

DESCRIPTION

FSP500-70RGHBB1 is a high quality industrial level, PS2 Mini Redundant switching power supply. It offers the total power capacity up to 500 Watts, and employs active PFC and 80+ Gold design, making it perfect used in different industrial environments. With its PS2 mini redundant form factor and output electrical features, this power supply is the best choice for Tower Server, Workstation, 4U Rackmount Server, Networking and any other automation applications

APPLICATION

Tower Server, Workstation, 3U/4U Rackmount Server, Data Center, Broadcasting, Networking and Industrial Server

FEATURES

- * 80 Plus Gold (Efficiency 92% 230VAC)
- * PS2 Compatible Form Factor Redundant Power Supply
- * Fit into Tower Server without extra bracket at rear window side
- * Built-in Active PFC function (90-264VAC)
- * Support OTP, OVP, OCP, SCP and FFP protection
- * 100% burn-in under high ambient temperature (50°C)
- * Operation up to 5000 meters Altitude
- * PMBus 1.2 for Digital Power Management
- * MTBF > 100K hours at 25°C, nominal input
- * 100% Hi-pot tested

INPUT SPECIFICATIONS

Input Range:	90-264 Vac
Input Frequency:	47-63 Hz
Input Current:	max. 8.0A @115V / 4.0A @230V
Power Factor:	> 0.95 @115V/60Hz, > 0.9 @230V/50Hz
Leakage Current:	max. 3.5mA @ 240Vac/50Hz

OUTPUT SPECIFICATIONS

Output Voltage/Current:	see rating chart.
Max. Output Power:	see rating chart.
Ripple & Noise:	+3.3V, +5V, 5VSB: 50mV p-p +12V, -12V: 120mV p-p
Over Voltage Protection:	+3.3V: 3.9V ~ 4.5V / +5V: 5.7V ~ 6.5V +12V: 13.3V ~ 14.5V
Over Current Protection:	+3.3V: 24A ~ 32A / +5V: 24A ~ 32A +12V: 17.5A ~ 20.5A
Transient Response:	max. 4% deviation, recovery to within 1% in 1mSec for 25% load change
Short Circuit Protection:	No damage, resistance $\leq 0.01\Omega$
Over Temperature Protection:	Primary & secondary protection with auto recovery
Over / Undershoot:	max. 10% at turn on/off
Remote On/Off:	On = PSON $\leq 0.8V$, low Off = PSON $\geq 2.0V$, high, open

OUTPUT RATING CHART

Model Name	Max. Output Watt.	Output Current															
		+3.3V		+5V		+12V1		+12V2		+12V3		-12V		-5V		+5VSB	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
FSP500-70RGHBB1	500W	0.0 A	20.0 A	0.0 A	20.0 A	1.0 A	16.0 A	0.0 A	16.0 A	0.0 A	16.0 A	0.0 A	0.5 A	-	-	0.00 A	3.0 A

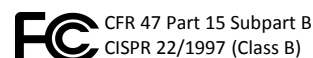
Remark : Max. continuous total DC output should not exceed 500W
Max. combined +5V and +3.3V output is limited to total 130W

FSP500-70RGHBB1



Dimension: 150 (W) x 86 (H) x 190 (L) mm

SAFETY STANDARD APPROVALS



GENERAL SPECIFICATIONS

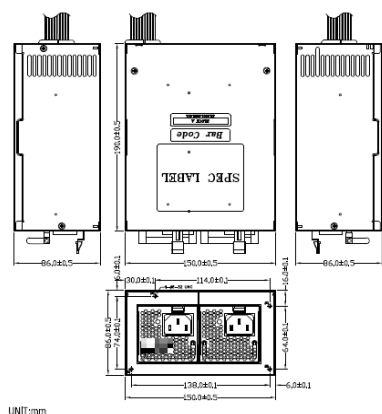
Efficiency (Module):	92% @230VAC (Typical Load)
Signals:	Power good, TTL compatible
Inrush Current:	40A peak over the entire input voltage range
Hold-up Time:	min. 17ms@110Vac
Output Rise Time:	max. 50ms measured at 10% to 90%
PWOK Delay Time:	500ms >PWOK>100ms
MTBF:	Using Bellcore, the calculated MTBF > 100,000 hours of continuous operation at 25°C nominal input

EMC Performance:	EN55022, class B Conducted
	EN55022, class B Radiated
	EN61000-3-2, class D
	EN61000-3-3
	EN61000-4-4, level 3 Perf Criteria B
	EN61000-4-5, level 3 Pref Criteria B
	EN61000-4-6, 10Vrms, Pref Criteria A

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	0°C to +50°C
Storage Temperature:	-20°C to +80°C
Relative Operating Humidity:	5% ~ 90% RH, Non-condensing
Operating Altitude:	Sea level to 5000m
Vibration Operating:	0.5G (0-peak) acceleration 10~250Hz sweep at 1 octave/min

MECHANICAL SPECIFICATIONS



Dimension: 150 (W) x 86 (H) x 190 (L) mm

Connectors

- 1* ATX 24pin (500mm)
- 2* EPS12V 8pin CPU (500mm)
- 2* 6+2pin PCI-E (500 & 650mm)
- 4* 4Pin Molex Power (2*700/155mm)
- 2* Sata Power (550/155mm)
- 1* PMBus (500mm)
- 1* TTL (520mm)

PSU LED Indicator (a single bi-color LED)

Event	Green LED	Red LED
NO AC power plug in	OFF	Every sec. blinks once
AC OK + power turns off	Every sec. blinks once	OFF
AC OK + power turns on, no failure	Green LED turn-on	OFF
AC OK + power turns on, Failure event	OFF	Amber LED turn-on
AC OK + power turns on, warning event	Green and Amber LED blinks every sec. Alternatively	Green and Amber LED blinks every sec. Alternatively