

# Ordering Information

## List of Models

**Note:** For details on normal stock models, contact your nearest OMRON representative.

### Models with Indication Monitor (Maintenance Forecast Monitor)

| Power ratings | Input voltage                                                        | Output voltage | Output current                   | Alarm output * 2  | UL Class 2 Output standards | Model number (screw terminal block) | Model number (screwless terminal block) |
|---------------|----------------------------------------------------------------------|----------------|----------------------------------|-------------------|-----------------------------|-------------------------------------|-----------------------------------------|
| 60 W          | 100 to 240 VAC (allowable range: 85 to 264 VAC or 80 to 370 VDC * 1) | 24 V           | 2.5 A                            | —                 | Yes                         | S8VS-06024A                         | S8VS-06024A-F                           |
| 90 W          |                                                                      |                | 3.75 A                           | Sinking           | —                           | S8VS-09024A                         | S8VS-09024A-F                           |
|               |                                                                      |                |                                  | Sinking           | Yes                         | S8VS-09024AS                        | S8VS-09024AS-F                          |
|               |                                                                      |                |                                  | Sourcing          | —                           | S8VS-09024AP                        | S8VS-09024AP-F                          |
|               |                                                                      |                |                                  | Sourcing          | Yes                         | S8VS-09024APS                       | S8VS-09024APS-F                         |
| 120 W         |                                                                      |                | 5 A                              | Sinking           | —                           | S8VS-12024A                         | S8VS-12024A-F                           |
| Sourcing      |                                                                      |                |                                  | —                 | S8VS-12024AP                | S8VS-12024AP-F                      |                                         |
| 180 W         |                                                                      |                | 7.5 A                            | Sinking           | —                           | S8VS-18024A                         | S8VS-18024A-F                           |
|               |                                                                      |                |                                  | Sourcing          | —                           | S8VS-18024AP                        | S8VS-18024AP-F                          |
| 240 W         |                                                                      |                | 10 A                             | Sinking           | —                           | S8VS-24024A                         | S8VS-24024A-F                           |
|               |                                                                      |                |                                  | Sourcing          | —                           | S8VS-24024AP                        | S8VS-24024AP-F                          |
| 480 W         | 100 to 240 VAC                                                       |                | 20 A Peak current 30 A (200 VAC) | Sinking/ sourcing | —                           | S8VS-48024A                         | S8VS-48024A-F                           |

\*1. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

\*2. In the *Alarm output* column, "sinking" indicates an emitter COM and "sourcing" indicates a collector COM.

### Models with Indication Monitor (Total Run Time Monitor)

| Power ratings | Input voltage                                                           | Output voltage                      | Output current       | Alarm output * 2 | UL Class 2 Output standards | Model number (screw terminal block) | Model number (screwless terminal block) |
|---------------|-------------------------------------------------------------------------|-------------------------------------|----------------------|------------------|-----------------------------|-------------------------------------|-----------------------------------------|
| 60 W          | 100 to 240 VAC<br>(allowable range: 85 to 264 VAC or 80 to 370 VDC) * 1 | 24 V                                | 2.5 A                | —                | Yes                         | S8VS-06024B                         | S8VS-06024B-F                           |
| 90 W          |                                                                         |                                     | 3.75 A               | —                | —                           | S8VS-09024BE                        | S8VS-09024BE-F                          |
|               |                                                                         |                                     |                      | —                | Yes                         | S8VS-09024BES                       | S8VS-09024BES-F                         |
|               |                                                                         |                                     |                      | Sinking          | —                           | S8VS-09024B                         | S8VS-09024B-F                           |
|               |                                                                         |                                     |                      | Sinking          | Yes                         | S8VS-09024BS                        | S8VS-09024BS-F                          |
|               |                                                                         |                                     |                      | Sourcing         | —                           | S8VS-09024BP                        | S8VS-09024BP-F                          |
|               |                                                                         |                                     |                      | Sourcing         | Yes                         | S8VS-09024BPS                       | S8VS-09024BPS-F                         |
| 120 W         |                                                                         |                                     | 5 A                  | —                | —                           | S8VS-12024BE                        | S8VS-12024BE-F                          |
|               |                                                                         |                                     |                      | Sinking          | —                           | S8VS-12024B                         | S8VS-12024B-F                           |
|               |                                                                         |                                     |                      | Sourcing         | —                           | S8VS-12024BP                        | S8VS-12024BP-F                          |
| 180 W         |                                                                         |                                     | 7.5 A                | —                | —                           | S8VS-18024BE                        | S8VS-18024BE-F                          |
|               |                                                                         |                                     |                      | Sinking          | —                           | S8VS-18024B                         | S8VS-18024B-F                           |
|               |                                                                         |                                     |                      | Sourcing         | —                           | S8VS-18024BP                        | S8VS-18024BP-F                          |
| 240 W         |                                                                         |                                     | 10 A                 | —                | —                           | S8VS-24024BE                        | S8VS-24024BE-F                          |
|               |                                                                         |                                     |                      | Sinking          | —                           | S8VS-24024B                         | S8VS-24024B-F                           |
|               |                                                                         |                                     |                      | Sourcing         | —                           | S8VS-24024BP                        | S8VS-24024BP-F                          |
| 480 W         | 100 to 240 VAC                                                          | 20 A<br>Peak current 30 A (200 VAC) | Sinking/<br>sourcing | —                | S8VS-48024B                 | S8VS-48024B-F                       |                                         |

\*1. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).

\*2. In the *Alarm output* column, "sinking" indicates an emitter COM and "sourcing" indicates a collector COM.

**Note:** Refer to pages 24 to 25 for the options that available.

# Specifications

| Item                 |                                                | Power ratings                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 60 W                         |                        | 90 W                      |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|----------------------|------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------|--|
|                      |                                                | Type                                                 | Standard                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Maintenance forecast monitor | Total run time monitor | Standard                  | Maintenance forecast monitor                                                                                                                                                                                                                                                                                                                                             | Total run time monitor |                                                      |  |
| Efficiency           |                                                | With 100-VAC input                                   | 84% typical                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 83% typical                  |                        | 83% typical               | 83% typical                                                                                                                                                                                                                                                                                                                                                              |                        |                                                      |  |
|                      |                                                | With 200-VAC input                                   | 83% typical                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 85% typical                  |                        | 84% typical               | 85% typical                                                                                                                                                                                                                                                                                                                                                              |                        |                                                      |  |
| Input                | Voltage * 1                                    |                                                      | 100 to 240 VAC (allowable range: 85 to 264 VAC or 80 to 370 VDC * 11)                                                                                                                                                                                                                                                                                                                                                                                                |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Frequency * 1                                  |                                                      | 50/60 Hz (47 to 450 Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Current                                        | With 100-VAC input                                   | 1.7 A max., 1.3 A typical                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.7 A max., 1.3 A typical    |                        | 2.3 A max., 1.9 A typical | 2.3 A max., 1.9 A typical                                                                                                                                                                                                                                                                                                                                                |                        |                                                      |  |
|                      |                                                | With 200-VAC input                                   | 1.0 A max., 0.68 A typical                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.0 A max., 0.78 A typical   |                        | 1.4 A max., 1.0 A typical | 1.4 A max., 1.2 A typical                                                                                                                                                                                                                                                                                                                                                |                        |                                                      |  |
|                      | Power factor                                   |                                                      | ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Harmonic current regulation                    |                                                      | Conforms to EN61000-3-2                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Leakage current                                | With 100-VAC input                                   | 0.5 mA max.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      |                                                | With 200-VAC input                                   | 1.0 mA max.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
| Inrush current * 2   | With 100-VAC input                             | 17.5 A max., 14 A typical                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | With 200-VAC input                             | 35 A max., 28 A typical                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
| Output               | Voltage adjustment range * 3                   |                                                      | -10% to 15% (with V. ADJ.) (The voltage cannot be adjusted for the S8VS-09024@@@S-@.)                                                                                                                                                                                                                                                                                                                                                                                |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Ripple noise voltage (at rated I/O)            |                                                      | 70 mV max.                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 90 mV max.                   |                        | 250 mV max.               | 150 mV max.                                                                                                                                                                                                                                                                                                                                                              |                        |                                                      |  |
|                      | Input variation influence                      |                                                      | 0.5% max. (at 85- to 264-VAC input, 100% load)                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Load variation influence (rated input voltage) |                                                      | 1.5% max. (with rated input, 0 to 100% load)                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Temperature variation influence                |                                                      | 0.05%/°C max.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Startup time (at rated I/O) * 2                | With 100-VAC input                                   | 620 ms typical                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 460 ms typical               |                        | 460 ms typical            | 660 ms typical                                                                                                                                                                                                                                                                                                                                                           |                        |                                                      |  |
|                      |                                                | With 200-VAC input                                   | 400 ms typical                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 290 ms typical               |                        | 300 ms typical            | 420 ms typical                                                                                                                                                                                                                                                                                                                                                           |                        |                                                      |  |
|                      | Output hold time (at rated I/O) * 2            | With 100-VAC input                                   | 34 ms typical                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 33 ms typical                |                        | 28 ms typical             | 28 ms typical                                                                                                                                                                                                                                                                                                                                                            |                        |                                                      |  |
| With 200-VAC input   |                                                | 158 ms typical                                       | 154 ms typical                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              | 132 ms typical         | 136 ms typical            |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
| Additional functions | Overload protection * 2                        |                                                      | 105% to 160% of rated load current (101% to 110% of rated load current for the S8VS-09024@@@S-@), inverted L voltage drop, intermittent, automatic reset                                                                                                                                                                                                                                                                                                             |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Overvoltage protection * 2, * 4                |                                                      | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Output voltage indication * 5                  |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes (selectable) * 6         |                        | No                        | Yes (selectable) * 6                                                                                                                                                                                                                                                                                                                                                     |                        |                                                      |  |
|                      | Output current indication * 5                  |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes (selectable) * 7         |                        | No                        | Yes (selectable) * 7                                                                                                                                                                                                                                                                                                                                                     |                        |                                                      |  |
|                      | Peak-hold current indication * 5               |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes (selectable) * 8         |                        | No                        | Yes (selectable) * 8                                                                                                                                                                                                                                                                                                                                                     |                        |                                                      |  |
|                      | Maintenance forecast monitor indication * 5    |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes (selectable)             |                        | No                        |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Maintenance forecast monitor output            |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                        |                           | Yes (transistor output), 30 VDC max., 50 mA max. * 9                                                                                                                                                                                                                                                                                                                     |                        |                                                      |  |
|                      | Total run time monitor indication * 5          |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              | Yes (selectable)       |                           | No                                                                                                                                                                                                                                                                                                                                                                       | Yes (selectable)       |                                                      |  |
|                      | Total run time monitor output * 5              |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        | Yes (transistor output), 30 VDC max., 50 mA max. * 9 |  |
|                      | Undervoltage alarm indication * 5              |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes (selectable)             |                        | No                        | Yes (selectable)                                                                                                                                                                                                                                                                                                                                                         |                        |                                                      |  |
|                      | Undervoltage alarm output terminals            |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                        |                           | Yes (transistor output), 30 VDC max., 50 mA max. * 9                                                                                                                                                                                                                                                                                                                     |                        |                                                      |  |
|                      | Parallel operation                             |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
| Series operation     |                                                | Yes for up to 2 Power Supplies (with external diode) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
| Other                | Operating ambient temperature                  |                                                      | Refer to the derating curve in . (with no icing or condensation)                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Storage temperature                            |                                                      | -25 to 65°C                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Operating ambient humidity                     |                                                      | 25% to 85% (Storage humidity: 25% to 90%)                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Dielectric strength                            |                                                      | 3.0 kVAC for 1 min. (between all inputs and outputs/ alarm outputs; detection current: 20 mA)<br>2.0 kVAC for 1 min. (between all inputs and PE terminals; detection current: 20 mA)<br>1.0 kVAC for 1 min. (between all outputs/ alarm outputs and PE terminals; detection current for standard models: 30 mA, detection current for models with indication monitor: 20 mA)<br>500 VAC for 1 min. (between all outputs and alarm outputs; detection current: 20 mA) |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Insulation resistance                          |                                                      | 100 MΩ min. (between all outputs/ alarm outputs and all inputs/ PE terminals) at 500 VDC                                                                                                                                                                                                                                                                                                                                                                             |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Vibration resistance                           |                                                      | 10 to 55 Hz, 0.375-mm single amplitude for 2 h each in X, Y, and Z directions<br>10 to 150 Hz, 0.35-mm single amplitude (5 G max.) for 80 min each in X, Y, and Z directions                                                                                                                                                                                                                                                                                         |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Shock resistance                               |                                                      | 150 m/s <sup>2</sup> , 3 times each in ±X, ±Y, and ±Z directions                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Output indicator                               |                                                      | Yes (color: green)                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | EMI                                            | Conducted Emissions                                  | Models with indication monitor: Conforms to EN61204-3 EN55011 Class A and based on FCC Class A, Conforms to EN61204-3 EN55011 Class B * 11<br>Standard models: Conforms to EN61204-3 EN55011 Group 1 Class B and based on FCC Class A                                                                                                                                                                                                                                |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      |                                                | Radiated Emissions                                   | Models with indication monitor: Conforms to EN61204-3 EN55011 Class A, Conforms to EN61204-3 EN55011 Class B * 11<br>Standard models: Conforms to EN61204-3 EN55011 Group 1 Class B                                                                                                                                                                                                                                                                                  |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | EMS                                            |                                                      | Conforms to EN61204-3 high severity levels                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
|                      | Approved standards * 11                        |                                                      | UL: UL 508 (Listing; Class 2 Output: Per UL1310), UL UR: UL 60950-1 (Recognition), cUL: CSA C22.2 No.107.1 (Class 2 Output: Per CSA C22.2 No. 223), cUR: CSA C22.2 No.60950-1, EN/VDE: EN 50178 (= VDE 0160), EN 60950-1 (= VDE 0805 Teil 1) KOSHA S Mark * 10                                                                                                                                                                                                       |                              |                        |                           | UL: UL 508 (Listing)<br>UL Listed (S8VS-09024@@@S-@ only.): UL 508 (Listing, Class 2 Output: Per UL1310), UL UR: UL 60950-1 (Recognition), cUL: CSA C22.2 No.107.1, cUL (S8VS-09024-@@@S-@ only): CSA C22.2 No.107.1 (Class 2 Output: Per CSA C22.2 No. 223), cUR: CSA C22.2 No.60950-1, EN/VDE: EN 50178 (= VDE 0160), EN 60950-1 (= VDE 0805 Teil 1) KOSHA S Mark * 10 |                        |                                                      |  |
| SEMI * 11            |                                                | F47-0706 (With 200-VAC input)                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                        |                           |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |
| Weight               |                                                | 330 g max.                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                        | 490 g max.                |                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                      |  |

\*1. Do not use an inverter output for the Power Supply. Inverters with an output frequency of 50/60 Hz are available, but the rise in the internal temperature of the Power Supply may result in ignition or burning.

\*2. For a cold start at 25°C. Refer to *Engineering Data* on page 18 for details.

\*3. If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by more than +15% of the voltage adjustment range (by more than +10% for 240-W models with indication monitor). When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that the load is not damaged.

\*4. To reset the protection, turn OFF the input power for three minutes or longer and then turn it back ON.

\*5. Displayed on 7-segment LED. (character height: 8 mm)

\*6. Resolution of output voltage indication: 0.1 V. Precision of output voltage indication: ±2% (percentage of output voltage value, ±1 digit)

\*7. Resolution of output current indication: 0.1 A; Precision of output current indication: ±5% F.S. ±1 digit max. (specified by rated output voltage)

\*8. Resolution of peak-hold current indication: 0.1 A; Precision of peak-hold current indication: ±5% F.S. ±1 digit max. (specified by rated output voltage); Signal width required for peak-hold current: 20 ms

\*9. A Type and B Type: Sinking, AP Type and BP Type: Sourcing, BE Type: No alarm output.

\*10. S8VS-06024A, S8VS-09024A/AP, S8VS-12024A/AP, S8VS-18024A/AP, and S8VS-24024A/AP only

\*11. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC (85 to 264 VAC).