SM66P SERIES
65 WATT MEDICAL SWITCHING POWER SUPPLIES

UNIVERSAL INPUT

FEATURES

- Recognized or certified by UL/CSA/TÜV
- Small size
- 100% burn-in
- Wide input range 90 to 264 VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection

DESCRIPTION

The SM66P series of compact, open PCB constructed, AC-DC switching power supplies are capable of delivering 50 to 65 watts of continuous output power. They operate at 90 to 264 VAC input voltage without the need for voltage selection. They are ideally suited for use in medical equipment not for patient contact. All models meet the safety requirements of UL, CSA and IEC.

INPUT SPECIFICATIONS

Input Voltage:	95 to 264 VAC
Input Frequency:	47 to 63Hz
Input Current:	1.60A (rms) for 115 VAC 1.00A (rms) for 230 VAC
Leakage Current:	90μA max. at 115 VAC, 60Hz 150μA max. at 230 VAC, 50Hz

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	0°C to +70°C
Storage Temperature:	-40°C to +85°C
Relative Humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50°C linearly to 50% at +70°C

GENERAL SPECIFICATIONS

Switching Frequency:	42kHz ± 5kHz
Efficiency:	75% min. on single output models with Vo ≥ 12V, 66% minimum on all others
Hold-up Time:	10mS min. at 110 VAC
Line Regulation:	± 0.5% max. at full load
Inrush Current:	17 amps at 115 VAC or
(at 25°C cold start)	40 amps at 230 VAC
Withstand Voltage:	4000 VAC input to output 1500 VAC input to ground 500 VAC output to ground
MTBF (25°C ambient):	400,000 hours min. full load, calculated per MIL-HDBK-217F
EMI Requirements:	Meets conducted limits of (a) FCC Level B (b) EN 55022 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)

OUTPUT SPECIFICATIONS

Output Voltage/Current:	See Rating Chart
Total Output Power:	65 watts maximum
Ripple and Noise:	1% peak to peak max.
Overvoltage Protection:	Provided on output; set at 112-132% of its nominal output voltage
Overcurrent Protection:	The output protected to short circuit conditions
Temp. Coefficient:	All outputs, ± 0.04%/°C max.
Transient Response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500μs after a 25% step load change

E191837 TA5002151601 (LVD)

FORTRON/SOURCE

23181 Antonio Parkway, Rancho Santa Margarita CA 92688 U.S.A. ◆ Telephone: (949) 766-9240 ◆ Fax: (949) 766-9241
E-mail: salesusa@fspgroup.com ◆ Website: www.fspgroup.com

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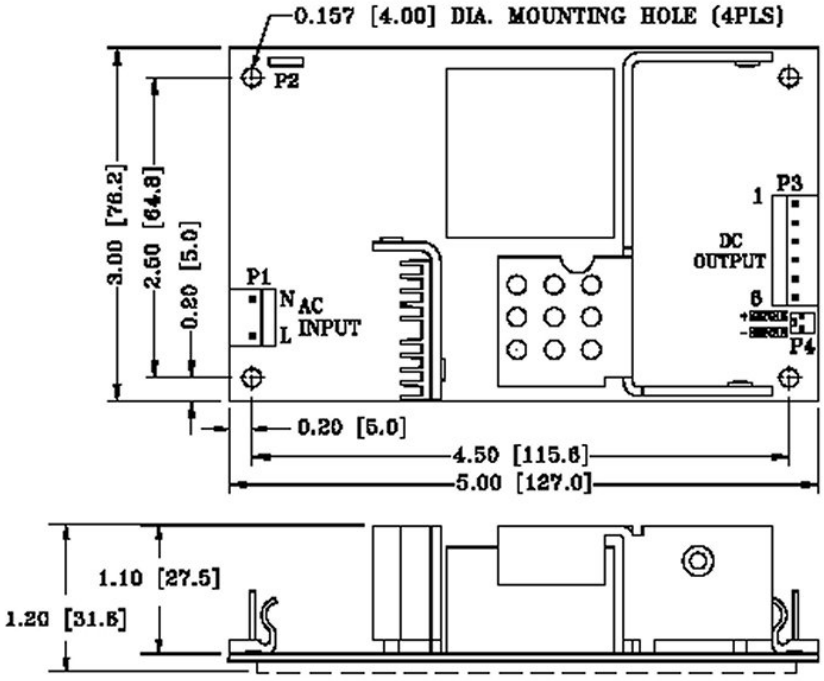
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output #1				Output #2				Output #3				Max.
	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Power
SM66P10	5.1V	0A	10A	3%	(N/A)				(N/A)				51W
SM66P12	12V	0A	5.5A	2%	(N/A)				(N/A)				65W
SM66P13	15V	0A	4.4A	2%	(N/A)				(N/A)				65W
SM66P13-1	18V	0A	3.7A	2%	(N/A)				(N/A)				65W
SM66P14	24V	0A	2.8A	2%	(N/A)				(N/A)				65W
SM66P15	28V	0A	2.4A	2%	(N/A)				(N/A)				65W

Notes: (1) Ripple and noise: Peak-to-peak with 20MHz bandwidth and 10μF in parallel with a 0.1μF capacitor at rated line voltage and load ranges.

MECHANICAL SPECIFICATIONS



Notes:

1. Dimensions shown in inch (mm)
2. Tolerance 0.02 (0.5) maximum
3. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal
4. Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal
5. Weight: 330 grams (PCB format)
6. P4 is for ±sense connector mates with Molex housing 22-01-1023 and Molex 40445 series crimp terminal.

PIN CHART

CONN / PIN / MODEL	P1		P2	P3						P4	
	1	2	1	1	2	3	4	5	6	1	2
SM66P10 SM66P12 SM66P13 SM66P13-1 SM66P14 SM66P15	AC Live	AC Neutral	AC Ground	Output #1	Output #1	Output #1	Return	Return	Return	+Sense	-Sense

Note: All data are subject to change without notice

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