SMFA120 SERIES

120W Open-Frame Power Supply for Medical Equipment

- Wide Input Voltage 100 to 240 VAC, 47 to 63Hz
- Output Voltage Available From 5VDC~40VDC
- Internal EMI filter
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
- Output Connector mates with screw terminal (Terminal Block)(16-22AWG) or Molex housing 09-50-3121 and Molex 2478 series crimp terminal
- Single Output
- Size: 3" x 5" x 1.42"
- Input Surge Current, Over Voltage and Overload protection
- Active Power Factor Correction

3 Year Warranty

Approvals:

Single Output

Product Number	Output Voltage	Max. Output Current	Total Regulation	Maximum Output Power
SMFA120-S02	5 ~ 6 VDC	20.00 ~ 16.66 A	7%	100W
SMFA120-S03	6 ~ 9 VDC	18.33 ~ 12.22 A	7%	110W
SMFA120-S04	9 ~ 11 VDC	13.33 ~ 10.90 A	5%	120W
SMFA120-S05	11 ~ 13 VDC	10.90 ~ 9.23 A	5%	120W
SMFA120-S06	13 ~ 16 VDC	9.23 ~ 7.50 A	5%	120W
SMFA120-S07	16 ~ 21 VDC	7.50 ~ 5.71 A	3%	120W
SMFA120-S08	21 ~ 27 VDC	5.71 ~ 4.44 A	3%	120W
SMFA120-S09	27 ~ 33 VDC	4.44 ~ 3.63 A	2%	120W
SMFA120-S10	33 ~ 40 VDC	3.63 ~ 3.00 A	2%	120W

Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Operating Voltage	90		260	VAC
Input Frequency		47		63	Hz
Power Factor Correction	Io=Full load, Vin=90~260VAC	0.95	0.97	1.00	
Output Power Range	Vin= 90 to 264 VA C	0		120	W
Input Current (Low Line)	Io=Full load, Vin=115 VAC			1.7	A
Input Current (High Line)	Io=Full load, Vin= 230 VAC			0.8	A
Low Line Inrush Current	Io=Full load, 25℃, Cool start, Vin=115VAC		48	54	A
High Line Inrush Current	Io=Full load, 25℃, Cool start, Vin=230VAC		58	63	A
Efficiency	Io=Full Load, Vin=230VAC	70	80	88	%
Line Regulation	Io=Full Load		0.5	1	%
Load Regulation	Vin=230VAC		3	5	%
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Hold-Up Time	Io=Full Load, Vin=110VAC	16			mS
Start Up Time	Io=Full Load, Vin=100VAC	0.3	1	2	S
Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Safety Ground Leakage Current	Io= Full Load, Vin=240VAC/60Hz		0.095	0.1	mA
Temperature Coefficient	All output	-0.04		0.04	%/°C

Conditions

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		0	50	70	°C
Storage Temperature		-40		85	°C
Relative Humidity		5		95	%
Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
De-rate linearly from 100% load at 50°C to 50% load at 70°C					

Approvals and Compliances

Parameter	Test Conditions	Min.	Unit
Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5656	VDC
Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2828	VDC
Isolation Resistance	Test Voltage = 500VDC	50	MΩ
EMI requirements for CISPR-11	Vin=220VAC	B	CLASS
EMI requirements for FCC PART-18	Vin=110VAC	B	CLASS

Mechanical and PIN out

PIN CHART

MODEL \ PIN	1	2	3	4	5	6	7	8	9	10	11	12
SMFA120-SXX-12pin	OUT	OUT	OUT	OUT	OUT	OUT	RTN	RTN	RTN	RTN	RTN	RTN

MODEL \ PIN	1	2	3	4	5	6
SMFA120-SXX-6pin	OUT	OUT	OUT	RTN	RTN	RTN

Note:
1. Dimensions are shown in mm.
2. Weight: 420g approx.
3. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
4. Output Connector mates with screw terminal (Terminal Block)(16-22AWG)or Molex housing 09-50-3121 and Molex 2478 series crimp terminal