



SM10D4Y - SM36D4Y 10 - 36 Watts

UL, EN, IEC 60601-1 3rd Edition Medical
10 - 36 Watt AC - DC Power Supply

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The SM10D4Y - SM36D4Y Series medical switch mode power supply offers 10 Watts to 36 Watts output power, with an output voltage range 5 Vdc - 48 Vdc. Case styles include U.S., European, British, and Australian input plugs, with UL, cUL, IEC and EN60601-1, 3rd Edition safety approvals, and Energy Efficiency Level 5 & 6.

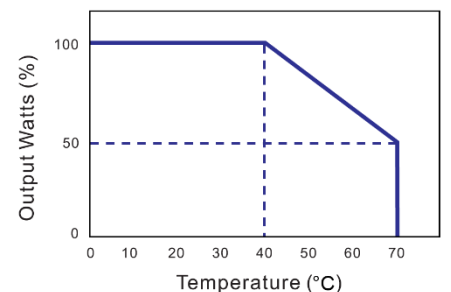


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	1 A Max at 110 Vac
Input Current (High Line)	0.5 A Max at 230 Vac
Safety Ground Leakage Current	0.1 mA Max
Touch Leakage Current	0.1 mA Max
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	1.5% Max Measured w/ 0.1 μ F ceramic capacitor and 47 μ F electrolytic capacitor in parallel
Over-Voltage Protection	150% Max
Temperature Coefficient	$\pm 0.04\%$ / $^{\circ}$ C Max
Dynamic Load Regulation	Load Change from 100% - 50%: $\pm 5\%$
Efficiency	Meets Energy Efficiency Level V & VI Criteria
No Load Power Consumption	$\leq 0.3 - 0.1$ Watts
Line Regulation	$\pm 1\%$ Max at Full Load
Load Regulation	$\pm 5\%$ Max
Start-Up Time	3 s Max
Hold-Up Time	8.3 ms Min
Inrush Current	30 A @ 115 Vac Max at 25 $^{\circ}$ C Cold Start 60 A @ 230 Vac Max at 25 $^{\circ}$ C Cold Start
Mean Time Between Failure	Full Load at 25 $^{\circ}$ C Ambient: 100,000 Hours Min
Operating Temperature	See Derating Curve
Storage Temperature	-20 to 85 $^{\circ}$ C
Industry Compliance	RoHS, Energy Efficiency Level V & VI
EMI Requirements	Meets Conduction Limits of: FCC Part 15 Class B, CISPR-11 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), CB, CE, FCC

Features:

- Universal Input 100 - 240 Vac
- Available with U.S., European, British, and Australian case styles
- Over-Voltage Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- 2 MOPP Protection
- Energy Efficiency Level: V & VI

Derating Curve



Derate Linearly from 100% at 40 $^{\circ}$ C to 50% at 70 $^{\circ}$ C



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Output Voltage and Current Table

Model Number	Output Voltage Range *	Output Current Limited to Output Power †	Maximum Output Power
SM10D4_05R	5 Vdc	2.00 A	10 W
SM15D4_05R	5 Vdc	3.00 A	15 W
SM15D4_10R	10 Vdc	1.50 A	15 W
SM18D4_06R	6 Vdc	3.00 A	18 W
SM18D4_09R	9 Vdc	2.00 A	18 W
SM20D4___R	5 - 48 Vdc	4.00 - 0.41 A	20 W
SM24D4___R	6 - 24 Vdc	4.00 - 1.00 A	24 W
SM27D4___R	9 - 11 Vdc	3.00 - 2.45 A	27 W
SM30D4___R	12 - 24 Vdc	2.50 - 1.25 A	30 W
SM30D4___R	36 - 48 Vdc	0.83 - 0.63 A	30 W
SM36D4___R	12 Vdc	3.0 A	36 W
SM36D4___R	24 Vdc	1.5 A	36 W

* Output Voltages between ranges are also available.

† To find Output Current:

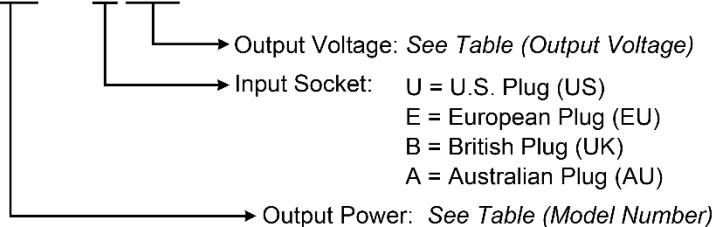
Output Current = Max Power ÷ Output Voltage

Example: Output Current for SM20D4_05R
(5 Vdc Output)

Output Current = 20 W ÷ 5 V

Output Current = 4 A

SM□□D4□□R





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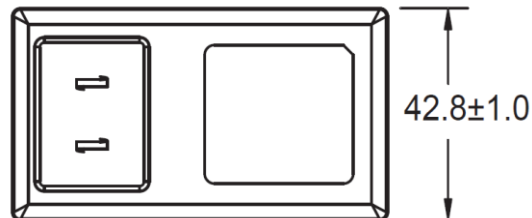
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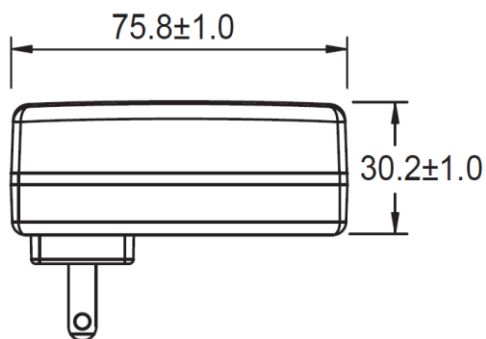
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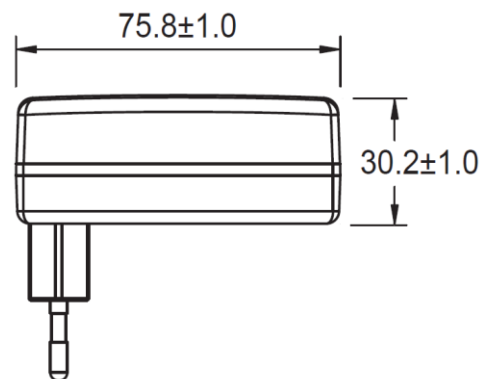
Mechanical Specification (mm)



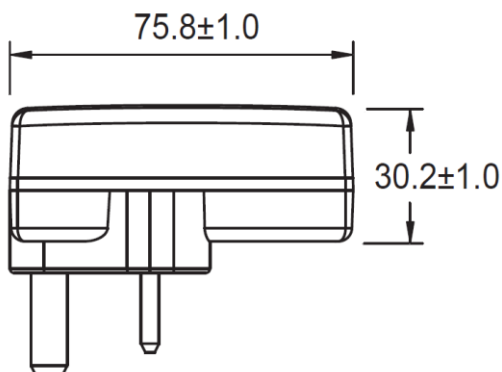
SM__D4U: U.S. Plug



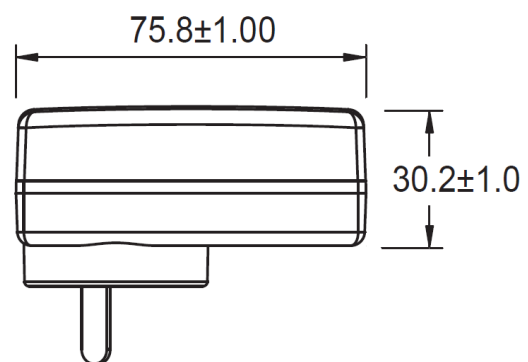
SM__D24E: European Plug



SM__D4B: British Plug



SM__D24A: Australian Plug



Note: Output connector to be specified.

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