



## Slim Line Power Supplies PS5R-S

### Features

- Lightweight and Compact in size
- Wide Power Range: 15W – 240W
- Universal Input:  
15W to 90W: 85-264V AC/100-370V DC  
120W and 240W: 85-264V AC/100-350V DC
- Power Factor Correction (EN61000-3-2) for 60W to 240W
- Meets SEMI F47 Sag Immunity (120W & 240W)
- NEC Class 2 rated (15W, 30W & 60W)
- Approved for Class 1, Div. 2 Hazardous Locations
- Fused input
- Overcurrent protection, auto-reset
- Overvoltage protection, shut down
- Spring-up Screw Terminal type, IP20
- DIN rail or Panel Surface Mount
- Approvals:  
CE Marked, TÜV, c-UL, UL 508, UL 1310 (PS5R-SB, -SC, -SD),  
UL 1604, EN 50178:1997, LVD: EN60950:2000, EMC: Directive,  
EN61204-3:2000 (EMI: Class B, EMS: Industrial)



For more information on these  
and other IDEC power supplies, visit:

[www.idec.com/powersupply](http://www.idec.com/powersupply)

### Specifications

| Specifications         |                                      |             | New                                                  |                |           |                         |               |                                           |  |
|------------------------|--------------------------------------|-------------|------------------------------------------------------|----------------|-----------|-------------------------|---------------|-------------------------------------------|--|
| Part Numbers           | 5V DC output                         |             | PS5R-SB05                                            | —              | —         | —                       | —             | —                                         |  |
|                        | 12V DC output                        |             | PS5R-SB12                                            | PS5R-SC12      | —         | —                       | —             | —                                         |  |
|                        | 24V DC output                        |             | PS5R-SB24                                            | PS5R-SC24      | PS5R-SD24 | PS5R-SE24               | PS5R-SF24     | PS5R-SG24                                 |  |
| Output Capacity        |                                      |             | 15W (5V Model is 10W)                                | 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 (maximum)              | 100VAC      | 0.45A                                                | 0.9A           | 1.7A      | 2.3A                    | 1.8A          | 3.5A                                      |  |
|                        |                                      | 200VAC      | 0.3A                                                 | 0.6A           | 1.0A      | 1.4A                    | 1.0A          | 1.7A                                      |  |
|                        | Internal Fuse Rating                 |             | 2A                                                   | 3.15A          | 3.15A     | 4A                      | 4A            | 6.3A                                      |  |
|                        | Inrush Current (cold start)          |             | 50A maximum (at 200V AC)                             |                |           |                         |               |                                           |  |
|                        | Leakage Current (at no load)         |             | 132V AC: 0.38 mA maximum<br>264V AC: 0.75 mA maximum | 0.75mA maximum |           |                         | 1mA maximum   |                                           |  |
|                        | Typical Efficiency                   | 5V DC       | 69%                                                  | —              | —         | —                       | —             | —                                         |  |
| 12V DC                 |                                      | 75%         | 78%                                                  | —              | —         | —                       | —             |                                           |  |
| 24V DC                 |                                      | 79%         | 80%                                                  | 83%            | 82%       | 84%                     |               |                                           |  |
| Output                 | Output Current Ratings               | 5V DC       | 2.0A                                                 | —              | —         | —                       | —             | —                                         |  |
|                        |                                      | 12V DC      | 1.2A                                                 | 2.5A           | —         | —                       | —             | —                                         |  |
|                        |                                      | 24V DC      | 0.65A                                                | 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                        |             | 200ms maximum                                        | —              | —         | —                       | 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                                         |                |           |                         |               |                                           |  |
|                        | 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                             |                |           | 105 to 130%, auto reset |               | 103 to 110%, auto reset                   |  |
|                        | Overvoltage Protection               |             | 120% min. SHUTDOWN                                   |                |           |                         |               |                                           |  |
| Operation Indicator    |                                      | LED (green) |                                                      |                |           |                         |               |                                           |  |
| Voltage Low Indication |                                      | LED (amber) | —                                                    | —              | —         | LED (amber)             |               |                                           |  |

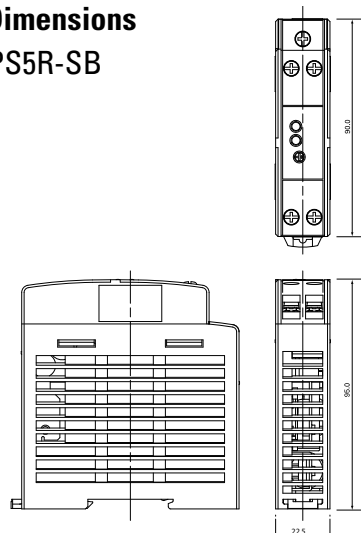
## Specifications Con't

|                               | PS5R-SB                                                                                                        | PS5R-SC                   | PS5R-SD | PS5R-SE                 | PS5R-SF            | PS5R-SG            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------|---------|-------------------------|--------------------|--------------------|
| Parallel Operation            | No                                                                                                             |                           |         |                         |                    |                    |
| Dielectric Strength           | Between Input and Ground: 2000 VAC, 1 minute*                                                                  |                           |         |                         |                    |                    |
| Insulation Resistance         | Between Input & Output Terminals: 100 MΩ Min                                                                   |                           |         |                         |                    |                    |
| Operating Temperature         | -10 to +65°C (14 to 149°F)                                                                                     | -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)                                                                  |                           |         |                         |                    |                    |
| Vibration Resistance          | Frequency 10 to 55Hz, Amplitude 0.375mm                                                                        |                           |         |                         |                    |                    |
| Shock Resistance              | 300m/s² (30G) 3 times each in 6 axes                                                                           |                           |         |                         |                    |                    |
| Approvals                     | EMC: EN61204-3 (EMI: Class B, EMS: Industrial), c-UL (CSA 22.2 No. 14), UL 1604, UL 508, LVD: EN60950, EN50178 |                           |         |                         |                    |                    |
|                               | UL1310 Class 2, c-UL (CSA 22.2 No. 213 and 223)                                                                |                           |         | —                       | SEMI F47           |                    |
| Harmonic Directive            | N/A                                                                                                            |                           |         | EN61000-3-2 A14 class A |                    |                    |
| Weight (approx.)              | 160g                                                                                                           | 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)     | 90 x 22.5 x 95                                                                                                 | 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) | 3.54 x 0.89 x 3.74                                                                                             | 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 |

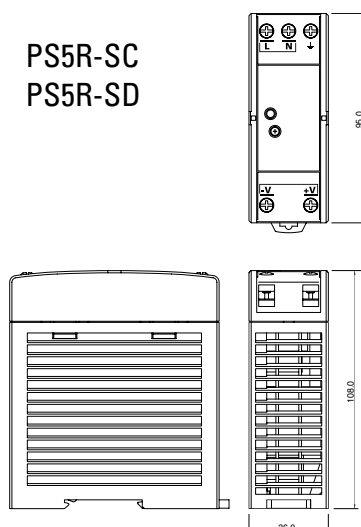
\* Between input and output: 3000VAC, 1 minute; Between output and ground: 500VAC, 1 minute

## Dimensions

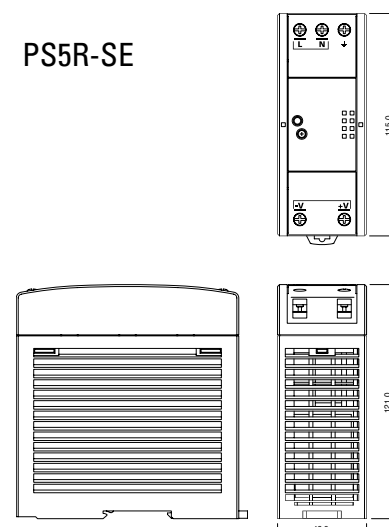
PS5R-SB



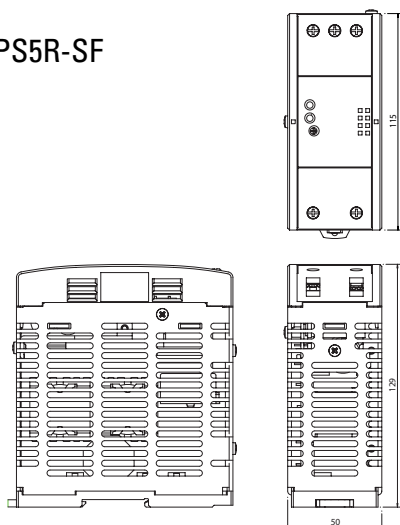
PS5R-SC  
PS5R-SD



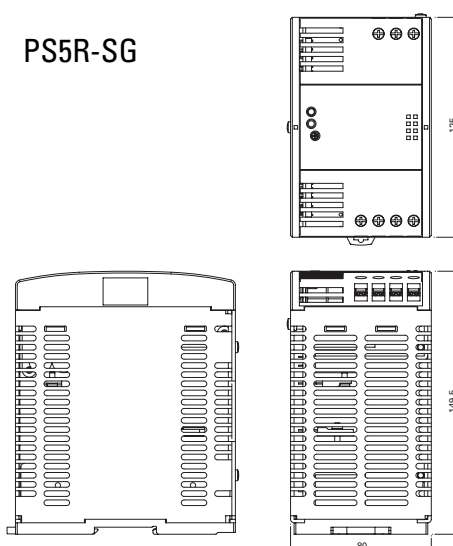
PS5R-SE



PS5R-SF



PS5R-SG



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