Three-phase, 400-VAC input

- Resistant in tough environments
- · Easy and fast installation
- Most compact class on the market



# Power rating/output voltage



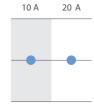
### S8VK-R

## Redundancy Units

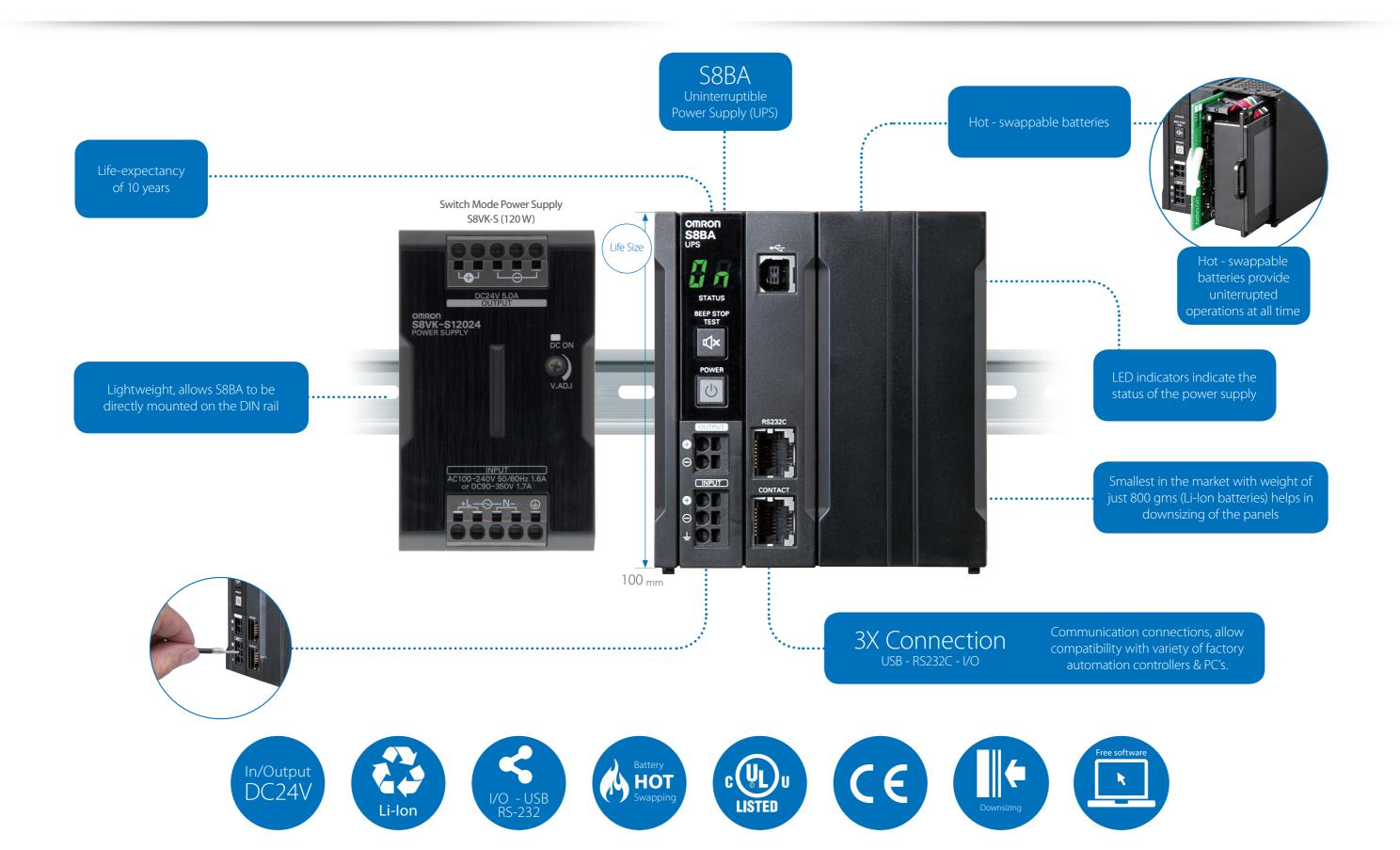
- Contribute to build high reliable systems
- Compact and cost-effective solution for backup applications
- Easy setup for system reliability requirement



## Output current



# Let nothing interrupt your power





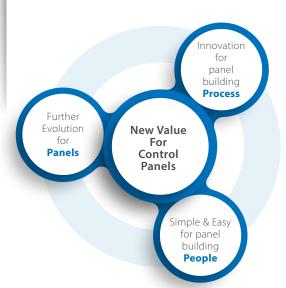
### Would you like to know more?

### **OMRON EUROPE**

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### **Panels**

- Space saving
- Vibration resistance
- Improve airflow

### **Process**

- Designing with CAD & Eplan Library
- Swift customisation
- Express delivery within Europe

### **People**

• Front-in and front-release Easy wiring

### Our Panelbuilding portfolio

### NEW 2016 Released In October



Switch Mode Power Supplies (High-capacity models)



Sockets for Safety Relays



Push-In Plus Series Pushbutton Switches



Power Monitors (Mounted On-Panel)



Machine Automation Controller

### 2016 Released In April



Switch Mode Power Supplies (60/120W)



Solid-state Time



Measuring and Monitoring Relays



Power Monitors (DIN Track mounting)



Common Sockets (for MY/H3Y(N)-B)



Common Sockets (for G2R-S/H3RN-B/ K7L-B)



Slim I/O Relays



Solid-state Timers



Solid-state Timers



Liquid Leakage Sensor Amplifiers



I/O Relay Terminals



DIN Track Terminal Blocks

### 2015 Released



Digital Temperature Controllers



Solid State Relays for Heaters



EtherCAT Slave Terminals



Uninterruptible Power Supply (UPS)