



SM101P1R Series

100 Watts

Date: 2/7/14

UL, EN, IEC 60601-1 3rd Edition Medical
100 Watt AC - DC Power Supply

Rev: 101713

Page: 1 of 2

The SM101P1R Series medical switch mode desktop features 11 Vdc – 48 Vdc single output options at 100 Watts power, with UL, cUL, IEC and EN60601-1, 3rd Edition safety approvals.

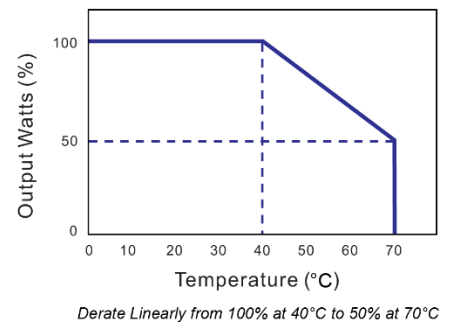


Input Voltage	90 to 260 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	1.2 A Max at 100 Vac
Input Current (High Line)	0.5 A Max at 240 Vac
Power Factor Correction	0.95 – 1
Safety Ground Leakage Current	0.25 mA Max at 240 Vac, Full Load
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	1% Max., Full Load at 90 Vac Input
Over-Voltage Protection	112 – 132% Max
Over-Current Protection	110 – 150% Max
Temperature Coefficient	± 0.04% / °C Max
Transient Response	50% Load Change at 100 Vac Input: 4 ms Max
Efficiency	87 - 90%
No Load Power Consumption	≤ 0.5 Watts
Line Regulation	± 1% Max at Full Load
Load Regulation	± 5% Max at 230 Vac
Start-Up Time	0.3 – 2 s
Hold-Up Time	16 ms Min
Withstanding Voltage	Primary to Secondary: 6,579 Vdc Primary to Ground: 2,121 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
- IEC 320 C14 Input Only
- Over-Voltage Protection
- Over-Current Protection
- 100% Burn-In
- RoHS 2 Compliant
- 2 MOPP Protection
- Class I

Derating Curve





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Page: 2 of 2

Output Voltage and Current Table

Output Voltage Range *	Output Current <i>Limited to Output Power †</i>	Total Regulation	Maximum Output Power
11 - 13 Vdc	9.09 – 7.69 A	5%	100 W
14 - 16 Vdc	7.14 – 6.25 A	4%	100 W
17 – 21 Vdc	5.88 – 4.76 A	4%	100 W
22 - 27 Vdc	4.54 – 3.70 A	4%	100 W
28 - 33 Vdc	3.57 – 3.03 A	3%	100 W
34 - 40 Vdc	2.94 – 2.50 A	3%	100 W
41 - 48 Vdc	2.43 – 2.08 A	3%	100 W

* Output Voltages between ranges are also available.

† To find Output Current:

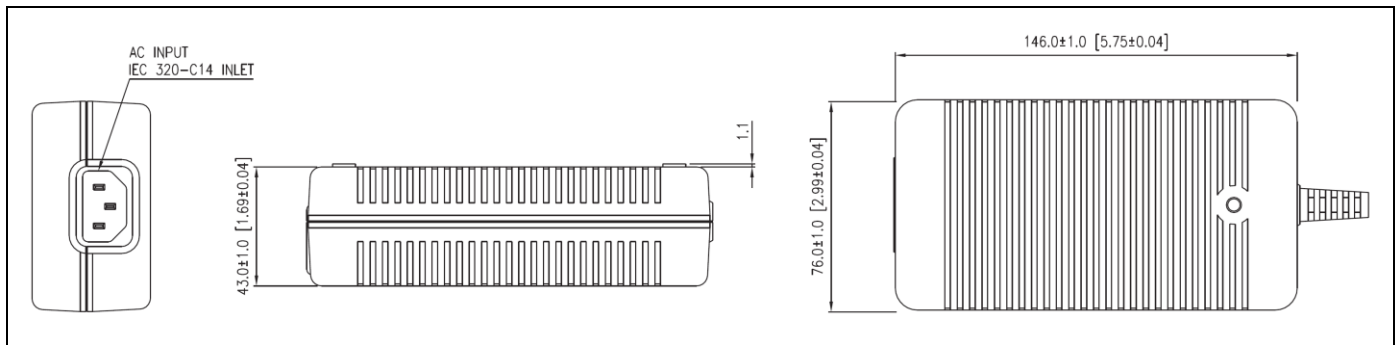
Output Current = Max Power ÷ Output Voltage

Example: Output Current for 11 Vdc Output

Output Current = 100 W ÷ 11 V

Output Current = 9.09 A

Mechanical Specification (mm, [in])



Note: Output connector to be specified.

The cable length, wire gauge, and output connector will be dependent on the Energy Efficiency level requirements.