














**Selection Guide**

		PS5R Slim Line	PS5R	PS3L
<b>Appearance</b>				
<b>Page</b>		107	113	118
<b>Housing</b>		Plastic		Metal
<b>Mounting</b>		DIN Rail or surface mount		Panel or bracket mount
<b>Wattage Range</b>		10W to 240W	7.5W to 240W	10W to 300W
<b>Input Voltage</b>		85 to 264 V AC, 100-370 V DC (100-350V DC, 120W & 240W)	85 to 264V AC, 105 to 370V DC	85 to 264V AC, 105 to 370V DC
<b>Output Current Ratings</b>	<b>5VDC</b>	2.0A	1.5A, 2.5A	2A, 3A, 6A
	<b>12VDC</b>	1.2A, 2.5A	0.6A, 1.2A, 2.5A	0.90A, 1.4A, 2.5A, 4.3A, 8.5A, 13A
	<b>24VDC</b>	0.65A, 1.3A, 2.5A, 3.75A, 5A, 10A	0.30A, 0.60A, 1.3A, 2.1A, 3.1A, 4.2A, 5A, 10A	0.50A, 0.70A, 1.3A, 2.2A, 4.5A, 6.5A, 12.5A
<b>Typical Efficiency</b>	<b>5VDC</b>	69%	69%	70-75%
	<b>12VDC</b>	75%, 78%	73% to 75%	74% to 80%
	<b>24VDC</b>	80% to 84%	75% to 85%	78% to 82%
<b>Voltage Adjustments</b>		+/-10% (V.ADJ control on front)		
<b>Ripple Voltage</b>		2% peak to peak max (including noise)		160mV maximum
<b>Overvoltage Protection (input)</b>		120% or more, auto reset	120% typical	
<b>Overcurrent Protection (output)</b>		105% min shutdown	105% minimum (Zener or auto reset)	
<b>Operating Temperature</b>		-10° to +60°C (14° to 140°F)		
<b>Termination</b>		M3.5 phillip/slotted, spring loaded, captive (fingersafe)		IEC Style screw terminals (fingersafe)
<b>Approvals</b>		  UL1604 Listed File#E234997   (SEMI F47 120W & 240W only)	  UL508 Listed File #E177168  Cert No. BL980213332392	  UL508 Listed File #E177168 

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## PS5R Slim Line Series Switching Power Supplies

### Key features of the PS5R Slim Line series include:

- Lightweight and compact in size
- Wide power range: 10W-240W
- Universal input:  
10W to 90W: 85-264V AC/100-370V DC  
120W and 240W: 85-264V AC/100-350V DC
- Power Factor Correction for 60W to 240W (EN61000-3-2)
- Meets SEMI F47 Sag Immunity (120W & 240W only)
- Approved for Class 1, Div. 2 Hazardous Locations
- 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, UL508  
UL1310 (PS5R-SB, -SC, -SD)

UL1604 (Hazardous locations)  
EN50178:1997  
LVD: EN60950:2000  
EMC: Directive EN61204-3:2000 (EMI: Class B, EMS: Industrial)



### Designed with Accessibility & Convenience in Mind!

#### DC Low Indicator (15W, 120W & 240W Slim Line Only)

The indicator turns on when the output voltage drops below 80% of the rated value. This assists in troubleshooting power supply problems.

#### DC ON Indicator

The indicator turns on when the unit is powered up. This is a convenient way to know when the power supply is receiving power.

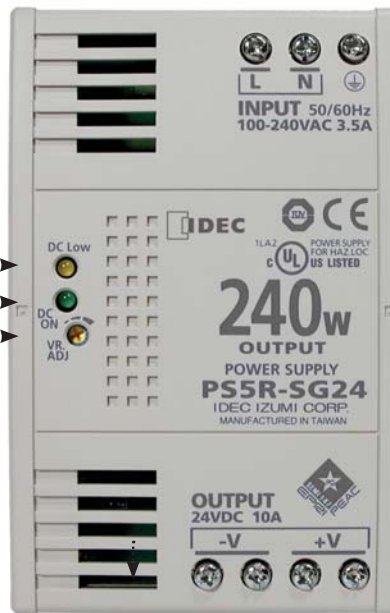
#### Output Voltage Adjustment

The output voltage can be easily adjusted within  $\pm 10\%$  of the rated voltage.



#### Fingersafe, Spring-up Screw Terminals

Don't worry about losing screws or getting an inadvertent shock from a terminal. The terminals are captive spring-up screws, which makes using them as easy as pushing a screw down and tightening it. They are shock and vibration resistant, and work with ring lugs, fork connectors or stripped wire connections. The terminals are rated IP20 (when tightened) meaning they are recessed to keep fingers and objects from touching the input contacts.



#### Universal Input Power

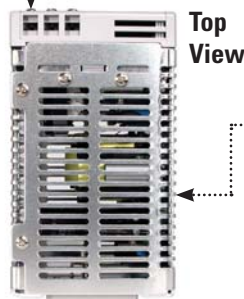
The applied input power has a range of 85-264V AC (100-350V DC) without the use of jumpers or slide switches. This makes IDEC power supplies suitable for use anywhere in the world.

#### Long Life Expectancy

IDEC power supplies are very reliable, with a life expectancy of 70,000 hrs. (minimum) or longer, depending on usage. Power factor correction has also been included to minimize harmonic distortion, resulting in a longer operating life and increased reliability.

#### Output Channel

With very low output ripples of less than 1% peak to peak, the 120W and 240W power supplies are some of the best in the industry. The output comes with overload protection that avoids damaging the power supply and the spring-up, fingersafe, screw terminals add a level of safety and ease for the user. The 240W power supply also has the convenience of two output terminals.



#### Ventilation Grill

Provides cooling for the power supply and prevents small objects from falling into the power supply circuitry.

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**Part Numbers**

Item	Watts	Rated Voltage	Rated Current	Part Number	Item	Watts	Rated Voltage	Rated Current	Part Number
 10	5V DC	2.0A	PS5R-SB05	 90	24V DC	3.75A	PS5R-SE24		
	15	12V DC	1.2A		PS5R-SB12	 120	24V DC	5A	PS5R-SF24
		24V DC	0.65A		PS5R-SB24		 240	24V DC	10A
 30	12V DC	2.5A	PS5R-SC12						
	24V DC	1.3A	PS5R-SC24						
 60	24V DC	2.5A	PS5R-SD24						

**Accessories**

Appearance	Description	Part Number
	Panel Mounting Bracket for PS5R-SB	PS9Z-5R1B
	Panel Mounting Bracket for PS5R-SB (flat side mounting)	PS9Z-5R2B
	Panel Mounting Bracket for PS5R-SC and PS5R-SD	PS9Z-5R1C
	Panel Mounting Bracket for PS5R-SE	PS9Z-5R1E
	Panel Mounting Bracket for PS5R-SF & PS5R-SG	PS9Z-5R1G
	DIN rail (1000mm)	BNDN1000
	DIN rail end clip	BNL5

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Specifications

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	
<b>Output Capacity</b>		15W (5V Model is 10W)	30W	60W	90W	120W	240W	
<b>Input</b>	<b>Input Voltage (single-phase, 2-wire)</b>	85 to 264V AC, 100 to 370V DC				85 to 264V AC, 100 to 350V DC		
	<b>Input Current (maximum)</b>	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
	<b>Internal Fuse Rating</b>	2A	3.15A		4A		6.3A	
	<b>Inrush Current (cold start)</b>	50A maximum (at 200V AC)						
	<b>Leakage Current (at no load)</b>	132V AC: 0.38 mA maximum 264V AC: 0.75 mA maximum		0.75mA maximum			1mA maximum	
	<b>Typical Efficiency</b>	5V DC	69%	–	–	–	–	–
12V DC		75%	78%	–	–	–	–	
24V DC		79%	80%	83%	82%	84%		
<b>Output Current Ratings</b>	5V DC	2.0A	–	–	–	–	–	
	12V DC	1.2A	2.5A	–	–	–	–	
	24V DC	0.65A	1.3A	2.5A	3.75A	5A	10A	
<b>Voltage Adjustment</b>		±10% (V. ADJ control on front)						
<b>Output Holding Time</b>		20ms minimum (at rated input and output)						
<b>Starting Time</b>		200ms maximum	–	–	–	650ms maximum	500ms maximum	
<b>Rise Time</b>		100ms maximum (at rated input and output)				200ms maximum		
<b>Line Regulation</b>		0.4% maximum						
<b>Load Regulation</b>		1.5% maximum					0.8% max	
<b>Temperature Regulation</b>		0.05% degree C maximum						
<b>Ripple Voltage</b>		2% peak to peak maximum (including noise)				1% peak to peak maximum (including noise)		
<b>Overcurrent Protection</b>		105% or more, auto reset			105 to 130%, auto reset		103 to 110%, auto reset	
<b>Overvoltage Protection</b>		120% min. SHUTDOWN						
<b>Operation Indicator</b>		LED (green)						
<b>Voltage Low Indication</b>		LED (amber)	–	–	–	LED (amber)		
<b>Dielectric Strength</b>		Between Input and Ground: 2000 V AC, 1 minute Between input and output: 3000V AC, 1 minute; Between output and ground: 500V AC, 1 minute.						
<b>Insulation Resistance</b>		Between Input & Output Terminals: 100 MΩ Min						
<b>Operating Temperature</b>		–10 to +65°C (14 to 149°F)		–10 to 60°C (14 to 140°F)				
<b>Storage Temperature</b>		–25 to 75°C (-13 to +167°F)						
<b>Operating Humidity</b>		20 to 90% relative humidity (no condensation)						
<b>Vibration Resistance</b>		Frequency 10 to 55Hz, Amplitude 0.375mm						
<b>Shock Resistance</b>		300m/s <sup>2</sup> (30G) 3 times each in 6 axes						
<b>Approvals</b>		EMC: EN61204-3 (EMI: Class B, EMS: Industrial), c-UL (CSA 22.2 No. 14), UL1604, UL508, LVD: EN60950, EN50178 UL1310 Class 2, c-UL (CSA 22.2 No. 213 and 223)						
<b>Harmonic Directive</b>		N/A			EN61000-3-2 A14 class A			
<b>Weight (approx.)</b>		160g	250g	285g	440g	630g	1000g	
<b>Terminal Screw</b>		M3.5 slotted-Phillips head screw (screw terminal type)						
<b>IP protection</b>		IP20 fingersafe						
<b>Dimensions H x W x D (mm)</b>		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	
<b>Dimensions H x W x D (inches)</b>		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	

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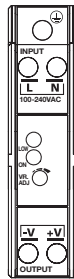


1. For dimensions, see page 111.

Dimensions and Terminal Markings

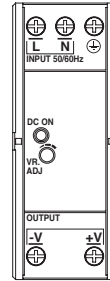
**PS5R-SB**

Height 90mm  
Width 22.5mm  
Depth 95mm



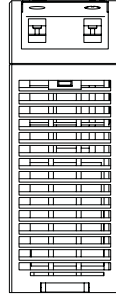
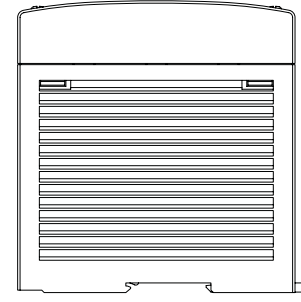
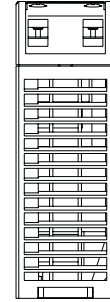
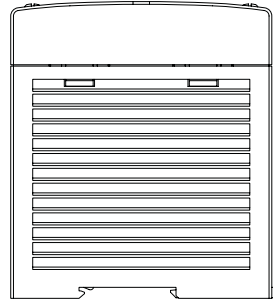
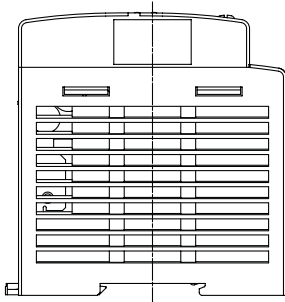
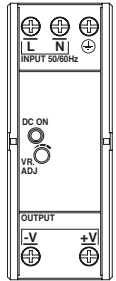
**PS5R-SC  
PS5R-SD**

Height 95.0mm  
Width 36.0mm  
Depth 108.0mm



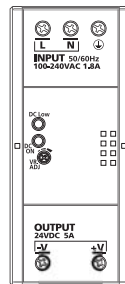
**PS5R-SE**

Height 115.0mm  
Width 46.0mm  
Depth 121.0mm



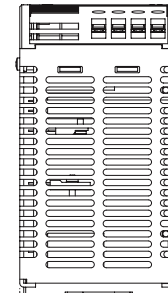
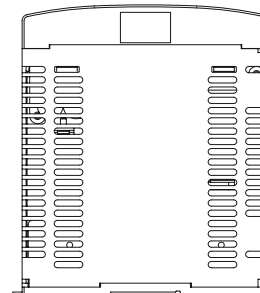
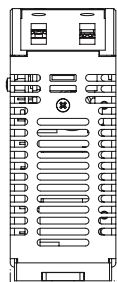
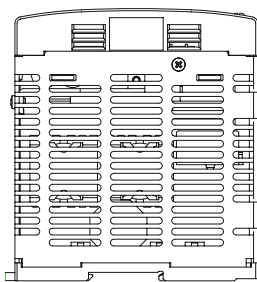
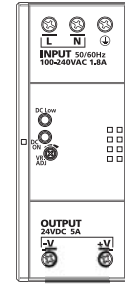
**PS5R-SF**

Height 115.0mm  
Width 50.0mm  
Depth 129.0mm



**PS5R-SG**

Height 125.0 mm  
Width 80.0 mm  
Depth 149.5 mm

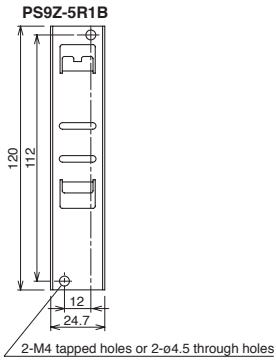


**Front Panel (terminals)**

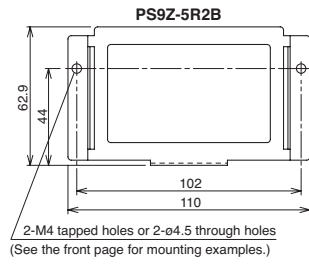
Markings	Name	Description
V. ADJ	Voltage adjustment	Adjusts within $\pm 10\%$ ; turn clockwise to increase output voltage.
DC ON	Operation indicator	Green LED is lit when output voltage is on.
DC Low	Output indicator	Amber LED is lit when output voltage drops below 80% of rated voltage.
+V, -V	DC output terminals	+V: Positive output Terminal -V: Negative output terminal
	Frame ground	Ground this terminal to reduce high-frequency noise caused by switching power supply.
L, N	Input terminals	Accept a wide range of voltages and frequencies (no polarity at DC input).

**Mounting Bracket Dimensions (mm)**

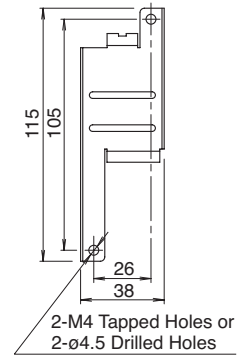
**PS9Z-5R1B** (for PS5R-SB)



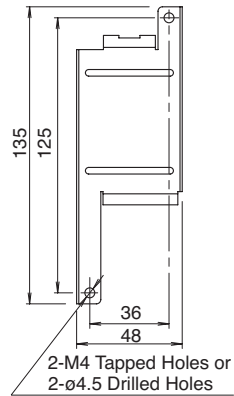
**PS9Z-5R2B** (for PS5R-SB)



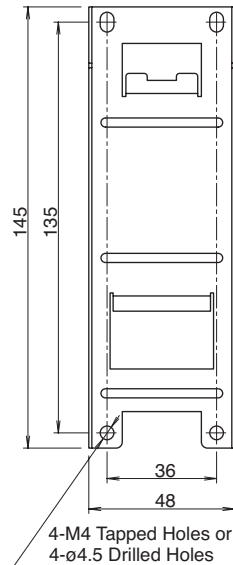
**PS9Z-5R1C** (for PS5R-SC & PS5R-SD)



**PS9Z-5R1E** (for PS5R-SE)



**PS9Z-5R1G** (for PS5R-SF & PS5R-SG)



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