

Specifications

| Part Numbers | 12VDC output | PS5R-SC12 | - | - | - | - | |
|---|--|----------------------------------|-----------|-------------------------|---|--------------------|------|
| | 24VDC output | PS5R-SC24 | PS5R-SD24 | PS5R-SE24 | PS5R-SF24 | PS5R-SG24 | |
| Output Capacity | | 30W | 60W | 90W | 120W | 240W | |
| Input | Input Voltage (single-phase, 2-wire) | 85 to 264 VAC, 100 to 370 VDC | | | 85 to 264V AC, 100 to 350V DC | | |
| | Input Current (typical) | 100VAC | 0.9A | 1.7A | 2.3A | 1.8A | 3.5A |
| | | 200VAC | 0.6A | 1.0A | 1.4A | 1.0A | 1.7A |
| | Internal Fuse Rating | | 3.15A | 3.15A | 4A | 4A | 6.3A |
| | Inrush Current (cold start) | 50A maximum (at 200V AC) | | | | | |
| | Leakage Current (at no load) | 0.75mA maximum | | | 1mA maximum | | |
| | Typical Efficiency | 12VDC | 78% | - | - | - | - |
| 24VDC | | 80% | 83% | 82% | 84% | | |
| Output Current Ratings | 12VDC | 2.5A | - | - | - | - | |
| | 24VDC | 1.3A | 2.5A | 3.75A | 5A | 10A | |
| Voltage Adjustment | ±10% (V. ADJ control on front) | | | | | | |
| Output Holding Time | 20ms minimum (at rated input and output) | | | | | | |
| Starting Time | - | - | - | - | 650ms maximum | 500ms maximum | |
| Rise Time | 100ms maximum (at rated input and output) | | | 200ms maximum | | | |
| Line Regulation | 0.4% maximum | | | | | | |
| Load Regulation | 1.5% maximum | | | | | 0.8% max | |
| Temperature Regulation | 0.05% degree C maximum | | | | | | |
| Ripple Voltage | 2% peak to peak maximum (including noise) | | | | 1% peak to peak maximum (including noise) | | |
| Overcurrent Protection | 105% or more, auto reset | | | 103 to 110%, auto reset | 105 to 130%, auto reset | | |
| Overvoltage Protection | 120% min. SHUTDOWN | | | | | | |
| Parallel Operation | No | No | No | No | No | No | |
| Dielectric Strength | Between Input and Ground: 2000 VAC, 1 minute* | | | | | | |
| Insulation Resistance | Between Input & Output Terminals: 100 MΩ Min | | | | | | |
| Operating Temperature | -10 to 60°C (14 to 140°F) | | | | | | |
| Storage Temperature | -25 to 75°C (-13 to +167°F) | | | | | | |
| Operating Humidity | 20 to 90% relative humidity (no condensation, no freezing) | | | | | | |
| Vibration Resistance | Frequency 10 to 55Hz, Amplitude 0.375mm | | | | | | |
| Shock Resistance | 300m/s ² 3 times each in 6 axes | | | | | | |
| Approvals | EMC: EN61204-3 (EMI: Class B, EMS: Industrial), LVD: EN60950, EN50178:1997, UL 1604, UL 508, UL1310 (PS5R-SC, -SD), c-UL (CSA 22.2 No. 14) | | | | | | |
| | - | | | | SEMI F47 | | |
| Harmonic Directive (EN61000-3-2) | N/A | | | EN61000-3-2 A14 class A | | | |
| Weight (approx.) | 250g | 285g | 440g | 630g | 1000g | | |
| Terminal Screw | M3.5 slotted-Phillips head screw (screw terminal type) | | | | | | |
| IP protection | IP20 fingersafe | | | | | | |
| Dimensions H x W x D (mm) | 95 x 36 x 108 | | | 115 x 46 x 121 | 115 x 50 x 129 | 125 x 80 x 149.5 | |
| Dimensions H x W x D (inches) | 3.74 x 1.42 x 4.25 | | | 4.53 x 1.81 x 4.76 | 4.53 x 1.97 x 5.08 | 4.92 x 3.15 x 5.89 | |

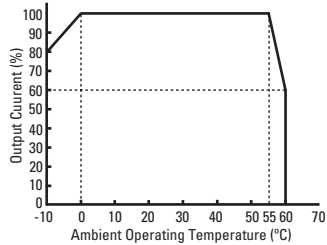
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Power Supplies



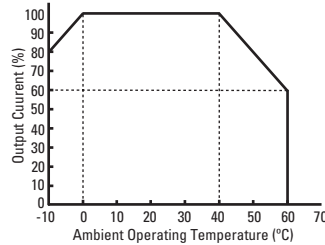
1. For dimensional drawings, see page L-7.
2. *Between input and output: 3000VAC, 1 minute; Between output and ground: 500VAC, 1 minute

Temperature Derating Curves

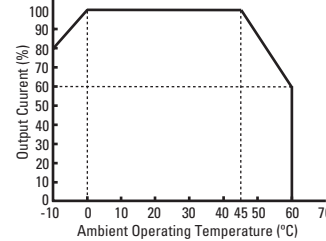
PS5R-SC



PS5R-SD, -SE, -SF



PS5R-SG



Condition Natural Air Cooling
(Operating Temperature means
temperature in surrounded
PS5R.)

Make sure of convection in
consideration of sufficient heat
radiation. Do not block the
opening of the switching power
supply.

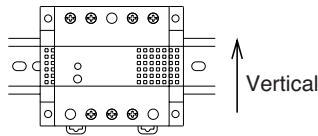
Keep at least 20mm clearance
around the switching power
supply, except for the opening.

All IDEC power supplies are listed to UL 508 which allows operation at 100% capacity inside a panel. This eliminates the need to use oversize power supplies or utilize two power supplies derated 50% of their rated output.

The charts above show that the PS5R Slim 30W/60W/90W (at 55°C), 120W (at 40°C), and 240W (at 45°C) meet the ambient temperature required by the UL 508 and EN60950 standards to operate at an output current of 100%. The output current starts to derate beyond the required temperature.

A Mounting

Mounting Style A□
(standard)



B Mounting

Mounting Style B□
(Facing upward)

