



SP05DS1R - SP12DS1R Series

5 - 12 Watt AC - DC Wall Plug-In Power Supply
Energy Efficiency Level VI, RoHS 2 Compliant

Date: 8/16/16

Rev: 080816

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The SP05DS1R - SP12DS1R Series switch mode power supply offers 5 - 12 Watts output power, with an output voltage range of 4 Vdc – 24 Vdc. Case styles include U.S., European, British, Australian, and China input prongs, with UL/cUL, EN and IEC 60950-1 2nd Edition safety approvals, and Energy Efficiency Level 6.

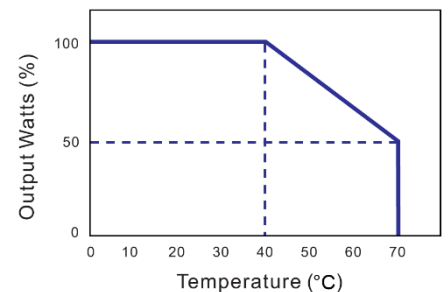


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	0.4 A Max.
Inrush Current	80 A Max.
Leakage Current	0.25 mA Max.
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	100 - 150 mV <i>Measured w/ 0.1 µF ceramic capacitor & 10 µF electrolytic capacitor in parallel</i>
Over-Current Protection	150 – 200%
Over-Voltage Protection	150 – 200%
Temperature Coefficient	± 0.04% / °C Max.
Transient Response Time	Load Change from 20% - 80%: ≤ 1 ms
Efficiency	Meets Energy Efficiency Level VI Criteria
No Load Power Consumption	Meets Energy Efficiency Level VI Criteria
Load Regulation	± 5% (Typ.)
Start-up Time	3 s Max.
Withstanding Voltage	Primary to Secondary: 4,242 Vdc Primary to Case: 4,242 Vdc
Mean Time Between Failure	Full Load at 25°C Ambient: 100,000 Hours Min.
Operating Temperature	See Derating Curve
Storage Temperature	-20 to 80 °C
Weight	100 - 151 g (Ref.)
Industry Compliance	RoHS 2, Energy Efficiency Level VI
EMI Requirements	Meets Conduction and Radiation Limits of: FCC Part 15 Class B, CISPR-22 Class B, and EN 55022 Class B
Safety Compliance	U.S. Model: ETL/c-ETL (UL 60950-1:2nd Edition) FCC, CB British & European Model: CE (EN 60950-1:2nd Edition), TUV/GS, CB Australian Model: RCM, CB China Model: CCC, CB

Features:

- Universal Input 100 - 240 Vac
- Available with U.S., European, British, Australian, and China Input Plugs
- Over-Current Protection
- Over-Voltage Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- Energy Efficiency Level: VI

Derating Curve



Derate Linearly from 100% at 40°C to 50% at 70°C



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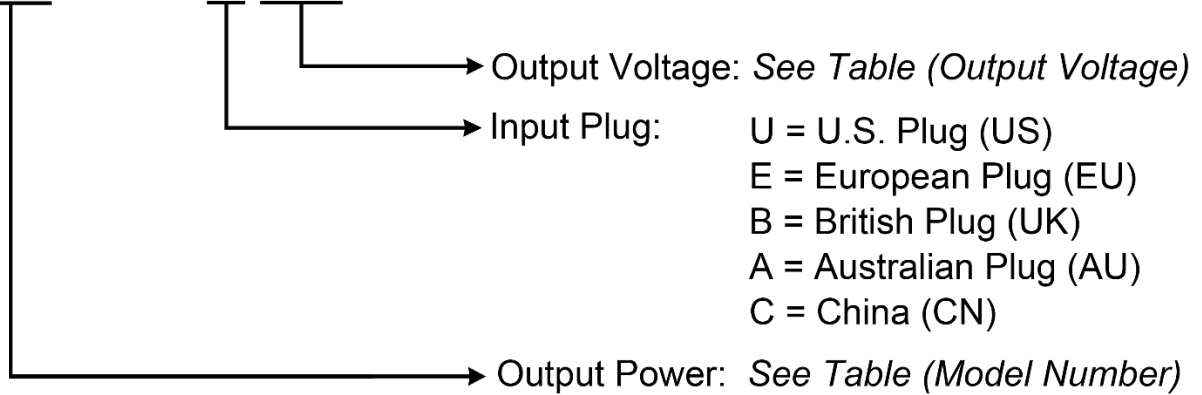
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Output Voltage and Current Table

Model Number	Output Voltage	Maximum Output Current <i>Limited to Output Power*</i>	Maximum Output Power
SP05DS1R__R	4 – 24 Vdc	1.25 – 0.21 A	5 W
SP06DS1R__R	4 – 24 Vdc	1.50 – 0.25 A	6 W
SP07DS1R__R	4 – 24 Vdc	1.75 – 0.30 A	7 W
SP08DS1R__R	4 – 24 Vdc	2.00 – 0.33 A	8 W
SP09DS1R__R	4 – 24 Vdc	2.25 – 0.38 A	9 W
SP10DS1R__R	4 – 24 Vdc	2.40 – 0.42 A	10 W
SP11DS1R__R	5 – 24 Vdc	2.20 – 0.46 A	11 W
SP12DS1R__R	5 – 24 Vdc	2.40 – 0.50 A	12 W

* To find Output Current: $\text{Output Current} = \text{Max Power} \div \text{Output Voltage}$
Example: Output Current for SP08DS1R_05R
(5 Vdc Output)
 $\text{Output Current} = 8 \text{ W} \div 5 \text{ V}$
 $\text{Output Current} = 1.6 \text{ A}$

SP DS1R R





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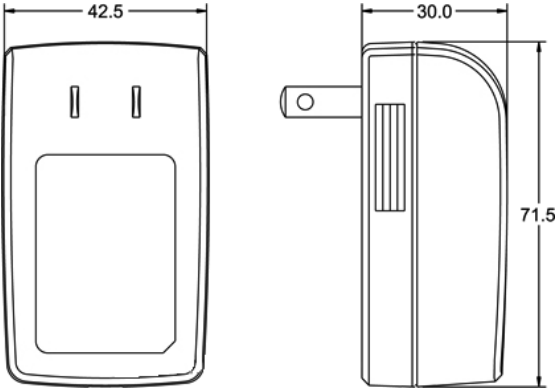
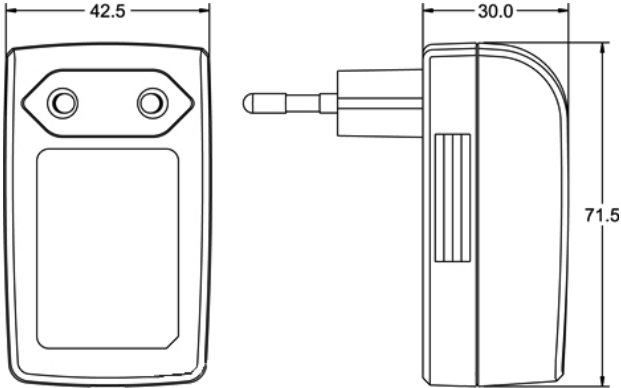
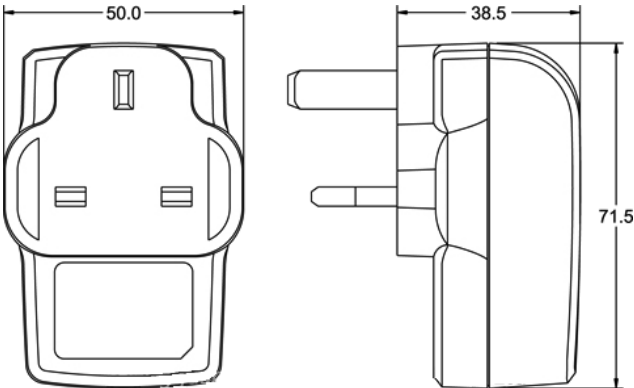
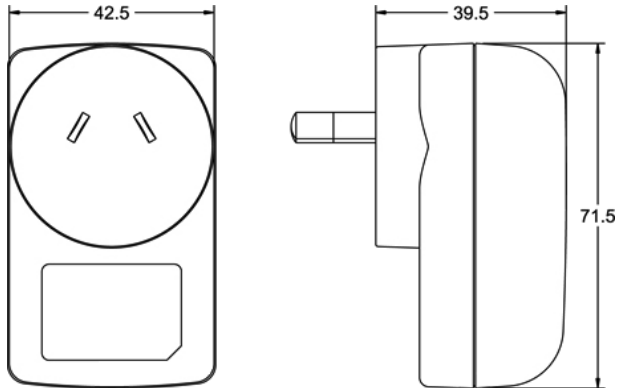
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Mechanical Specification (mm)

SP__DS1R <u>U</u> : U.S. Plug	SP__DS1R <u>C</u> : China Plug	SP__DS1R <u>E</u> : European Plug
		
SP__DS1R <u>B</u> : British Plug	SP__DS1R <u>A</u> : Australian Plug	
		
<p>Note: Standard connector is a 2.5 x 5.5 x 11 mm female barrel plug, center positive (+). The cable length and wire gauge will be dependent on Energy Efficiency requirements for each current level.</p>		