



# SP150Q - 160Q Series

150 - 160 Watt AC - DC Desktop Power Supply  
UL/EN/IEC 62368-1 2<sup>nd</sup> Ed., DoE VI, CoC v5 Tier 2

Date: 10/4/18

Rev: 070118

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The SP150Q - SP160Q Series switch mode power supply offers 150 - 160 Watts output power, with an output voltage range of 12 - 56 Vdc. Case style is a desktop enclosure with choice of IEC 320 C6 and C14 input socket, with UL/EN/IEC 62368-1 2<sup>nd</sup> Edition and 60950-1 2<sup>nd</sup> Edition safety approvals, DoE Level 6, and CoC v5 Tier 2 efficiency.



Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	2.2 A Max.
Leakage Current	3.5 mA Max.
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P) <sup>1</sup>	1% Max.
Over-Voltage Protection	Unit is protected from over-voltage conditions
Over-Current Protection	Unit is protected from over-current conditions
Over-Temperature Protection	Unit is protected from over-temperature conditions
Temperature Coefficient	± 0.04% / °C Max.
Transient Response Time	50% Load Change: 0.5 ms
Efficiency	Meets DoE Level VI and CoC v5 Tier 2 Criteria
No Load Power Consumption	Meets DoE Level VI and CoC v5 Tier 2 Criteria
Load Regulation	± 5% Typ.
Hold-Up Time	10 ms 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
Weight	700 g (Ref.)
Industry Compliance	RoHS 2, DoE VI, CoC v5 Tier 2
EMC Requirements	EN 55024, EN 61000-3-2, -3-3
EMI Requirements	Meets Conduction and Radiation Limits of: FCC Part 15 Class B, CISPR-32 Class B, and EN 55032 Class B
Safety Compliance	UL/cUL (UL/CSA 62368-1:2 <sup>nd</sup> Ed., 60950-1:2 <sup>nd</sup> Ed.), GS (EN 60950-1:2 <sup>nd</sup> Ed.), CB (EN/IEC 62368-1:2 <sup>nd</sup> Ed.), RCM, CE, PSE, CCC, BSMI

## Features:

- Universal Input 100 - 240 Vac
- IEC 320 C14 and C6 Input
- Over-Voltage Protection
- Over-Current Protection
- Over-Temperature Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- DoE VI, CoC v5 Tier 2

### Note:

1. Ripple & Noise are measured w/ 0.1 µF ceramic capacitor & 47 µF electrolytic capacitor in parallel and a 20 MHz bandwidth-limited scope.



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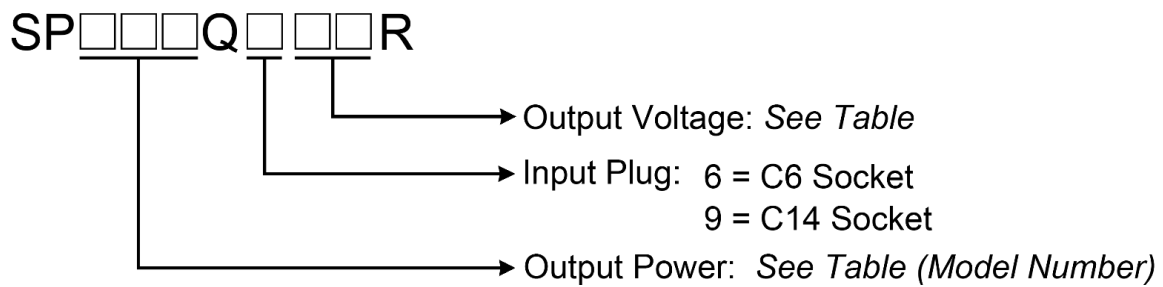
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## Output Voltage and Current Table

Model Number	Output Voltage	Output Current	Output Power
SP150Q_12R	12 Vdc	12.50 A	150 W
SP150Q_15R	15 Vdc	10.00 A	150 W
SP160Q_19R	19 Vdc	8.40 A	160 W
SP160Q_24R	24 Vdc	6.60 A	160 W
SP160Q_48R	48 Vdc	3.30 A	160 W
SP160Q_56R	56 Vdc	2.86 A	160 W





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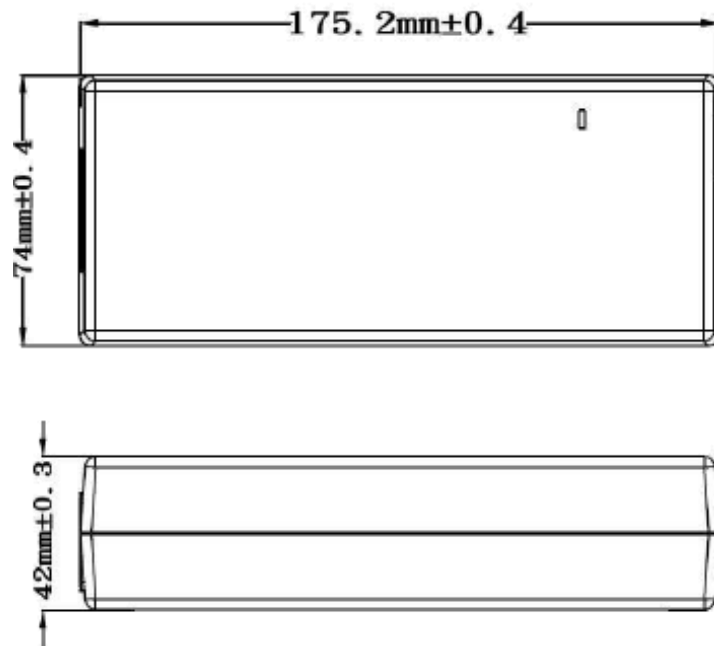
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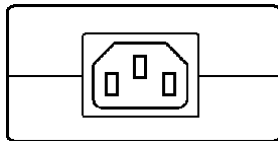
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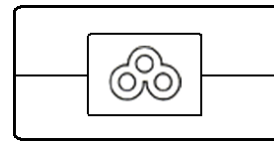
## Mechanical Specification (mm)



SP\_\_\_Q9: C14 Input



SP\_\_\_Q6: C6 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.