

PS79 375 Watt Power Supply

Power Factor Corrected High Current Compact Size



Features

- Power Factor Corrected to meet EN 61000-3-2: 95
- 470 Watts peak for disk surges
- Smallest package and highest MTBF in its Power Class
- Full Protection on all outputs and over-temperature shut-down
- International Safety Agency Certification
- Compact open frame package 7"x5"x2.5" (LxWxH)
- One to four outputs with maximum 60A on V1
- Full AC input range
- Inrush limiting and soft start, Low line protection
- Proven Design based upon a unit with over 100,000 installations
- Single 48VDC at 9A output unit (432W continuous). Droop current share
- Optimum cost/performance and size

PS79 Family 375W (470W peak)

Available Output Ranges³

<u>Rail</u>	<u>Rated Voltage</u>	<u>Output Current</u>	<u>Line/Load Regulation</u>	<u>ocp</u>	<u>ovp</u>	<u>uvp</u>	<u>otp</u>	<u>Noise & Ripple Max. Load</u>
1	2V to 56V	5-60A	±1% (RS)	Yes	Yes	Yes	Yes	<50mVp-p or 1%
2	-56 to +56V	0-20A ²	a) ±1% (MA) b) ±12%, -5% ¹	Yes	Yes	Yes	Yes	<100mVp-p or 1%
3	-56 to +56V	0-10A ²	±5% ²	Yes	Opt	Opt	Yes	<50mVp-p or 1%
4	-56 to +56V	0-10A ²	±5% ²	Yes	Opt	Opt	Yes	<100mVp-p or 1%

Notes

1. Worst case envelope for unregulated version when +5V Rail 1 has remote sense option (±5% without RS)
2. Depends on other options and output connectors chosen
3. Consult factory for details on specific models and possible variants

RS: Remote Sense

MA: Magnetic Amplifier post regulator

For detailed specifications and ordering:

US (408) 369-2200

Canada (416) 298-0560

www.saepower.com



Specifications

Electromagnetic Compatibility

Emissions

Conducted, meets EN 55022: 1987 Class B and FCC-CFR Part 15 Subpart J, Class A as standard, Class B as option. Radiated meets EN 55022: 1987 Class B. Harmonics, meets EN 61000-3-2: 95. Disturbances, meets EN 61000-3-3: 95.

Immunity

Consult factory for complete details.

ESD

Complies with EN 61000-4-2: 95.

Electrical Fast Transient

Complies with EN 61000-4-4: 95.

Surge Immunity

Complies with EN 61000-4-5: 95.

Radiated Susceptibility

Complies with EN 61000-4-3: 96.

Input Specifications

Nominal AC Input

100-240VAC, 6A/3A, 60/50Hz. Operating 90VAC to 264VAC, 47-63Hz; short term brownout to 85VAC.

Inrush Current

≤ 30A, averaged over first half cycle from a cold start on AC.

Hold-Up Time

≥ 20mS at 90VAC, full load.

Brown Out

AC input below 90VAC causes no supply damage.

Power Factor

≥ 0.98, typically 0.99 at full load.

Efficiency

≥ 73% at full load (varies with output voltages chosen, load and AC input).

Fusing

The supply shall be fused externally with a 6A, 7A or 10A, 250V CSA/UL approved, normal blow fuse, depending on the model.

Leakage Current

≤ 0.75mA when measured in accordance with EN 60950.

Temperature

Operating 5°C to 50°C with minimum 30CFM airflow lengthwise or from the top. Non-operating -40°C to +75°C.

MTBF

Consult factory for complete details.

Remote Sense

Compensates up to 0.25V on the +5V channel (V1).

Output Protection

All outputs are fully protected with latched shutdown in the event of overvoltage or overtemperature.

Remote ON-OFF

Logic level remote power ON-OFF (SELV; TTL and low level switch compatible) is available. Standard levels are ON low, and OFF open or high.

Power Fail Warning

Active low, 5mS warning; optional turn-on delay.

Shut-Down Input

An optional input is available to force latched shut-down for remote over-temperature or fan failure detection applications (100Ω PTC, normally closed contact or open collector gate required). The AC line or remote ON-OFF must be cycled to reset.

Fault Reset Time

A latched fault shut-down requires an interruption of the AC input for one second to reset, or cycling of remote ON-OFF.

Outputs

Standard versions are SELV with common return, isolated ±50V DC with respect to chassis. Please contact factory for semi-custom variants which may usually be incorporated inexpensively.

Mechanical

AC Connector

7.0" x 5.0" x 2.5" (LxWxH)

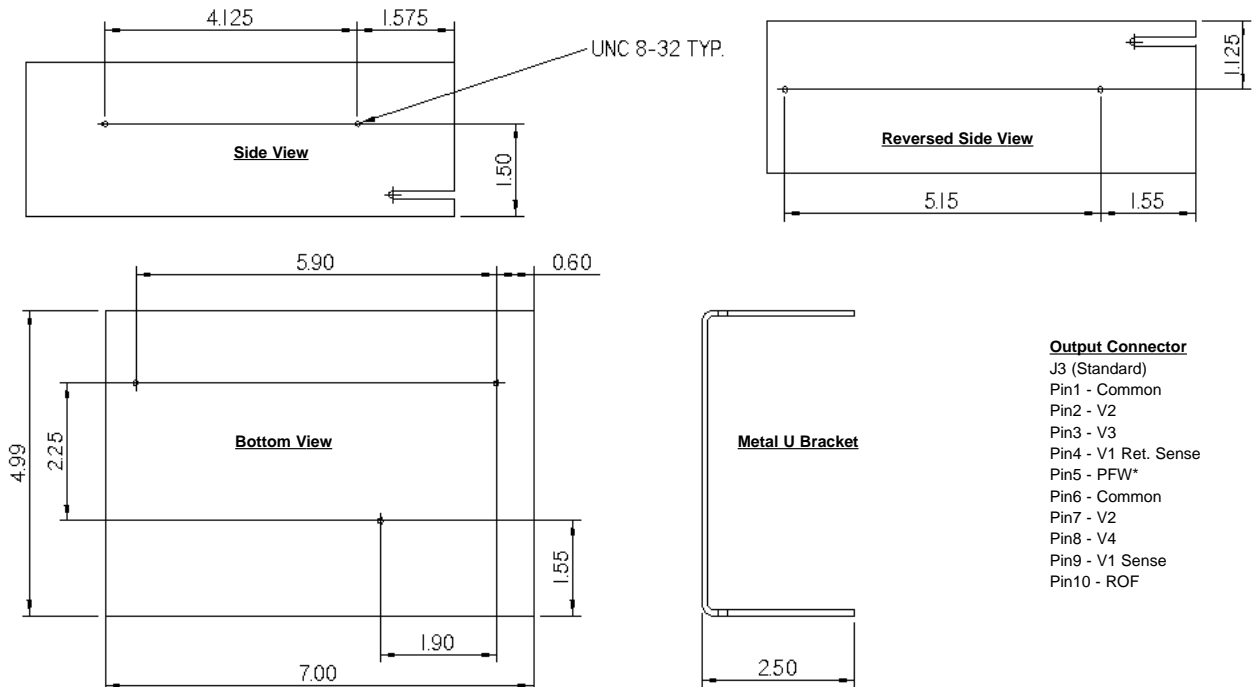
Output Connectors

Molex 5219 series (15-31-1036)

Safety Approvals

Two 10-32 studs for output 1; Molex Mini-Fit, Jr series (39-28-1103) for balance on most versions. CSA 950 (234) / UL 1950 (CSA/NRTL) certified; licensed by TUV to EN 60950

Outline Drawing



Output Connector

- J3 (Standard)
- Pin1 - Common
- Pin2 - V2
- Pin3 - V3
- Pin4 - V1 Ret. Sense
- Pin5 - PFW*
- Pin6 - Common
- Pin7 - V2
- Pin8 - V4
- Pin9 - V1 Sense
- Pin10 - ROF