



# SM51P Series

## 40 - 50 Watts

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Page: 1 of 3

### UL, EN, IEC 60601-1 3<sup>rd</sup> Edition Medical 40 Watt - 50 Watt AC - DC Power Supply

The SM51P Series medical switch mode desktop features a choice of single, dual, or triple output combinations, ranging from 40 Watts to 50 Watts output with UL, cUL, IEC and EN60601-1, 3<sup>rd</sup> Edition safety approvals.

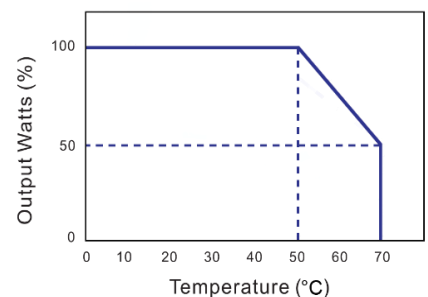


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	0.91 - 1.04 A at 100 Vac
Input Current (High Line)	0.43 - 0.53 A at 240 Vac
Safety Ground Leakage Current	0.25 mA Max at 240 Vac, Full Load
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	1% Max., Full 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	75 - 88%
No Load Power Consumption	2 - 6 Watts
Line Regulation	0.5 - 1% at Full Load
Load Regulation	3 - 7% at 230 Vac
Start-Up Time	0.3 - 2 s
Hold-Up Time	16 ms Min
Withstanding Voltage	Primary to Secondary: 6,321 Vdc Primary to Ground: 2,121 Vdc
Insulation Resistance	50 MΩ Min
Inrush Current	35 A @ 115 Vac Max at 25°C Cold Start 70 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)
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
- Single to Triple Output
- IEC 320 C14 Input
- Over-Voltage Protection
- Over-Current Protection
- 100% Burn-In
- RoHS 2 Compliant
- 2 MOPP Protection
- Class I

### Derating Curve



Derate Linearly from 100% at 50°C to 50% at 70°C



## Output Voltage and Current Table

### Single Output

Output Voltage Range *	Output Current <i>Limited to Output Power †</i>	Total Regulation	Maximum Output Power
3 - 4 Vdc	10.00 A	5%	40 W
5 - 6 Vdc	8.00 - 6.66 A	5%	40 W
7 - 8 Vdc	6.00 - 5.25 A	5%	42 W
9 - 11 Vdc	5.00 - 4.09 A	4%	45 W
12 - 13 Vdc	3.75 - 3.46 A	3%	45 W
14 - 15 Vdc	3.21 - 3.00 A	3%	45 W
16 - 21 Vdc	3.12 - 2.38 A	3%	50 W
22 - 27 Vdc	2.27 - 1.85 A	2%	50 W
28 - 33 Vdc	1.78 - 1.51 A	2%	50 W
34 - 40 Vdc	1.47 - 1.25 A	2%	50 W
41 - 50 Vdc	1.21 - 1.00 A	2%	50 W

\* Output Voltages between ranges are also available.

† To find Output Current:  
 Output Current = Max Power ÷ Output Voltage  
*Example: Output Current for 5 VDC Output*  
 Output Current = 40 W ÷ 5 V  
 Output Current = 8 A

SM51P9□□R

→ Output Voltage: See Table

### Dual Output

Model Number	Output # 1			Output # 2			Maximum Output Power
	Voltage	Current	Regulation	Voltage	Current	Regulation	
SM51P250R	+5 Vdc	0.5 - 5 A	5%	+12 Vdc	0.2 - 2 A	5%	42 W
SM51P253R	+5 Vdc	0.5 - 5 A	5%	+15 Vdc	0.15 - 1.5 A	6%	42 W
SM51P254R	+5 Vdc	0.5 - 5 A	5%	+24 Vdc	0.1 - 1 A	5%	42 W
SM51P256R	+12Vdc	0.3 - 3 A	5%	-12 Vdc	0 - 1 A	5%	42 W
SM51P257R	+15 Vdc	0.2 - 2 A	5%	-15 Vdc	0.1 - 1 A	5%	42 W
SM51P259R	+3.3 Vdc	0.5 - 5 A	7%	+5 Vdc	0.2 - 2 A	5%	26.5 W
SM51P260R	+3.3 Vdc	0.5 - 5 A	7%	+12 Vdc	0.2 - 2 A	5%	40 W

\*Total Output (Output 1 + Output 2) not to exceed Max Power





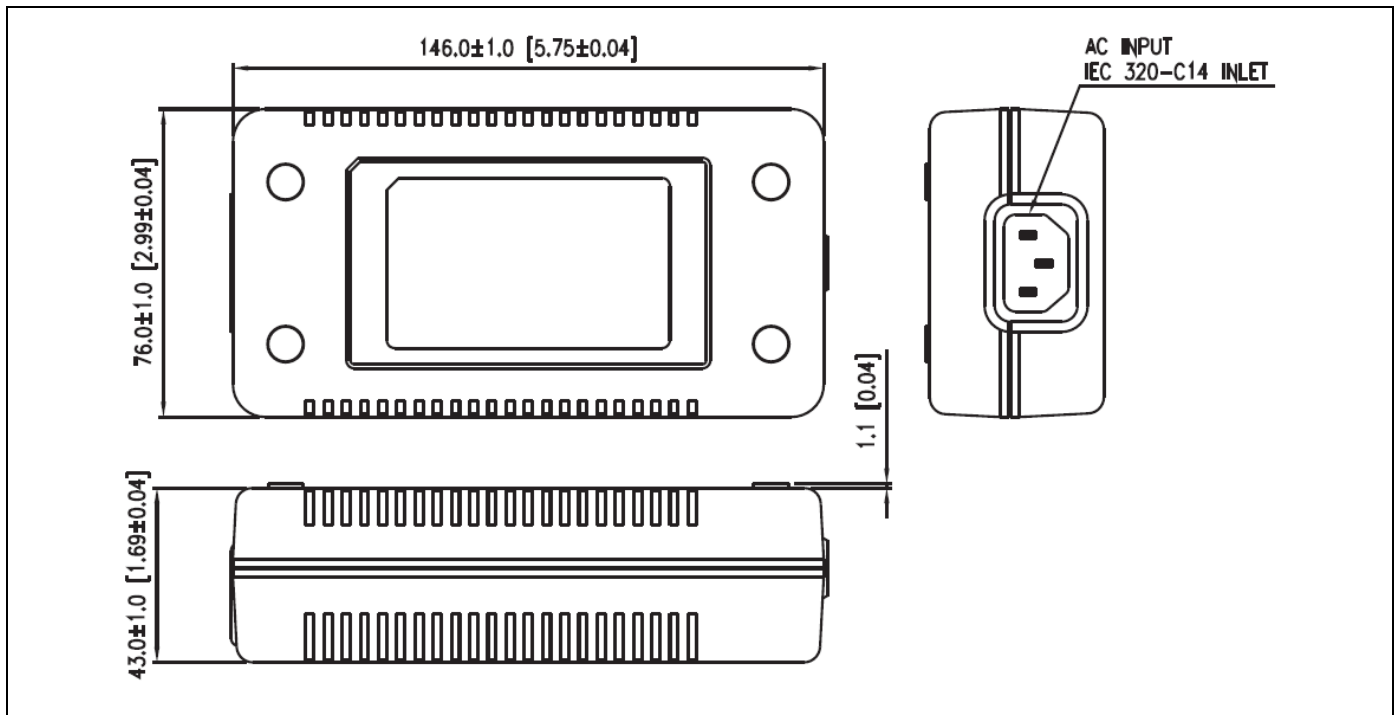
**Output Voltage and Current Table *Continued***

**Triple Output**

Model Number	Voltage	Output # 1		Output # 2			Output # 3			Maximum Output Power
		Current	Regulation	Voltage	Current	Regulation	Voltage	Current	Regulation	
SM51P370R	+5 Vdc	0.5 - 5 A	5%	+12 Vdc	0.2 - 2 A	5%	-12 Vdc	0.1 - 0.8 A	5%	42 W
SM51P374R	+5 Vdc	0.5 - 5 A	5%	+15 Vdc	0.4 - 2 A	5%	-15 Vdc	0.1 - 0.8 A	5%	42 W
SM51P376R	+5 Vdc	0.5 - 5 A	5%	+24 Vdc	0.2 - 1 A	5%	-24 Vdc	0 - 0.5 A	5%	42 W
SM51P377R	+5 Vdc	0.5 - 5 A	5%	+12 Vdc	0.2 - 2 A	5%	-5 Vdc	0.1 - 1 A	5%	42 W
SM51P379R	+5 Vdc	0.5 - 5 A	5%	+24 Vdc	0.1 - 1 A	5%	-12 Vdc	0 - 0.8 A	5%	42 W
SM51P380R	+3.3 Vdc	0.5 - 5 A	7%	+12 Vdc	0.4 - 2 A	5%	-5 Vdc	0.1 - 0.8 A	5%	42 W
SM51P382R	+3.3 Vdc	0.5 - 5 A	7%	+12 Vdc	0.4 - 2 A	5%	-12 Vdc	0 - 1 A	5%	42 W

\*Total Output (Output 1 + Output 2 + Output 3) not to exceed Max Power

**Mechanical Specification (mm, [in])**



Note: Output connector to be specified.  
Standard Termination is a 6 ft. (AWG#18) cable w/ 5-Pin Power Din plug