



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



FSP400-70MP
(Medical Grade, RoHS Compliant)
400 Watts ATX12V Switching Power Supply

Features

- Complied with ATX12V 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
- Noise Killer (thermal fan speed control function)
- 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 CFR 47 part 18 subpart C, 120Vac operation & EN60601-1-2, EN55011, 230VAC operation
- Approved by UL60601-1, CSA C22.2 NO. 601-1-M90, VDE EN60601-1, (CB Report), CE

Input Characteristics

Input Range: 90 ~ 265Vac (RMS), Full Range Input
Frequency: 47 ~ 63Hz
Input Current: Max 8A (RMS) @ 115Vac, 4A (RMS) @ 230Vac
Inrush Current: 60A @ 115Vac, 100A @ 230Vac at cold start

Output Characteristics

Output Voltage	Minimum Load	Maximum Load	Load Reg.	Line Reg.	Ripple & Noise
+3.3V	0.5A	30A	± 5%	± 1%	50mV P-P
+5V	0.3A	30A	± 5%	± 1%	50mV P-P
+12V1	1.0A	17A	± 5%	± 1%	120mV P-P
+12V2	1.0A	17A	± 5%	± 1%	120mV P-P
-5V	0.0A	0.3A	± 10%	± 1%	100mV P-P
-12V	0.0A	0.8A	± 10%	± 1%	120mV P-P
+5Vsb	0.0A	2.0A	± 5%	± 1%	50mV P-P

*+3.3V and +5V total output shall not exceed 180W
 *+3.3V, +5V and +12V total output shall not exceed 380W
 * Total output for this subject power supply is 400W

Specification

- **Temperature Range:** Operating: 0°C ~ +50°C on full load; storage & shipping: -20°C ~ +80°C
- **Humidity:** 5 ~ 85% on operating, 5 ~ 95% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 1 second
- **Efficiency:** 68% minimum at 115Vac and 230Vac on Full load.
- **Rise time:** Less than 20ms
- **Hold-up Time:** 20ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 100 ~ 500ms, off delay 1ms minimum (TTL and CMOS compatible)
- **Leakage Current:** Less than 0.3mA at 264Vac, 63Hz
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):** 140x150x86mm / 5.5x5.9x3.4inch

Sparkle Power Inc.
Main Office
 1000 Rock Avenue
 San Jose, CA 95131
 TEL: 408-519-8888
 FAX: 408-519-9999
 E-MAIL: info@sparklepower.com

Sparkle Power Inc.
Los Angeles Office
 17071 Green Drive
 City of Industry, CA 91745
 TEL: 626-839-7180
 FAX: 626-839-3395

Sparkle Power Inc.
Colorado Office
 1316 Indian Paintbrush Lane
 Longmont, CO 80503
 TEL: 303-776-3281
 FAX: 303-776-7645

REF ID	PN	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	CABLE LENGTH
P1	2	+3.3VDC	ORANGE	18	JMT	500±15mm
	3	COM	BLACK	18	JP2416V2-	
	4	+5VDC	RED	18	Z05	
	5	COM	BLACK	18	JP2416V2-	
	6	+5VDC	RED	18	4S	
	7	COM	BLACK	18		
	8	+5VDC	RED	18		
	9	+5VSB	PURPLE	18		
	10	+12V1	YELLOW	18		
	11	+12V1	YELLOW	18		
	12	+3.3VDC	ORANGE	18		
	13	+3.3VDC	ORANGE	18		
	14	3.3VSSense	BROWN	22		
	15	+12V1	YELLOW	18		
	16	PS-ON	GREEN	18		
17	COM	BLACK	18			
18	COM	BLACK	18			
19	COM	BLACK	18			
20	-5VDC	WHITE	18			
21	+5VDC	RED	18			
22	+5VDC	RED	18			
23	+5VDC	RED	18			
24	COM	BLACK	18			
P2	1	COM	BLACK	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	COM	BLACK	18		
P3	1	COM	BLACK	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	COM	BLACK	18		
P4	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P5	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P6	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P7	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P8	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P9	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P10	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P11	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P12	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P13	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P14	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P15	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P16	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P17	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P18	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P19	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P20	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P21	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P22	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P23	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P24	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P25	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P26	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P27	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P28	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P29	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P30	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P31	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P32	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P33	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P34	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P35	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P36	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P37	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P38	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P39	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P40	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P41	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P42	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P43	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P44	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P45	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P46	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P47	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P48	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P49	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P50	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P51	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P52	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P53	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P54	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black	18		
P55	1	+18V1	YELLOW	18		
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+18V2	Yel/Black			