



SM25Q1R – SM36Q1R Series

25 - 36 Watt AC-DC Medical Desktop Power Supply
IEC 60601-1-2 4th Ed. EMC, DoE Level VI

Date: 10/1/18

Rev: 060418

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The SM25Q1R – SM36Q1R Series switch mode power supply offers 25 Watts to 36 Watts output power, with an output voltage range of 5 Vdc – 24 Vdc. Case style is a desktop enclosure with choice of IEC-320 C6, C8, C14, or C18 input socket, with ES, EN and IEC 60601-1 3.1 Edition, IEC 60601-1-2 4th Edition (EMC), and IEC 60950-1 2nd safety approvals, and meets Energy Efficiency Level 6.

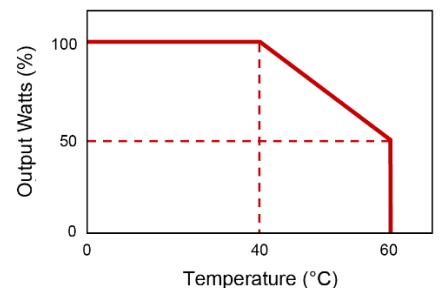


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	1 A Max
Leakage Current	< 100 μ A
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P) ¹	2% Max.
Over-Voltage Protection	200% Max.
Over-Current Protection	200% Max.
Transient Response	50% Load Change at 110 Vac Input: 0.5 ms Typ.
Efficiency	Meets DoE Level VI
No Load Power Consumption	< 0.1 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	See Derating Curve
Storage Temperature	-20 to 80°C
Industry Compliance	Directive 2011/65/EU (RoHS 2), DoE VI
Weight	170 – 210 g
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 Part 18 Class B
Safety Compliance	UR/cUR (ANSI/AAMI/ES 60601-1:2012 3.1 Ed.), TUV T- Mark (EN/IEC 60601-1 3.1 Ed.), CE, FCC, PSE CB (IEC 60601-1 3.1 Ed., UL/EN/IEC 60950-1 2 nd Ed.)

Features:

- Dual ITE and Medical Approvals
- 2x MOPP Protection
- IEC 320 C18, C14, C8, & C6 Input
- Touch Current < 100 μ A
- 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

Derating Curve



Derate Linearly from 100% at 40°C to 50% at 60°C

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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Output Voltage and Current Table

Model Number	Output Voltage	Output Current	Output Power
SM25Q1R_05R	5.0 Vdc	5.0 A	25 W
SM30Q1R_07R	7.5 Vdc	4.0 A	30 W
SM36Q1R_09R	9.0 Vdc	4.0 A	36 W
SM36Q1R_12R	12.0 Vdc	3.0 A	36 W
SM36Q1R_15R	15.0 Vdc	2.4 A	36 W
SM36Q1R_18R	18.0 Vdc	2.0 A	36 W
SM36Q1R_24R	24.0 Vdc	1.5 A	36 W

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Output Voltage: See Table

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

Output Power: See Table



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Specification subject to
change without notice



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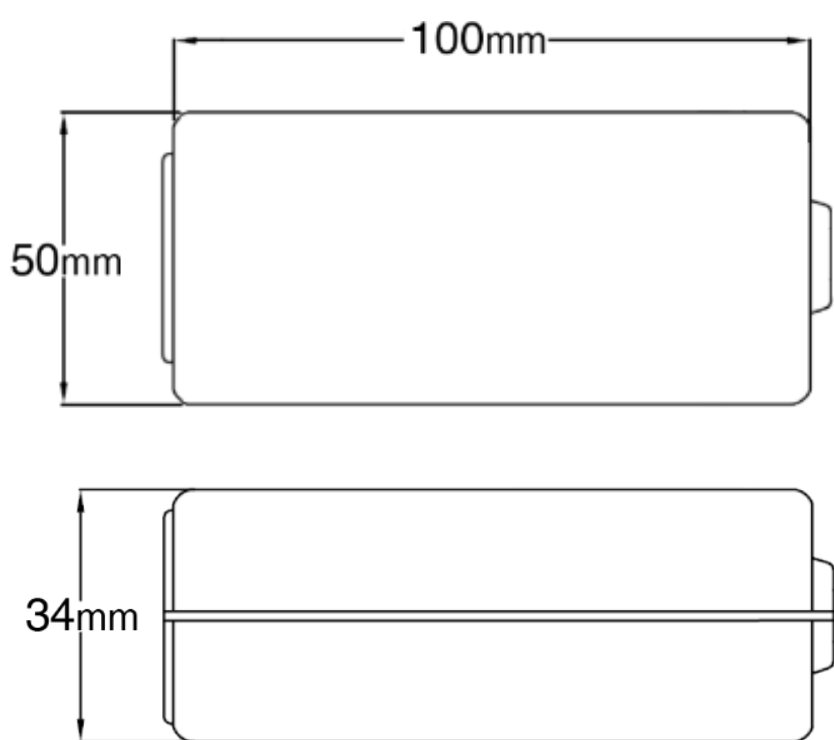
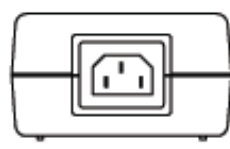
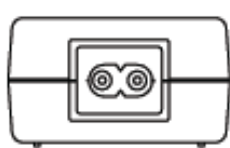
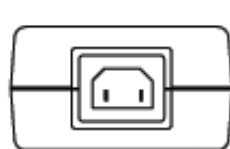
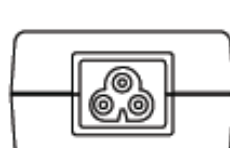
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Mechanical Specification (mm)

	SM__Q1R <u>9</u> (C14 Input)
	
	SM__Q1R <u>8</u> (C8 Input)
	
	SM__Q1R <u>Z</u> (C18 Input)
	
SM__Q1R <u>6</u> (C6 Input)	
	
<p>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.</p>	