

# Industrial Automation Guide 2016



Industrial Products & Systems

[industrial.omron.eu](http://industrial.omron.eu)

# Targeted Technologies

## Creating maximum output with minimum input

By identifying the many ways of innovation in specific industries we developed the 'targeted technologies' concept. It's a way of thinking about technology in a prioritized format. Prioritized according to our customers' most pressing needs. The result? A set of solutions that make immediate impact on the core of our customers' businesses. A set of solutions that hit the target every time. Take a look at the examples on our website.

[industrial.omron.eu/technologies](https://industrial.omron.eu/technologies)





## PROplus Line

If you have a complex application or one where you need to address special needs, then the PROplus Line is the answer. That's because PROplus products are designed to be customisable.

The possibility to modify a PROplus product means that your application is unique. However, this does not mean that the PROplus Line is not a ready-made solution. On the contrary, it is a challenge.

For example, the PROplus 4000 series is designed to be modified to meet your needs. It can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

## EE-NH temperature controller

The new EE-NH series is the most powerful and precise temperature controller. It features a 16-bit ADC and a 16-bit DAC. It also has a 16-bit timer and a 16-bit counter. It is designed to be modified to meet your needs. It can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

## The 361° Approach



OMRON

Industrial Automation Europe

Omron IAB partner

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Products > Technologies

## Technologies

### Creating maximum output with minimum input

Whatever type of automated machinery you are specialized in, you know that there are many ways to innovate. You are already aware that there are many possible areas for improvement. But where do you start? Where do you focus your efforts? Where can you make the biggest difference with the least amount of effort?

At Omron, we asked ourselves these questions too. And by identifying the answers in specific industries we developed the 'targeted technologies' concept. It's a way of thinking about technology in a prioritized format. Prioritized according to our customers' most pressing needs. The result? A set of solutions that make immediate impact on the core of our customers' businesses. A set of solutions that hit the target every time. Take a look at the examples below.

## Technologies

### Sysmac: the all-in-one platform

We know that machine builders prefer different product solutions for different challenges. But this can cause hierarchy headaches and communications issues. That's why we developed Sysmac: a single unified platform that is open, scalable, flexible, and totally focused on maximising the speed and flexibility of machines. A platform that integrates robotic, motion and sequential logic control into a single multitasking system.

[Learn more](#)



### 361°: the perfect match

When it comes to sensors and components, we know that our customers all have different needs. That's why our product development in this area is driven by the 361° Approach. It produces product families that offer a total all-round choice. From quality products suited to standard environments to specialist devices that can handle extremes. A full circle of choice, all with an extra degree of quality and proven reliability.

[Learn more](#)



## The 361° portfolio

**PROplus**  
PROplus products are designed for specific applications or customer demands.

[Learn more](#)



### LITE

LITE sensors are the most effective without any compromise in quality.

[Learn more](#)



### PRO

PRO sensors offer the best performance in your sensors and components. The Omron PRO Line is your perfect choice.

[Learn more](#)



## Product groups

### Sysmac controller

The Sysmac controller is the heart of the Sysmac system. It is designed to be modified to meet your needs. It can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

### Sensor

Sensors are the eyes of the machine. They are designed to be modified to meet your needs. They can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

### Robot

Robots are the hands of the machine. They are designed to be modified to meet your needs. They can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

### Actuator

Actuators are the muscles of the machine. They are designed to be modified to meet your needs. They can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

### Relay

Relays are the brains of the machine. They are designed to be modified to meet your needs. They can be modified to meet your needs in terms of I/O, communication, and more. This makes it a challenge to design a product that can meet all your needs.

## Related product news

### With new G2 sensors, you only pay for what you need

Optimizing relative placement sensors in the new G2 range has been specifically designed to offer a more effective sensing solution or standard sensing conditions, making it unnecessary to buy more sensors than you actually need.

[Learn more](#)

## Related product news

### ES16 - Omron's new photo sensors combine simplicity with performance

Drawing on our experience of manufacturing over a million production sensors a year, we have developed a new generation of photo sensors that combine simple selection, an excellent level of reliability, versatility, rugged construction and value for money.

[Learn more](#)

## Related product news

### RS-485 Control: New step towards the full integration of Automation

Release of RS-485 Control, in combination with Omron's new RS-485 Control, is a significant step towards the full integration of Automation.

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# Welcome to our world

## Our best-in-class devices for your automation system

Welcome to Omron's world of advanced industrial automation. The INDUSTRIAL AUTOMATION GUIDE is your essential tool to select best-in-class devices for your automation system. It highlights our core competences in sensing, control, visualisation, motion and panel components.

Of course, Omron offers a much larger range of products than you can find on the attached DVD. For more information on services and company competence visit our website.

Here you will find:

- Latest product news
- Technical product specifications
- 2D / 3D CAD Library
- Customer references
- Technology concepts
- Supporting product documentation
- Knowledge Base - "myOmron"
- Events Calendar
- Contact information

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# Industrial Automation Guide 2016

|                                         |                                            |     |
|-----------------------------------------|--------------------------------------------|-----|
|                                         | Omron at a glance .....                    | 3   |
|                                         | The 361° Approach .....                    | 4   |
|                                         | Sysmac: A fully integrated platform .....  | 6   |
|                                         | Product selection table .....              | 8   |
| <b>Automation systems</b>               | Machine automation controller .....        | 12  |
|                                         | Programmable logic controllers (PLC) ..... | 26  |
|                                         | Remote I/O .....                           | 54  |
|                                         | Human machine interfaces (HMI) .....       | 68  |
|                                         | I/O cables and terminal blocks .....       | 82  |
|                                         | Ethernet cables and accessories .....      | 91  |
| <b>Motion &amp; Drives</b>              | Motion controllers .....                   | 96  |
|                                         | Servo systems .....                        | 112 |
|                                         | Robots .....                               | 170 |
|                                         | Frequency inverters .....                  | 202 |
| <b>Sensing</b>                          | Photoelectric sensors .....                | 236 |
|                                         | Mark and Color sensors .....               | 278 |
|                                         | Lightcurtains and area sensors .....       | 284 |
|                                         | Fiber optic sensors and amplifiers .....   | 292 |
|                                         | Inductive sensors .....                    | 324 |
|                                         | Mechanical sensors/Limit switches .....    | 344 |
|                                         | Rotary encoders .....                      | 358 |
|                                         | Cable connectors .....                     | 366 |
| <b>Quality control &amp; Inspection</b> | Inspection & Ident systems .....           | 370 |
|                                         | Measurement sensors .....                  | 426 |
| <b>Safety</b>                           | Emergency stop and control devices .....   | 462 |
|                                         | Safety limit switches .....                | 472 |
|                                         | Safety door switches .....                 | 480 |
|                                         | Safety sensors .....                       | 506 |
|                                         | Safety logic control systems .....         | 544 |
|                                         | Safety outputs .....                       | 566 |
| <b>Control components</b>               | Temperature controllers .....              | 574 |
|                                         | Power supplies .....                       | 596 |
|                                         | Uninterruptible power supplies (UPS) ..... | 614 |
|                                         | Timers .....                               | 622 |
|                                         | Counters .....                             | 632 |
|                                         | Programmable relays .....                  | 642 |
|                                         | Digital panel indicators .....             | 650 |
|                                         | Energy monitoring devices .....            | 660 |
|                                         | Photovoltaic .....                         | 674 |
| <b>Switching components</b>             | Electromechanical relays .....             | 682 |
|                                         | Solid state relays .....                   | 696 |
|                                         | Low voltage switchgear .....               | 706 |
|                                         | Monitoring products .....                  | 722 |
|                                         | Pushbutton switches .....                  | 750 |
| <b>Software</b>                         | Software .....                             | 766 |
|                                         | Outline of Major Standards .....           | 772 |
|                                         | Index .....                                | 775 |

“To the machine the work of the machine,  
to man the thrill of further creation.”

Kazuma Tateisi, founder of Omron

# Omron at a glance

200.000 products ranging  
input, logic and output

Sensing, Control Systems, Visualization, Drives, Robots, Safety,  
Quality Control & Inspection, Control and Switching Components

7%

Investment in Research & Development

Innovation track  
record of 80 years

Top 150 global patent assignee

1.200 employees dedicated to R&D

11.000 + issued and pending patents

37.000

Employees worldwide

210

Locations worldwide

22

Countries in EMEA

Working for the  
benefit of society



## Close to your needs

Technical training & seminars, technical support, Automation Technology Centers, online community (MyOmron), online catalogues and technical documentation, customer service & sales support, inter-operability labs (Tsunagi), safety services, repairs.

# Your needs, our focus

## Solutions perfectly matching your needs

We asked ourselves: 'What do you need in sensors and components?' Well, first you need reliability. Then a variety and choice of performance levels. You may also want advanced functionality, with special features defined by you – or you may want standardized solutions, with highly competitive prices.

Whatever it is, it can all add up to a wish list that is difficult to fulfil. Until now. That's because our new 361° Approach not only provides a complete all-round offer without gaps, it also puts you at the very centre of the product selection process. It's an approach that leads to a Perfect Match – one with the extra degree of confidence that comes from choosing Omron.

### 361° in one view



Quality



Line-up



Application



Customization



Global availability



Specs

|                           | Quality                                                                                                     | Line-up                                       | Application                                              | Customization                                            | Global availability | Specs                                              |
|---------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|---------------------|----------------------------------------------------|
| <b>PRO<sup>plus</sup></b> | Premium                                                                                                     | Tailored                                      | Special                                                  | Yes                                                      | Yes                 | Application oriented                               |
| <b>PRO</b>                | Premium                                                                                                     | Complete                                      | Advanced                                                 | Yes                                                      | Yes                 | Above Standard                                     |
| <b>LITE</b>               | Premium                                                                                                     | Standard                                      | Basic                                                    | No                                                       | No                  | Basic                                              |
|                           | 'Quality' refers to the standard of manufacturing and the materials used – this translates into reliability | 'Line-up' refers to the number of model types | 'Application' indicates the complexity of the automation | 'Customization' is the possibility to modify the product |                     | 'Specs' refers to the choice of performance levels |



# The extra degree of advantage

## Three distinct lines of sensors and components

### Three distinct lines

361° Approach offers three distinct lines within each sensor or component product category. LITE products are cost-effective without any compromise in quality. PRO products represent the “install & forget” option, offering longer lifetime, higher protection, and more features. While PROplus products are designed for specific applications or customer demands.

### Optimized reliability

All three lines are backed by the Omron commitment to quality, so even when you need a price-competitive advantage, you can be confident that they will never let you down.

### Solutions that perfectly match your needs

The 361° Approach ensures that you can quickly and easily identify the perfect match solution to your needs – nothing more, nothing less.

### Optimized costs

Your sensor and component costs are also minimized – because it eliminates over-specification.

### Why an extra 1°?

The extra degree is what you get when you do business with Omron, and that means different things to different customers – all depending on their needs. For example, if you need specification advice, the extra degree is ‘service’. But ultimately, to everyone it means “an extra degree of confidence in the perfect match”.



# Sysmac: A fully integrated platform

## Integration and Functionality

Sysmac is an integrated automation platform dedicated to providing complete control and management of your automation plant. At the core of this platform, the Machine Controller series offers synchronous control of all machine devices and advanced functionality such as motion, robotics and database connectivity. This multidisciplinary concept allows you to simplify solution architecture, reduce programming and optimize productivity.

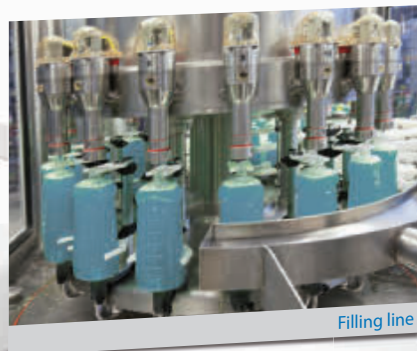


Machine Automation Controller

FACTORY  
AUTOMATION

MACHINE  
CONTROL

## Motion



Filling line

- Motion Control: Integrated within the IDE, and operating in real-time
- Standard PLCopen Function Blocks plus Omron generated motion FB's
- Direct Synchronous control for Position, Speed and Torque

## Safety



Assembly

- All safety related data is synchronized with the whole network
- Safety functions such as muting, guard locking, EDM and valve monitoring are simple to manage

- ✓ **One Integrated Development Environment software** for Configuration, Programming, Simulation and Monitoring



## Information



- Sysmac communicates in real-time with Databases such as SQL
- Secure Data: In the event of a server going down or losing communications, data is automatically stored in internal memory
- Sysmac operates with Databases at high speed [1000 table element/ 100 ms] ensuring realistic Big Data Processing to improve productivity and aid predictive maintenance etc.

### ✓ Integrated Automation Control:

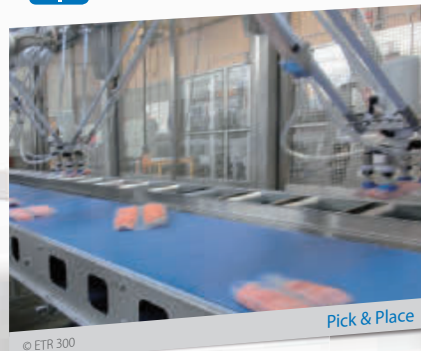
The Sysmac platform is scalable and provides the performance and functionality for a wide range of solutions from simple machines through to manufacturing cells

## Vision



- Higher resolution images available without increasing the vision processing time
- Shape search technology: Provides more stable and accurate object detection for Pick & Place projects

## Robotics



- Up to 8 Delta robots with one controller
- Time-based Robotic Function Blocks make programming easier

## Sensing



- Full control of the process parameter setting and predictive maintenance functions
- High precision detection and positioning data synchronized on the network

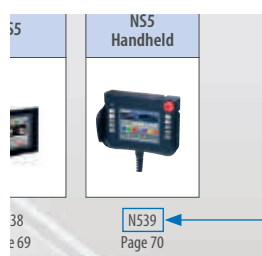
# Product selection table

|                      |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Automation systems   |    |    |    |    |
|                      | 12 Machine automation controller                                                    | 26 Programmable logic controllers (PLC)                                             | 54 Remote I/O                                                                        | 68 Human machine interfaces (HMI)                                                     |
|                      |    |    |    |    |
|                      | 96 Motion controllers                                                               | 112 Servo systems                                                                   | 170 Robots                                                                           | 202 Frequency inverters                                                               |
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|                      | 236 Photoelectric sensors                                                           | 278 Mark and Color sensors                                                          | 284 Lightcurtains and area sensors                                                   | 292 Fiber optic sensors and amplifiers                                                |
|                      |  |  |                                                                                      |                                                                                       |
|                      | 370 Inspection & Ident systems                                                      | 426 Measurement sensors                                                             |                                                                                      |                                                                                       |
| Safety               |  |  |  |  |
|                      | 462 Emergency stop and control devices                                              | 472 Safety limit switches                                                           | 480 Safety door switches                                                             | 506 Safety sensors                                                                    |
|                      |  |  |  |  |
|                      | 574 Temperature controllers                                                         | 596 Power supplies                                                                  | 614 Uninterruptible power supplies (UPS)                                             | 622 Timers                                                                            |
| Switching components |  |  |  |  |
|                      | 682 Electromechanical relays                                                        | 696 Solid state relays                                                              | 706 Low voltage switchgear                                                           | 722 Monitoring products                                                               |
|                      |  |                                                                                     |                                                                                      |                                                                                       |
|                      | 766 Software                                                                        |                                                                                     |                                                                                      |                                                                                       |
| Software             |                                                                                     |                                                                                     |                                                                                      |                                                                                       |

# Control components

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*Quick Link*



# Control components

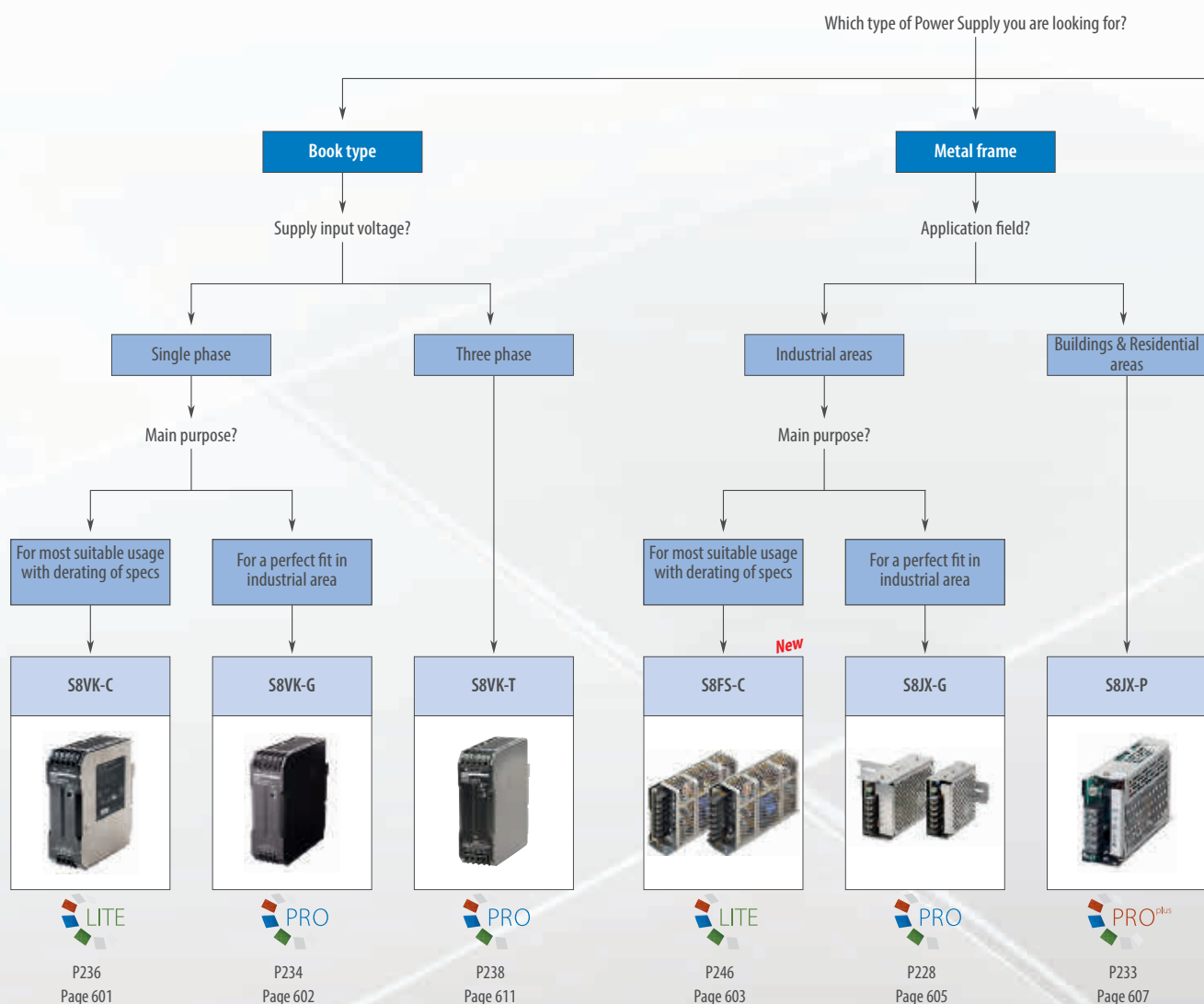
|                                                   |     |                                        |     |
|---------------------------------------------------|-----|----------------------------------------|-----|
| <b>Temperature controllers</b> .....              | 574 | <b>Timers</b> .....                    | 622 |
| Selection table .....                             | 576 | Selection table .....                  | 624 |
| <b>Basic temperature controllers</b>              |     | <b>Analog solid state timers</b>       |     |
| E5C2 .....                                        | 579 | H3DS .....                             | 627 |
| E5CSV .....                                       | 581 | H3DK .....                             | 628 |
| E5CB .....                                        | 582 | H3YN .....                             | 629 |
| K8AK-TH .....                                     | 749 | H3CR .....                             | 630 |
| E5L .....                                         | 574 | <b>Digital timers</b>                  |     |
| E5L-A/C .....                                     | 576 | H5CX .....                             | 631 |
| E5_L .....                                        | 576 | H8GN .....                             | 639 |
| <b>General purpose temperature controllers</b>    |     | <b>Counters</b> .....                  | 632 |
| E5_C .....                                        | 583 | Selection table .....                  | 634 |
| <b>Advanced and Multi-Loop controllers</b>        |     | <b>Totalisers</b>                      |     |
| E5_C-T .....                                      | 587 | H7EC .....                             | 636 |
| E5_R/E5_R-T .....                                 | 589 | H7ET .....                             | 637 |
| CelciuX® (EJ1) .....                              | 591 | H7ER .....                             | 638 |
| E5_N-H/E5_N-HT .....                              | 575 | <b>Pre-set counters</b>                |     |
| <b>Temperature sensors</b>                        |     | H8GN .....                             | 639 |
| E52-E .....                                       | 593 | H7CX .....                             | 640 |
| <b>Auxiliaries</b>                                |     | <b>Cam positioners</b>                 |     |
| PRT1-SCU11/ES1B .....                             | 594 | H8PS .....                             | 641 |
| ES1C/EJ1N-HFU-ETN .....                           | 595 | <b>Programmable relays</b> .....       | 642 |
| <b>Power supplies</b> .....                       | 596 | Selection table .....                  | 645 |
| Selection table .....                             | 598 | <b>Programmable relays</b>             |     |
| <b>Single-phase</b>                               |     | ZEN-10C .....                          | 646 |
| S8VK-C .....                                      | 601 | ZEN-20C .....                          | 647 |
| S8VK-G .....                                      | 602 | ZEN-8E .....                           | 648 |
| S8FS-C .....                                      | 603 | ZEN-PA .....                           | 649 |
| S8JX-G .....                                      | 605 | <b>Digital panel indicators</b> .....  | 650 |
| S8JX-P .....                                      | 607 | Selection table .....                  | 652 |
| S8EX .....                                        | 608 | <b>1/32 DIN multi-function</b>         |     |
| <b>Power back-up unit</b>                         |     | K3GN .....                             | 654 |
| S8TS .....                                        | 609 | <b>1/8 DIN standard indicators</b>     |     |
| S8T-DCBU-01/-02 .....                             | 610 | K3MA-J, -L, -F .....                   | 655 |
| S8BA .....                                        | 618 | <b>1/8 DIN advanced indicators</b>     |     |
| <b>Three-phase</b>                                |     | K3HB-X, -H, -V, -S .....               | 656 |
| S8VK-T .....                                      | 611 | K3HB-C, -P, -R .....                   | 658 |
| <b>Digital multi circuit protector</b>            |     | <b>Energy monitoring devices</b> ..... | 660 |
| S8M .....                                         | 612 | Selection table .....                  | 662 |
| <b>Redundancy unit</b>                            |     | <b>Smart power monitors</b>            |     |
| S8VK-R .....                                      | 613 | KM1 series .....                       | 665 |
| <b>Uninterruptible power supplies (UPS)</b> ..... | 614 | KM50-E1-FLK .....                      | 669 |
| Selection table .....                             | 617 | <b>Air flow sensors</b>                |     |
| <b>Uninterruptible power supplies (UPS)</b>       |     | D6FZ-FGT200/500/-FGS1000 .....         | 671 |
| S8BA .....                                        | 618 | <b>Power sensor stations</b>           |     |
| BU_2RWL .....                                     | 620 | ZN-KMX21 .....                         | 673 |
| <b>Photovoltaic</b> .....                         | 674 | <b>PID recovering</b>                  |     |
| Selection table .....                             | 677 | PID box series .....                   | 679 |
| <b>Three-phase</b>                                |     |                                        |     |
| KP100L .....                                      | 678 |                                        |     |

## RELIABLE AND EASY OPERATION – WORLDWIDE

### S8VK-G – The right power supply for your application

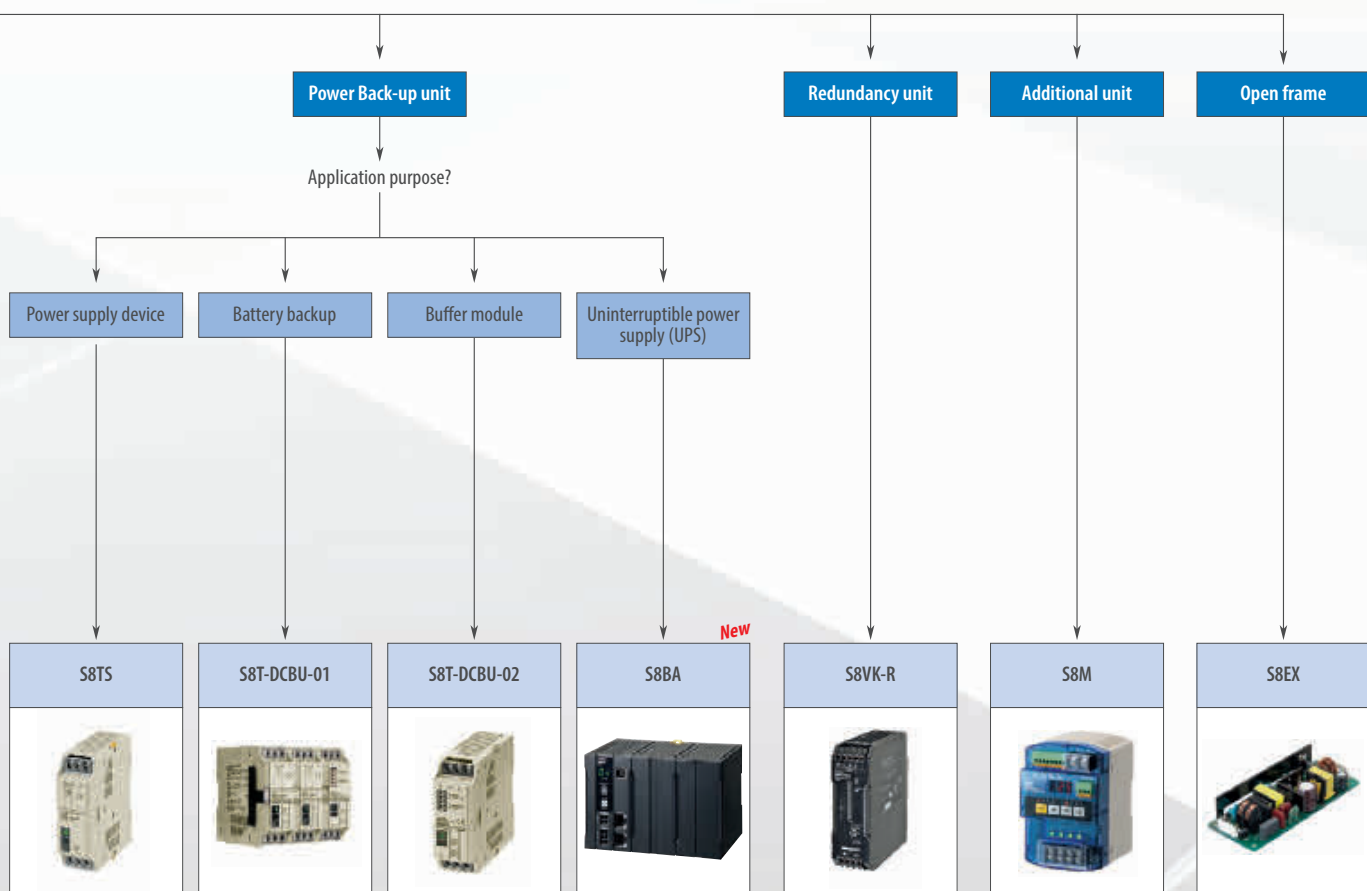
The S8VK-G offers a wide product range (from 15 W up to 480 W), in a very compact size. It is 13% smaller than comparable power supplies and the smallest on the market of its type.

- Wide operating temperature range (–40 to +70°C) to guarantee operation stability
- Double set of DC output terminals (three for the negative) to provide easy wiring
- High efficiency (90%) to reduce energy consumption
- Power Boost functionality (120%)
- Improved DIN-rail mounting clip to provide better vibration resistance and allow for easy installation
- For harsh environments coated models are now available. PCB coating protects against dust, corrosive gas and humidity.
- RoHS compliant





Explanation of 361° concept see page 4



Power supplies

P243  
Page 609

P244  
Page 610

P245  
Page 610





P247  
Page 618

PRO<sup>plus</sup>  
P237  
Page 613

P227  
Page 612

P239  
Page 608

# Selection table

| Category           |                               | Book type power supply                                                            |         |          |        |                                                                                   | Metal frame power supply                                                           |                                                                                     |         |         |         |
|--------------------|-------------------------------|-----------------------------------------------------------------------------------|---------|----------|--------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|---------|---------|
|                    |                               |  |         |          |        |  |  |  |         |         |         |
| Model              |                               | S8VK-G                                                                            |         |          |        | S8VK-C                                                                            | S8VK-T                                                                             | S8JX-P                                                                              |         |         |         |
| Selection Criteria | Type                          | Pro line                                                                          |         |          |        | Lite line                                                                         | Pro line                                                                           | Pro <sup>plus</sup> line                                                            |         |         |         |
|                    | Phases                        | Single phase                                                                      |         |          |        |                                                                                   | Three phases                                                                       | Single phase                                                                        |         |         |         |
|                    | Rated voltage                 | 100 V to 240 VAC (90 to 350 VDC)                                                  |         |          |        | 100 V to 240 VAC                                                                  | 3 × 320 V to 576 VAC                                                               | 100 V to 240 VAC                                                                    |         |         |         |
|                    | Voltage                       | 5 V                                                                               | 12 V    | 24 V     | 48 V   | 24 V                                                                              | 24 V                                                                               | 5 V                                                                                 | 12 V    | 24 V    | 48 V    |
| Power              | 15 W                          | ■ 3 A                                                                             | ■ 1.2 A | ■ 0.65 A | –      | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 25 W                          | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 30 W                          | ■ 5 A                                                                             | ■ 2.5 A | ■ 1.3 A  | –      | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 35 W                          | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 50 W                          | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | ■ 10 A                                                                              | ■ 4.2 A | ■ 2.1 A | ■ 1.1 A |
|                    | 60 W                          | –                                                                                 | ■ 4.5 A | ■ 2.5 A  | –      | ■ 2.5 A                                                                           | –                                                                                  | –                                                                                   |         |         |         |
|                    | 75 W                          | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 90 W                          | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 100 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | ■ 20 A                                                                              | ■ 8.5 A | ■ 4.5 A | ■ 2.1 A |
|                    | 120 W                         | –                                                                                 |         | ■ 5 A    | –      | ■ 5 A                                                                             | ■ 5 A                                                                              | –                                                                                   |         |         |         |
|                    | 150 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | ■ 30 A                                                                              | ■ 13 A  | ■ 6.5 A | ■ 3.3 A |
|                    | 180 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 200 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 240 W                         | –                                                                                 |         | ■ 10 A   | ■ 5 A  | ■ 10 A                                                                            | ■ 10 A                                                                             | –                                                                                   |         |         |         |
|                    | 300 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | ■ 60 A                                                                              | ■ 27 A  | ■ 14 A  | ■ 7 A   |
|                    | 350 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | 480 W                         | –                                                                                 |         | ■ 20 A   | ■ 10 A | ■ 20 A                                                                            | ■ 20 A                                                                             | –                                                                                   |         |         |         |
|                    | 600 W                         | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | ■ 120 A                                                                             | ■ 53 A  | ■ 27 A  | ■ 13 A  |
|                    | 960 W                         | –                                                                                 |         |          |        | –                                                                                 | ■ 40 A                                                                             | –                                                                                   |         |         |         |
|                    | 1,500 W                       | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
| Features           | Conforms to EN61000-3-2       | ■                                                                                 |         |          |        | –                                                                                 | ■                                                                                  | ■                                                                                   |         |         |         |
|                    | DC back-up                    | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | Capacitor back-up             | □                                                                                 |         |          |        | □                                                                                 | □                                                                                  | □                                                                                   |         |         |         |
|                    | Undervoltage alarm            | –                                                                                 |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | Overvoltage protection        | ■                                                                                 |         |          |        | ■                                                                                 | ■                                                                                  | ■                                                                                   |         |         |         |
|                    | Overload protection           | ■                                                                                 |         |          |        | ■                                                                                 | ■                                                                                  | ■                                                                                   |         |         |         |
|                    | DIN-rail mounting             | ■                                                                                 |         |          |        | ■                                                                                 | ■                                                                                  | ■                                                                                   |         |         |         |
|                    | Screw mounting (with bracket) | ■                                                                                 |         |          |        | ■                                                                                 | ■                                                                                  | ■                                                                                   |         |         |         |
|                    | EMI Class B                   | ■                                                                                 |         |          |        | –                                                                                 | ■                                                                                  | ■                                                                                   |         |         |         |
|                    | UL Class 2                    | ■ 15 W, 30 W, 60 W only                                                           |         |          |        | –                                                                                 | –                                                                                  | –                                                                                   |         |         |         |
|                    | N+1 Redundancy                | □                                                                                 |         |          |        | □                                                                                 | □                                                                                  | –                                                                                   |         |         |         |
|                    | Parallel operation            | ■ by 2 units                                                                      |         |          |        | –                                                                                 | ■ by 2 units                                                                       | ■ 300 W, 600 W only by 5 units                                                      |         |         |         |
| Power Boost        | ■ 120%                        |                                                                                   |         |          | –      | ■ 120%                                                                            | ■ 300 W, 600 W at 24 V 115%                                                        |                                                                                     |         |         |         |
| Page/Quick Link    |                               | 602/P234                                                                          |         |          |        | 601/P236                                                                          | 611/P238                                                                           | 607/P233                                                                            |         |         |         |

| Metal frame power supply                                                          |         |         |          |          |                                                                                   |          |         |          |         | Modular                                                                            |         |         | Open frame power supply                                                             |        |          |         |         |      |          |  |
|-----------------------------------------------------------------------------------|---------|---------|----------|----------|-----------------------------------------------------------------------------------|----------|---------|----------|---------|------------------------------------------------------------------------------------|---------|---------|-------------------------------------------------------------------------------------|--------|----------|---------|---------|------|----------|--|
|  |         |         |          |          |  |          |         |          |         |  |         |         |  |        |          |         |         |      |          |  |
| S8JX-G                                                                            |         |         |          |          | S8FS-C                                                                            |          |         |          |         | S8TS                                                                               |         |         | S8EX                                                                                |        |          |         |         |      |          |  |
| Pro line                                                                          |         |         |          |          | Lite line                                                                         |          |         |          |         |                                                                                    |         |         |                                                                                     |        |          |         |         |      |          |  |
| Single phase                                                                      |         |         |          |          |                                                                                   |          |         |          |         |                                                                                    |         |         |                                                                                     |        |          |         |         |      |          |  |
| 100 V to 240 VAC                                                                  |         |         |          |          | 100 V to 240 VAC                                                                  |          |         |          |         | 100 V to 240 VAC                                                                   |         |         | 100 to 240 VAC (85 to 264 VAC)                                                      |        |          |         |         |      |          |  |
| 5 V                                                                               | 12 V    | 15 V    | 24 V     | 48 V     | 5 V                                                                               | 12 V     | 15 V    | 24 V     | 36 V    | 48 V                                                                               | 5 V     | 12 V    | 24 V                                                                                | 5 V    | 12 V     | 15 V    | 24 V    | 36 V | 48 V     |  |
| ■ 3 A                                                                             | ■ 1.3 A | ■ 1.0 A | ■ 0.65 A | ■ 0.35 A | ■ 3 A                                                                             | ■ 1.3 A  | ■ 1 A   | ■ 0.7 A  | –       | –                                                                                  | –       | –       | –                                                                                   | ■ 3 A  | ■ 1.3 A  | ■ 1.0 A | ■ 0.7 A | –    | ■ 0.32 A |  |
| –                                                                                 |         |         |          |          | ■ 5 A                                                                             | ■ 2.1 A  | ■ 1.7 A | ■ 1.1 A  | –       | –                                                                                  | ■ 5 A   | –       | –                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  | ■ 2.5 A | –       | –                                                                                   | ■ 6 A  | ■ 2.5 A  | ■ 2 A   | ■ 1.3 A | –    | ■ 0.65 A |  |
| ■ 7 A                                                                             | ■ 3 A   | ■ 2.4 A | ■ 1.5 A  | ■ 0.75 A | ■ 7 A                                                                             | ■ 3 A    | ■ 2.4 A | ■ 1.5 A  | –       | –                                                                                  | –       | –       | –                                                                                   | –      |          |         |         |      |          |  |
| ■ 10 A                                                                            | ■ 4.2 A | –       | ■ 2.1 A  | ■ 1.1 A  | ■ 10 A                                                                            | ■ 4.2 A  | ■ 3.4 A | ■ 2.2 A  | –       | ■ 1.1 A                                                                            | –       | –       | –                                                                                   | ■ 10 A | ■ 4.3 A  | –       | ■ 2.1 A | –    | ■ 1.1 A  |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  | ■ 5 A   | ■ 2.5 A | –                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | ■ 14 A                                                                            | ■ 6.2 A  | ■ 5 A   | ■ 3.2 A  | –       | ■ 1.6 A                                                                            | –       | –       | –                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  | ■ 7.5 A | –       | –                                                                                   | –      |          |         |         |      |          |  |
| ■ 20 A                                                                            | ■ 8.5 A | –       | ■ 4.5 A  | ■ 2.1 A  | ■ 20 A                                                                            | ■ 8.5 A  | ■ 7 A   | ■ 4.5 A  | ■ 2.8 A | ■ 2.3 A                                                                            | –       | –       | –                                                                                   | ■ 20 A | ■ 8.5 A  | –       | ■ 4.3 A | –    | ■ 2.1 A  |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  | ■ 10 A  | ■ 5 A   | –                                                                                   | –      |          |         |         |      |          |  |
| ■ 30 A                                                                            | ■ 13 A  | –       | ■ 6.5 A  | ■ 3.3 A  | ■ 26 A                                                                            | ■ 12.5 A | ■ 10 A  | ■ 6.5 A  | ■ 4.3 A | ■ 3.3 A                                                                            | –       | –       | –                                                                                   | ■ 30 A | ■ 12.5 A | –       | ■ 6.3 A | –    | ■ 3.2 A  |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  | –       | ■ 7.5 A | –                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | ■ 40 A                                                                            | ■ 17 A   | –       | ■ 8.8 A  | ■ 5.9 A | ■ 4.43 A                                                                           | –       | –       | –                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  | –       | ■ 10 A  | –                                                                                   | –      | ■ 10 A   | ■ 6.7 A | ■ 5 A   | –    |          |  |
| ■ 60 A                                                                            | ■ 27 A  | –       | ■ 14 A   | ■ 7 A    | –                                                                                 |          |         |          |         | –                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | ■ 60 A                                                                            | ■ 29 A   | –       | ■ 14.6 A | ■ 9.7 A | ■ 7.32 A                                                                           | –       | –       | –                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| ■ 120 A                                                                           | ■ 53 A  | –       | ■ 27 A   | ■ 13 A   | –                                                                                 |          |         |          |         | –                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | ■ Up to 150 W models                                                              |          |         |          |         | –                                                                                  |         |         | ■                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | □                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | □                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| ■                                                                                 | ■       |         |          |          | ■                                                                                 |          |         |          |         | ■                                                                                  |         |         | ■                                                                                   |        |          |         |         |      |          |  |
| ■                                                                                 | ■       |         |          |          | ■                                                                                 |          |         |          |         | ■                                                                                  |         |         | ■                                                                                   |        |          |         |         |      |          |  |
| ■                                                                                 | ■       |         |          |          | ■                                                                                 |          |         |          |         | ■                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| ■                                                                                 | ■       |         |          |          | ■                                                                                 |          |         |          |         | –                                                                                  |         |         | □                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | ■ Up to 150 W models                                                              |          |         |          |         | ■                                                                                  |         |         | ■                                                                                   |        |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | ■                                                                                  |         |         | ■ 1 unit                                                                            | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | ■                                                                                  |         |         | –                                                                                   |        |          |         |         |      |          |  |
| ■ 300 W, 600 W only by 5 units                                                    |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | ■                                                                                   | –      |          |         |         |      |          |  |
| –                                                                                 |         |         |          |          | –                                                                                 |          |         |          |         | –                                                                                  |         |         | □                                                                                   |        |          |         |         |      |          |  |
| 605/P228                                                                          |         |         |          |          | 603/P246                                                                          |          |         |          |         | 609/P243                                                                           |         |         | 608/P239                                                                            |        |          |         |         |      |          |  |

■ Standard

□ Available

– No/not available







### The cost effective book type power supply

The S8VK-C Lite family is an ideal choice for cost-sensitive applications that require a dependable high-quality power supply. The S8VK-C have an universal 100 to 240 V 50/60 Hz input capability (DC input (90 to 350 VDC) also possible) and they are available with power ratings from 60 to 480 W.

- Operating temperature range of –25 to 60°C
- Double set of DC output terminals (three for the negative) provide easy wiring
- Overload and overvoltage protection
- Conforms to EN61204-3, EN55011 Class A
- RoHS compliant

### Ordering information

| Type                         | Power ratings | Input voltage                                                                          | Output voltage | Output current | Size (W × H × D) [mm] | Order code  |
|------------------------------|---------------|----------------------------------------------------------------------------------------|----------------|----------------|-----------------------|-------------|
| Power supply<br>Single-phase | 60 W          | Single phase 100 to 240 VAC<br><br>Allowable range:<br>85 to 264 VAC,<br>90 to 350 VDC | 24 V           | 2.5 A          | 32 × 90 × 110         | S8VK-C06024 |
|                              | 120 W         |                                                                                        | 24 V           | 5 A            | 40 × 125 × 113        | S8VK-C12024 |
|                              | 240 W         |                                                                                        | 24 V           | 10 A           | 60 × 125 × 140        | S8VK-C24024 |
|                              | 480 W         |                                                                                        | 24 V           | 20 A           | 95 × 125 × 140        | S8VK-C48024 |

### Specifications

| Item                          |                                       | 60 W                                                                                                                           | 120 W | 240 W | 480 W |
|-------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| Efficiency (Typ. at 230 VAC)  |                                       | 88%                                                                                                                            | 89%   | 89%   | 92%   |
| Input                         | Rated input voltage                   | 100 to 240 VAC                                                                                                                 |       |       |       |
|                               | Allowable range                       | 85 to 264 VAC, 90 to 350 VDC                                                                                                   |       |       |       |
| Output                        | Voltage adjustment range (with V.ADJ) | –10% to 15%                                                                                                                    |       |       |       |
|                               | Input variation influence             | 0.5% max. (at 85 to 264 VAC input, 100% load)                                                                                  |       |       |       |
|                               | Load variation influence              | 1.5% max. at 0% to 100% load                                                                                                   |       |       |       |
|                               | Temperature variation influence       | 0.05%/°C max.                                                                                                                  |       |       |       |
| Overload protection           |                                       | Yes                                                                                                                            |       |       |       |
| Overvoltage protection        |                                       | Yes                                                                                                                            |       |       |       |
| Operating ambient temperature |                                       | –25 to 60°C (–13 to 140°F)                                                                                                     |       |       |       |
| Series operation              |                                       | Yes, up to 2 units                                                                                                             |       |       |       |
| Parallel operation            |                                       | No                                                                                                                             |       |       |       |
| EMI                           |                                       | Conforms to EN 61204-3, EN 55011 Class A                                                                                       |       |       |       |
| EMS                           |                                       | Conforms to EN 61204-3 high severity levels                                                                                    |       |       |       |
| Approved standards            |                                       | UL: UL 508 (Listing), UL 60950-1, cUL: CSA C22.2 No. 107.1 and No. 60950-1, EN/VDE: EN 50178 (=VDE0160), EN 60950-1 (=VDE0805) |       |       |       |
| Degree of protection          |                                       | IP20 by EN/IEC 60529                                                                                                           |       |       |       |

For more information, please enter “P236” in the search field on our website [industrial.omron.eu](http://industrial.omron.eu).



### The standard book type power supply

The standard S8VK-G Pro line is our “install and forget” option, offering longer lifetime, higher protection and more features. The S8VK-G offers a wide product range (from 15 up to 480 W), in a very compact package. There are models available for 5, 12, 24 and 48 VDC output voltage. DC input (90 to 350 VDC) is also available through the whole range.

- Wide operating temperature range (–40 to 70°C) that guarantees stable operation
- Double set of DC output terminals (three for the negative) provide easy wiring
- High efficiency 90% to reduce the energy consumption
- Power boost functionality (120%) for the right start of the application
- Improved DIN-rail mounting clip provides a better resistance to vibrations and allows easy installation (using one hand to mount in a flash)
- For harsh environments coated models are now available. PCB coating protects against dust, corrosive gas and humidity.
- RoHS compliant

### Ordering information

| Type                         | Power ratings | Input voltage                                                                                               | Output voltage | Output current | Size (W × H × D) [mm] | Order code      |                 |
|------------------------------|---------------|-------------------------------------------------------------------------------------------------------------|----------------|----------------|-----------------------|-----------------|-----------------|
|                              |               |                                                                                                             |                |                |                       | Standard models | Coated models   |
| Power supply<br>Single-phase | 15 W          | 100 to 240 VAC<br><br>Allowable range:<br>85 to 264 VAC,<br>90 to 350 VDC,<br>2 phases less than<br>240 VAC | 5 V            | 3 A            | 22.5 × 90 × 90        | S8VK-G01505     | S8VK-G01505-400 |
|                              |               |                                                                                                             | 12 V           | 1.2 A          |                       | S8VK-G01512     | S8VK-G01512-400 |
|                              |               |                                                                                                             | 24 V           | 0.65 A         |                       | S8VK-G01524     | S8VK-G01524-400 |
|                              | 30 W          |                                                                                                             | 5 V            | 5 A            | 32 × 90 × 90          | S8VK-G03005     | S8VK-G03005-400 |
|                              |               |                                                                                                             | 12 V           | 2.5 A          |                       | S8VK-G03012     | S8VK-G03012-400 |
|                              |               |                                                                                                             | 24 V           | 1.3 A          |                       | S8VK-G03024     | S8VK-G03024-400 |
|                              | 60 W          |                                                                                                             | 12 V           | 4.5 A          | 32 × 90 × 110         | S8VK-G06012     | S8VK-G06012-400 |
|                              |               |                                                                                                             | 24 V           | 2.5 A          |                       | S8VK-G06024     | S8VK-G06024-400 |
|                              | 120 W         |                                                                                                             | 24 V           | 5 A            | 40 × 125 × 113        | S8VK-G12024     | S8VK-G12024-400 |
|                              | 240 W         |                                                                                                             | 24 V           | 10 A           | 60 × 125 × 140        | S8VK-G24024     | S8VK-G24024-400 |
|                              |               |                                                                                                             | 48 V           | 5 A            |                       | S8VK-G24048     | S8VK-G24048-400 |
|                              | 480 W         |                                                                                                             | 24 V           | 20 A           | 95 × 125 × 140        | S8VK-G48024     | S8VK-G48024-400 |
|                              |               |                                                                                                             | 48 V           | 10 A           |                       | S8VK-G48048     | S8VK-G48048-400 |

### Specifications

| Item                          |                                       | 15 W                                                                                                                                                                                                                    | 30 W       | 60 W       | 120 W      | 240 W      | 480 W      |
|-------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|
| Efficiency (Typ. at 230 VAC)  |                                       | 80% (24 V)                                                                                                                                                                                                              | 86% (24 V) | 88% (24 V) | 89% (24 V) | 92% (24 V) | 93% (24 V) |
| Input                         | Rated input voltage                   | 100 to 240 VAC                                                                                                                                                                                                          |            |            |            |            |            |
|                               | Allowable range                       | 85 to 264 VAC, 90 to 350 VDC. 2 phases less than 240 VAC                                                                                                                                                                |            |            |            |            |            |
| Output                        | Voltage adjustment range (with V.ADJ) | –10% to 15%                                                                                                                                                                                                             |            |            |            |            |            |
|                               | Input variation influence             | 0.5% max. (at 85 to 264 VAC input, 100% load)                                                                                                                                                                           |            |            |            |            |            |
|                               | Load variation influence              | 3.0% max. (5 V), 2.0% max. (12 V), 1.5% max. (24, 48 V), at 0% to 100% load                                                                                                                                             |            |            |            |            |            |
|                               | Temperature variation influence       | 0.05%/°C max.                                                                                                                                                                                                           |            |            |            |            |            |
| Overload protection           |                                       | Yes, 130% of rated current typ.                                                                                                                                                                                         |            |            |            |            |            |
| Power Boost                   |                                       | 120% of rated current                                                                                                                                                                                                   |            |            |            |            |            |
| Overvoltage protection        |                                       | Yes                                                                                                                                                                                                                     |            |            |            |            |            |
| Operating ambient temperature |                                       | –40 to 70°C (–40 to 158°F)                                                                                                                                                                                              |            |            |            |            |            |
| Series operation              |                                       | Yes, up to 2 units                                                                                                                                                                                                      |            |            |            |            |            |
| Parallel operation            |                                       | Yes, up to 2 units                                                                                                                                                                                                      |            |            |            |            |            |
| EMI                           |                                       | Conforms to EN 61204-3, EN 55011 Class B                                                                                                                                                                                |            |            |            |            |            |
| EMS                           |                                       | Conforms to EN 61204-3 high severity levels                                                                                                                                                                             |            |            |            |            |            |
| Harmonic current emissions    |                                       | Conforms to EN 61000-3-2                                                                                                                                                                                                |            |            |            |            |            |
| Approved standards            |                                       | UL: UL 508 (Listing), UL 60950-1, cUL: CSA C22.2 No. 107.1 and No. 60950-1, UL 1310 Class 2 output for 15 W, 30 W, 60 W<br>EN/VDE: EN 50178 (=VDE0160), EN 60950-1 (=VDE0805),<br>Lloyd's Register<br>ANSI/ISA 12.12.01 |            |            |            |            |            |
| Fulfilled standards           |                                       | SELV (EN 60950-1/EN 50178/UL 60950-1), PELV(EN 60204-1,EN 50178),<br>Safety of power transformers (EN 61558-2-16), EN 50274 for terminal parts                                                                          |            |            |            |            |            |
| Degree of protection          |                                       | IP20 by EN/IEC 60529                                                                                                                                                                                                    |            |            |            |            |            |

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### High reliability at a reasonable price

The S8FS-C Lite family of metal framed power supplies is our best standard power supply for material cost reduction. S8FS-C has high reliability. The range covers up to 350 W and is available with 5, 12, 15, 24, 36 or 48 VDC output voltages.

- Wide range in wattage (15, 25, 35, 50, 75, 100, 150, 200, 350 W) and DC-output voltage (5, 12, 15, 24, 36 or 48 VDC)
- Wide input ranges: 100 to 120 VAC and 200 to 240 VAC
- Overload, over-voltage and short circuit protection
- Easy mounting to DIN-rail with mounting brackets (sold separately)
- Global standards: Conforms to CE (all models), approved for UL (all models) and CCC (15 to 150 W models)
- EMI EN 55011 Class B compliant (15 to 150 W models)

### Ordering information

| Power rating | Output voltage (VDC) | Output current | Size in mm (H x W x D) | Order code                              |                                          |
|--------------|----------------------|----------------|------------------------|-----------------------------------------|------------------------------------------|
|              |                      |                |                        | Model with terminal block facing upward | Model with terminal block facing forward |
| 15 W         | 5 V                  | 3 A            | 51×28×78               | —                                       | S8FS-C01505J                             |
|              | 12 V                 | 1.3 A          |                        |                                         | S8FS-C01512J                             |
|              | 15 V                 | 1 A            |                        |                                         | S8FS-C01515J                             |
|              | 24 V                 | 0.7 A          |                        |                                         | S8FS-C01524J                             |
| 25 W         | 5 V                  | 5 A            | 82×35×99               | S8FS-C02505                             | S8FS-C02505J                             |
|              | 12 V                 | 2.1 A          |                        | S8FS-C02512                             | S8FS-C02512J                             |
|              | 15 V                 | 1.7 A          |                        | S8FS-C02515                             | S8FS-C02515J                             |
|              | 24 V                 | 1.1 A          |                        | S8FS-C02524                             | S8FS-C02524J                             |
| 35 W         | 5 V                  | 7 A            | 97×36×99               | S8FS-C03505                             | S8FS-C03505J                             |
|              | 12 V                 | 3 A            |                        | S8FS-C03512                             | S8FS-C03512J                             |
|              | 15 V                 | 2.4 A          |                        | S8FS-C03515                             | S8FS-C03515J                             |
|              | 24 V                 | 1.5 A          |                        | S8FS-C03524                             | S8FS-C03524J                             |
| 50 W         | 5 V                  | 10 A           | 97×38×129              | S8FS-C05005                             | S8FS-C05005J                             |
|              | 12 V                 | 4.2 A          |                        | S8FS-C05012                             | S8FS-C05012J                             |
|              | 15 V                 | 3.4 A          |                        | S8FS-C05015                             | S8FS-C05015J                             |
|              | 24 V                 | 2.2 A          |                        | S8FS-C05024                             | S8FS-C05024J                             |
|              | 48 V                 | 1.1 A          |                        | S8FS-C05048                             | S8FS-C05048J                             |
| 75 W         | 5 V                  | 14 A           | 97×38×159              | S8FS-C07505                             | S8FS-C07505J                             |
|              | 12 V                 | 6.2 A          |                        | S8FS-C07512                             | S8FS-C07512J                             |
|              | 15 V                 | 5 A            |                        | S8FS-C07515                             | S8FS-C07515J                             |
|              | 24 V                 | 3.2 A          |                        | S8FS-C07524                             | S8FS-C07524J                             |
|              | 48 V                 | 1.6 A          |                        | S8FS-C07548                             | S8FS-C07548J                             |
| 100 W        | 5 V                  | 20 A           | 97×38×159              | S8FS-C10005                             | S8FS-C10005J                             |
|              | 12 V                 | 8.5 A          |                        | S8FS-C10012                             | S8FS-C10012J                             |
|              | 15 V                 | 7 A            |                        | S8FS-C10015                             | S8FS-C10015J                             |
|              | 24 V                 | 4.5 A          |                        | S8FS-C10024                             | S8FS-C10024J                             |
|              | 36 V                 | 2.8 A          |                        | S8FS-C10036                             | S8FS-C10036J                             |
|              | 48 V                 | 2.3 A          |                        | S8FS-C10048                             | S8FS-C10048J                             |
| 150 W        | 5 V                  | 26 A           | 97×38×199              | S8FS-C15005                             | S8FS-C15005J                             |
|              | 12 V                 | 12.5 A         |                        | S8FS-C15012                             | S8FS-C15012J                             |
|              | 15 V                 | 10 A           |                        | S8FS-C15015                             | S8FS-C15015J                             |
|              | 24 V                 | 6.5 A          |                        | S8FS-C15024                             | S8FS-C15024J                             |
|              | 36 V                 | 4.3 A          |                        | S8FS-C15036                             | S8FS-C15036J                             |
|              | 48 V                 | 3.3 A          |                        | S8FS-C15048                             | S8FS-C15048J                             |
| 200 W        | 5 V                  | 40 A           | 112.5×50×212           | S8FS-C20005                             | S8FS-C20005J                             |
|              | 12 V                 | 17 A           |                        | S8FS-C20012                             | S8FS-C20012J                             |
|              | 24 V                 | 8.8 A          |                        | S8FS-C20024                             | S8FS-C20024J                             |
|              | 36 V                 | 5.9 A          |                        | S8FS-C20036                             | S8FS-C20036J                             |
|              | 48 V                 | 4.43 A         |                        | S8FS-C20048                             | S8FS-C20048J                             |
| 350 W        | 5 V                  | 60 A           | 112.5×50×212           | S8FS-C35005                             | S8FS-C35005J                             |
|              | 12 V                 | 29 A           |                        | S8FS-C35012                             | S8FS-C35012J                             |
|              | 24 V                 | 14.6 A         |                        | S8FS-C35024                             | S8FS-C35024J                             |
|              | 36 V                 | 9.7 A          |                        | S8FS-C35036                             | S8FS-C35036J                             |
|              | 48 V                 | 7.32 A         |                        | S8FS-C35048                             | S8FS-C35048J                             |

## Specifications

| Item                          |                                          | 15 W                                                                                                                 | 25 W       | 35 W       | 50 W       | 75 W       | 100 W                                                    | 150 W                                          | 200 W                                                | 350 W                                                |  |  |
|-------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|----------------------------------------------------------|------------------------------------------------|------------------------------------------------------|------------------------------------------------------|--|--|
| Efficiency (Typ. at 230 VAC)  |                                          | 87% (24 V)                                                                                                           | 88% (24 V) | 87% (24 V) | 86% (24 V) | 87% (24 V) | 87% (24 V)                                               | 87% (24 V)                                     | 88% (24 V)                                           | 88% (24 V)                                           |  |  |
| Input                         | Rated input voltage                      | 100 to 240 VAC                                                                                                       |            |            |            |            | 100 to 120 VAC/200 to 240 VAC, Switchable                |                                                |                                                      |                                                      |  |  |
|                               | Allowable range                          | 85 to 264 VAC or 120 to 370 VDC (DC is not applicable for the safety standards.)                                     |            |            |            |            | 85 to 132 VAC/<br>176 to 264 VAC<br>or 248 to<br>373 VDC | 90 to 132 VAC/180 to 264 VAC or 254 to 373 VDC |                                                      |                                                      |  |  |
| Output                        | Voltage adjustment range<br>(with V.ADJ) | -10% to 10% (with V.ADJ)                                                                                             |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
|                               | Input variation influence                | 0.5% max. (at 85 to 264 VAC input, 100% load)                                                                        |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
|                               | Load variation Influence                 | 1.0% max. at 0% to 100% load                                                                                         |            |            |            |            |                                                          |                                                |                                                      | 1.0% max. at<br>0% to 100%<br>load (2.0% for<br>5 V) |  |  |
|                               | Temperature variation<br>influence       | 0.03%/°C max.                                                                                                        |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
| Overload protection           |                                          | Yes, automatic reset                                                                                                 |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
| Overvoltage protection        |                                          | Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input again) |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
| Operating ambient temperature |                                          | -20 to 60°C (with no condensation or icing)                                                                          |            |            |            |            |                                                          |                                                | -20 to 50°C<br>(with no<br>condensation<br>or icing) | -20 to 60°C<br>(with no<br>condensation<br>or icing) |  |  |
| Series operation              |                                          | Yes, up to 2 units (external diodes are required)                                                                    |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
| Parallel operation            |                                          | No (However, backup operation is possible, external diodes are required)                                             |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
| EMI                           |                                          | Conforms to EN 61204-3, EN 55011 Class B                                                                             |            |            |            |            |                                                          |                                                | Conforms to EN 61204-3,<br>EN 55011 Class A          |                                                      |  |  |
| EMS                           |                                          | Conforms to EN 61204-3 high severity levels                                                                          |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |
| Approved standards            |                                          | UL: UL60950-1, cUL: CSA C22.2 No. 60950-1<br>EN: EN60950-1<br>CCC: GB4943 (up to 150 W model)                        |            |            |            |            |                                                          |                                                |                                                      |                                                      |  |  |





### Slim and economic power supply

The S8JX-G is Omron's cost effective power supply delivering Omron's quality and reliability. The range of this Power Supply covers up to 600 W, the output voltages are 5, 12, 15, 24 or 48 VDC. The low profile and multiple mounting options help you reduce panel space. With a minimum life expectancy of 10 years and protection against over-voltage, over-current and short circuiting, the S8JX-G has the reliability you expect from Omron.

- Wide range in DC-output voltage (5 V, 12 V, 15 V, 24 V and 48 V) and wattage (15 to 600 W)
- LED indication power ON
- Over-voltage, over-current, and short circuit protection
- Vibration resistance 4,5 g
- All models can be DIN-rail mounted
- Approvals: UL, cUL, UL508 Listed, SEMI F47, VDE

### Ordering information

| Power ratings | Output voltage | Output current | Size in mm (H × W × D) | Order code    |
|---------------|----------------|----------------|------------------------|---------------|
| 15 W          | 5 V            | 3 A            | 91 × 40 × 90           | S8JX-G01505CD |
|               | 12 V           | 1.3 A          |                        | S8JX-G01512CD |
|               | 15 V           | 1 A            |                        | S8JX-G01515CD |
|               | 24 V           | 0.65 A         |                        | S8JX-G01524CD |
|               | 48 V           | 0.35 A         |                        | S8JX-G01548CD |
| 35 W          | 5 V            | 7 A            | 92 × 40 × 100          | S8JX-G03505CD |
|               | 12 V           | 3 A            |                        | S8JX-G03512CD |
|               | 15 V           | 2.4 A          |                        | S8JX-G03515CD |
|               | 24 V           | 1.5 A          |                        | S8JX-G03524CD |
|               | 48 V           | 0.75 A         |                        | S8JX-G03548CD |
| 50 W          | 5 V            | 10 A           | 92 × 40 × 100          | S8JX-G05005CD |
|               | 12 V           | 4.2 A          |                        | S8JX-G05012CD |
|               | 24 V           | 2.1 A          |                        | S8JX-G05024CD |
|               | 48 V           | 1.1 A          |                        | S8JX-G05048CD |
| 100 W         | 5 V            | 20 A           | 92 × 50 × 150          | S8JX-G10005CD |
|               | 12 V           | 8.5 A          |                        | S8JX-G10012CD |
|               | 24 V           | 4.5 A          |                        | S8JX-G10024CD |
|               | 48 V           | 2.1 A          |                        | S8JX-G10048CD |
| 150 W         | 5 V            | 30 A           | 92 × 60 × 178          | S8JX-G15005CD |
|               | 12 V           | 13 A           | 92 × 50 × 150          | S8JX-G15012CD |
|               | 24 V           | 6.5 A          |                        | S8JX-G15024CD |
|               | 48 V           | 3.3 A          |                        | S8JX-G15048CD |
| 300 W         | 5 V            | 60 A           | 92 × 110 × 164.5       | S8JX-G30005CD |
|               | 12 V           | 27 A           | 92 × 110 × 167         | S8JX-G30012CD |
|               | 24 V           | 14 A           |                        | S8JX-G30024CD |
|               | 48 V           | 7 A            |                        | S8JX-G30048CD |
| 600 W         | 5 V            | 120 A          | 92 × 150 × 160         | S8JX-G60005C  |
|               | 12 V           | 53 A           |                        | S8JX-G60012C  |
|               | 24 V           | 27 A           |                        | S8JX-G60024C  |
|               | 48 V           | 13 A           |                        | S8JX-G60048C  |

## Specifications

| Item                          |                                       | 15 W                                                                                                                           | 35 W       | 50 W       | 100 W      | 150 W      | 300 W                                                                                                                              | 600 W      |
|-------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------------------------------------------------------------------------------------------------------------------------------|------------|
| Efficiency (Typ. at 230 VAC)  |                                       | 81% (24 V)                                                                                                                     | 84% (24 V) | 86% (24 V) | 88% (24 V) | 90% (24 V) | 88% (24 V)                                                                                                                         | 84% (24 V) |
| Input                         | Rated input voltage                   | 100 to 240 VAC                                                                                                                 |            |            |            |            | 100 to 120 VAC/200 to 240 VAC, Switchable                                                                                          |            |
|                               | Allowable range                       | 85 to 264 VAC, 80 to 370 VDC (DC is not applicable for the safety standards.)                                                  |            |            |            |            | 85 to 132 VAC/170 to 264 VAC                                                                                                       |            |
| Output                        | Voltage adjustment range (with V.ADJ) | −10% to 15% for 5 V to 24 V, ±10% for 48 V (with V.ADJ)                                                                        |            |            |            |            |                                                                                                                                    |            |
|                               | Input variation influence             | 0.4% max. (at 85 to 264 VAC input, 100% load)                                                                                  |            |            |            |            |                                                                                                                                    |            |
|                               | Load variation Influence              | 0.8% max. at 0% to 100% load                                                                                                   |            |            |            |            |                                                                                                                                    |            |
|                               | Temperature variation influence       | 0.05%/°C max.                                                                                                                  |            |            |            |            |                                                                                                                                    |            |
| Overload protection           |                                       | Yes, 105% to 160% of rated current                                                                                             |            |            |            |            |                                                                                                                                    |            |
| Overvoltage protection        |                                       | Yes                                                                                                                            |            |            |            |            |                                                                                                                                    |            |
| Operating ambient temperature |                                       | −10 to 60°C (14 to 140°F)                                                                                                      |            |            |            |            |                                                                                                                                    |            |
| Series operation              |                                       | Yes, up to 2 units                                                                                                             |            |            |            |            | Yes, up to 2 units                                                                                                                 |            |
| Parallel operation            |                                       | No                                                                                                                             |            |            |            |            | Yes, up to 5 units                                                                                                                 |            |
| EMI                           |                                       | Conforms to EN 61204-3, EN 55011 Class A                                                                                       |            |            |            |            |                                                                                                                                    |            |
| EMS                           |                                       | Conforms to EN 61204-3 high severity levels                                                                                    |            |            |            |            |                                                                                                                                    |            |
| Approved standards            |                                       | UL: UL 508 (Listing), UL 60950-1, cUL: CSA C22.2 No. 107.1 and No. 60950-1, EN/VDE: EN 50178 (=VDE0160), EN 60950-1 (=VDE0805) |            |            |            |            | UL: UL 508 (Recognition), UL 60950-1, cUR: CSA C22.2 No. 107.1 and No. 60950-1, EN/VDE: EN 50178 (=VDE0160), EN 60950-1 (=VDE0805) |            |
| Fulfilled standards           |                                       | EN 50274 for terminal parts                                                                                                    |            |            |            |            |                                                                                                                                    |            |



### EMI Class B and Power Factor Correction

The main improvements provided by the S8JX-P models are harmonic current suppression/PFC (Power Factor Correction) and EMI EN55011 Class B compliant. In addition, further functionalities have been implemented (applies only to 300 and 600 W models):

- Remote sensing, to compensate for voltage drops on the load lines
- Remote control, using an external signal allows to turn the output ON and OFF without removing the input voltage
- Alarm output, informing about power supply errors, such as fan failure or insufficient voltage

### Ordering information

| Power ratings | Output voltage | Output current | Size in mm (H × W × D) | Order code    |
|---------------|----------------|----------------|------------------------|---------------|
| 50 W          | 5 V            | 10 A           | 92 × 42 × 129          | S8JX-P05005CD |
|               | 12 V           | 4.2 A          |                        | S8JX-P05012CD |
|               | 24 V           | 2.1 A          |                        | S8JX-P05024CD |
|               | 48 V           | 1.1 A          |                        | S8JX-P05048CD |
| 100 W         | 5 V            | 20 A           | 92 × 42 × 159          | S8JX-P10005CD |
|               | 12 V           | 8.5 A          |                        | S8JX-P10012CD |
|               | 24 V           | 4.5 A          |                        | S8JX-P10024CD |
|               | 48 V           | 2.1 A          |                        | S8JX-P10048CD |
| 150 W         | 5 V            | 30 A           | 92 × 42 × 159          | S8JX-P15005CD |
|               | 12 V           | 13 A           |                        | S8JX-P15012CD |
|               | 24 V           | 6.5 A          |                        | S8JX-P15024CD |
|               | 48 V           | 3.3 A          |                        | S8JX-P15048CD |
| 300 W         | 5 V            | 60 A           | 92 × 71 × 165          | S8JX-P30005CD |
|               | 12 V           | 27 A           |                        | S8JX-P30012CD |
|               | 24 V           | 14 A           |                        | S8JX-P30024CD |
|               | 48 V           | 7 A            |                        | S8JX-P30048CD |
| 600 W         | 5 V            | 120 A          | 92 × 110 × 165         | S8JX-P60005CD |
|               | 12 V           | 53 A           |                        | S8JX-P60012CD |
|               | 24 V           | 27 A           |                        | S8JX-P60024CD |
|               | 48 V           | 13 A           |                        | S8JX-P60048CD |

### Specifications

| Item                          |                                       | 50 W                                                                                                                          | 100 W      | 150 W      | 300 W                                                | 600 W      |
|-------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------------------------------------------------|------------|
| Efficiency (Typ. at 230 VAC)  |                                       | 82% (24 V)                                                                                                                    | 87% (24 V) | 88% (24 V) | 87% (24 V)                                           | 85% (24 V) |
| Input                         | Rated input voltage                   | 100 to 240 VAC                                                                                                                |            |            |                                                      |            |
|                               | Allowable range                       | 85 to 264 VAC, 80 to 370 VDC (DC is not applicable for the safety standards.)                                                 |            |            |                                                      |            |
| Output                        | Voltage adjustment range (with V.ADJ) | −10% to 15% for 5 V to 24 V, ±10% for 48 V (with V.ADJ)                                                                       |            |            | −10% to 15% for 12 V and 24 V, ±10% for 5 V and 48 V |            |
|                               | Input variation influence             | 0.4% max. (at 85 to 264 VAC input, 100% load)                                                                                 |            |            |                                                      |            |
|                               | Load variation Influence              | 0.8% max. at 0% to 100% load                                                                                                  |            |            |                                                      |            |
|                               | Temperature variation influence       | 0.05%/°C max.                                                                                                                 |            |            |                                                      |            |
| Overload protection           |                                       | Yes, 105% to 160% of rated current                                                                                            |            |            |                                                      |            |
| Power Boost                   |                                       | –                                                                                                                             |            |            | 115% of rated current for 24 V only                  |            |
| Overvoltage protection        |                                       | Yes                                                                                                                           |            |            |                                                      |            |
| Operating ambient temperature |                                       | −10 to 70°C (14 to 158°F)                                                                                                     |            |            |                                                      |            |
| Series operation              |                                       | Yes, up to 2 units                                                                                                            |            |            |                                                      |            |
| Parallel operation            |                                       | No                                                                                                                            |            |            | Yes, up to 5 units                                   |            |
| EMI                           |                                       | Conforms to EN 61204-3, EN 55011 Class B                                                                                      |            |            |                                                      |            |
| EMS                           |                                       | Conforms to EN 61204-3 high severity levels                                                                                   |            |            |                                                      |            |
| Harmonic current emissions    |                                       | Conforms to EN61000-3-2                                                                                                       |            |            |                                                      |            |
| Approved standards            |                                       | UL: UL508 (Listing), UL60950-1, cUL: CSA C22.2 No. 107.1 and No. 60950-1, EN/VDE: EN 50178 (=VDE0160), EN 60950-1 (=VDE0805), |            |            |                                                      |            |
| Fulfilled standards           |                                       | EN 50274 for Terminal parts                                                                                                   |            |            |                                                      |            |



### Open frame power supply, the best to build-in small equipment

The S8EX is an open frame power supply which can be mounted directly on to small equipment. The wide variation of output voltage and power boost function of 200% contribute to the overall down-sizing of equipment and power supply standardization.

- 200% Power boost function
- Connector terminals
- Various installations are possible.
- Wide operation temperature range: -10 to 70°C

### Ordering information

| Power ratings | Input voltage  | Output voltage | Output current | Size (W × H × D) [mm] | Order code      |              |
|---------------|----------------|----------------|----------------|-----------------------|-----------------|--------------|
| 15 W          | 100 to 240 VAC | 5 V            | 3 A            | 50 × 22 × 105         | S8EX-N01505     |              |
|               |                | 12 V           | 1.3 A          |                       | S8EX-N01512     |              |
|               |                | 15 V           | 1 A            |                       | S8EX-N01515     |              |
|               |                | 24 V           | 0.7 A          |                       | S8EX-N01524     |              |
|               |                | 48 V           | 0.32 A         |                       | S8EX-N01548     |              |
| 30 W          |                |                | 5 V            | 6 A                   | 50 × 27 × 105   | S8EX-N03005  |
|               |                | 12 V           | 2.5 A          | S8EX-N03012           |                 |              |
|               |                | 15 V           | 2 A            | S8EX-N03015           |                 |              |
|               |                | 24 V           | 1.3 A          | S8EX-N03024           |                 |              |
|               |                | 48 V           | 0.65 A         | S8EX-N03048           |                 |              |
| 50 W          |                |                | 5 V            | 10 A                  | 50 × 28.5 × 132 | S8EX-BP05005 |
|               |                | 12 V           | 4.3 A          | S8EX-BP05012          |                 |              |
|               |                | 24 V           | 2.1 A          | S8EX-BP05024          |                 |              |
|               |                | 48 V           | 1.1 A          | S8EX-BP05048          |                 |              |
| 100 W         |                |                | 5 V            | 20 A                  | 62 × 35.5 × 155 | S8EX-P10005  |
|               |                | 12 V           | 8.5 A          | S8EX-BP10012          |                 |              |
|               |                | 24 V           | 4.3 A          | S8EX-BP10024          |                 |              |
|               |                | 48 V           | 2.1 A          | S8EX-BP10048          |                 |              |
| 150 W         |                |                | 5 V            | 30 A                  | 75 × 37.5 × 160 | S8EX-P15005  |
|               |                | 12 V           | 12.5 A         | S8EX-BP15012          |                 |              |
|               |                | 24 V           | 6.3 A          | S8EX-BP15024          |                 |              |
|               |                | 48 V           | 3.2 A          | S8EX-BP15048          |                 |              |
| 240 W         |                |                | 24 V           | 10 A                  | 84 × 42.5 × 180 | S8EX-BP24024 |
|               |                |                | 36 V           | 6.7 A                 |                 | S8EX-BP24036 |
|               |                |                | 48 V           | 5 A                   |                 | S8EX-BP24048 |

### Specifications

| Specification                 |                                       | 15 W                                                                                            | 30 W       | 50 W       | 100 W      | 150 W      | 240 W      |
|-------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|
| Efficiency (Typ at 200 VAC)   |                                       | 78% (24 V)                                                                                      | 86% (24 V) | 85% (24 V) | 86% (24 V) | 87% (24 V) | 90% (24 V) |
| Input                         | Rated Input Voltage                   | 100 to 240 VAC                                                                                  |            |            |            |            |            |
|                               | Allowable range                       | 85 to 264 VAC                                                                                   |            |            |            |            |            |
| Output                        | Voltage adjustment range (with V.ADJ) | ±10%                                                                                            |            |            |            |            |            |
|                               | Input variation influence             | 0.5% max. (at 85 to 264 VAC input, 100% load)                                                   |            |            |            |            |            |
|                               | Load variation Influence              | 2.0% max. (5 V), 1.5% max. (12, 24, 36, 48 V), at 0 to 100% load                                |            |            |            |            |            |
|                               | Temperature variation influence       | 0.05%/°C max.                                                                                   |            |            |            |            |            |
| Overload protection           |                                       | Yes, 105 to 160% of rated current                                                               |            |            |            |            |            |
| Power Boost                   |                                       | –<br>150% of rated current (5 V of 50 W, 12 V)<br>200% of rated current (24 V, 36 V, 48 V)      |            |            |            |            |            |
| Overvoltage protection        |                                       | Yes                                                                                             |            |            |            |            |            |
| Operating ambient temperature |                                       | -10 to 70°C (14 to 158°F)                                                                       |            |            |            |            |            |
| EMI                           |                                       | Conforms to EN 61204-3, EN55011 Class B                                                         |            |            |            |            |            |
| EMS                           |                                       | Conforms to EN 61204-3 high severity levels                                                     |            |            |            |            |            |
| Harmonic current emissions    |                                       | Conforms to EN 61000-3-2                                                                        |            |            |            |            |            |
| Approved Standards            |                                       | UL: UR 60950-1, cUR: CSA C22.2 No.60950-1, EN/VDE: EN 50178 (=VDE 0160), EN 60950-1 (=VDE 0805) |            |            |            |            |            |



### Industrial use, modular power supply for multiple configurations

The S8TS is an expandable power supply; standard units can easily be snapped together in parallel to provide you with ultimate flexibility. Expandable up to 4 units, it can deliver a total power of 240W at 24VDC or a multi-output configuration.

- Improves system reliability by building up N+1 redundancy
- Standard unit; 60 W at 24 VDC, 30 W at 12 VDC and 25 W at 5 VDC
- Battery back-up unit protects against power outage (see accessories)
- Buffer unit protects against power glitches and outage (see accessories)
- EMI Class B, UL Class 2, UL Class 1 division 2

### Ordering information

| Basic block    |                | Order code                             |                                           |                                        |                                           |
|----------------|----------------|----------------------------------------|-------------------------------------------|----------------------------------------|-------------------------------------------|
| Output voltage | Output current | Screw terminal type                    |                                           | Connector terminal type                |                                           |
|                |                | With bus line connectors <sup>*1</sup> | Without bus line connectors <sup>*2</sup> | With bus line connectors <sup>*1</sup> | Without bus line connectors <sup>*2</sup> |
| 24 V           | 2.5 A          | S8TS-06024-E1 <sup>*3</sup>            | S8TS-06024                                | S8TS-06024F-E1                         | S8TS-06024F                               |
| 12 V           | 2.5 A          | S8TS-03012-E1                          | S8TS-03012                                | S8TS-03012F-E1                         | S8TS-03012F                               |
| 5 V            | 5 A            | —                                      | S8TS-02505                                | —                                      | S8TS-02505F                               |

<sup>\*1</sup> One S8T-BUS01 connector and one S8T-BUS02 connector are included as accessories.

<sup>\*2</sup> Bus line connectors can be ordered separately if necessary.

<sup>\*3</sup> Conforms to EMI class B with DC minus terminal ground.

### Accessories

| Bus line connector                                          |                             |            |
|-------------------------------------------------------------|-----------------------------|------------|
| Type                                                        | Number of connectors        | Order code |
| AC line + DC line bus<br>(For parallel operation)           | 1 connector                 | S8T-BUS01  |
|                                                             | 10 connectors <sup>*1</sup> | S8T-BUS11  |
| AC line bus (For series operation<br>or isolated operation) | 1 connector                 | S8T-BUS02  |
|                                                             | 10 connectors <sup>*2</sup> | S8T-BUS12  |

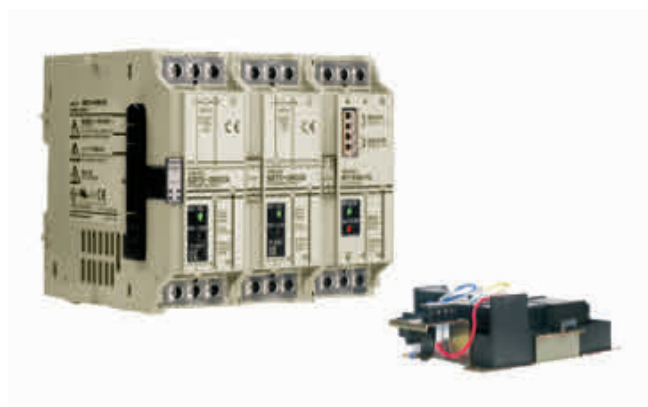
<sup>\*1</sup> One package contains 10 S8T-BUS01 connectors.

<sup>\*2</sup> One package contains 10 S8T-BUS02 connectors.

### Specifications

| Item                   |                       | 5 V models                                                          | 24/12 V models                                       |                    |
|------------------------|-----------------------|---------------------------------------------------------------------|------------------------------------------------------|--------------------|
|                        |                       | Single operation                                                    | Single operation                                     | Parallel operation |
| Efficiency             |                       | 62% min.                                                            | 24 V models: 75%, 12 V models: 70% min.              |                    |
| Power factor           |                       | 0.8 min.                                                            | 24 V models: 0.9 min., 12 V models: 0.8 min.         |                    |
| Input voltage          |                       | 100 to 240 VAC, (85 to 264 VAC), single-phase                       |                                                      |                    |
| Output voltage         | Voltage adjustment    | 5 V ±10% min.                                                       | 24 V models: 22 to 28 V, 12 V models: 12 V ±10% min. |                    |
|                        | Ripple                | 2% (p-p) max.                                                       | 2% (p-p) max.                                        | 2% (p-p) max.      |
|                        | Input variation       | 0.5% max.                                                           | –                                                    | –                  |
|                        | Temperature influence | 0.05%/°C max. (with rated input, 10 to 100% load)                   |                                                      |                    |
| Overcurrent protection |                       | 105 to 125% of rated load current, inverted L drop, automatic reset |                                                      |                    |
| Overvoltage protection |                       | yes                                                                 | yes                                                  | yes                |
| Output indicator       |                       | yes (green)                                                         | yes (green)                                          | yes (green)        |
| Weight                 |                       | 450 g max.                                                          | 450 g max.                                           | 450 g max.         |
| Series operation       |                       | yes                                                                 | yes                                                  | yes                |
| Parallel operation     |                       | no                                                                  | yes                                                  | yes                |
| Size in mm (HxWxD)     |                       | 120x43x120                                                          |                                                      |                    |





### S8T-DCBU-01

The S8T-DCBU-01 battery backup block supplies 24 VDC for a fixed period of time during AC input outages to considerably improve system reliability.

- Supplies 24 VDC for a long period of time during AC input outages
- For system reliability improvement
- Block power supply basic block is connected by the bus line connector
- Simple system configuration
- Alarms indicated on main unit and via alarm signal output

### Ordering information

| Product                                                    | Input voltage  | Output voltage                                     | Output current |                            |                             | Order code     |
|------------------------------------------------------------|----------------|----------------------------------------------------|----------------|----------------------------|-----------------------------|----------------|
| DC back-up block                                           | 24 to 28 VDC   | 24 V                                               | 3.7 A/8 A      |                            |                             | S8T-DCBU-01    |
| Battery holder                                             | –              | –                                                  | –              |                            |                             | S82Y-TS01      |
| Product                                                    | Input voltage  | Output voltage                                     | Output current | Type                       |                             | Order code     |
| Basic block<br>(use together with the DC<br>back-up block) | 100 to 240 VAC | 24 V                                               | 2.5 A          | Screw<br>terminal type     | With bus line connectors    | S8TS-06024-E1  |
|                                                            |                |                                                    |                |                            | Without bus line connectors | S8TS-06024     |
|                                                            |                |                                                    |                | Connector<br>terminal type | With bus line connectors    | S8TS-06024F-E1 |
|                                                            |                |                                                    |                |                            | Without bus line connectors | S8TS-06024F    |
| Product                                                    | Back-up time   | Overcurrent protection<br>operating point selector |                |                            |                             | Order code     |
| Battery                                                    | 8 min./3.7 A   | 5.7 A (typ.)                                       | –              |                            |                             | LC-R122R2PG    |
|                                                            | 4 min./8.0 A   | 5.7 A (typ.)                                       | 11.7 A (typ.)  |                            |                             | LC-R123R4PG    |

Note: The S8TS DC back-up block is for S8TS power supplies only.

### Specifications

| Item           | Size in mm (HxWxD) |
|----------------|--------------------|
| S8T-DCBU-01    | 120x43x130         |
| Battery holder | 82x185.7x222.25    |



### S8T-DCBU-02

Prevents equipment stoppage, data loss and other problems resulting from momentary power failures. One S8T-DCBU-02 buffer block provides a back-up time of 500 ms at an output current of 2.5 A. Can be wired to the 24 VDC output from any switch mode power supply.

- Connects to these Omron power supplies: S8VM, S8TS, S8VS, S8VK-C, S8VK-G, S8VK-T, S8JX-G, S8JX-P
- Connects to both single-phase and three-phase power supplies
- Connects to an S8TS power supply via an S8T-BUS03 bus line connector
- Parallel connection up to 4 units to increase back-up time and capacity
- Complies with Semi F47-0200 standard

### Ordering information

| Input voltage         | Output voltage (during back-up operation) | Output current | Order code  |
|-----------------------|-------------------------------------------|----------------|-------------|
| 24 VDC (24 to 28 VDC) | 22.5 V                                    | 2.5 A          | S8T-DCBU-02 |

### Accessories

| Type                                           | Number of connectors | Order code |
|------------------------------------------------|----------------------|------------|
| DC bus line connector (for use with S8TS only) | 1 connector          | S8T-BUS03  |
|                                                | 10 connectors        | S8T-BUS13  |

### Specifications

| Item        | Size in mm (HxWxD) |
|-------------|--------------------|
| S8T-DCBU-02 | 120x43x120         |



### Compact 3-phase input power supply

The S8VK-T has an exceptionally wide operating temperature range  $-40$  to  $70^{\circ}\text{C}$ . These models also have high endurance against vibration and guarantee stable operation in even the harshest of environments.

- Input range:  $3 \times 320$  to  $576$  VAC,  $2 \times 340$  to  $576$  VAC
- Safety standard, UL 508, ANSI 12.12.01, EN 50178, EN 60950-1, UL 60950-1, CSA No. 60950-1, EN 60204-1 PELV, EN 61558-2-16 Safety transformer. Lloyd's Register
- Protection IP20 by EN/IEC 60529
- EMI Class B
- 120% boost function
- For harsh environments coated models are now available. PCB coating protects against dust, corrosive gas and humidity.
- RoHS compliant

### Ordering information

| Type                     | Power ratings | Input voltage                                                                    | Output voltage | Output current | Size (W × H × D) [mm]       | Order code      |                 |
|--------------------------|---------------|----------------------------------------------------------------------------------|----------------|----------------|-----------------------------|-----------------|-----------------|
|                          |               |                                                                                  |                |                |                             | Standard models | Coated models   |
| Power supply three-phase | 120 W         | $3 \times 380$ to $480$ VAC,<br>$2 \times 380$ to $480$ VAC                      | 24 V           | 5 A            | $40 \times 125 \times 113$  | S8VK-T12024     | S8VK-T12024-400 |
|                          | 240 W         | 450 to $600$ VDC (Excluding $960$ W)                                             |                | 10 A           | $60 \times 125 \times 140$  | S8VK-T24024     | S8VK-T24024-400 |
|                          | 480 W         | Allowable range:<br>$3 \times 320$ to $576$ VAC,<br>$2 \times 340$ to $576$ VAC, |                | 20 A           | $95 \times 125 \times 140$  | S8VK-T48024     | S8VK-T48024-400 |
|                          | 960 W         | 450 to $810$ VDC (Excluding $960$ W)                                             |                | 40 A           | $135 \times 125 \times 170$ | S8VK-T96024     | S8VK-T96024-400 |

### Specifications

| Item                          |                                       | 120 W                                                                                                                               | 240 W                                                                                                                                            | 480 W | 960 W                                     |
|-------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------|
| Efficiency (Typ. at 400 VAC)  |                                       | 89%                                                                                                                                 | 89%                                                                                                                                              | 91%   | 92%                                       |
| Input                         | Rated Input Voltage                   | 3 × 380 to 480 VAC, 2 × 380 to 480 VAC, 450 to 600 VDC                                                                              |                                                                                                                                                  |       | 3 × 380 to 480 VAC,<br>2 × 380 to 480 VAC |
|                               | Allowable range                       | 3 × 320 to 576 VAC, 2 × 340 to 576 VAC, 450 to 810 VDC                                                                              |                                                                                                                                                  |       | 3 × 320 to 576 VAC,<br>2 × 340 to 576 VAC |
| Output                        | Voltage adjustment range (with V.ADJ) | 22.5 to 29.5 V                                                                                                                      |                                                                                                                                                  |       |                                           |
|                               | Input variation influence             | 0.5% max. (at 3 × 320 to 576 VAC input, 100% load)                                                                                  |                                                                                                                                                  |       |                                           |
|                               | Load variation influence              | 1.5% max. at 0 to 100% load                                                                                                         |                                                                                                                                                  |       |                                           |
|                               | Temperature variation influence       | 0.05%/°C max.                                                                                                                       |                                                                                                                                                  |       |                                           |
| Overload protection           |                                       | Yes, 125% of rated current typ.                                                                                                     |                                                                                                                                                  |       |                                           |
| Power Boost                   |                                       | 120% of rated current                                                                                                               |                                                                                                                                                  |       |                                           |
| Overvoltage protection        |                                       | Yes                                                                                                                                 |                                                                                                                                                  |       |                                           |
| Operating ambient temperature |                                       | −40 to 70°C (−40 to 158°F)                                                                                                          |                                                                                                                                                  |       |                                           |
| Series Operation              |                                       | Yes, Up to 2 units                                                                                                                  |                                                                                                                                                  |       |                                           |
| Parallel Operation            |                                       | Yes, Up to 2 units                                                                                                                  |                                                                                                                                                  |       |                                           |
| EMI                           |                                       | Conforms to EN 61204-3, EN 55011 Class B                                                                                            |                                                                                                                                                  |       |                                           |
| EMS                           |                                       | Conforms to EN 61204-3 high severity levels                                                                                         |                                                                                                                                                  |       |                                           |
| Harmonic current emissions    |                                       | Conforms to EN 61000-3-2                                                                                                            |                                                                                                                                                  |       |                                           |
| Approved Standards            |                                       | UL: UL 508 (Listing),<br>ANSI/ISA 12.12.01<br>EN/VDE: EN 50178,<br>Lloyd's Register                                                 | UL: UL 508 (Listing), ANSI/ISA 12.12.01, UL 60950-1, CSA: C22.2 No.60950-1,<br>EN/VDE: EN 50178, EN 60950-1,<br>Lloyd's Register                 |       |                                           |
| Fulfilled Standards           |                                       | SELV (EN 50178), PELV<br>(EN 60204-1, EN 50178),<br>Safety of Power Transformers<br>(EN 61558-2-16), EN 50274 for<br>Terminal parts | SELV (EN 60950-1/EN 50178/UL 60950-1), PELV (EN 60204-1, EN 50178),<br>Safety of Power Transformers (EN 61558-2-16), EN 50274 for Terminal parts |       |                                           |
| Degree of protection          |                                       | IP20 by EN / IEC 60529                                                                                                              |                                                                                                                                                  |       |                                           |

For more information, please enter "P238" in the search field on our website industrial.omron.eu.



Digital multi circuit protector for DC output of power supply

The S8M turns your machine directly into UL Class 2 compliant, maximum tripping current is 3,8 A per channel (adjustable). This unit controls up to 4 circuits. On top of this you will get startup/shutdown–sequence control, display and alarm functions, like voltage, output current, runtime, and over temperature and external reset. These functions can be set by using the front buttons or with the free support tool software. These settings can be protected.

- 4 circuit protection up-to 4 A per channel
- UL Class 2 (max. 3.8 A)
- Emergency stop by external signal
- Optimize use of available power through start-up sequence
- Maintenance control

Ordering information

| Input voltage | Communications | UL class 2 output | Size (W × H × D) [mm] | Order code  |
|---------------|----------------|-------------------|-----------------------|-------------|
| 24 VDC        | –              | –                 | 75 × 115 × 94         | S8M-CP04    |
|               | RS-232C        | –                 |                       | S8M-CP04-R  |
|               |                | Compliant         |                       | S8M-CP04-RS |

Specifications

| Type                   |                           | S8M-CP04                                                                                                                               | S8M-CP04-R | S8M-CP04-RS                                                                                                                                                 |
|------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input characteristics  | Rated input voltage       | 24 VDC (19.2 to 26.4 VDC)                                                                                                              |            |                                                                                                                                                             |
|                        | Allowable input current   | 17.0 A max.                                                                                                                            |            | 16.0 A max                                                                                                                                                  |
|                        | Power consumption         | 10 W max                                                                                                                               |            | 15 W max                                                                                                                                                    |
| Output characteristics | Number of branches        | 4                                                                                                                                      |            |                                                                                                                                                             |
|                        | Max tripping current      | 4.0 A                                                                                                                                  |            | 3.8 A                                                                                                                                                       |
|                        | Adjustable tripping range | 0.5 to 4.0 A in 0.1 A units                                                                                                            |            | 0.5 to 3.8 A in 0.1 A units                                                                                                                                 |
|                        | Internal voltage drop     | 0.5V max at 4 A                                                                                                                        |            | 0.7V max at 3.8 A                                                                                                                                           |
| Approved Standards     |                           | UL: UL508(Listing), UR 60950-1<br>cUL, cUR: CSA C22.2 No. 107.1 and No.60950-1<br>EN/VDE: EN 50178 (=VDE 0160), EN 60950-1 (=VDE 0805) |            | UL: UL508(Listing, Class 2 per UL 1310), UR 60950-1<br>cUL, cUR: CSA C22.2 No. 107.1 and No.60950-1<br>EN/VDE: EN 50178 (=VDE 0160), EN 60950-1 (=VDE 0805) |



### Redundancy unit, contributes to building highly reliable systems

The S8VK-R is a redundancy unit for use with the S8VK power supply series. This unit consists of 2 main diodes and the additional function to build in the redundancy of the power supply, thus saving valuable design time in combination with the highly reliable S8VK series.

- Redundancy operating LED for the status confirmation
- A signal output for failure detection of power supplies
- By adjusting the power supply voltage to light up Balance LED the lifetime of power supplies will be more than twice.
- Wide operation temperature range: -40 to 70°C
- For harsh environments coated models are now available. PCB coating protects against dust, corrosive gas and humidity.
- RoHS compliant

### Ordering information

| Input voltage | Output current | Size (W × H × D) [mm] | Order code      |               |
|---------------|----------------|-----------------------|-----------------|---------------|
|               |                |                       | Standard models | Coated models |
| 5 to 30 VDC   | 10 A           | 32 × 90 × 110         | S8VK-R10        | S8VK-R10-400  |
| 10 to 60 VDC  | 20 A           | 40 × 125 × 113        | S8VK-R20        | S8VK-R20-400  |

### Specifications

| Type                        | S8VK-R10                                                                         | S8VK-R20                       |
|-----------------------------|----------------------------------------------------------------------------------|--------------------------------|
| Rated Input Voltage         | 5 to 30 V                                                                        | 10 to 60 V                     |
| Output Current              | 10 A                                                                             | 20 A                           |
| Voltage Drop                | 0.7 V max at 10 A                                                                | 0.9 V max at 20 A              |
| Operation Temperature range | -40 to 70°C                                                                      | -40 to 70°C                    |
| Safety Standard             | UL 60950-1, UL 508, cURus, cULus, EN 50178, EN 60950-1                           |                                |
| Signal output               | 30 VDC 50 mA max by Photo MOS Relay                                              |                                |
| Redundancy OK Indicator     | LED (Green), The function to know the both of PS operate normally.               |                                |
| Voltage Balance Indicator   | LED (Green), The function to help to get the balance of 2 unit PS output voltage |                                |
| Grounding terminal          | —                                                                                | Yes, One for Chassis grounding |

For more information, please enter "P237" in the search field on our website [industrial.omron.eu](http://industrial.omron.eu).