



Sparkle Power Inc.
 A Leading Power Supply Manufacturer
 Web site: www.sparklepower.com

FSP600-90EV (RoHS Compliant) **600 Watts EPS12V 1U Switching Power Supply**

Features

- Complied with EPS12V standard
- Active Power Factor Correction (PFC) meet EN61000-3-2
- High efficiency and reliability
- Compatible with European Union Directive 2002/95/EC (Restriction on Hazardous Substances).
- Remote ON/OFF function
- Internal 12V DC fan included
- Low noise and ripple
- Output over voltage, short circuit, and over current protection
- 100% Hi-pot, ATE, and burn-in tested
- Re-settable power shut down
- Complies with FCC part 15 subpart J class B 115Vac operation, and CISPR 22 class B at 230Vac operation
- Approved by : UL,CSA22.2 NO or CUL 60950-1, TUV or VDE, EMC,FCC ,CE, CB report,

Input Characteristics

Input Range: 90 ~ 264Vac, Full Range Input

Frequency: 47 ~ 63Hz

Input Current: Max 10~5A at 100~240Vac

Inrush Current: No damage.

Output Characteristics



Specification

- **Temperature Range:** Operating: 0°C ~ +50°C on full load; storage & shipping: -40°C ~ +70°C
- **Humidity:** 5%-90% on operating, 5%-90% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 3 second.
- **Efficiency:** minimum efficiency 76%
- **Rise time:** Less than 20ms
- **Hold-up Time:** 16ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 5 ~ 400ms, off delay 1ms minimum (TTL and CMOS compatible)
- **Leakage Current:** Less than 3.5mA at 264Vac, 50Hz
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):** 264x100x40mm /10.3x3.9x1.6inch

Output Voltage	Minimum Load	Normal Load	Maximum Load	Load Reg.	Ripple & Noise
+3.3V	0.5A	12.5A	25A	± 5%	50mV P-P
+5V	0.5A	15A	30A	± 5%	50mV P-P
+12V1	0.5A	8A	16A	± 5%	120mV P-P
+12V2	0.5A	8A	16A	± 5%	120mV P-P
+12V3	0.5A	8A	16A	± 5%	120mV P
+12V4	0.5A	8A	16A	± 5%	120mV P
-12V	0.0A	0.25A	0.5A	± 10%	120mV P-P
+5Vsb	0.0A	1.5A	3A	± 5%	50mV P-P

*+3.3V and +5V total output not exceed 180W

* Total output for this subject power supply is 600W

*The 12V Rail total load shall not exceed 48Amp.

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CONNECTOR	PIN	FUNCTION	WIRE	
			AWG	COLOR
P1 24-Pin Molex 39401-2240 or EQU	1	+3.3 VDC	UL1007 / 18#	ORANGE
	1-1	+3.3 VRS	UL1007 / 22#	ORANGE/WHITE Stripe
	2	+3.3 VDC	UL1007 / 18#	ORANGE
	3	COM	UL1007 / 18#	BLACK
	4	+5 VDC	UL1007 / 18#	RED
	5	COM	UL1007 / 18#	BLACK
	6	+5 VDC	UL1007 / 18#	RED
	7	COM	UL1007 / 18#	BLACK
	8	PWR OK	UL1007 / 22#	GRAY
	9	5 VSB	UL1007 / 18#	PURPLE
	9-1	5 VSBRS	UL1007 / 22#	PURPLE/WHITE Stripe
	10	+12 V1	UL1007 / 18#	YELLOW
	10-1	+12 VRS	UL1007 / 22#	YELLOW
	11	+12 V1	UL1007 / 18#	YELLOW
	12	+3.3 VDC	UL1007 / 18#	ORANGE
	13	+3.3 VDC	UL1007 / 18#	ORANGE
	14	-12 VDC	UL1007 / 22#	BLUE
	15	COM	UL1007 / 18#	BLACK
	16	PS_ON	UL1007 / 22#	GREEN
	17	COM	UL1007 / 18#	BLACK
	18	COM	UL1007 / 18#	BLACK
	19	COM	UL1007 / 18#	BLACK
	20	-5 VDC	UL1007 / 22#	WHITE
	21	+5 VDC	UL1007 / 18#	RED
21-1	+5 VRS	UL1007 / 22#	RED/WHITE Stripe	
22	+5 VDC	UL1007 / 18#	RED	
23	+5 VDC	UL1007 / 18#	RED	
24	COM	UL1007 / 18#	BLACK	
P2 8-Pin Molex 39401-2080 or EQU	1	COM	UL1007 / 18#	BLACK
	2	COM	UL1007 / 18#	BLACK
	3	COM	UL1007 / 18#	BLACK
	4	COM	UL1007 / 18#	BLACK
	5	+12 V2	UL1007 / 18#	YELLOW/BLACK Stripe
	6	+12 V2	UL1007 / 18#	YELLOW/BLACK Stripe
	7	+12 V3	UL1007 / 18#	YELLOW/BLUE Stripe
	8	+12 V3	UL1007 / 18#	YELLOW/BLUE Stripe

CONNECTOR	PIN	FUNCTION	WIRE	
			AWG	COLOR
P3 6-Pin JTW C4202H00-2*3P/A-RP or EQU	1	+12 V1	UL1007 / 18#	YELLOW
	2	+12 V1	UL1007 / 18#	YELLOW
	3	+12 V1	UL1007 / 18#	YELLOW
	4	COM	UL1007 / 18#	BLACK
	5	COM	UL1007 / 18#	BLACK
	6	COM	UL1007 / 18#	BLACK
P4 4-Pin Molex 39401-2040 or EQU	1	COM	UL1007 / 18#	BLACK
	2	COM	UL1007 / 18#	BLACK
	3	+12V2	UL1007 / 18#	YELLOW/BLACK Stripe
	4	+12V3	UL1007 / 18#	YELLOW/BLUE Stripe
P4/PB AMP 1-480424-0 or EQU	1	+12V4	UL1007 / 18#	YELLOW/WHITE Stripe
	2	COM	UL1007 / 18#	BLACK
	3	COM	UL1007 / 18#	BLACK
	4	+5 VDC	UL1007 / 18#	RED
P5 AMP 171822-4 or EQU	1	+12V4	UL1007 / 22#	YELLOW/WHITE Stripe
	2	COM	UL1007 / 22#	BLACK
	3	COM	UL1007 / 22#	BLACK
	4	+5 VDC	UL1007 / 22#	RED
P5/PF BLACK MOLEX 679264-011 or EQU	1	+3.3 VDC	UL1007 / 18#	ORANGE
	2	COM	UL1007 / 18#	BLACK
	3	+5 VDC	UL1007 / 18#	RED
	4	COM	UL1007 / 18#	BLACK
	5	+12V4	UL1007 / 18#	YELLOW/WHITE Stripe
P5/PF BLACK MOLEX 67582-001 or EQU	1	+3.3 VDC	UL1007 / 18#	ORANGE
	2	COM	UL1007 / 18#	BLACK
	3	+5 VDC	UL1007 / 18#	RED
	4	COM	UL1007 / 18#	BLACK
	5	+12V4	UL1007 / 18#	YELLOW/WHITE Stripe

ITEM	PART NO	PART NAME	COLOR	REMARK
MATERIAL(SPEC.)		QUANTITY/SET	Artwork or Spec	
FINISH		PC	SPI P/N:FSP600-90EV(FOR SPI)	
SECC(T:0.8mm)		SCALE	DESCRIPTION	
SELECT W		UNIT	OUTLINE	
0.5	0.15	mm	MODEL NO	
0.6	0.15	mm	DRAWING NO	
0.8	0.25	mm	FSP600-90EV(SB302)	
1.0	0.25	mm	97A6000502	
1.2	0.40	mm	DESIGNED	
1.5	0.50	mm	CHECKED	
2.0	0.80	mm	APPROVED	
AWG: 10		SHEET		
		2 OF 2		