

PS50 230-375 Watt Power Supplies

High Current
Ultra Reliable
Compact Size



Features

- AC line auto selection
- 400 Hz input frequency option
- Greater than 1,000,000 hours MTBF at 30°C
- International Safety Agency Certification
- Full protection on all outputs
- Over-temperature protection
- Compact open frame package 7.0" long x 5.0" wide x 2.5" high
- Inrush limiting and soft start
- Low line protection
- Optional Fan

PS50 Standard 315W (375W peak)

<u>Rail</u>	<u>Rated Voltage</u>	<u>Output Current</u>	<u>Line/Load Regulation</u>	<u>Protection</u>				<u>Noise & Ripple</u>	
				<u>ocp</u>	<u>ovp</u>	<u>uvp</u>	<u>otp</u>	<u>Max. Load</u>	
1	5V	5-35A	±1%	Yes	Yes	Yes	Yes	<50mVp-p	
2	12V	0-15A (20Apk)	±12,-5%/±1%	Yes	Yes	Yes	Yes	<100mVp-p	
3	-5V	0-1A	±5%	Yes	Opt	Opt	Yes	<50mVp-p	
4	-12V	0-1A	±5%	Yes	Opt	Opt	Yes	<100mVp-p	

PS50 Family 315W (470W peak)

<u>Rail</u>	<u>Rated Voltage</u>	<u>Output Current</u>	<u>Output Power (will not exceed)</u>	<u>Line/Load Regulation</u>	<u>Protection</u>			<u>Noise & Ripple</u>		
					<u>ocp</u>	<u>ovp</u>	<u>uvp</u>	<u>otp</u>	<u>Max. Load</u>	
1	2V to 56V	5-43A	375W	±1%	Yes	Yes	Yes	Yes	<50mVp-p	
2	-56V to 56V	20A (28Apk)	300W (400Wpk)	±12%,-5%/±1%	Yes	Yes	Yes	Yes	<100mVp-p	
3	-56V to 56V	10A	160W (240Wpk)	±5%	Yes	Opt	Opt	Yes	<50mVp-p	
4	-56V to 56V	10A	160W (240Wpk)	±5%	Yes	Opt	Opt	Yes	<100mVp-p	

For detailed specifications and ordering:

US (408) 369-2200

Canada (416) 298-0560

www.saepower.com

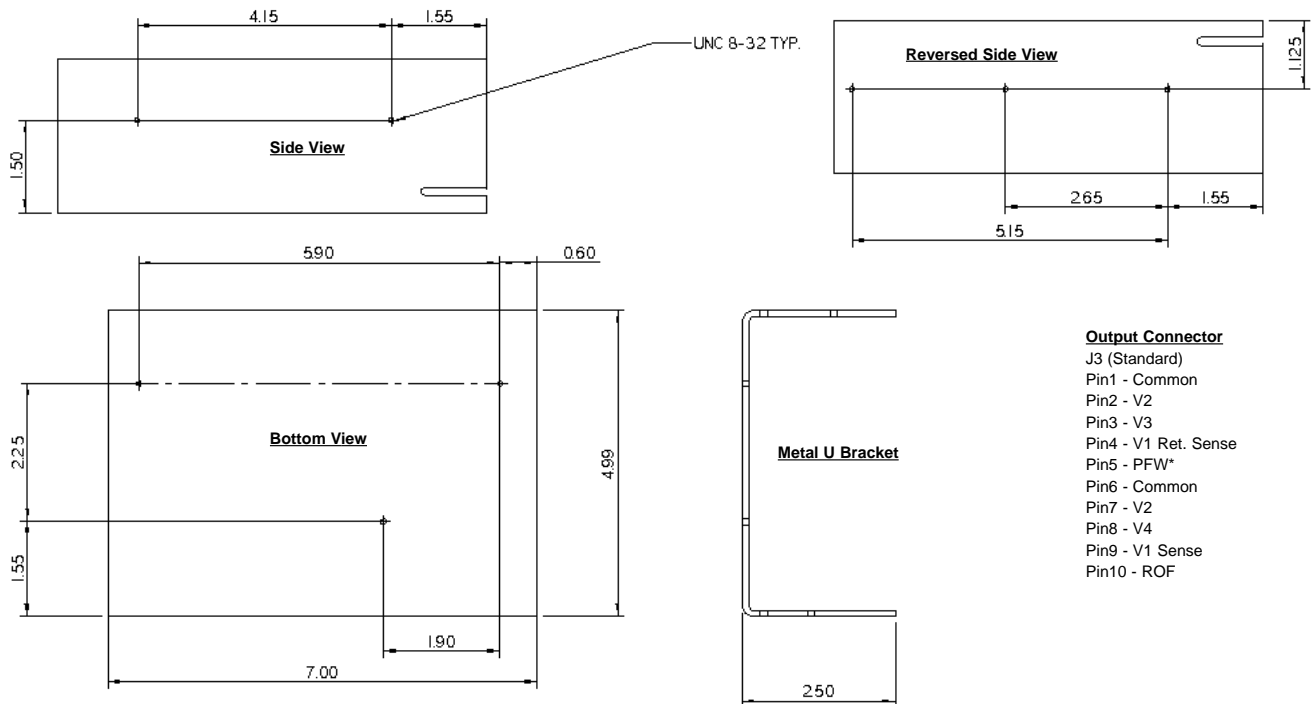


Specifications

Electromagnetic Compatibility

Certifications	UL 1950 Recognized; CSA C22.2 No. 950 and CSA C22.2 No. 234 certified; licensed by TUV to EN 60950 and DIN VDE 0805.
Meets	VDE 0871, FCC Rules Part 15 Subpart I, Class A.
AC Inputs	Nominal: 120V/200V, -240VAC. 60/50Hz. Operating: 90V-132VAC or 180-264VAC, 47-63Hz.
Fault Reset Time	A latched fault shut-down requires an interruption of the AC input for one second to reset or cycling of R.O.F.
Efficiency	The efficiency is greater than 75% at full load (typically 78%).
Fusing	The AC supply shall be fused externally with a 7A or 10A, 250V CSA/UL.
Inrush Current	Inrush current will be less than 30 A, averaged over first half cycle from a cold start on AC, or 8A on DC.
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 input (or optional ROF) must be recycled to reset.
Output Protection	All outputs are fully protected. The DC input or R.O.F. must be recycled to reset fault shut-down.
Remote ON-OFF	Logic level remote power ON-OFF capability is available. The input is TTL compatible, or it may be connected to a switch or open collector gate without pull-up. Standard level is ON low.
Dynamic Load:	A 7 Amp step (or 70% of the full load current, whichever is less) on the +12V rail or +24V rail results in an output voltage transient of less than 3%.
Start Up	Turn on delay at nominal input is about 0.8 seconds. Output rise time is under 50 mS. At low line the delay is somewhat longer due to safety circuit.
Hold-Up	Hold up time is $\geq 15\text{mS}$ at 90V (180V) input, and increases with higher applied voltage. Longer times are optional.
Temperature	Operating: 5°C to 50°C with minimum 30 CFM airflow lengthwise Non-Operating: -5°C to 75°C.
Remote Sense	Compensates up to 0.25V total on the +5V channel.
Power Fail Warning	Active low, approximately 5mS warning.
MTBF	The power supply has an DMTBF greater than 1,000,000 hours at 30°C.
AC Connector	Molex 5219 series (15-31-1036).
Output Connectors	Two 10-32 studs for output 1; Molex Mini-Fit, Jr series (39-28-1103) for balance on most versions.

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

All technical specifications are subject to change without notice.

