



# SP189Q1R - SP200Q1R Series

189 - 200 Watt AC - DC Desktop Power Supply  
UL/EN/IEC 62368-1 2<sup>nd</sup> Ed., DoE VI, CoC v5 Tier 2

Date: 9/27/18

Rev: 061418

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The SP189Q1R – SP200Q1R Series switch mode power supply offers 189 Watts to 200 Watts output power, with an output voltage range of 12 Vdc - 56 Vdc. Case style is a desktop enclosure with an IEC 320 C14 input socket, with UL/cUL, EN, IEC 62368-1 2<sup>nd</sup> Edition and UL/cUL, EN, IEC 60950-1 2<sup>nd</sup> Edition safety approvals, as well as DoE Level 6 and CoC v5 Tier 2.



Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	2.8 A Max.
Safety Ground 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	150% Max.
Over-Current Protection	150% Max.
Over- Temperature Protection	Unit is protected from over-temperature conditions
Transient Response	With 50% Load Change: 0.5 ms
Efficiency	Meets DoE VI and CoC v5 Tier 2 Criteria
No Load Power Consumption	Meets DoE VI and CoC v5 Tier 2 Criteria
Line Regulation	± 1% Max., at Full Load
Load Regulation	± 5% Typ.
Hold-Up Time	10 ms Min.
Withstanding Voltage	Primary to Secondary: 3000 Vac
Mean Time Between Failure	300,000 Hrs. Min (Telcordia, Full Load at 25°C)
Operating Temperature	0 to 40°C
Storage Temperature	-20 to 80°C
Weight	850 g (Typical)
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.), CE, GS (EN 60950-1:2 <sup>nd</sup> Edition), CB (ENIEC 62368-1:2 <sup>nd</sup> Ed.), RCM, PSE, BSMI, CCC

## Features:

- Universal Input 100 - 240 Vac
- IEC 320 C-14 Input
- Internal Primary Current Fuse
- Over-Voltage Protection
- Over-Current Protection
- Over-Temperature Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- Energy Efficiency Level: DoE VI
- CoC v5 Tier 2

### Notes:

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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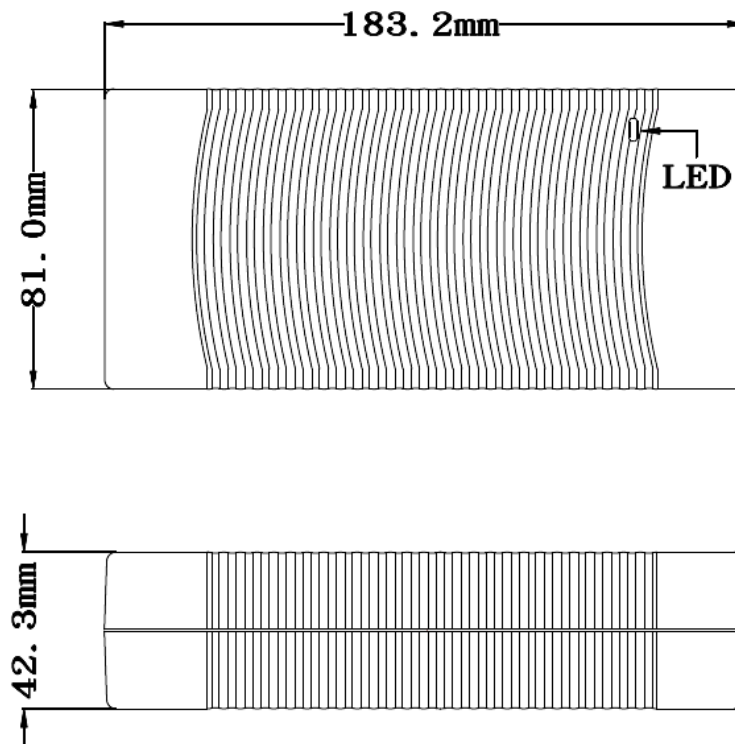
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## Output Voltage and Current Table

Model Number	Output Voltage	Output Current	Output Power
SP192Q1R912R	12 Vdc	16.00 A	192 W
SP189Q1R913R	13.5 Vdc	14.00 A	189 W
SP200Q1R919R	19 Vdc	10.50 A	200 W
SP200Q1R924R	24 Vdc	8.30 A	200 W
SP200Q1R948R	48 Vdc	4.17 A	200 W
SP200Q1R956R	56 Vdc	3.58 A	200 W

## Mechanical Specification (mm)



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.