



# SP10DS6R – SP40DS6R Series

10 - 40 Watt AC - DC Desktop Power Supply  
DoE Level VI, RoHS 2 Compliant

Date: 9/28/18

Rev: 081518

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The SP10DS6R – SP40DS6R Series switch mode power supply offers 10 - 40 Watts output power, with an output voltage range of 12 Vdc - 30 Vdc. Case style is a desktop enclosure with IEC320 C8 input socket, with UL/cUL, EN, IEC 60950-1 2<sup>nd</sup> Edition and UL/cUL, EN, IEC 60065 8<sup>th</sup> Edition safety approvals, and DoE Level 6.



Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current	1.0 A Max.
Inrush Current	60 A Max.
Leakage Current	0.25 mA Max., at 264 Vac, 50 Hz
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P) <sup>1</sup>	250 mV
Over-Current Protection	120 – 200%, Max.
Over-Voltage Protection	120 – 200%, Max.
Dynamic Response Time	Load Change from 20% - 80% with 0.25 A/ $\mu$ s: $\leq$ 8 ms
Efficiency	Meets DoE Level VI Criteria
No Load Power Consumption	Meets DoE Level VI Criteria
Load Regulation	$\pm$ 5% (Typ.)
Start-up Time	3 s
Hold-up Time	5 ms
Output Capacitive Loading	470 $\mu$ F Max.
Withstanding Voltage	Primary to Secondary: 4,242 Vdc
Mean Time Between Failure	Full Load at 25°C Ambient: 100,000 Hours Min.
Operating Temperature	0 to 45°C
Storage Temperature	-20 to 80°C
Weight	140 g (Ref.)
Industry Compliance	Directive 2011/65/EU (RoHS 2), Energy Efficiency Level VI (CoC v5 Tier 2 available)
EMC Requirements	EN 55024, EN 61000-3-2, -3-3
EMI Requirements	Meets Conduction and Radiation Limits of: Class B: FCC Part 15, CISPR-32, EN 55032, and EN 55035
Safety Compliance	IEC 60950-1:2 <sup>nd</sup> Ed. (ITE): cETLus, GS, CE, CB, RCM, LVD IEC 60065:8 <sup>th</sup> Ed.: cETLus, GS, CE, CB, RCM, LVD, (Audio/Video) CCC, PSE, BSMI, S-Mark (Argentina)

## Features:

- Universal Input 100 - 240 Vac
- Available with IEC320 C8 Input
- Over-Current Protection
- Over-Voltage Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- Energy Efficiency Level:
  - DoE VI
  - CoC v5 Tier 2 available

### Note:

1. Ripple & Noise are measured with a 0.1  $\mu$ F multilayer capacitor & 10  $\mu$ F 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 Range	Output Current Range <sup>1</sup>	Output Power Range <sup>2</sup>
SP __ DS6R48 __ R	12 – 30 Vdc	0.83 – 3.33 A	10 – 40 W

**Note:**

1. To find Output Current:

Output Current = Output Power ÷ Output Voltage

Example: Output Current for SP25DS6R4815R  
(25 Watts Power, 15 Vdc Output)

Output Current = 25 W ÷ 15 V

Output Current = 1.66 A

2. To find Output Power:

Output Power = Output Voltage x Output Power

Example: Output Power for 12 Vdc @ 2.5 A

Output Power = 12 V x 2.5 A

Output Current = 30 W

P/N: SP30DS6R4812R

SP       DS6R48       R

→ Output Voltage: See Table

→ Output Power: See Table



# SP10DS6R – SP40DS6R Series

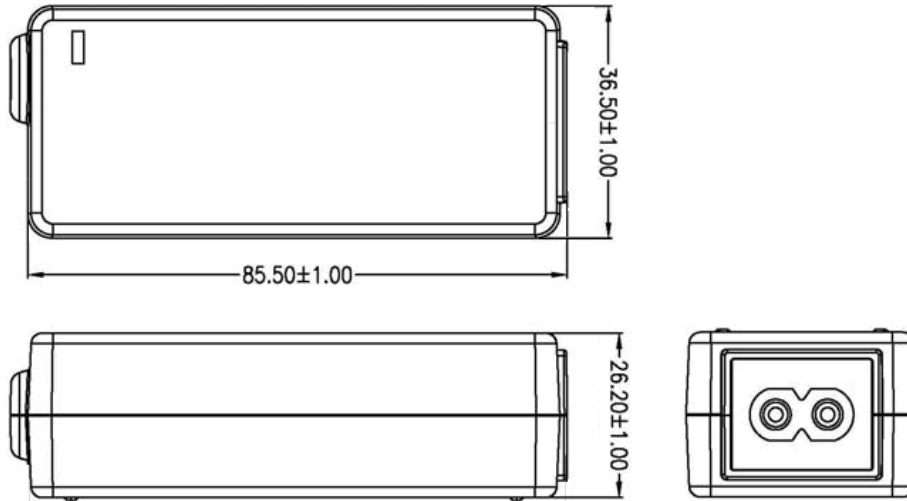
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## Mechanical Specification (mm)



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.