



# SM20Q – SM30Q Series

20 - 30 Watt AC - DC Medical 3<sup>rd</sup> Edition Power Supply  
Energy Efficiency Level V, RoHS 2 Compliant

Date: 5/2/16

Rev: 050216

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The SM20Q – SM30Q Series switch mode power supply offers 20 Watts to 30 Watts output power, with an output voltage range of 5 Vdc - 36 Vdc. Case styles is a desktop enclosure with choice of IEC 320 C6, C8, C14, and C18 input socket, with UL/cUL, IEC and EN 60601-1 3<sup>rd</sup> Edition safety approvals, and Energy Efficiency Level 5.

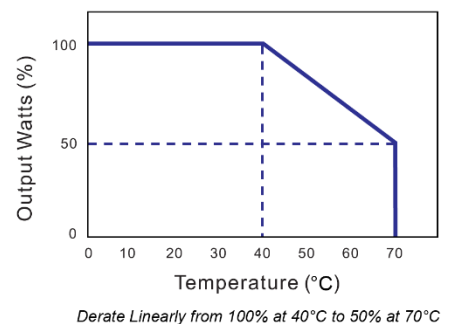


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	0.45 – 0.70 A Max
Touch Leakage Current	0.1 mA Max
Withstanding Voltage	Primary to Secondary: 4000 Vac
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	2% Max <i>Measured w/ 0.1 µF ceramic capacitor &amp; 47 µF electrolytic capacitor in parallel</i>
Over-Voltage Protection	Unit is protected from over-voltage conditions
Over-Current Protection	Unit is protected from over-current conditions
Temperature Coefficient	± 0.04% / °C Max
Transient Response Time	Load Change from 100% - 50%: 0.5 ms
Efficiency	Meets Energy Efficiency Level V Criteria
No Load Power Consumption	Meets Energy Efficiency Level V Criteria
Load Regulation	± 5% Max
Hold-Up Time	10 ms Min
Mean Time Between Failure	Full Load at 25°C Ambient: 300,000 Hours Min (Telcordia)
Operating Temperature	See Derating Curve
Storage Temperature	-20 to 80 °C
Industry Compliance	RoHS 2, Energy Efficiency Level V
EMI Requirements	Meets Conduction and Radiation Limits of: FCC Part 18 Class B, CISPR-11 Class B, and EN 55011 Class B
Safety Compliance	ANSI/AAMI/IEC ES60601-1: 2005 (UR Listed (3 <sup>rd</sup> Edition), IEC/EN 60601-1: 2006 (TUV/T-Mark 3 <sup>rd</sup> Edition), CB, CE, FCC, PSE

## Features:

- Universal Input 100 - 240 Vac
- Over-Voltage Protection
- Over-Current Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- 2 MOPP Protection
- Energy Efficiency Level: V

## Derating Curve





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## Output Voltage and Current Table

Model Number	Output Voltage	Maximum Output Current	Maximum Output Power
SM20Q_05R	5 VDC	4.00 A	20W
SM25Q_05R	5 VDC	5.00 A	25W
SM30Q_07R	7.5 VDC	4.00 A	30W
SM30Q_09R	9 VDC	3.34 A	30W
SM30Q_12R	12 VDC	2.50 A	30W
SM30Q_15R	15 VDC	2.00 A	30W
SM30Q_18R	18 VDC	1.67 A	30W
SM30Q_24R	24 VDC	1.25 A	30W
SM30Q_36R	36 VDC	0.84 A	30W

SM   Q    R

→ Output Voltage: See Table (Output Voltage)

→ Input Socket: 6 = C6 Socket  
7 = C18 Socket  
8 = C8 Socket  
9 = C14 Socket

→ Output Power: See Table (Model Number)



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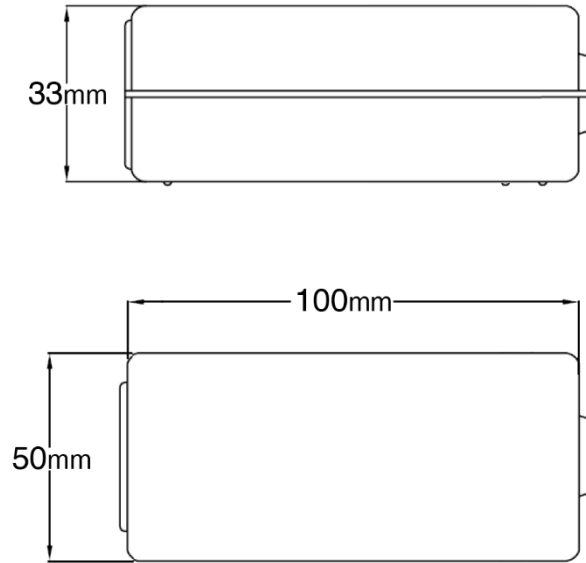
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## Mechanical Specification (mm)

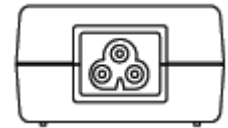
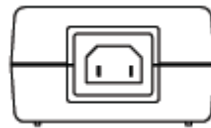
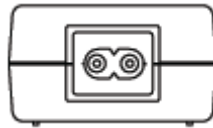
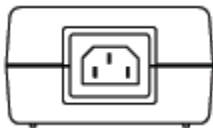


SM\_\_Q9: C14

SM\_\_Q8: C8

SM\_\_Q7: C7

SM\_\_Q6: C6



Note: Output connector to be specified by customer.  
Standard connector is a 2.5 x 5.5 x 11 mm female barrel plug, center positive (+).  
The cable length and wire gauge will be dependent on the Energy Efficiency level requirements.