OMRON

Switch Mode Power Supplies

S8VK-X

Production Site Innovation inspired by IoT

The production site of the future that OMRON aims to create is one where the health status of its facilities, invisible today, becomes visible.

- Conditions are visible, anytime, anywhere.
- Information is displayed collectively by equipment/site.
- Past data is retrievable.

Facility conditions will be visualized by IoT and seamlessly connected to other sites all over the world. Facility operating rate will be systematically maintained; the way of working will be dramatically changed.

A new style of facility maintenance brought

Visualizing and centrally controlling the condition of power supplies enables you to systematize equipment maintenance before equipment trouble occurs, eliminating unexpected response and unnecessary premature replacement, and thus reducing the overall maintenance cost.

about by the visualization of power supplies

From now on

Centralized monitoring of equipment conditions

The voltage, current, and replacement time of power supplies are centrally monitored by line or site.

Improved accuracy of maintenance planning

Statistical use of past data enables you to identify the appropriate schedule and method for maintenance.

Enhanced facility operating rate and optimized maintenance cost

Improved accuracy of maintenance planning prevents unexpected equipment shutdown, achieves maintenance at the most appropriate schedule and cost, and thus optimizes the maintenance cost.

The first step in scheduled maintenance: visualization of the time to replace power supplies.

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

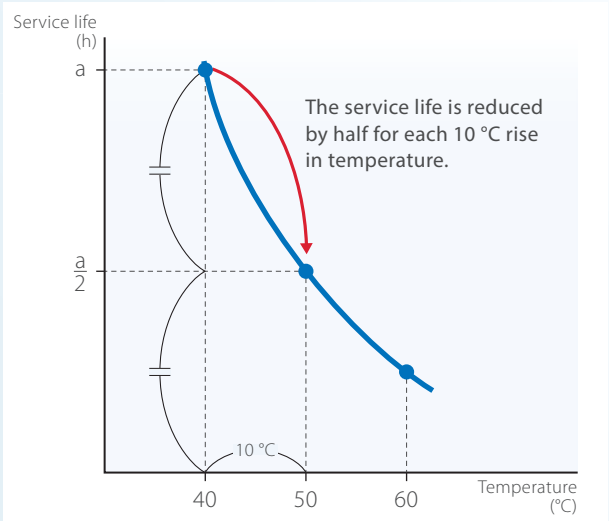
Percentage until replacement

Do you know?

A power supply has a service life.

In general, aged deterioration of the internal electrolytic capacitor degrades the original performance (service life) of a power supply and ceases to function in the end. Using a power supply close to its service life may cause a disruption of output voltage even at power-on state and unexpected shutdown of equipment.

Relationship between service life of a electrolytic capacitor and temperature



Why don't you change your power supply to S8VK-X to achieve a new style of facility maintenance?

World's smallest class*1 of power supplies with a communication function

The space-saving design enables you to mount side-by-side and replace conventional power supplies in a control panel smoothly.

*1. According to OMRON investigation in October 2017.

Switch Mode Power Supplies

S8VK-X

*2. Two units of S8VK-X 240 W and W4S1-03B Switching Hub

Excellent environmental resistance contributes to the stable operation of equipment.

Temperature	Vibration and shock	Humidity and gases	Altitude
-40 to 70 °C	Vibration: 5 G Shock: 15 G	Coated PCBs	3,000 m

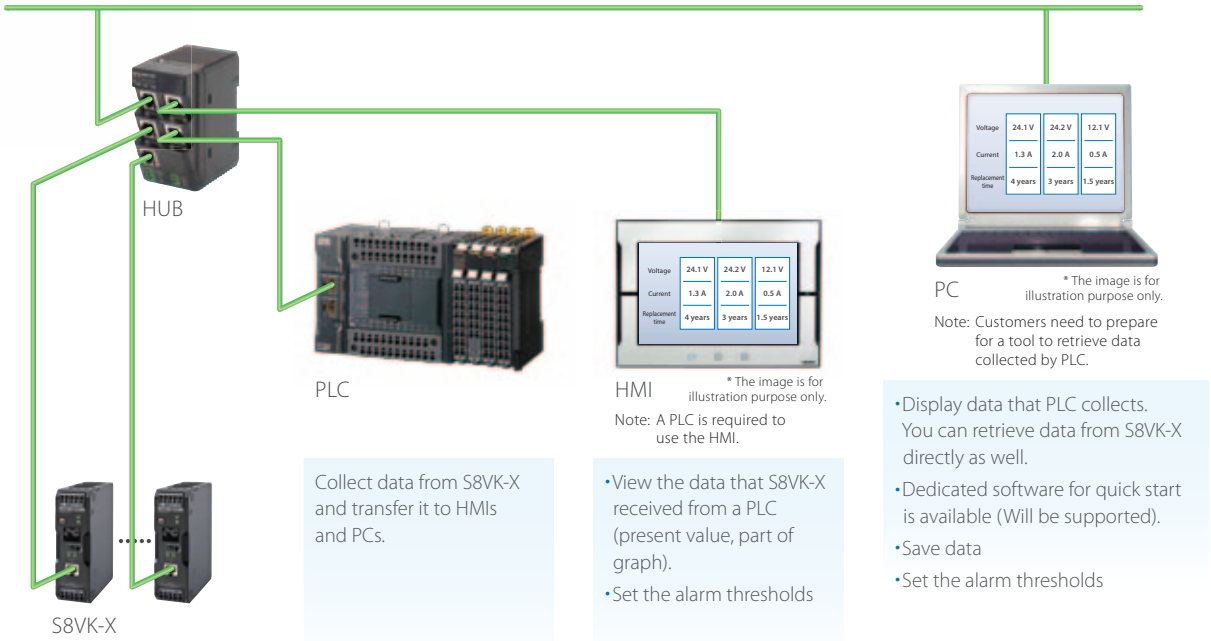
Value Design for Panel

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.

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

Compatible with EtherNet/IP™ / Modbus

System configuration example



* The image is for illustration purpose only.

Note: A PLC is required to use the HMI.

Note: Customers need to prepare for a tool to retrieve data collected by PLC.

Collect data from S8VK-X and transfer it to HMIs and PCs.

- View the data that S8VK-X received from a PLC (present value, part of graph).
- Set the alarm thresholds

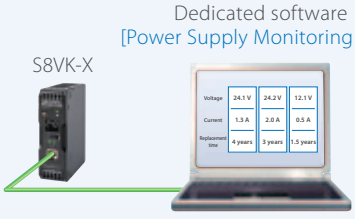
- Display data that PLC collects. You can retrieve data from S8VK-X directly as well.
- Dedicated software for quick start is available (Will be supported).
- Save data
- Set the alarm thresholds

I want to start right away.

Will be supported

Quick start

You can start easily using a dedicated Power Supply Monitoring Tool.



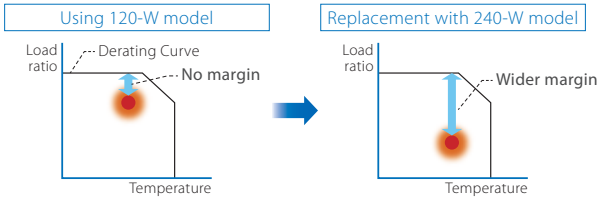
* The image is for illustration purpose only.

What you can do with Power Supply Monitoring Tool

- **Default setting of Power Supply (IP address etc.)**
- **Collective display of data, saving data, and the alarm display**

Voltage	24.1 V	24.2 V	12.1 V
Current	1.3 A	2.0 A	0.5 A
Replacement time	4 years	3 years	1.5 years

- **Verification of current operating environment & replacement simulation**



Simulation can be performed to see how much margin will be created when you replace the current product with bigger capacity one.

etc.

The status is displayed on the Power Supply monitor; More and more useful in various applications.

Easy to read white LED characters

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

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)

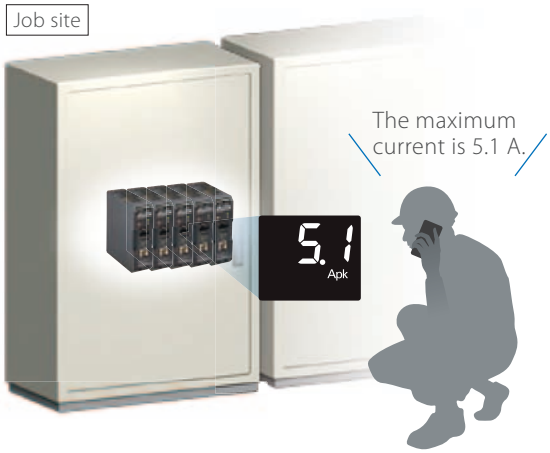
Advantages during malfunction and maintenance

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

What is the maximum current?

Contact person at the manufacturer or design division

Job site



Also you can check the number of years before 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*	Read	Read and write*
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	Read
Serial number		—	Read	Read	Read
Firmware version		—	Read	Read	Read
IP address Subnet mask Default gateway		—	Read and write	Read	Read and write
MAC address		—	Read	Read	Read

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

OMRON Corporation **Industrial Automation Company**
Kyoto, JAPAN

Contact: www.ia.omron.com

Regional Headquarters
OMRON EUROPE B.V.
Wegalaan 67-69, 2132 JD Hoofddorp
The Netherlands
Tel: (31)2356-81-300/Fax: (31)2356-81-388

OMRON ELECTRONICS LLC
2895 Greenspoint Parkway, Suite 200
Hoffman Estates, IL 60169 U.S.A.
Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

OMRON ASIA PACIFIC PTE. LTD.
No. 438A Alexandra Road # 05-05/08 (Lobby 2),
Alexandra Technopark,
Singapore 119967
Tel: (65) 6835-3011/Fax: (65) 6835-2711

OMRON (CHINA) CO., LTD.
Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China
Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200

Authorized Distributor:

CSM_1_1_1117
Cat. No. T211-E1-01 1117(1117)