

PS5R Slim Line Series Switching Power Supplies

Key features:

- 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)
- UL Listed 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)

ANSI/ISA-12.12.01-2011 (Hazardous locations)
EN50178:1997

LVD: EN60950:2000

EMC: Directive EN61204-3:2000 (EMI: Class B, EMS: Industrial)



File #E234997



(SEMI F47 120W & 240W only)

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.

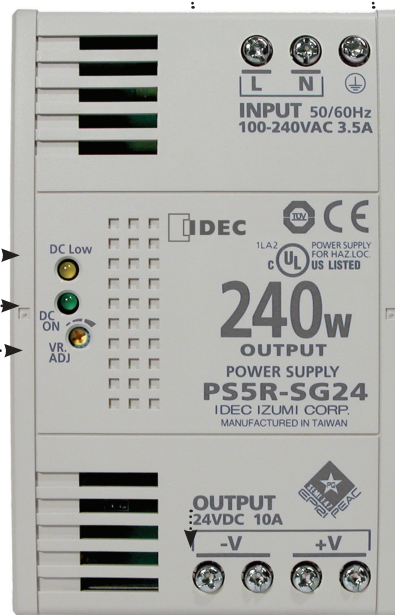
Output Voltage Adjustment

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



Fingersafe, Spring-up Screw Terminals

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

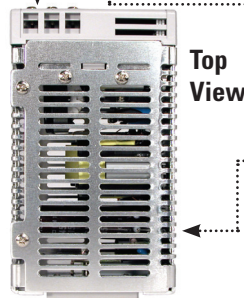
The applied input power has a range of 85-264V AC (100-350V DC) without the use of jumpers or slide switches. This makes IDEC power supplies suitable for use anywhere in the world.

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.



Top View



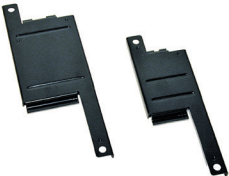
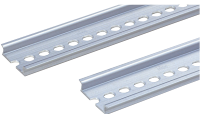
Ventilation Grill

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

Part Numbers

Style	Output Capacity	Input Voltage	Output Voltage	Rated Current	Part Number
	10	85 to 264V AC	5V DC	2.0A	PS5R-SB05
			12V DC	1.2A	PS5R-SB12
			24V DC	0.65A	PS5R-SB24
	15	85 to 264V AC	12V DC	1.2A	PS5R-SB12
			24V DC	0.65A	PS5R-SB24
	30	85 to 264V AC	12V DC	2.5A	PS5R-SC12
			24V DC	1.3A	PS5R-SC24
	60	85 to 264V AC	24V DC	2.5A	PS5R-SD24
			24V DC	2.5A	PS5R-SD24
	90	85 to 264V AC	24V DC	3.75A	PS5R-SE24
			24V DC	5A	PS5R-SF24
	120	85 to 264V AC	24V DC	5A	PS5R-SF24
			24V DC	5A	PS5R-SF24
	240	85 to 264V AC	24V DC	10A	PS5R-SG24
			24V DC	10A	PS5R-SG24

Accessories

	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

OT Touchscreens

PLCs

Automation Software

Power Supplies

Sensors

Communication

Barriers

Specifications

Model		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 264V AC, 100 to 370V DC				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		4A		6.3A	
	Inrush Current (cold start)		50A maximum (at 200V AC)						
	Leakage Current (at no load)		132V AC: 0.38 mA maximum 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 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)						
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					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			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)		
	Dielectric Strength			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.					
	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/s ² (30G) 3 times each in 6 axes						
Approvals			EMC: EN61204-3 (EMI: Class B, EMS: Industrial), c-UL (CSA 22.2 No. 14), ANSI/ISA-12.12.01-2011, UL508, 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	

1. For dimensions, see page 186.

