



# SP07Q1RY - SP15Q1RY Series

7 - 15 Watt AC-DC ITE Wall Plug-In Power Supply  
UL/EN/IEC 62368-1 2<sup>nd</sup> Ed., DoE Level VI, CoC v5 Tier 2

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The SP07Q1RY – SP15Q1RY Series switch mode power supply offers 7 Watts to 15 Watts output power, with an output voltage range of 3.3 Vdc – 24 Vdc. Case style is a wall plug-in with choice of fixed US/Japan, Euro, UK, Australia, Korea, and China prongs. Approved to UL/EN/IEC 62368-1 2<sup>nd</sup> Edition and 60950-1 2<sup>nd</sup> Edition Safety approvals, with DoE Level 6 and CoC v5 Tier 2 Efficiency.

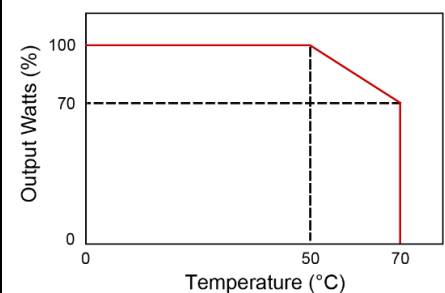


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	0.32 – 0.19 A
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P) <sup>1</sup>	2% Max.
Over-Voltage Protection	Protected from over-voltage conditions
Over-Current Protection	Protected from over-current conditions
Transient Response	50% Load Change: 0.5 ms Typ.
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.
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	RoHS 2, DoE VI, and CoC v5 Tier 2
Weight	140 – 148 g (Ref.)
EMC Requirements	EN 55024, EN 61000-3-2, -3-3
EMI Requirements	Class B: FCC Part 15, CISPR-32, EN 55032
Safety Compliance	<b>US:</b> UL/cUL (UL/CSA 62368-1:2 <sup>nd</sup> Ed., 60950-1:2 <sup>nd</sup> Ed.), PSE, BSMI, CB <b>EU:</b> TUV/GS (EN 60950-1:2 <sup>nd</sup> Ed.), CE, CB (EN 62368-1:2 <sup>nd</sup> Ed.) <b>UK:</b> CE, CB (IEC 62368-1:2 <sup>nd</sup> Ed.) <b>AU:</b> RCM (GEMS Registration Required), CB (IEC 62368-1:2 <sup>nd</sup> Ed.) <b>KC:</b> KC, CB (IEC 62368-1:2 <sup>nd</sup> Ed.) <b>CN:</b> CCC, CB (IEC 62368-1:2 <sup>nd</sup> Ed.)

## Features:

- Fixed U.S./Japan, Euro, U.K., Australian, Korea, and China AC Prongs
- Over-Voltage, Over-Current, and Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- Efficiency: DoE Level VI and CoC Tier 2

## Derating Curve



Derate Linearly from 100% at 50°C to 70% at 70°C

### 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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Specification subject to  
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### Output Voltage and Current Table

Model Number	Output Voltage	Output Current	Output Power
SP07Q1R_03R	3.3 Vdc	2.00 A	6.6 W
SP10Q1R_05R	5.0 Vdc	2.00 A	10.0 W
SP15Q1R_05R	5.0 Vdc	3.00 A	15.0 W
SP12Q1R_06R	5.9 Vdc	2.00 A	11.8 W
SP11Q1R_09R	9.0 Vdc	1.20 A	10.8 W
SP12Q1R_12R	12.0 Vdc	1.00 A	12.0 W
SP12Q1R_15R	15.0 Vdc	0.80 A	12.0 W
SP12Q1R_18R	18.0 Vdc	0.67 A	12.0 W
SP12Q1R_24R	24.0 Vdc	0.50 A	12.0 W

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Output Voltage: See Table

Input Plug:

U = U.S. Plug (US)

E = Europe Plug (EU)

B = British Plug (UK)

A = Australia Plug (AU)

KC = Korea Plug (KC)

C = China Plug (Ch)

Output Power: See Table



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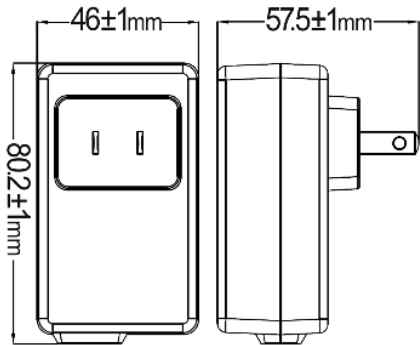
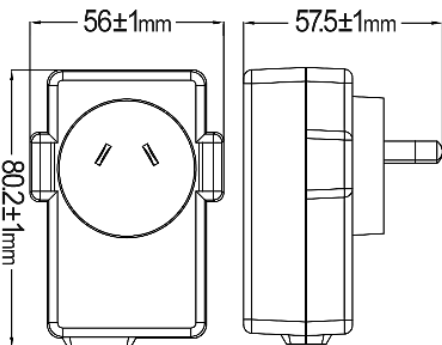
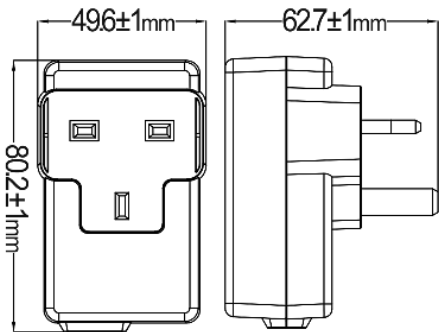
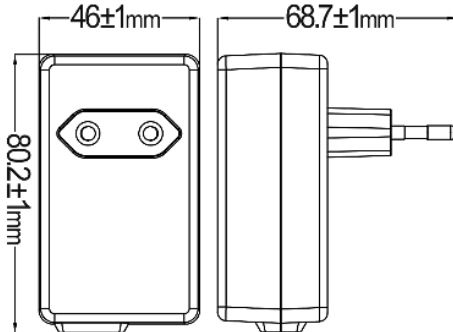
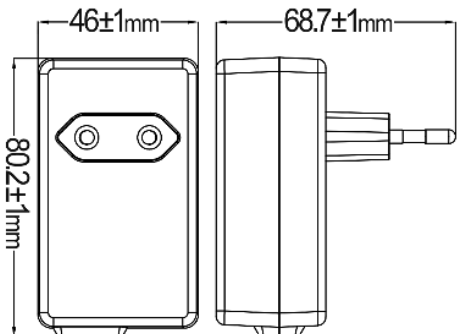
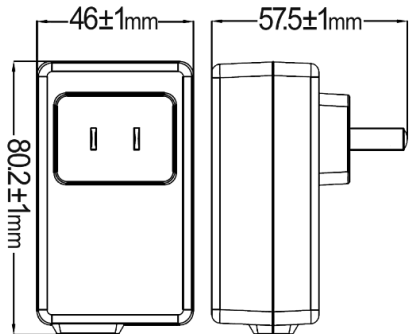
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### Mechanical Specification (mm)

<b>SP__Q1RU:</b> <i>US/Japan Plug</i> 	<b>SP__Q1RA:</b> <i>Australia Plug</i> 
<b>SP__Q1RB:</b> <i>British Plug</i> 	<b>SP__Q1RE:</b> <i>Europe Plug</i> 
<b>SP__Q1RK:</b> <i>Korea Plug</i> 	<b>SP__Q1RC:</b> <i>China Plug</i> 
<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>	



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