

## SMFA30 SERIES



## 30W Open-Frame Power Supply for Medical Equipment

- Wide Input Voltage 90 to 264 VAC, 47 to 63Hz
- Internal EMI Filter
- Single Output
- Size: 2"x4" x1.16"
- Class I Insulation
- Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
- Output connector mates with Molex housing 09-50-3061 and Molex 2478 series crimp terminal.
- Output Voltage Available from 5VDC through 36VDC
- Input Surge Current, Over Load and Over Voltage Protection

3 Year Warranty

Approvals:   **CBC** 

### Single Output

Product Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
SMFA30-S02	5 VDC	6.00 A	5%	30W
SMFA30-S03	7 VDC	4.28 A	5%	30W
SMFA30-S04	9 VDC	3.33 A	5%	30W
SMFA30-S05	12 VDC	2.50 A	5%	30W
SMFA30-S06	15 VDC	2.00 A	5%	30W
SMFA30-S07	18 VDC	1.66 A	5%	30W
SMFA30-S08	24 VDC	1.25 A	5%	30W
SMFA30-S09	30 VDC	1.00 A	5%	30W
SMFA30-S10	36 VDC	0.83 A	3%	30W

### Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Operating Voltage	90		264	VAC
Input Frequency		47		63	Hz
Output Power Range	Vin= 90 to 264 VAC	0		30	W
Input Current (Low Line)	Io=Full load, Vin=115 VAC			0.7	A
Input Current (High Line)	Io=Full load, Vin= 230 VAC	0.3		0.5	A
Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		15	18	A
High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230 VAC		21	25	A
Efficiency	Io=Full Load, Vin=230VAC	70	80	85	%
Line Regulation	Io=Full Load		0.5	1	%
Load Regulation	Vin=230VAC		3	7	%
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	10	12		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		0.1	0.3	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	%
Operation temperature at 25°C calculated per MIL-HDBK-217F		0.1M			Hrs
Derate 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

\*Recommend to be used on the metal chassis.

## Mechanical and PIN out

### PIN CHART

PIN	1	2	3	4	5	6
MODEL	1	2	3	4	5	6
SMFA30-SXX	RTN	RTN	RTN	Vout	Vout	Vout

### Note:

1. Dimensions are shown in mm & inch
2. Weight: approx. 200g
3. Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 and Molex 2478 series crimp terminal.

