

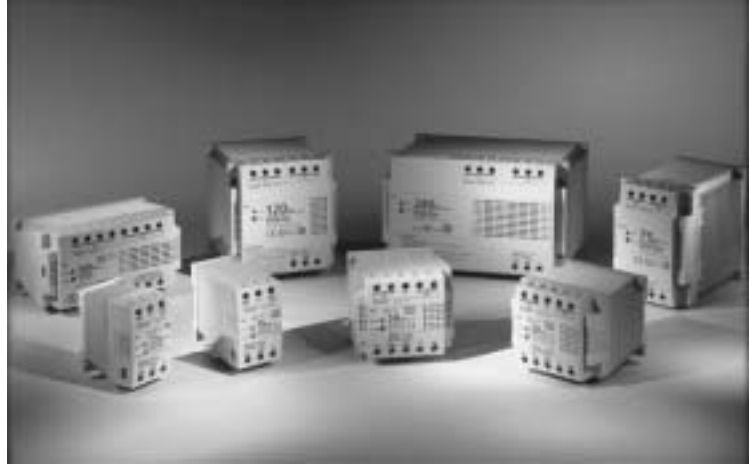
PS5R Standard Series — Switching Power Supplies

The PS5R standard offers a sleek, compact, ergonomic design, worldwide approvals, and broad range of output capacities.

With UL 508 Listing, additional savings in space and cost can be realized as no derating is necessary.

Key features of the PS5R standard series include:

- No jumpers or dip switches
- Universal AC input (85 to 264 V AC), except 100W)
- DC compatible input (105 to 370V DC, except 100W)
- Unique spring-up, fingersafe terminals (ideal for ring lug terminated wire)
- DIN rail or panel mount
- Eight output capacities
- UL508 Listing
- CE marking according to both LVD and EMC
- Fused input
- Auto resetting output overcurrent protection
- Output voltage adjust ($\pm 10\%$)



Conforms to
EMC Directives EN50081-2 and EN50082-2.
LVD Directive: EN60529.
Certified to EN60950.
75W, 120W & 240W also conform to EN61000-3-2



UL 508 Listed
File # E177168



Cert. No.
BL980213332392

Specifications

Part Numbers	5VDC output	PS5R-A05	PS5R-B05*	—	—	—	—	—	—	
	12VDC output	PS5R-A12	PS5R-B12	PS5R-C12	—	—	—	—	—	
	24VDC output	PS5R-A24	PS5R-B24	PS5R-C24	PS5R-D24	PS5R-Q24	PS5R-E24	PS5R-F24	PS5R-G24	
Output Capacity		7.5W	15W	30W	50W	75W	100W	120W	240W	
Input	Input Voltage (single-phase, 2-wire)	100 to 240VAC nominal (85 to 264V AC), 50/60Hz (47 to 63Hz) 110 to 340VDC nominal (105 to 370VDC)					100 to 120VAC, 50/60Hz 200 to 240VAC, 50/60Hz (jumper selectable) 240 to 370VDC		100 to 240VAC, 50/60Hz, 110 to 340VDC	
	Input Current (typical)	0.17A at 100VAC	0.3A at 100VAC	0.68A at 100VAC	1.15A at 100VAC	1.1A	2.5A at 100VAC 1.5A at 200VAC		1.8A	4A at 100VAC
	Internal Fuse Rating	2A	2A	3.15A	3.15A	3.15A	4A	4A	4A	6.3A
	Inrush Current	50A maximum (at cold start at 200V AC)				70A maximum (at cold start at 230V AC)	50A maximum (at cold start at 200V AC)		70A maximum (at cold start at 230V AC)	
	Leakage Current (at no load)	0.75mA maximum (60Hz, measured in conformance with UL, CSA, VDE)								
	Typical Efficiency	69% at 5V 73% at 12V 75% at 24V	69% at 5V 75% at 12V 79% at 24V	75% at 12V 75% at 24V	79% at 24V	83% at 24V DC	85% at 24V	83% at 24V DC	83% at 24V	
	Overvoltage Protection	Outputs turns off at 105% (typical)								
	Voltage and Current Ratings	5V, 1.5A 12V, 0.6A 24V, 0.3A	5V, 2.5A 12V, 1.2A 24V, 0.6A	12V, 2.5A 24V, 1.3A	24V, 2.1A	24V, 3.1A	24V, 4.2A	24V, 5A	24V, 10A	
Voltage Adjustments	±10% (V.ADJ screw on top)									
Output Holding Time	20ms minimum (at full rated input and output)									
Rise Time	200ms maximum (at full rated input and output)								150ms max.	
Line Regulation	0.4% maximum									
Load Regulation	1.5% maximum									
Fluctuation due to Ambient Temperature Change	0.05% maximum									
Ripple Voltage	2% peak to peak maximum (including noise)									
Overload Protection	120% typical (Zener-limiting)			120% typical, auto reset						
Operation Indicator	LED									
Parallel Operation	PS5R-A	PS5R-B	PS5R-C	PS5R-D	PS5R-Q	PS5R-E	PS5R-F	PS5R-G		
	No				Yes					
Dielectric Strength	Between input and output terminals: 3,000V AC, 1 minute Between input terminals and housing: 2,000V AC, 1 minute Between output terminal and housing: 500V AC, 1 minute									
Insulation Resistance	Between input and output terminals/input terminals and housing: 100MΩ minimum (500V DC megger)									
Operating Temperature	-10 to +60°C (14° to 140°F) (see derating curves)									
Storage Temperature	-30 to +85°C (-22° to 185°F)									
Operating Humidity	20 to 90% relative humidity (no condensation)									
Vibration Resistance	45m/s ² , 10 to 55Hz, 2 hours on each of 3 axes				10 to 50Hz, 0.75mm p-p, 2 hrs on each of 3 axes					
Shock Resistance	300m/s ² (30G), 3 shocks in each of 6 directions									
Approvals	Conforms to EMC Directives EN50081-2 & EN50082-2. LVD Directive EN60529 — Certified to EN60950. UL508 listed. UL, c-UL, TUV approved. CE marked. EN61000-3-2									
Weight	150g	170g	360g	390g	800g	600g	1200g	2000g		
Termination	Spring-up, fingersafe terminals with captive M3.5 screws									
IP protection	IP20 (finger safe)									
Dimensions H x W x D (mm)	75 x 45 x 70	75 x 45 x 95	75 x 90 x 95	75 x 90 x 95	120 x 85 x 140	75 x 145 x 95	120 x 115 x 140	120 x 200 x 140		
Dimensions H x W x D (inches)	2.95 x 1.77 x 2.76	2.95 x 1.77 x 3.74	2.95 x 3.54 x 3.74	2.95 x 3.54 x 3.74	4.72 x 3.35 x 5.52"	2.95 x 5.71 x 3.74"	4.72 x 4.53 x 5.52	4.72 x 7.87 x 5.51		



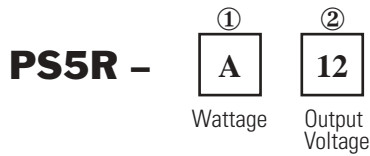
1. For dimensional drawings, see page L-13.
2. For usage instructions, see page L-11.
3. *12.5W for 5VDC model.

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Power Supplies

Part Number Guide

Part Numbering Guide



Part Number Codes

	Description	Code
① Wattage	7.5W	A
	15W (12.5W for 5VDC models)	B
	30W	C
	50W	D
	75W	Q
	100W	E
	120W	F
② Output Voltage	240W	G
	5VDC	05 (A and B models only)
	12V DC	12 (A, B, C models only)
	24V DC	24 all models



Part Number List

Part Numbers: PS5R Series

Output Capacity	Output Voltage	Input Voltage	Part Number
7.5W	5V DC	100 to 240VAC/ (110 to 340 VDC)	PS5R-A05
	12V DC		PS5R-A12
	24V DC		PS5R-A24
15W*	5V DC	100 to 240VAC/ (110 to 340 VDC)	PS5R-B05
	12V DC		PS5R-B12
	24V DC		PS5R-B24
30W	12V DC	100 to 240VAC/ (110 to 340 VDC)	PS5R-C12
	24V DC		PS5R-C24
50W	24V DC	100 to 240VAC/ (110 to 340 VDC)	PS5R-D24
75W	24VDC	100 to 240VAC/ (110 to 340 VDC)	PS5R-Q24
100W	24V DC	100 to 120 VAC 200 to 240 VAC (240-370 VDC)	PS5R-E24
120W	24V DC	100 to 240VAC/ (110 to 340 VDC)	PS5R-F24
240W	24V DC	100-240VAC (110-340VDC)	PS5R-G24

Power Supplies

- 1. For dimensional drawings, see page L-13.
- 2. For usage instructions, see page L-11.
- 3. For accessories, see page L-11.
- 4. *12.5W for 5VDC models.

Accessories

Part Numbers: PS5R Accessories

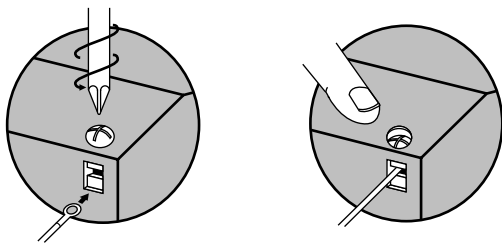
Appearance	Description	Part Number
	DIN rail (1000mm)	BNDN1000
	DIN rail clip	BNL5

Installation Instructions

Time-Saving Spring-up Terminals

The innovative terminals on the PS5R series use a special, spring-loaded screw. This makes installation as easy as pushing down and turning with a screwdriver. Installation time is cut in half since the screws do not need to be backed out to install wiring. The screws are held captive once installed and are 100% finger-safe. Screw terminals accept bare wire or ring or fork connectors.

1. Insert the wire connector into the slot on the side of the power supply.
2. Using a Phillips screwdriver, push down and turn the screw.

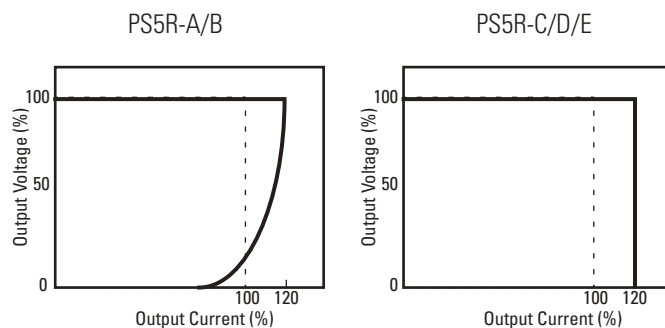


The wire is now connected, and the screw terminal is finger-safe!

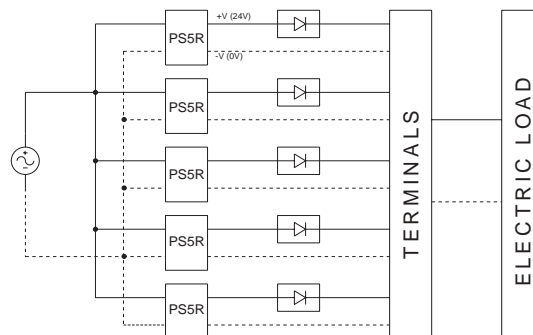
Front Panel (terminals)

Terminal	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
+V, -V	DC output terminals	+V: Positive output terminal -V: Negative output terminal
	Frame ground	Ground this terminal to reduce high-frequency currents caused by switching
L, N	Input terminals	Accept a wide range of voltages and frequencies (no polarity at DC input)
NC	No connection	Do <i>not</i> insert wires here, as this may damage the power supply

Overcurrent Protection Characteristics



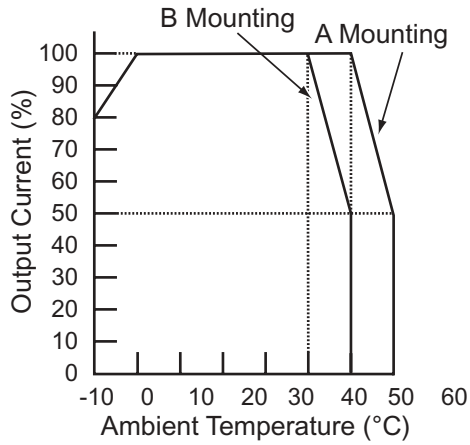
Parallel Operation



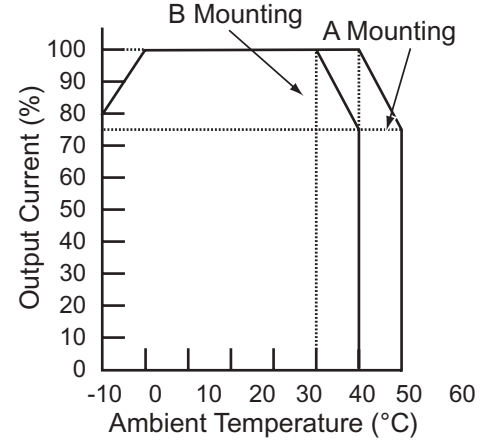
Parallel operation only recommended for PS5R-E24, Q24, F24 and PS5R-G24.

Temperature Derating Curves

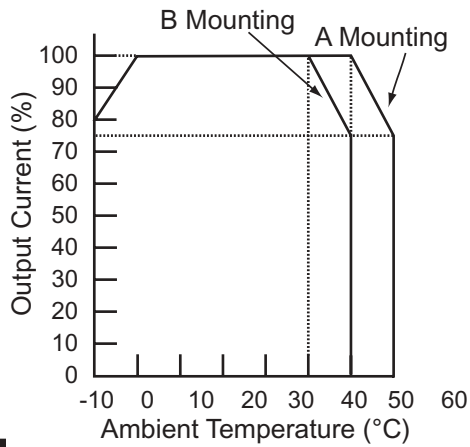
PS5R-A/B



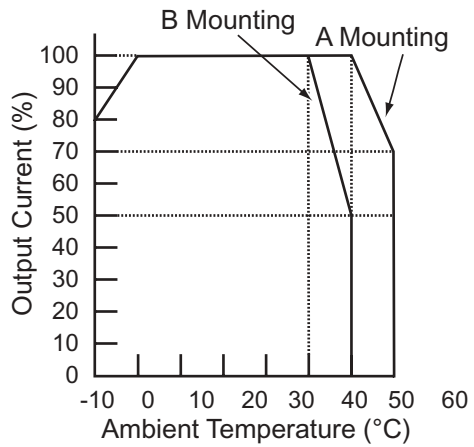
PS5R-C/D



PS5R-E

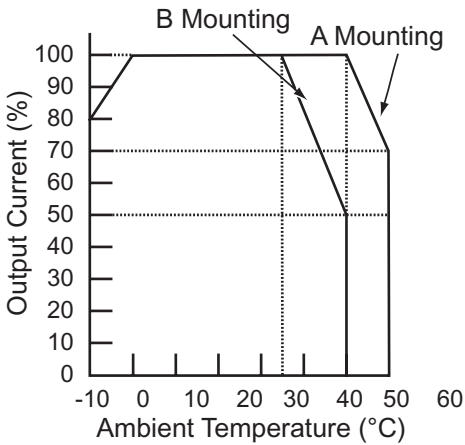


PS5R-Q

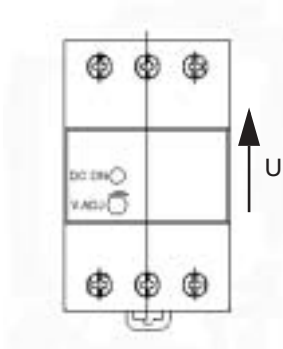


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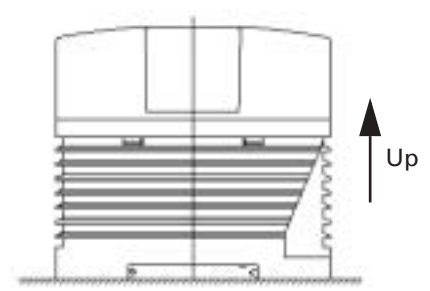
PS5R-F/G



A Mounting



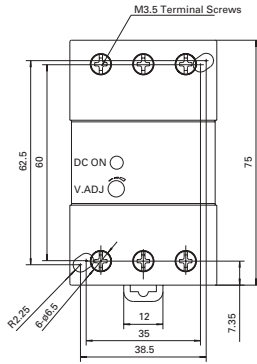
B Mounting



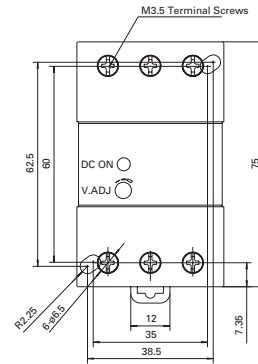
Power Supplies

Dimensions

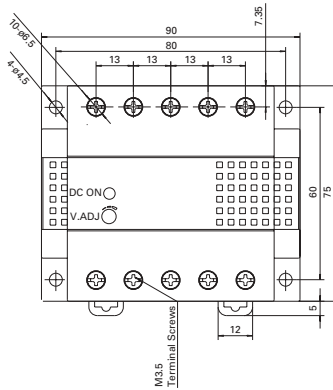
PS5R-A 7.5W (depth 70mm)



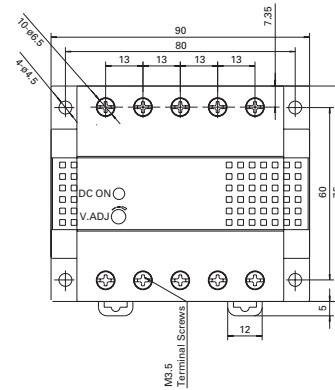
PS5R-B 15W (depth 95mm)



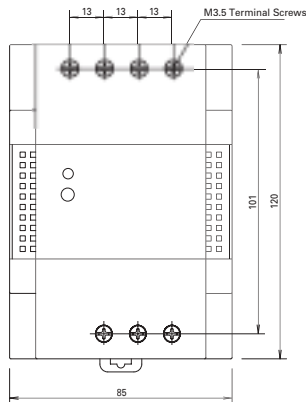
PS5R-C 30W (depth 95mm)



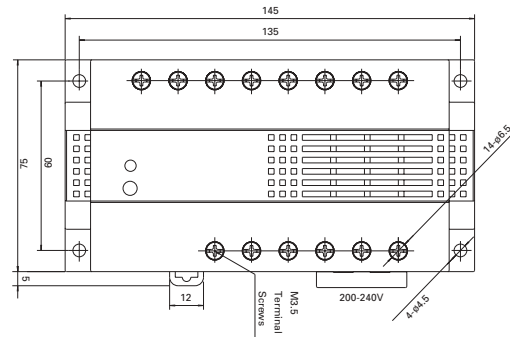
PS5R-D 50W (depth 95mm)



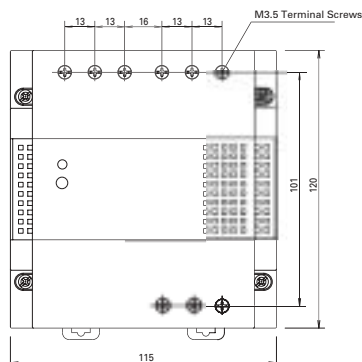
PS5R-Q 75W (depth 140mm)



PS5R-E 100W (depth 95mm)



PS5R-F 120W (depth 140mm)



PS5R-G 240W (depth 140mm)

