



SM240Q1R – SM250Q1R Series

240 - 250 Watt AC-DC Medical Desktop Power Supply
IEC 60601-1-2 4th Ed. EMC, DoE VI, RoHS 2 Compliant

Date: 10/24/18

Rev: 070618

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The SM240Q1R – SM250Q1R Series switch mode power supply offers 240 Watts to 250 Watts output power, with output voltages of 12 Vdc – 48 Vdc available. Case style is a desktop enclosure with IEC 320 C14 or C18 input socket, with ES/EN/IEC 60601-1 3.1 Edition and IEC 60950-1 2nd Edition safety approvals, IEC 60601-1-2 4th Edition EMC, and DoE Level 6 efficiency.



Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	3.3 – 1.3 A
Leakage Current	< 100 μ A
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P) ¹	1% Max.
Over-Voltage Protection	150% Max.
Over-Current Protection	170% Max.
Transient Response	50% Load Change at 110 Vac Input: 0.5 ms Typ.
Efficiency	Meets DoE Level VI
No Load Power Consumption	< 0.15 Watts
Load Regulation	\pm 5% Typ.
Hold-Up Time	10 ms Min.
Withstanding Voltage	Primary to Secondary: 4,000 Vac Min.
Mean Time Between Failure	Full Load at 25°C Ambient: 300,000 Hours Min. (Telcordia)
Operating Temperature	0 to 40°C
Storage Temperature	-20 to 80°C
Industry Compliance	Directive 2011/65/EU (RoHS 2), DoE Level VI
Weight	1145 g (Ref.)
EMC Requirements	IEC 60601-1-2: 2014 4 th Edition, EN 55024, EN 61000-3-2, -3-3
EMI Requirements	Meets Conduction and Radiation Limits of: CISPR-11 Class B, EN 55011 Class B, and FCC Class B
Safety Compliance	UR/cUR (ANSI/AAMI/ES 60601-1:3.1 Ed.), FCC, CE, TUV T-Mark (EN 60601-1:3.1 Ed.), PSE, CB (IEC 60601-1: 3.1 Ed., IEC 60950-1: 2 nd Ed.)

Features:

- Universal Input 100 - 240 Vac
- IEC320 C14 or C18 Input
- 2 x MOPP Protection
- < 100 μ A Touch Current
- Over-Voltage, Over-Current, and Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- DoE Level VI
- Meets IEC 60950-1 2nd Edition
- Meets IEC 60601-1-2: 2014 4th Edition EMC Requirements

Note:

1. Ripple & Noise are measured with a 0.1 μ F multilayer capacitor & 0.10 μ F low ESR electrolytic capacitor in parallel and a 20 MHz bandwidth-limited scope.



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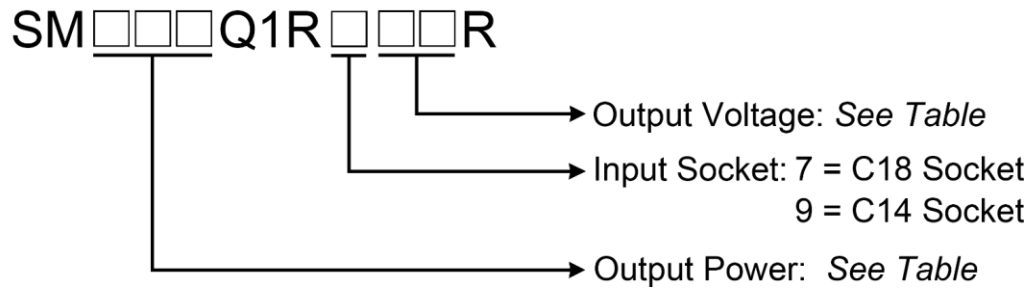
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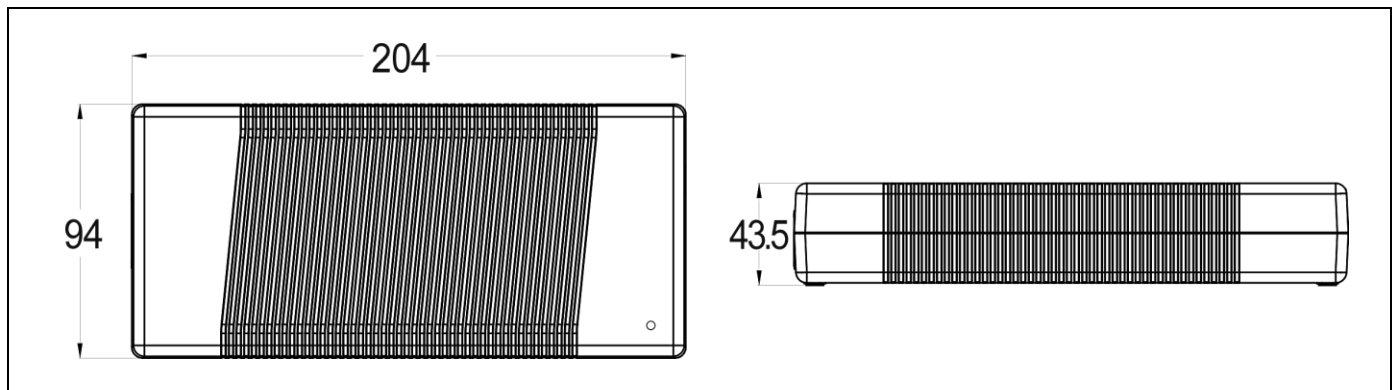
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Output Voltage and Current Table

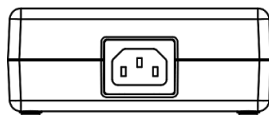
Model Number	Output Voltage	Output Current	Output Power
SM240Q1R_12R	12 Vdc	20.00 A	240 W
SM240Q1R_15R	15 Vdc	16.66 A	250 W
SM250Q1R_19R	19 Vdc	13.15 A	250 W
SM250Q1R_24R	24 Vdc	10.40 A	250 W
SM250Q1R_48R	48 Vdc	5.21 A	250 W



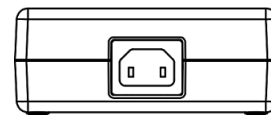
Mechanical Specification (mm)



SM_ _ _ Q1R9: C14 Input



SM_ _ _ Q1R7: C18 Input



Note: Output connector to be specified by customer.
APX will be happy to recommend the appropriate connector for your application needs.
The cable length and wire gauge will be dependent on the Energy Efficiency level requirements.



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Specification subject to
change without notice



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