



PS6R Series Switching Power Supplies

Expandable and space-saving switching power supplies. High efficiency reduces operation costs.

- 93% efficiency
- Plug-in output modules for additional output voltages
- Plug-in branch terminal module for additional terminals
- Power Range: 120W, 240W, 480W
- Input voltage: 100 to 240V AC (voltage range: 85 to 264V AC/110 to 350V DC)
- Up to 70°C (158°F) operating temperature
- DC low LED indicator and output contact
- The terminals are captive spring-up screws. Ring or fork terminals can be used.
- Finger-safe construction prevents electric shocks.
- Panel mount bracket and side-mount panel mounting bracket. Can be attached to a DIN rail or directly to a panel surface.
- RoHS compliant



Applicable Standards	Mark	File No. or Organization
UL508 CSA C22.2 No. 107.1		UL/c-UL Listed File No. E177168
EN60950-1 EN50178 EN61204-3		TÜV SÜD EU Low Voltage Directive EMCD

SEMI, ANSI (Hazardous location), and Maritime standards are pending.

Part Numbers

PS6R

Output Capacity*	Part No.	Input Voltage	Output Voltage	Output Current
120W	PS6R-F24	100 to 240V AC	21.6 to 26.4V	5A
240W	PS6R-G24			10A
480W	PS6R-J24			20A

*Output voltage × output current = output capacity



120W shown with Branch Terminal module attached.

Accessories

Item	Part No.	Note
Output Voltage Expansion Module ^{Note 1}	PS9Z-6RM1	Output: +5V, 2A, 10W
	PS9Z-6RM2	Output: +12V, 1A, 12W
	PS9Z-6RM3	Output: +5V, 1A/-5V, 1A, 10W
	PS9Z-6RM4	Output: +15V, 0.4A/-15V, 0.4A, 12W
	PS9Z-6RM5	Output: +5V, 1A/+12V, 0.5A, 11W
	PS9Z-6RM6	Output: +12V, 0.5A/-12V, 0.5A, 12W
Branch Terminal Module ^{Note 2}	PS9Z-6RS1	Additional screw terminals for wiring: 2 + terminals / 2 - terminals
Panel Mounting Bracket	PS9Z-6R1F	
Side-mount Panel Mounting Bracket	PS9Z-6R2F	Supplied with M3 × 6 countersunk mounting screws
DIN Rail	BNDN1000	1,000mm
DIN Rail End Clip	BNL6	

1. When using an output voltage expansion module, reduce 1A from the output current of PS6R.
2. When using a branch terminal module, the total voltage/current of PS6R and the branch terminal module should not exceed the rated current/voltage of PS6R

Specifications

PS6R

Part No.		PS6R-F24	PS6R-G24	PS6R-J24	
Input	Input Voltage	100 to 240V AC (Voltage range: 85 to 264V AC/110 to 350V DC) (Load ≤ 80% at 85 to 100V AC, 110 to 140V DC) ^{Note 1}			
	Frequency	50/60Hz			
	Input Current	100V AC	1.4A typ	2.7A typ	5.5A typ.
		230V AC	0.7A typ	1.2A typ	2.3A typ.
	Inrush Current	100V AC	9A max. (Ta=25°C, 100V AC cold start)		
		230V AC	20A max. (Ta=25°C, 230V AC cold start)		
	Leakage Current	120V AC	0.5mA max.		
		230V AC	1mA max.		
Efficiency (Typical)	100V AC	90%	90%	91%	
	230V AC	90%	91%	93%	
Power Factor (Typical)	100V AC	0.99	0.99	0.98	
	230V AC	0.96	0.97	0.97	
Output	Rated Voltage/Current	24V/5A	24V/10A	24V/20A	
	Adjustable Voltage Range	±10%			
	Output Holding Time	20ms min. (at rated input and output)			
	Start Time	800ms max. (at rated input and output)			
	Rise Time	200ms max. (at rated input and output)			
	Regulation	Total Fluctuation	±5% max.		
		Input Fluctuation	0.4% max.		
		Load Fluctuation	0.6% max.		
		Temperature Change	0.05%/oC max. (-10 to +60°C)		
		Ripple (including noise)	1% p-p max. (0 to +60°C) 1.5% p-p max. (-10 to 0°C)		
Supplementary Functions	Overcurrent Protection	105 to 120% (auto reset) (output current when voltage drops by 5%)			
	Overvoltage Protection	Output off at 120% ^{Note 2}			
	Operation Indicator	LED (green)			
	Voltage Low Indication	LED (amber)			
Dielectric Strength	Between input and output terminals	3000V AC, 1 minute			
	Between input and ground terminals	2000V AC, 1 minute			
	Between output and ground terminals	500V AC, 1 minute			
Insulation Resistance		100MΩ min. 500V DC megger (between input and output terminals/between input and ground terminals) (at room temperature and normal humidity)			
Operating Temperature		-10 to +70°C (no freezing) ^{Note 3}			
Operating Humidity		20 to 90% RH (no condensation)			
Storage Temperature		-25 to +75°C (no freezing)			
Storage Humidity		20 to 90% RH (no condensation)			
Vibration Resistance		10 to 55 Hz, amplitude 0.375 mm (0.187mm using PS9Z-6R1F) 2 hours each in 3 axes, 6 directions			
Shock Resistance		300 m/s ² (150 m/s ² when using a PS9Z-6R1F panel mounting bracket)			
EMC	EMI	EN61204-3 (Class B)			
	EMS	EN61204-3 (industrial)			
Degree of Protection		IP20 (IEC 60529)			
Weight (approx.)		630g	960g	1400g	
Terminal Screw		M3.5 (See last page for wire sizes)			

1. DC input voltage is not subjected to safety standards.

2. One minute after the output has been turned off, turn on the input again.

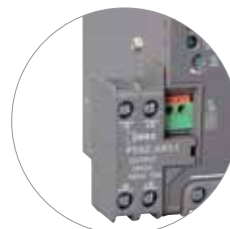
3. See the output derating curves.

■ Easily Expandable



Output Voltage Expansion Module

In addition to the standard 24V output, additional 5, 12, and 15V outputs can be added.



Branch Terminal Module

Two terminals can be added. No wiring is required, reducing installation space.