



Note: Specific model may differ from photo.

# FMA30P SERIES

## 30 WATT MEDICAL SWITCHING POWER SUPPLY

### OUTPUT SPECIFICATIONS

Output Voltage/Current:	See rating chart
Total Output Power:	30 watts maximum
Ripple and Noise:	1% peak to peak max.
Overvoltage Protection:	Provided on output #1 only; set at Set at 112 to 132% of the higher extreme of it's nominal output voltage
Overcurrent Protection:	The output is protected to short circuit conditions
Temperature Coefficient:	All outputs $\pm 0.04\%$ / $^{\circ}\text{C}$ maximum
Transient Response:	Max. excursion of 4% or better on all models, recovering to 1% of final value within 500 $\mu\text{s}$ after a 25% step load change

### UNIVERSAL INPUT

### FEATURES

- ◆ 10 Standard desktop models
- ◆ Optional output connectors
- ◆ Optional on/off switch
- ◆ 100% burn-in at full rated load
- ◆ 90 to 264 VAC universal input
- ◆ Input surge current protection
- ◆ Overvoltage protection
- ◆ Overcurrent protection
- ◆ Short-circuit protection with auto-recovery

### DESCRIPTION

The FMA30P series of AC/DC switching power supplies are for 25 - 30 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320 inlet to mate with an interchangeable cord for worldwide use. All models meet CISPR 11 and FCC class B emission limits, and are designed for medical applications not for patient contact.

### INPUT SPECIFICATION

Input Voltage:	85 to 264 VAC
Input Frequency:	47 ~ 63Hz
Input Current:	0.80A (rms) for 115 VAC 0.50A (rms) for 230VAC
Leakage Current:	90 $\mu\text{A}$ max. @ 115 VAC, 60Hz 150 $\mu\text{A}$ max. @ 230 VAC, 50Hz

### GENERAL SPECIFICATIONS

Switching Frequency:	70kHz $\pm$ 5kHz
Efficiency:	70% min. on all models with output voltage $\geq$ 7V or 65% min. on the others
Hold-up Time:	20mS min. at 115 VAC
Line Regulation:	$\pm 0.5\%$ max. at full load
Inrush Current:	15 amps. @ 115VAC, or 30 amps @ 230 VAC
Withstand Voltage:	4,000VAC input to output 1,500VAC input to ground 500VAC output to ground
MTBF: (25 $^{\circ}\text{C}$ ambient)	400,000 hours min. at full load
EMI Requirements:	Meet CISPR 11 (EN 55011) Class B and FCC Class B
Safety Requirements:	Meets or exceeds: (a) UL 2601-1 (b) CSA C22.2 No. 601.1 (c) IEC 601-1 (EN 60601-1)

### ENVIRONMENTAL SPECIFICATIONS

Operating Temp.:	0 $^{\circ}$ to +70 $^{\circ}\text{C}$
Storage Temperature:	-40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Relative Humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50 $^{\circ}\text{C}$ to linearly to 50% at +70 $^{\circ}\text{C}$ .



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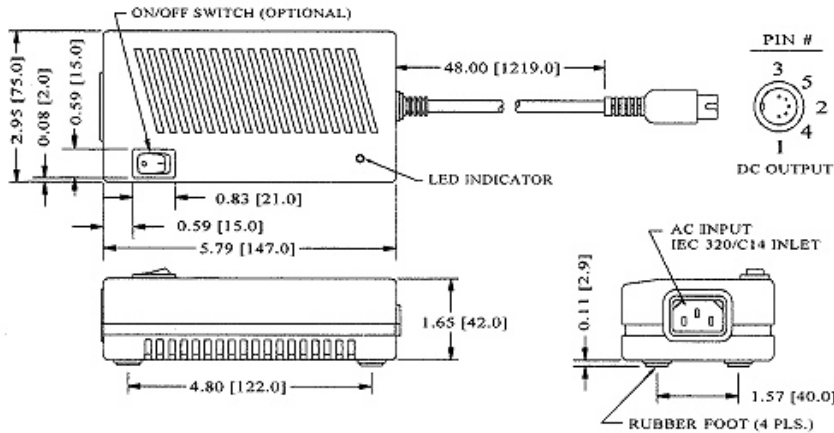


## OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output				Max. Output
	Vnom	Imin	Imax	Tol.	
FMA30P10	5-6V	0A	5.0A	5%	25W
FMA30P10-1	6-8V	0A	4.5A	5%	30W
FMA30P11	9-11V	0A	3.4A	2%	30W
FMA30P12	11-13V	0A	2.8A	2%	30W
FMA30P13	13-17V	0A	2.4A	2%	30W
FMA30P13-1	17-21V	0A	1.8A	2%	30W
FMA30P14	21-27V	0A	1.5A	2%	30W
FMA30P16	27-33V	0A	1.2A	2%	30W
FMA30P17	33-39V	0A	1.0A	2%	30W
FMA30P18	48V	0A	0.7A	2%	30W

Notes: The output voltage can be adjusted by user in the stated range, or set by factory to a wanted value in the range upon the request of a user when ordering.

## MECHANICAL SPECIFICATIONS



### Notes:

1. Dimensions shown in inch (mm)
2. Tolerance 0.02 (0.5) maximum
3. Weight: 0.55 Kgs (1.21 lbs) approx.
4. Contact Fortron/Source for information on optional output connectors
5. To order a model with on/off switch, add suffix "S" to the model number, e.g. FMA30P10-S

## PIN CHART

MODEL	PIN		1	2	3	4	5
	FMA30P10	FMA30P10-1	FMA30P11	Return	Return	Output	Return
FMA30P12	FMA30P13	FMA30P13-1					
FMA30P14	FMA30P16	FMA30P17					
FMA30P18							

Note: All data are subject to change without notice