

New Value For Control Panels

OMRON

Switch Mode Power Supplies

S8VK-S

For More Compact Control Panels



- A compact body and side-by-side mounting for more design flexibility
- Greater environment resistance for application in more various locations
- Push-In Plus terminal blocks for easy wiring

New Value For Control Panels

Control Panels: The Heart of Manufacturing Sites.

Evolution in control panels results in large evolution in production facilities.

And if control panel design, control panel manufacturing processes, and human interaction with them are innovated, control panel manufacturing becomes simpler and takes a leap forward.

OMRON will continue to achieve a control panel evolution and process innovation through many undertakings starting with the shared Value Design for Panel *1 concept for the specifications of products used in control panels.

*1 Value Design for Panel



Our shared Value Design for Panel (herein after referred to as "Value Design") concept for the specifications of products used in control panels will create new value to our customer's control panels.

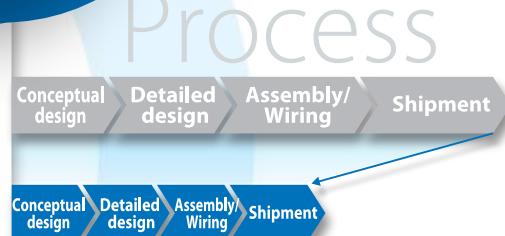
Combining multiple products that share the Value Design concept will further increase the value provided to control panels.



Further Evolution
for
Panels

New Value
For
Control Panels

Innovation for
panel building
Process



Simple & Easy
for panel business
People

Panels

People

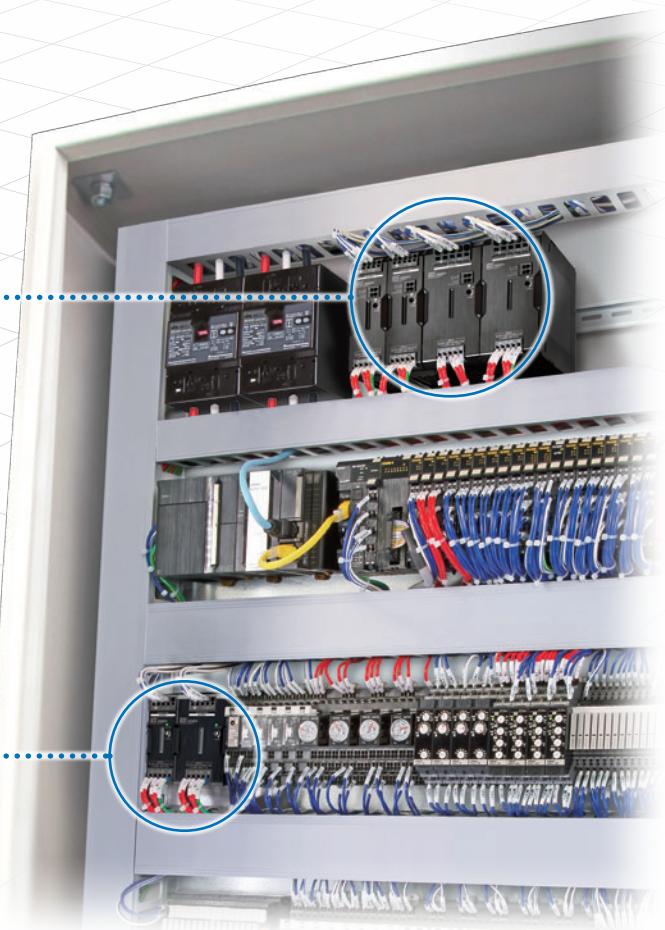


For More Compact Control Panels

World's Smallest Class of Global Power Supplies* New 240- and 480-W Models Join the S8VK-S Series

Save on space and work, and achieve resistance to environments with the S8VK-S series: and now the new 240-and 480-W models join.

Its extended product line-up provides greater design flexibility.



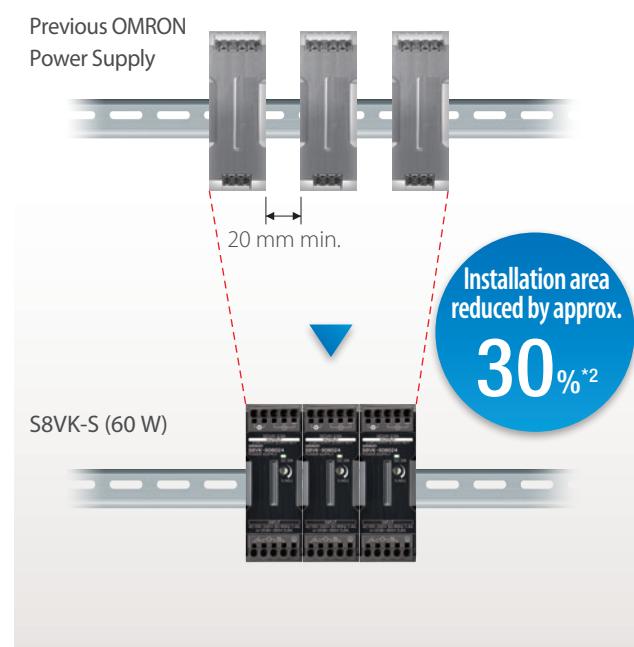
World's Smallest Class of Compact Body^{*1} and Side-by-side Mounting for More Design Flexibility

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

Compact Bodies



Side-by-side Mounting to Reduce Installation Area ^{*3}



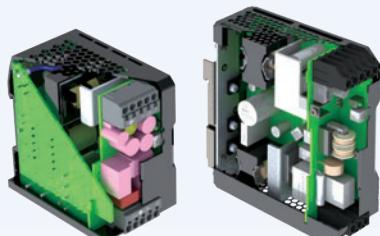
^{*1}. According to OMRON investigation in September 2016.

^{*2}. Comparison to previous OMRON Power Supply.

^{*3}. Conditions apply to models and derating for side-by-side mounting. Refer to the S8VK-S series datasheet for details.

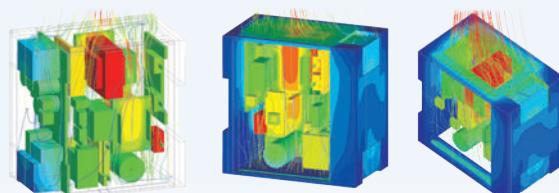
Technology for Greater Efficiency and Less Loss

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.



Sophisticated Thermal Control Technology

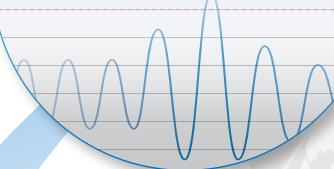
OMRON's unique thermal modeling knowhow was used to establish fast and accurate thermal simulation methods. The result is optimum component layout with controlling heat flow. By optimizing the shape and size of the heat sink, both downsizing and side-by-side mounting of the Power Supplies was achieved.



Greater Environment Resistance for Application in More Various Locations

Abnormal input voltages up to 300 VAC*

Stable operation even on sites with poor power quality. * for 1s



Altitudes up to 3,000 m

Reinforced insulation and application in environments with low atmospheric pressure.



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

Applicable in tough environments from extreme cold to extreme hot.



Wide range of certified standards

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



Comply with UL 508A, Standard for Industrial Control Panels for North America

Vibration resistance to 5G

Robust design to handle severe vibration conditions.



Humidity resistance of 95%

Applicable in humid environments.



Resists dust and corrosive gases

Coated PCBs for stable operation in tough environments.



Coated PCBs are standard features.

Note: These images are for illustration purposes only.

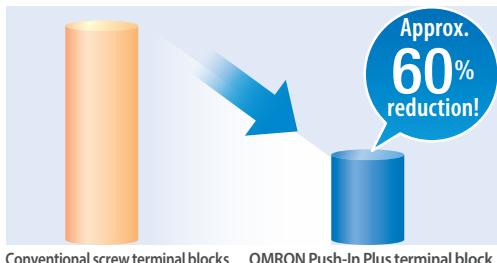
Push-In Plus Terminal Blocks for Easy Wiring



Just Insert Wires: No Tools Required

Now you can use Push-In Plus terminal blocks to reduce the time and work involved in wiring.

Greatly Reduce Wiring Work with Push-In Plus Terminal Blocks



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

Screwdriver Held in Place to Free Both 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

OMRON's Push-In Plus terminal blocks are as easy as inserting to an earphone jack. They help reduce the work load and improve wiring quality.

Held Firmly in Place

Even though less insertion force is required, the wires are held firmly in place. The advanced mechanism design technology and manufacturing technology produced a spring that ensures better workability and reliability.

IEC standard (cable diameter)	Push-In Plus terminal block	Screw terminal block
20 N min. (AWG20,0.5 mm ²)	125 N	112 N

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

Ideas to Save Space in Control Panels

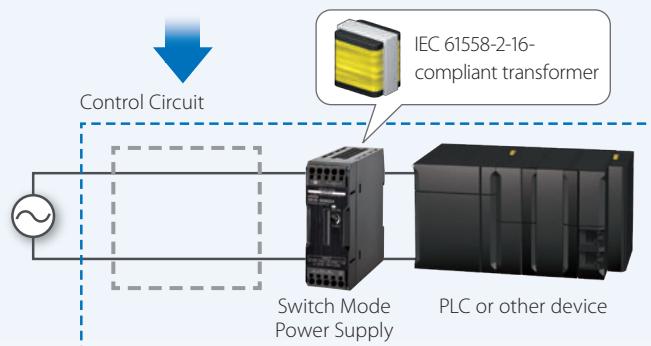
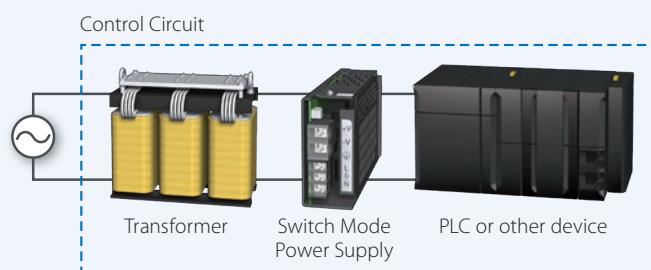
Eliminating Transformers for Control Circuits

(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.



Product Lineup

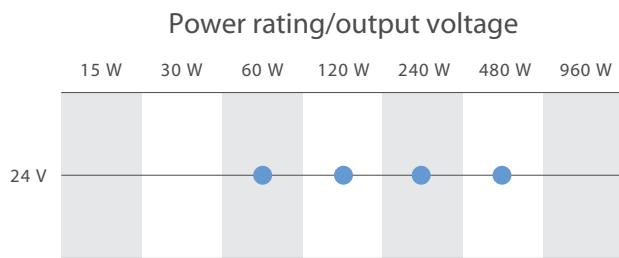
S8VK-S



A Perfect Fit for Small Control Panels

Coated PCBs for Better Resistance to Environment

Push-In Plus Terminal Blocks for Easy Wiring



Power rating	Rated input voltage	Rated output voltage	Rated output current	Undervoltage alarm output	Maximum boost current	Size (WxHxD) (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	32x90x90	S8VK-S06024
120 W		24 V	5 A	No	6 A	55x90x90	S8VK-S12024
240 W		24 V	10 A	Yes	15 A	38x124x117.8	S8VK-S24024
480 W		24 V	20 A	Yes	30 A	60x124x117.8	S8VK-S48024

S8VK-G



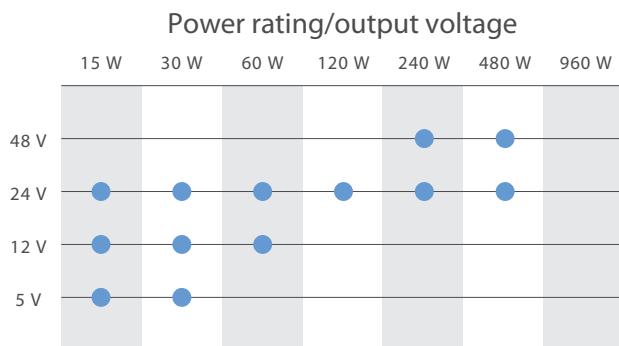
Single-phase input

Reliable and Easy Operation-Worldwide Power Supply

Resistant in tough environments

Easy and fast installation

The most compact class on the market



S8VK-T



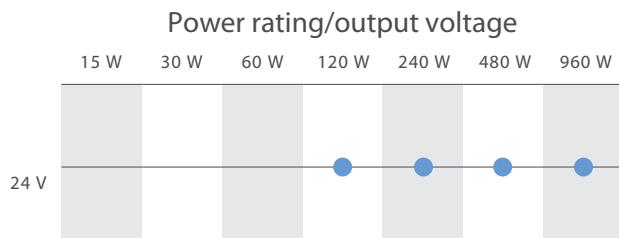
Three-phase, 400-VAC input

Worldwide 3-phase Power Supply

Resistant in tough environments

Easy and fast installation

The most compact class on the market



S8VK-C

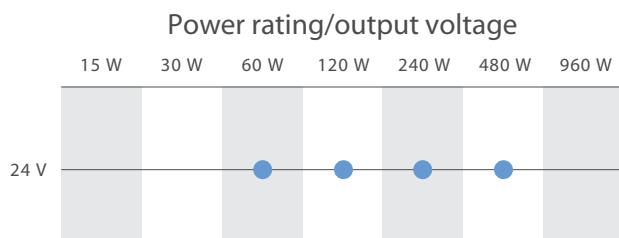


Cost-effective single phase

Cost-effective Single Phase Power Supply

Universal input and Safety standards for worldwide applications

Space-saving Compact Design



S8VK-R



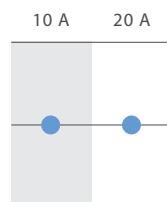
Redundancy Units

Contribute to build high reliable systems

Compact and Cost-effective solution for Back-up applications

Easy setup for system reliability requirement

Output current



Products That Create New Value in Control Panels

Value Design
for
Panel



Switch Mode
Power Supplies
S8VK-S



Uninterruptible
Power Supply
(UPS)
S8BA



Power Monitors
KM-N2/KM-N3



Measuring and
Monitoring Relays
K8DT



Solid-state Timers
H3DT



Solid-state Timers
H3Y(N)-B



Solid-state Timers
H3RN-B



Liquid Leakage
Sensor Amplifiers
K7L-B



Sockets for Relays with
Forcibly Guided Contacts
(for G7SA)
P7SA-PU



Common Sokets
(for MY/H3Y(N)-B)
PYF-PU(-L)



Common Sokets
(for G2R-S/H3RN-B/K7L-B)
P2RF-PU



Slim I/O Relays
G2RV-SR



Slim I/O Relays
G3RV-SR



I/O Relay Terminals
G70V



Pushbutton Switches
Push-In Plus
Terminal Block Series
A22N-P/A30N-P/M22N-P



Solid State Relays
for Heaters
G3PJ



DIN Track
Terminal
Block
XW5T



Digital Temperature
Controllers
E5CC-B/E5EC-B

Panel Assist Web

www.ia.omron.com/solution/panel/



Innovation in Control Panel Building
Cat. No. Y218

Refer to the S8VK-S Switch Mode Power Supplies Datasheet (Cat. No. T205) for details.

Before you place an order, please read and understand "Agreement for Using the Product" available on Omron's latest "Best control devices Omron", "General Brochure" or Omron's website.

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