



SP60Q – SP72Q Series

60 - 72 Watt AC - DC Desktop Power Supply
UL/EN/IEC 62368-1 2nd Ed., DoE VI, CoC v5 Tier 2

Date: 10/4/18

Rev: 060118

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The SP65Q – SP72Q Series switch mode power supply offers 60 Watts to 72 Watts output power, with an output voltage range of 12 Vdc - 56 Vdc. Case style is a desktop enclosure with choice of IEC 320 C6, C8, and C14 input socket, with UL/EN/IEC 62368-1 2nd Edition and 60950-1 2nd Edition safety approvals, DoE Level 6, and CoC v5 Tier 2 efficiency.

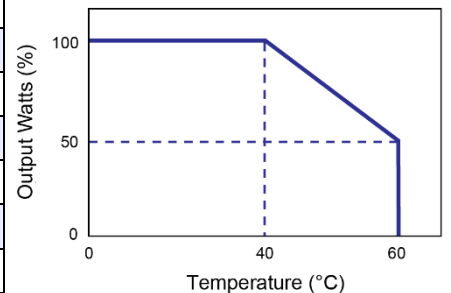


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	60 - 65 Watt Models: 1.4 A Max. 72 Watt Models: 1.6 A Max.
Leakage Current	C14 and C6 Models: 3.5 mA Max. C8 Models: 0.25 mA Max.
Withstanding Voltage	Primary to Secondary: 3000 Vac
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P) ¹	2% Max.
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	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	See Derating Curve
Storage Temperature	-20 to 80°C
Weight	310 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 nd Ed., 60950-1:2 nd Ed.), GS (EN 60950-1:2 nd Ed.), CB (EN/IEC 62368-1:2 nd Ed.), CE, RCM, PSE, CCC, BSMI, LPS

Features:

- Universal Input 100 - 240 Vac
- IEC 320 C14, C8, and C6 Input
- Over-Voltage Protection
- Over-Current Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- DoE Level VI
- CoC v5 Tier 2

Derating Curve



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

Note:

1. Ripple & Noise are measured with a 0.1 µF multilayer capacitor & 47 µF low ESR electrolytic capacitor in parallel and a 20 MHz bandwidth-limited scope.



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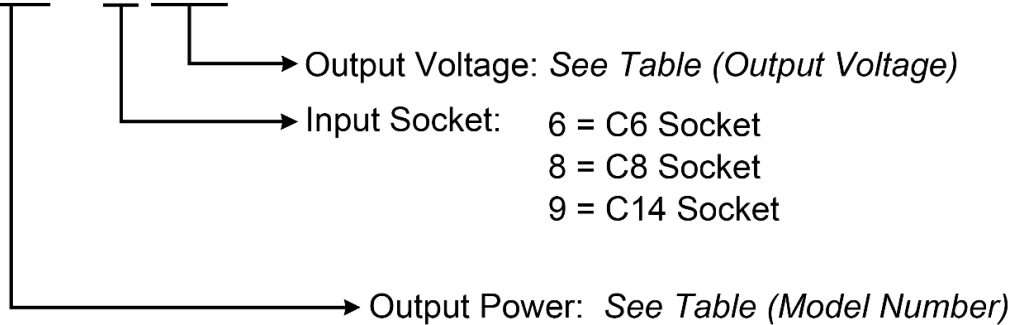
Output Voltage and Current Table

Model Number	Output Voltage	Output Current	Output Power
SP60Q_12R	12 Vdc	5.00 A	60 W
SP65Q_13R	13.5 Vdc	4.82 A	65 W
SP65Q_15R	15 Vdc	4.34 A	65 W
SP65Q_16R	16 Vdc	4.07 A	65 W
SP65Q_18R	18 Vdc	3.62 A	65 W
SP65Q_19R	19 Vdc	3.43 A	65 W
SP65Q_20R	20 Vdc	3.25 A	65 W
SP65Q_24R ¹	24 Vdc	2.71 A	65 W
SP72Q_24R	24 Vdc	3.00 A	72 W
SP65Q_30R	30 Vdc	2.17 A	65 W
SP65Q_32R ²	32 Vdc	2.04 A	65 W
SP65Q_48R	48 Vdc	1.36 A	65 W
SP65Q_56R	56 Vdc	1.17 A	65 W

Note:

1. The SP65Q_24R is available with peak current of 11.0 A.
2. The SP65Q_32R is available with peak current of 3.9 A.

SP Q R





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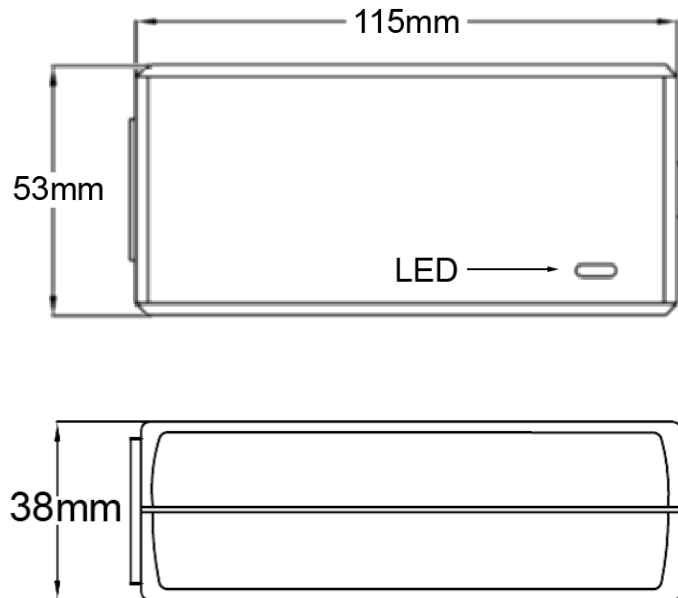
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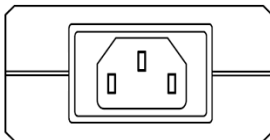
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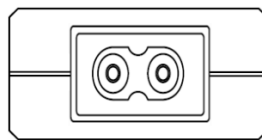
Mechanical Specification (mm)



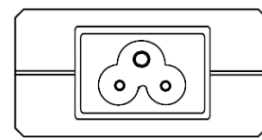
SP__Q9: C14 Inlet



SP__Q8: C8 Inlet



SP__Q6: C6 Inlet



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.