

SPECIFICATIONS

Model	5V DC output		PS5R-VB05		-		-		-			
	12V DC output		PS5R-VB12		PS5R-VC12		-		-			
	24V DC output		PS5R-VB24		PS5R-VC24		PS5R-VD24		PS5R-VF24			
Output Capacity			15W (5V Model is 10W)		30W		60W		120W			
Input	Rated Input Voltage (Single-phase two-wire)* ¹		100 to 240V AC (Voltage range: 85 to 264V AC/100 to 370V DC) (Load ≤ 80% at 100-105V DC)									
	Frequency		50/60 Hz									
	Input Current (Typ.)	100V AC	5V: 0.25A 12V, 24V: 0.35A		0.7A		1.3A		1.4A			
		230V AC	5V: 0.14A 12V, 24V: 0.19A		0.3A		0.8A		0.7A			
	Inrush Current (Typ.)	100V AC	18A (Ta = 25°C, cold start)									
		230V AC	45A (Ta = 25°C, cold start)									
	Leakage Current	120V AC	0.5mA max.									
		230V AC	1.0mA max.									
	Efficiency (Typ.) (at rated output)* ²	100V AC	5V: 77%, 12V: 82%, 24V: 84%		12V: 83%, 24V: 85%		86%		88%			
		230V AC	5V: 73%, 12V: 80%, 24V: 81%		12V: 85%, 24V: 87%		86%		89%			
Power Factor (Typ.)	100V AC	—		—		—		0.99				
	230V AC	—		—		—		0.92				
Output	Rated Voltage/Current		5V/2.0A* ³ , 12V/1.3A, 24V/0.65A		12V/2.5A, 24V/1.3A		24V/2.5A		24V/5A			
	Adjustable Voltage Range		±10%									
	Output Holding Time (Typ.) (at rated output)	100V AC	5V: 53ms, 12V: 34ms, 24V: 36ms		12V: 13ms, 24V: 15ms		13ms		30ms			
		230V AC	5V: 330ms 12V: 215ms 24V: 230ms		12V: 110ms 24V: 110ms		105ms		33ms			
	Start Time (at rated input and output)		500ms max.		600 ms max.		800 ms max.		700 ms max.			
	Rise Time (at rated input and output)		5V, 12V: 200ms max. 24V: 250ms max.		200ms max.							
	Regulation	Input Fluctuation		0.4% max.								
		Load Fluctuation		5V: 2.5% max. 12V, 24V: 1.0% max.		1.0% max.						
		Temperature Change		0.05%/°C max. (-10 to +65°C)		12V: 0.05%/°C max. (-10 to +50°C) 24V: 0.05%/°C max. (-10 to +55°C)		0.05%/°C max. (-10 to +55°C)		0.05%/°C max. (-25 to +55°C)		
		Ripple (including noise)	5V: 8% p-p max. (-25 to -10°C) 12V: 6% p-p max. (-25 to -10°C) 24V: 4% p-p max. (-25 to -10°C)		12V: 6% p-p max. (-25 to -10°C) 24V: 4% p-p max. (-25 to -10°C)		4% p-p max. (-25 to -10°C)		4% p-p max. (-25 to -10°C)			
5V: 5% p-p max. (-10 to +0°C) 12V: 2.5% p-p max. (-10 to +0°C) 24V: 1.5% p-p max. (-10 to +0°C)			12V: 2.5% p-p max. (-10 to +0°C) 24V: 1.5% p-p max. (-10 to +0°C)		1.5% p-p max. (-10 to +0°C)		1.5% p-p max. (-10 to +0°C)					
5V: 2.5% p-p max. (0 to +65°C) 12V: 1.5% p-p max. (0 to +65°C) 24V: 1% p-p max. (0 to +65°C)			12V: 1.5% p-p max. (0 to +50°C) 24V: 1% p-p max. (0 to +55°C)		1% p-p max. (0 to +55°C)		1% p-p max. (0 to +55°C)					
Overcurrent Protection			105% min. (auto reset)									
Operation Indicator			LED (green)									
Dielectric Strength			Between input and output terminals: 3,000V AC, 1 minute Between input and ground terminals: 2,000V AC, 1 minute Between output and ground terminals: 500V AC, 1 minute									
Insulation Resistance			Between input and output terminals: 100MΩ min. (500V DC megger) Between input and ground terminals: 100MΩ min. (500V DC megger)									
Operating Temperature* ⁴			-25 to +75°C		-25 to +70°C		-25 to +65°C					
Operating Humidity			20 to 90% RH (no condensation)									
Storage Temperature			-25 to +75°C									
Storage Humidity			20 to 90% RH (no condensation)									
Vibration Resistance			10 to 55Hz, amplitude 0.375mm, 2 hours each in 3 axes (when used with BNL6 end clips)				10 to 55Hz, amplitude 0.33mm, 2 hours each in 3 axes (when used with BNL6 end clips) 10 to 55Hz, amplitude 0.375mm, 2 hours each in 3 axes (when used with BNL8 end clips)		10 to 55Hz, amplitude 0.21mm, 2 hours each in 3 axes (when used with BNL6 end clips) 10 to 55Hz, amplitude 0.375mm, 2 hours each in 3 axes (when used with BNL8 end clips)			
Shock Resistance			300 m/s ² (30G), 3 times each in 6 directions									
Expected Life* ⁵			8 years minimum (at the rated input, 50% load, operating temperature +40°C, standard mounting direction)									
EMC	EMI		EN61204-3 (Class B)									
	EMS		EN61204-3 (industrial)									
Safety Standards			UL508 (Listing), UL1310 Class 2 ANSI/ISA-12.12.01 CSA C22.2 No. 107.1, 213, 223 EN60950-1, EN50178						UL508 (Listing) ANSI/ISA-12.12.01 CSA C22.2 No. 107.1, 213 EN60950-1, EN50178			
Other Standard			SEMI F47 (at 208V AC input only)									
Degree of Protection			IP20 (EN60529)									
Dimensions (mm)			90H × 22.5W × 95D				95H × 36W × 108D		115H × 46W × 121D			
Weight (approx.)			140g		150g		260g		470g			
Terminal Screw			M3.5									

At normal temperature and humidity unless otherwise specified.
*1: DC input voltage is not subject to safety standards. When using on DC input, connect a fuse to the input terminal for DC input protection.
*2: Under stable state. *3: PS5R-VB05 (5V DC/2.0A) is 10W (Up to 3.0A at Ta = 0 to 40°C. Not subject to safety standards above 2.0A.)
*4: See the output derating curves on page 3.
*5: Calculation of the expected life is based on the actual life of the aluminum electrolytic capacitor. The expected life depends on operating conditions.