



SP131P Series

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

Date: 11/12/18

Rev: 070118

Page: 1 of 3

The SP131P Series switch mode power supply offers 130 Watts output power, with an output voltage range of 12 Vdc – 55 Vdc. Case style is a desktop enclosure with an IEC-320 C14 input socket, with UL/cUL, EN and IEC 60950-1 2nd Edition safety approvals, and DoE Level 6 efficiency.

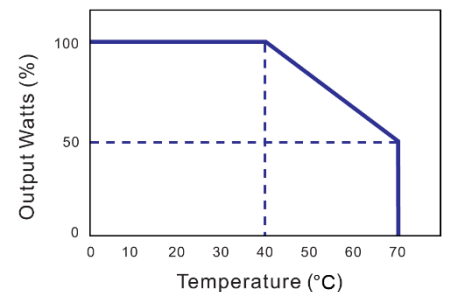


Input Voltage	90 to 260 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	1.58 A typ. at 100 Vac
Input Current (High Line)	0.65 A typ. at 240 Vac
Power Factor Correction	0.95 – 1
Safety Ground Leakage Current	0.75 mA Max. at 240 Vac, Full Load
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	See Table on Page 2
Over-Voltage Protection	112 – 132% Max.
Over-Load Protection	110 – 150% Max.
Temperature Coefficient	± 0.04% / °C Max.
Transient Response	50% Load Change at 110 Vac Input: 4 ms Max.
Efficiency	88 – 89% Typ.
No Load Power Consumption	< 0.21 W
Line Regulation	± 1% Max. at Full Load, 100 – 120 Vac Input
Load Regulation	± 5% Max. at 230 Vac Input, 10 – 90% Load Change
Start-Up Time	2 s Max.
Hold-Up Time	16 ms Min.
Withstanding Voltage	Primary to Secondary: 4,242 Vdc Max. Primary to Ground: 2,121 Vdc Max.
Inrush Current	30 A Max. @ 100Vac, 25°C Cold Start 72 A Max. @ 240Vac, 25°C Cold Start
Mean Time Between Failure	Full Load at 25°C: 100,000 Hours Min. (MIL-HDBK-217F)
Operating Temperature	See Derating Curve
Storage Temperature	-40 to 85 °C
Weight	778 - 800 g (Ref.)
Industry Compliance	Directive 2011/65/EU (RoHS 2), DoE Level VI
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 60950-1:2 nd Ed.), TUV/GS (EN 60950-1:2 nd Ed.) CE, CB, FCC, PSE, CCC

Features:

- Universal Input 100 - 240 Vac
- IEC 320 C14 Input
- Active Power Correction
- Optional On/Off Switch
- Over-Voltage Protection
- Over-Load Protection
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- DoE Level VI

Derating Curve



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



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Page: 2 of 3

Output Voltage and Current Table

Model Number	Output Voltage	Output Current <i>Limited to Output Power¹</i>	Ripple & Noise ² (P-P)	Output Power
SP131P9__R	12 - 13 Vdc	10.83 – 10.00 A	130 mV	130 W
SP131P9__R	14 – 16 Vdc	9.28 – 8.12 A	150 mV	130 W
SP131P9__R	17 – 21 Vdc	7.64 – 6.19 A	150 mV	130 W
SP131P9__R	22 – 27 Vdc	5.90 – 4.81 A	200 mV	130 W
SP131P9__R	28 – 33 Vdc	4.64 – 3.94 A	200 mV	130 W
SP131P9__R	34 – 40 Vdc	3.82 – 3.25 A	250 mV	130 W
SP131P9__R	41 – 50 Vdc	3.17 – 2.60 A	250 mV	130 W
SP131P9__R	51 – 55 Vdc	2.55 – 2.36 A	300 mV	130 W

SP131P9 R

→ Output Voltage: See Table (Output Voltage)

Notes:

- To find Output Current:

Output Current = Max Power ÷ Output Voltage

Example: Output Current for SP131P924R (24 Vdc Output, 130 Watts)

Output Current = 130 W ÷ 24 V

Output Current = 5.42 A

- Measured w/ 0.1 µF ceramic capacitor & 47 µF electrolytic capacitor in parallel and a 20 MHz Bandwidth-limited scope.



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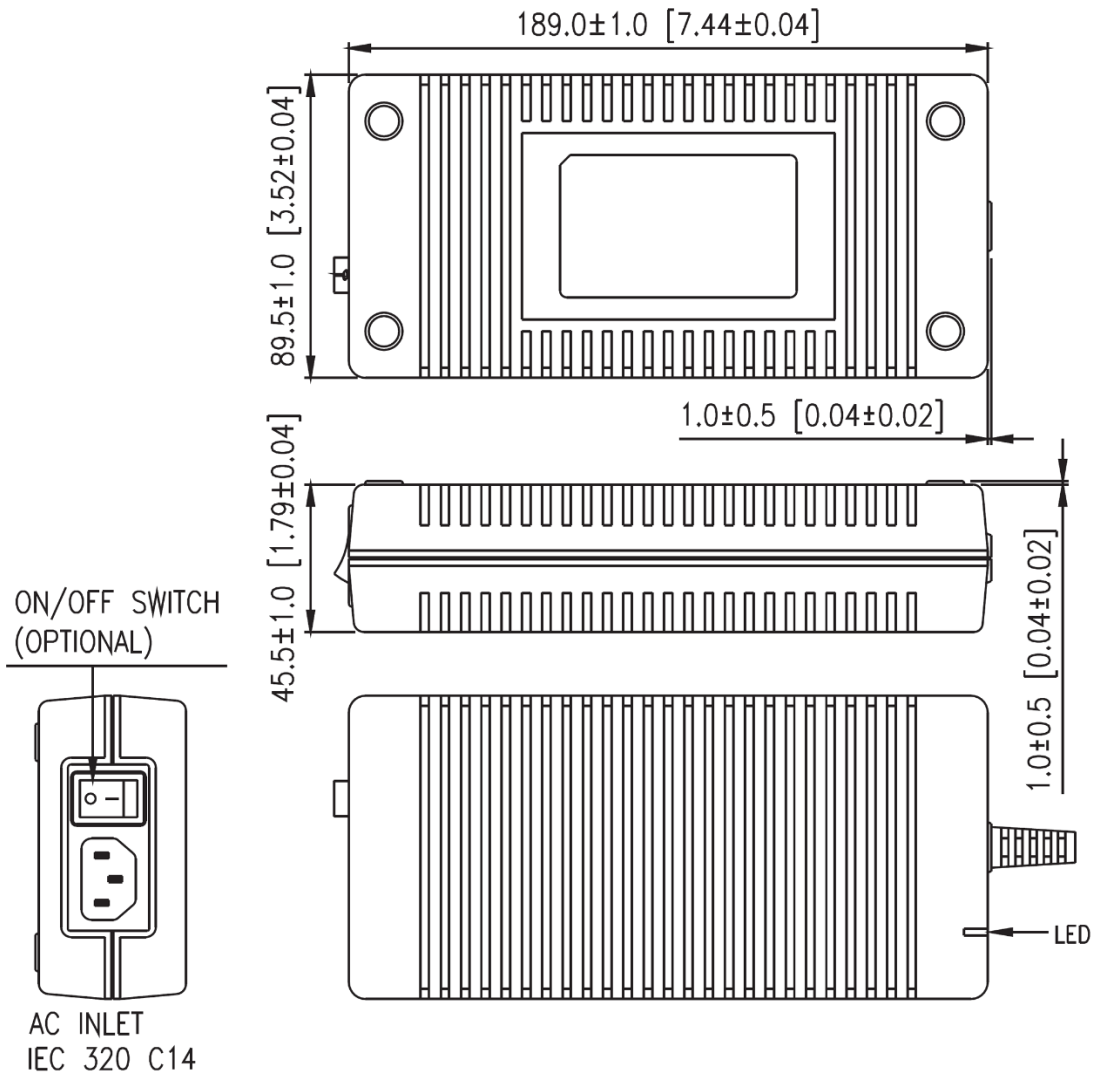
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Date: 11/12/18

Rev: 070118

Page: 3 of 3

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.



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Specification subject to
change without notice