



MEDICAL

PC ATX

Adapter

Open Frame

Battery Backup

POWER
NEVER ENDS

About SPI

Founded in 1993, **Sparkle Power Incorporated (SPI)** is one of the largest leading switching power supply manufacturers in the world. Highly focus on advanced Research and Development, in alliance with industry leaders such as Intel and AMD, SPI plays a dominant role in providing world-class quality power supplies. Our commitment to engineering and manufacturing excellence enables us to offer cost-effective products with superior performance. Emphasizing on standard and custom (ODM/OEM) products, SPI has build a strong reputation with proven solutions for the PC, Industrial PC, Telecommunication, and Consumer Electronics industries.

Today, SPI has significantly expanded its manufacturing capability with monthly production volume of 2 million units with expectation of surpassing 3 million units by year 2004. All manufacturing facilities are ISO-9001 and ISO-14001 certified. Furthermore, quality and performance are guaranteed by in-house safety testing labs, which verify compliance with worldwide safety regulatory agencies.

Service, Professional, and Innovation are the base principles of our continuous improvement strategy. Our business partners measure SPI superiority through innovative technology, quality manufacturing, product reliability, and prompt delivery. Driven by these principles, SPI has become the partner of choice for total power solutions.

PC ATX Specifications

Form Factor	Max Wattage	Dimension (mm)	Model No.	Maximum Load (A)									Safety Certificate	
				+3.3V	+5V	+12V1	+12V2	+12V3	+12V4	-12V	+5Vsb	-5V		
Flex	220	190*82*41	FSP220-60MPC	9	12	14					0.3	2.5	0.3	UL, TUV, CE
Flex	250	190*82*41	FSP250-60MPC	12	14	18					0.3	2.5	0.3	UL, TUV, CE
1U	300	190*100*41	FSP300-70MU	16	18	16	16				0.5	2.5	0.2	UL, VDE, CE
1U	350	190*100*41	FSP350-70MU	16	18	16	16				0.5	2.5	0.2	UL, VDE, CE
1U	400	220*100*41	FSP400M-80PA	18	18	16	16	16			0.5	3.0	0.2	UL, TUV, CE
1U	500	220*100*41	FSP500M-80PA	20	20	16	16	16			0.5	3.0	0.2	UL, TUV, CE
PS2	400	140*150*86	FSP400-70MPE	32	30	18	18				0.8	3.0	0.2	UL, TUV, CE
PS2	400	140*150*86	FSP400-70MPD	21	18	18	18				0.5	3.0	0.2	UL, TUV, CE
PS2	500	140*150*86	FSP500-70MPE	32	30	18	18				0.8	3.0	0.2	UL, TUV, CE
PS2	500	140*150*86	FSP500-80MPD	24	20	16	16	16			0.5	3.0	0.2	UL, TUV, CE
PS2	600	165*150*86	FSP600-90MPB	24	24	16	16	16	16	16	0.5	3.5	0.2	UL, TUV, CE
PS2	700	165*150*86	FSP700-90MPB	24	30	16	16	16	16	16	0.5	3.5	0.2	UL, TUV, CE

Notes: + Input voltage AC 100~240V +50°C Operation Temperature + Optional -5V output

Battery Charger Specifications

Form Factor	Max Wattage	Dimension (mm)	Model No.	Maximum Load (A)							Charge Power	Battery Pack
				+3.3V	+5V	+12V1	+12V2	+12V3	-12V	+5Vsb		
PS2	450	140*150*86	FSP450-60MUA	20	20	16	16		0.5	2	50W	24V Lead-Acid
PS2	550	140*150*86	FSP550-70MUA	20	20	16	16	16	0.5	3	50W	24V Lead-Acid

Notes: + Input voltage AC 100~240V +50°C Operation Temperature + CB 60601-1 certificated

Form Factor	Max Wattage	Dimension (mm)	Model No.	Output Rating				Charge Power	Battery Pack
				V1	A1	V2	A2		
PCB	60	102*51*30	FSP060M-U24-A19	19	3.16			15W	14.4V Lithium-ion
PCB	60	102*51*30	FSP060M-U24-A24	24	2.50			15W	14.4V Lithium-ion
Box	400	198*102*40	FSP400M-U48-18C	18	22.12	+5Vaux	0.35	50W	14.4V Lithium-ion
Box	400	198*102*40	FSP400M-U48-24C	24	16.60	+5Vaux	0.35	50W	14.4V Lithium-ion

Notes: + Input voltage AC 100~240V +50°C Operation Temperature

Wall mount Specifications

Max Wattage	Case Dimension (mm)	Model No.			Output Rating		Safety Certificate
		USA	Europe	Interchangeable	V	A	
15	77*45*29	FSP015M-DPU	FSP015M-DPE		5	3.00	UL, TUV, CE ^{*2}
18	77*45*29	FSP018M-DRU	FSP018M-DRE		9	2.00	UL, TUV, CE ^{*2}
18	77*45*29	FSP018M-DHU	FSP018M-DHE		12	1.50	UL, TUV, CE ^{*2}
20	77*45*34	FSP020M-DPU	FSP020M-DPE	FSP020M-KPM ^{*1}	5	4.00	UL, TUV, CE ^{*2}
27	77*45*34	FSP027M-KSU	FSP027M-KSE	FSP027M-KSM ^{*1}	10	2.70	UL, TUV, CE ^{*2}
30	77*45*34	FSP030M-DHU	FSP030M-DHE	FSP030M-KHM ^{*1}	12	2.50	UL, TUV, CE ^{*2}
30	77*45*34	FSP030M-KDU	FSP030M-KDE	FSP030M-KDM ^{*1}	18	1.67	UL, TUV, CE ^{*2}
30	77*45*34	FSP030M-KAU	FSP030M-KAE	FSP030M-KAM ^{*1}	24	1.25	UL, TUV, CE ^{*2}

Notes: *1) Dimension 77*45*40 mm *2) UL for USA model, TUV & CE for Europe model

Adapter Specifications

Max Wattage	Case Dimension (mm)	Model No.		Output Rating		Input Socket		Safety Certificate
		Class-I	Class-II	V	A	Class-I	Class-II	
25	118*50*32	FSP025M-DPA		5	5.00	C14		UL, TUV, CE
30	118*50*32	FSP030M-DHA		12	2.50	C14		UL, TUV, CE
30	118*50*32	FSP030M-DGA		15	2.00	C14		UL, TUV, CE
30	118*50*32	FSP030M-DDA		18	1.67	C14		UL, TUV, CE
65	129*51*31	FSP065-DHBM1	FSP065-DHCM1	12	5.42	C6	C8	UL, TUV, CE
65	129*51*31	FSP065-DGBM1	FSP065-DGCM1	15	4.33	C6	C8	UL, TUV, CE
65	129*51*31	FSP065-DEBM1	FSP065-DECM1	18	3.62	C6	C8	UL, TUV, CE
65	129*51*31	FSP065-DEBM1	FSP065-DECM1	19	3.43	C6	C8	UL, TUV, CE
65	129*51*31	FSP065-DABM1	FSP065-DACM1	24	2.71	C6	C8	UL, TUV, CE
65	129*59*32	FSP065M-DHA3		12	5.42	C14		UL, TUV, CE *
65	129*59*32	FSP065M-DGA3		15	4.33	C14		UL, TUV, CE *
65	129*59*32	FSP065M-DBA3		19	3.43	C14		UL, TUV, CE *
65	129*59*32	FSP065M-DAA3		24	2.71	C14		UL, TUV, CE *
90	140*71*22		FSP090-RHCM1	12	7.50		C8	UL, TUV, CE
90	140*71*22		FSP090-RDCM1	18	5.00		C8	UL, TUV, CE
90	140*71*22		FSP090-RBCM1	19	4.74		C8	UL, TUV, CE
90	140*71*22		FSP090-RACM1	24	3.75		C8	UL, TUV, CE
90	145*71*29	FSP090M-RHA		12	7.50	C14		UL, TUV, CE
90	145*71*29	FSP090M-RGA		15	6.00	C14		UL, TUV, CE
90	145*71*29	FSP090M-RBA		19	4.74	C14		UL, TUV, CE
90	145*71*29	FSP090M-RAA		24	3.75	C14		UL, TUV, CE
120	175*90*28	FSP120M-KBA	FSP120M-KBC	19	6.32	C14	C8	UL, TUV, CE*
120	175*90*28	FSP120M-KAA	FSP120M-KAC	24	5.00	C14	C8	UL, TUV, CE*
120	175*90*28	FSP120M-KEA	FSP120M-KEC	36	3.34	C14	C8	UL, TUV, CE*
150	170*85*43	FSP150M-AHA		12	12.50	C14		UL, TUV, CE
150	170*85*43	FSP150M-ABA		19	7.89	C14		UL, TUV, CE
150	170*85*43	FSP150M-AAA		24	6.25	C14		UL, TUV, CE
180	197*88*45	FSP180-AHAM1		12	15.00	C14		UL, TUV, CE
180	197*88*45	FSP180-ABAM1		19	9.47	C14		UL, TUV, CE
180	197*88*45	FSP180-AAAM1		24	7.50	C14		UL, TUV, CE
200	198*89*44	FSP200-KBAM1	FSP200-KBCM1	19	10.53	C14	C8	UL, TUV, CE
220	198*89*44	FSP220-KAAM1	FSP220-KACM1	24	9.17	C14	C8	UL, TUV, CE
220	198*89*44	FSP220-KKAM1	FSP220-KKCM1	28	7.86	C14	C8	UL, TUV, CE
220	198*89*44	FSP220-KEAM1	FSP220-KECM1	36	6.11	C14	C8	UL, TUV, CE
220	204*88*42	FSP250M-KHA	FSP250M-KHD	12	18.34	C14	C18	UL, TUV, CE
250	204*88*42	FSP250M-KBA	FSP250M-KBD	19	13.16	C14	C18	UL, TUV, CE
250	204*88*42	FSP250M-KAA	FSP250M-KAD	24	10.42	C14	C18	UL, TUV, CE
250	204*88*42	FSP250M-KEA	FSP250M-KED	36	6.95	C14	C18	UL, TUV, CE
250	204*88*42	FSP250M-KFA	FSP250M-KFD	48	5.21	C14	C18	UL, TUV, CE

Notes: + Input Voltage AC 100~240V + 40°C Operation Temperature * Safety Proceeding

Open Frame Specifications

Max Wattage	Dimension (inch)	Model No.	Output Rating				Form Factor	Safety Certificate
			V ₁	A ₁	V ₂	A ₂		
30	2 * 3 * 1.2"	FSP030M-B23-05	5	6.00			PCB	TUV, CE
35	2 * 3 * 1.2"	FSP035M-B23-12	12	2.92			PCB	TUV, CE
35	2 * 3 * 1.2"	FSP035M-B23-15	15	2.34			PCB	TUV, CE
35	2 * 3 * 1.2"	FSP035M-B23-18	18	1.95			PCB	TUV, CE
35	2 * 3 * 1.2"	FSP035M-B23-24	24	1.46			PCB	TUV, CE
35	2 * 4 * 1.12"	FSP035M-B24-05	5	7.00			PCB	TUV, CE
45	2 * 4 * 1.12"	FSP045M-B24-12	12	3.75			PCB	TUV, CE
45	2 * 4 * 1.12"	FSP045M-B24-15	15	3.00			PCB	TUV, CE
45	2 * 4 * 1.12"	FSP045M-B24-18	18	2.50			PCB	TUV, CE
45	2 * 4 * 1.12"	FSP045M-B24-24	24	1.875			PCB	TUV, CE
55	2 * 4 * 1.18"	FSP060-1K00M1	5	11.00			PCB	UL, TUV, CE
60	2 * 4 * 1.18"	FSP060-1K20M1	12	5.00			PCB	UL, TUV, CE
64	2 * 4 * 1.18"	FSP060-1K30M1	15	4.30			PCB	UL, TUV, CE
64	2 * 4 * 1.18"	FSP060-1K40M1	24	2.70			PCB	UL, TUV, CE
55	2 * 4 * 1.18"	FSP060-2K30M1	5	6.00	12	3.00	PCB	UL, TUV, CE
55	2 * 4 * 1.18"	FSP060-2K50M1	5	6.00	24	1.50	PCB	UL, TUV, CE
100	2 * 4 * 1.19"	FSP100M-K24-12A	12	8.34			PCB	UL, TUV, CE
100	2 * 4 * 1.19"	FSP100M-K24-15A	15	6.67			PCB	UL, TUV, CE
100	2 * 4 * 1.19"	FSP100M-K24-18A	18	5.56			PCB	UL, TUV, CE
100	2 * 4 * 1.19"	FSP100M-K24-24A	24	4.17			PCB	UL, TUV, CE
100	2 * 4 * 1.19"	FSP100M-K24-28A	28	3.13			PCB	UL, TUV, CE
100	2 * 4 * 1.19"	FSP100M-K24-36A	36	2.78			PCB	UL, TUV, CE
150	2 * 4 * 1.29"	FSP150M-K24-12	12	12.50			PCB	UL, TUV, CE
150	2 * 4 * 1.29"	FSP150M-K24-18	18	8.34			PCB	UL, TUV, CE
150	2 * 4 * 1.29"	FSP150M-K24-24	24	6.25			PCB	UL, TUV, CE
150	2 * 4 * 1.29"	FSP150M-K24-30	30	5.00			PCB	UL, TUV, CE
150	2 * 4 * 1.29"	FSP150M-K24-36	36	4.17			PCB	UL, TUV, CE
200	3 * 5 * 1.5"	FSP202-1K20M1	12	16.67			U-Bracket	UL, TUV, CE
200	3 * 5 * 1.5"	FSP202-1K31M1	18	11.12			U-Bracket	UL, TUV, CE
200	3 * 5 * 1.5"	FSP202-1K40M1	24	8.34			U-Bracket	UL, TUV, CE
200	3 * 5 * 1.5"	FSP202-1K50M1	28	7.15			U-Bracket	UL, TUV, CE
200	3 * 5 * 1.5"	FSP202-1K70M1	36	5.56			U-Bracket	UL, TUV, CE
300	3 * 6 * 1.38"	FSP300M-K36-12A	12	25.00	+5Vaux	2.0	PCB	UL, TUV, CE
300	3 * 6 * 1.38"	FSP300M-K36-19A	19	15.80	+5Vaux	2.0	PCB	UL, TUV, CE
300	3 * 6 * 1.38"	FSP300M-K36-24A	24	12.50	+5Vaux	2.0	PCB	UL, TUV, CE
300	3 * 6 * 1.38"	FSP300M-K36-30A	30	10.00	+5Vaux	2.0	PCB	UL, TUV, CE
300	3 * 6 * 1.38"	FSP300M-K36-36A	36	8.34	+5Vaux	2.0	PCB	UL, TUV, CE
400	4 * 7 * 1.58"	FSP400-1K20M1	12	33.34	+5Vaux	0.1	U-Bracket	UL, TUV, CE
400	4 * 7 * 1.58"	FSP400-1K31M1	18	22.23	+5Vaux	0.1	U-Bracket	UL, TUV, CE
400	4 * 7 * 1.58"	FSP400-1K40M1	24	16.67	+5Vaux	0.1	U-Bracket	UL, TUV, CE
400	4 * 7 * 1.58"	FSP400-1K50M1	28	14.29	+5Vaux	0.1	U-Bracket	UL, TUV, CE
400	4 * 7 * 1.58"	FSP400-1K70M1	36	11.12	+5Vaux	0.1	U-Bracket	UL, TUV, CE
450	4 * 7 * 1.7"	FSP500M-K47-12B	12	37.50	+5Vaux	0.5	U-Bracket	UL, TUV, CE
500	4 * 7 * 1.7"	FSP500M-K47-18B	18	27.78	+5Vaux	0.5	U-Bracket	UL, TUV, CE
500	4 * 7 * 1.7"	FSP500M-K47-24B	24	20.84	+5Vaux	0.5	U-Bracket	UL, TUV, CE
500	4 * 7 * 1.7"	FSP500M-K47-28B	28	17.86	+5Vaux	0.5	U-Bracket	UL, TUV, CE
500	4 * 7 * 1.7"	FSP500M-K47-36B	36	13.89	+5Vaux	0.5	U-Bracket	UL, TUV, CE
500	4 * 7 * 1.7"	FSP500M-K47-48B	48	10.42	+5Vaux	0.5	U-Bracket	UL, TUV, CE
600	4 * 8 * 2.58"	FSP600M-K48-12C	12	50.00	+5Vaux	0.2	Box	UL, TUV, CE
650	4 * 8 * 2.58"	FSP650M-K48-18C	18	36.12	+5Vaux	0.2	Box	UL, TUV, CE
650	4 * 8 * 2.58"	FSP650M-K48-24C	24	27.09	+5Vaux	0.2	Box	UL, TUV, CE
650	4 * 8 * 2.58"	FSP650M-K48-28C	28	23.22	+5Vaux	0.2	Box	UL, TUV, CE
650	4 * 8 * 2.58"	FSP650M-K48-36C	36	18.06	+5Vaux	0.2	Box	UL, TUV, CE
650	4 * 8 * 2.58"	FSP650M-K48-48C	48	13.55	+5Vaux	0.2	Box	UL, TUV, CE

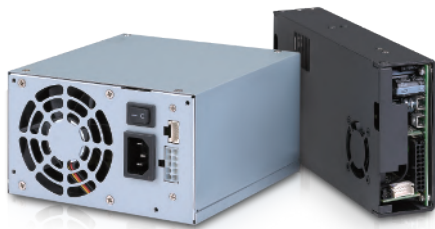
Notes: + Input Voltage AC 100~240V + 50°C Operation Temperature

Product Advantages



PC ATX

- IEC 60601-1, EN 60601-1, ANSI/AAMI ES 60601-1 approval
- Comply with Medical IEC 60601-1-2 EMC standard
- Comply with Intel ATX 12V design guide
- Output power from 220W to 700W



PSU with Battery Charger

- IEC 60601-1, EN 60601-1, ANSI/AAMI ES 60601-1 safety standard
- Comply with Medical IEC 60601-1-2 EMC standard
- Non-stop battery charger features
- USB 2.0 compatible communication interface with host computer
- SMBus interface with battery pack



Adapter

- IEC 60601-1, EN 60601-1, ANSI/AAMI ES 60601-1 approval
- Comply with Medical IEC 60601-1-2 EMC standard
- Comprehensive product line and option of various output voltage
- High efficiency comply with DOE efficiency Level V and Level VI
- Low power consumption for no load condition
- Output power from 15W to 250W



Open Frame

- IEC 60601-1, EN 60601-1, ANSI/AAMI ES 60601-1 approval
- Comply with Medical IEC 60601-1-2 EMC standard
- Comprehensive product line and option of various output voltage
- Output power from 30W to 650W