



SM12P Series

UL, EN, IEC 60601-1 3rd Edition Medical
12 Watt AC - DC Wall Plug-in Power Supply

Date: 2/11/16

Rev: 021116

Page: 1 of 3

The SM12P Series medical switch mode wall plug-in is an ideal choice for compact power. It offers 10 - 12 Watts power, and a choice of US, British, or European input prongs, and carries UL/ CUL, IEC and EN 60601-1, 3rd Edition safety approvals.

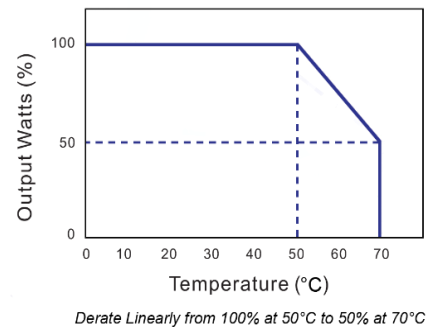


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	0.29 A Max at 100 Vac
Input Current (High Line)	0.16 A Max at 240 Vac
Safety Ground Leakage Current	0.3 mA Max at 240 Vac, Full Load
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	1% Max., Full Load at 90 Vac Input
Over-Voltage Protection	112 - 132%
Over-Current Protection	110 - 150%
Temperature Coefficient	± 0.04% / °C Max
Transient Response	50% Load Change at 100 Vac Input: 4 ms Max
Efficiency	72.3 – 80%
No Load Power Consumption	≤ 0.3 Watts
Line Regulation	0.5 - 1%
Load Regulation	3 - 5%
Start-Up Time	0.3 – 2 s
Hold-Up Time	12 ms Min
Withstanding Voltage	Primary to Secondary: 6,322 Vdc
Insulation Resistance	50 MΩ Min
Inrush Current	50 A @ 115 Vac Max at 25°C Cold Start 100 A @ 230 Vac Max at 25°C Cold Start
Mean Time Between Failure	Full Load at 25°C Ambient: 100,000 Hours Min
Operating Temperature	See Derating Curve
Storage Temperature	-40 to 85 °C
Industry Compliance	Directive 2011/65/EU (RoHS 2), Energy Efficiency Level V
EMI Requirements	Meets Conduction Limits of: CISPR-11 Class B, FCC Part 18 Class B, and EN 55011 Class B
Safety Compliance	ANSI/AAMI ES 60601-1:2005 (UR Listed 3rd Edition), EN 60601-1:2006 (TUV/T-mark 3rd Edition), CE, CB, FCC, PSE

Features:

- Universal Input 100 - 240 Vac
- 5 Vdc to 27 Vdc Output
- US, UK, and EU plug styles
- Over-Voltage, Over-Current, and Short Circuit Protection
- LED Indication
- 100% Burn-In
- RoHS 2 Compliant
- 2 MOPP Protection
- Class II

Derating Curve





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Page: 2 of 3

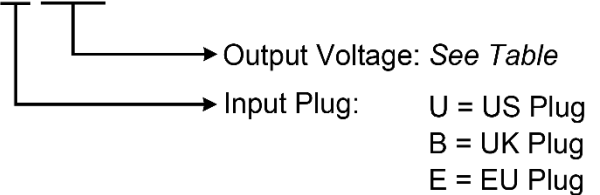
Output Voltage and Current Table

Output Voltage Range *	Max Output Current Limited to Output Power †	Total Regulation	Maximum Output Power
5 Vdc	2.00 A	5%	10 W
6 - 8 Vdc	2.00 - 1.50 A	5%	12 W
9 - 11 Vdc	1.33 - 1.09 A	5%	12 W
12 - 13 Vdc	1.00 - 0.92 A	5%	12 W
14 - 16 Vdc	0.85 - 0.75 A	5%	12 W
17 - 21 Vdc	0.70 - 0.57 A	3%	12 W
22 - 27 Vdc	0.54 - 0.44 A	3%	12 W

* Output Voltages between ranges are also available.

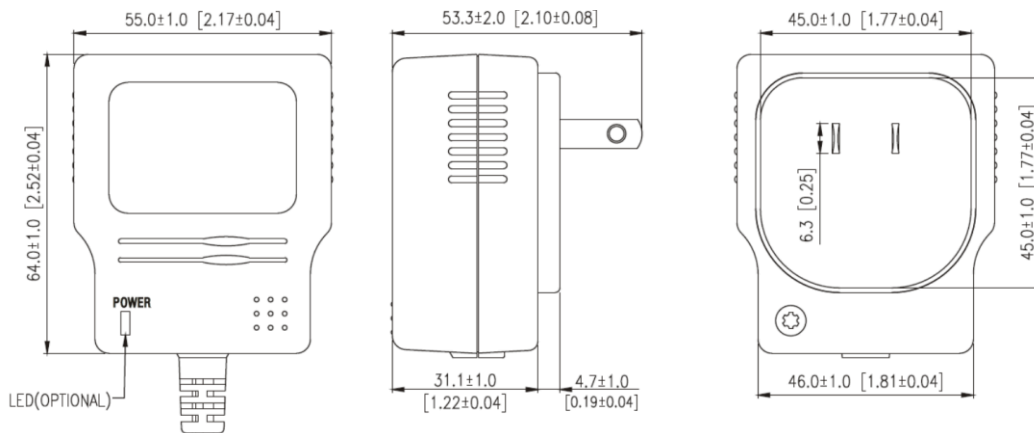
† To find Max Output Current:
 Max Output Current = Max Power ÷ Output Voltage
 Example: Max Output Current for 5 VDC Output
 Max Output Current = 10 W ÷ 5 V
 Max Output Current = 2 A

SM12P R



Mechanical Specification (mm, [in])

SM12PU:





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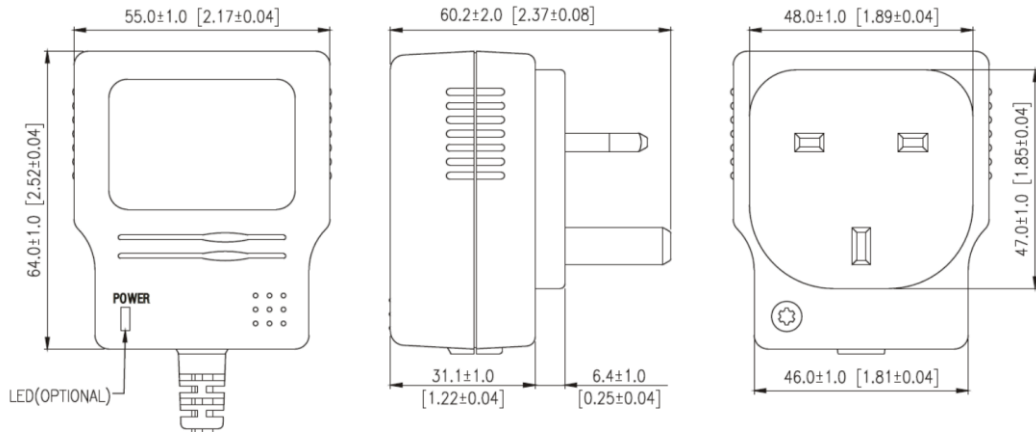
Date: 2/11/16

Rev: 021116

Page: 3 of 3

Mechanical Specification (mm, [in]) Continued

SM12PB:



SM12PE:

