



Universal Supplies



PS5R Series Switching Power Supply

Models

- PS5R-B05: 12.5W power supply
- PS5R-B12: 15W power supply
- PS5R-B24: 15W power supply
- PS5R-D24: 50W power supply
- PS5R-F24: 120W power supply
- PS5R-G24: 240W power supply

Input Power Requirement

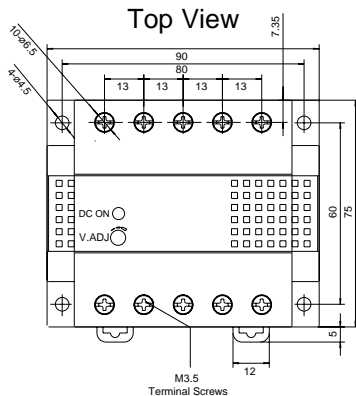
Universal power

85 to 264V AC,
105 to 370V DC

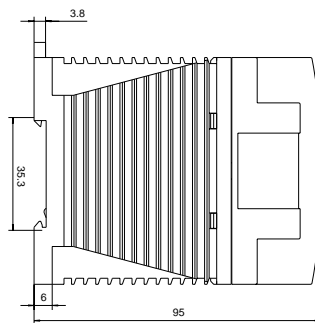
Output

5V DC, 2.5A (12.5W)
12V DC, 1.2A (15W)
24V DC, 0.6A; 2.1A; 5A; 10A
(15W, 50W, 120W, 240W respectively)

PS5R-D24

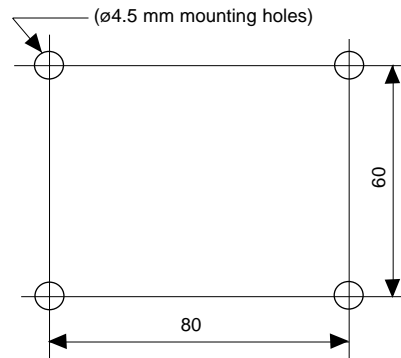


Side View



Dimensions shown in millimeters.

Mounting Hole Specifications



Description

Acromag's new PS5R is the new standard in switching power supply technology. With sleek, compact ergonomics, incorporating all international standards and approvals, and boasting an incredible range of inputs, the PS5R Series makes your power supply choice a simple one. Carrying UL listing, CE marking, and TÜV certification, Acromag has your needs covered. Add to these approvals an amazing range of input voltages (85 to 264V AC and 105 to 370V DC compatible), and you have unbeatable versatility.

The PS5R is the first power supply ever to be listed in accordance with UL 508. Now, panel builders using the PS5R no longer have to derate their power supplies by 50% to obtain UL approval, resulting in lowered expenditures on equipment and reduced installation and rewiring time.

The novel terminal design of the PS5R makes installation a snap, whether you're using bare wire, ring connectors, or fork connectors. Simply insert the wire into the opening on the side of the power supply, then push down the terminal screws while tightening. The screws are now finger-safe and won't fall out.

Changing wires is just as easy, since spring-loading eliminates the need to back out screws completely. Just turn the screws counter-clockwise until they pop up. Then, switch wires and push down on the screws while tightening back into place - it's as simple as that!

Special Features

- Universal AC input (85 to 264V AC)
- DC compatible input (105 to 370V DC)
- Unique spring-up terminals
- DIN rail or panel mount
- UL, cUL, and TÜV approvals
- UL 508 listing
- CE marked
- Certified to EN60950
- IP20 protection (EN60529)
- Compliant with EMC directives EN50081-2 and EN50082-2



Performance

Input Voltage (1-phase, 2-wire)

100 to 240V AC nominal;
85 to 264V AC, 105 to 370V DC compatible.

Frequency

47 to 63Hz

Input Current

PS5R-B05, PS5R-B12, PS5R-B24: 0.30A at 100V
PS5R-D24: 1.15A at 100V, 0.75A at 200V
PS5R-F24: 1.8A at 100V
PS5R-G24: 4A at 100V

Inrush Current

PS5R-B05, PS5R-B12, PS5R-B24, PS5R-D24:
50A maximum (at cold start, 200V AC)

PS5R-F24, PS5R-G24:

70A maximum (at 230V AC)

Leakage Current

0.75mA maximum (60Hz, measured in conformance with UL, CSA, VDE)

Typical Efficiency

PS5R-B05, PS5R-B12, PS5R-B24:
69% at 5V DC, 75% at 12V DC, 79% at 24V DC
PS5R-D24: 79% at 24V DC
PS5R-F24, PS5R-G24
83% at 24V DC

Output Voltage and Current Ratings

PS5R-B05, PS5R-B12, PS5R-B24:
5V, 2.5A; 12V, 1.2A; 24V, 0.6A
PS5R-D24: 24V, 2.1A
PS5R-F24: 24V, 5A
PS5R-G24: 24V, 10A

Adjustments

Voltage range: $\pm 10\%$ (V.ADJ terminal - front)

Output Holding Time

20ms minimum (at rated input and output)

Rise Time

200ms maximum (at rated input and output)

Input Fluctuation

0.4% maximum

Load Fluctuation

1.5% maximum
Temperature Change
0.05% (-10 to 60°C)

Ripple Voltage

2% p-p maximum (including noise)

Overcurrent Protection (output)

PS5R-B05, PS5R-B12, PS5R-B24: 120% typical (Zener)
PS5R-D24, PS5R-F24, PS5R-G24: 120% typical (auto-reset)

Overvoltage Protection (input)

105% typical

Operation Indicator

LED

Environmental

Dielectric Strength

Between input and output terminals:
3000V AC, 1 minute

Between input terminals and housing:
2000V AC, 1 minute

Between output terminal and housing:
500V AC, 1 minute

Insulation Resistance

Between input and output terminal/input terminal and housing:
100M ohms minimum (500V DC megger)

Operating Temperature

-10 to 60°C

Storage Temperature

-30 to 85°C

Operating Humidity

20 to 90% RH (avoid condensation)

Vibration Resistance

PS5R-B05, PS5R-B12, PS5R-B24, PS5R-D24
45m/s², 10 to 55Hz, 2 hours each in 3 axes

PS5R-F24, PS5R-G24

10 to 50Hz, 0.75mm peak to peak, 2 hrs ea. in 3 axes

Shock Resistance

300m/s², (30G) 3 shocks in each of 4 directions

SELV Ratings

PS5R-B12, PS5R-B24, PS5R-D24: EN45001

Physical

Dimensions

PS5R-B05, PS5R-B12, PS5R-B24:
1.77W x 2.95H x 3.74D inches; 45W x 75H x 95D mm

PS5R-D24:

3.54W x 2.95H x 3.74D inches; 90W x 75H x 95D mm

PS5R-F24:

4.53W x 4.72H x 5.52D in.; 115W x 120H x 140D mm

PS5R-G24:

7.87W x 4.72H x 5.51D in.; 200W x 120H x 140D mm

Terminal Screw

M3.5 Phillips screws in spring-up terminals

Ordering Information

Models

PS5R-B05

Power supply, 12.5W, 5V DC

PS5R-B12

Power supply, 15W, 12V DC

PS5R-B24

Power supply, 15W, 24V DC

PS5R-D24

Power supply, 50W, 24V DC

PS5R-F24

Power supply, 120W, 24V DC

PS5R-G24

Power supply, 240W, 24V DC

Accessories

DIN RAIL 3.0

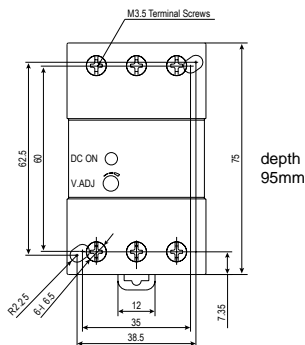
DIN RAIL 16.7

DIN rail strip, Type T, 3 inches (75mm) or 16.7 inches (425mm)

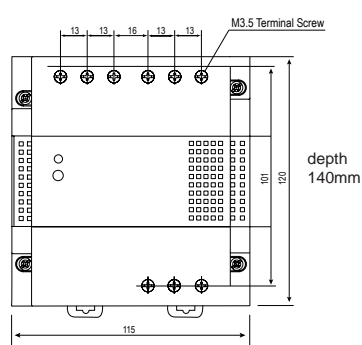
20RM-16-DIN

19" rack-mount kit with DIN rail.

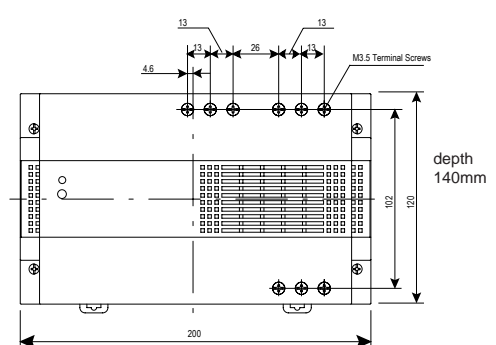
PS5R-Bxx



PS5R-F24



PS5R-G24



Dimensions shown in millimeters.