

SL POWER SLE60PD SERIES

60 Watts Single Output
External Power Adapters



Medical



Industrial



Advanced Energy's SL Power SLE60PD series AC-DC power adapters feature both medical and ITE safety approvals. It delivers up to 60 W output with USB-C PD (Power Delivery), and meets Department of Energy Level VI and European Code of Conduct V5 Tier 2 Directive efficiency standards.

AT A GLANCE

Total Power

60 Watts

Input Voltage

90 to 264 VAC

of Outputs

Single



SPECIAL FEATURES

- Medical and ITE safeties
- USB-C with power delivery output
- Suitable for medical equipment up to class BF
- $\leq 0.15\text{W}$ standby power
- 2 x MOPP input to output isolation
- Overvoltage, overcurrent and short circuit protection
- EU CoC V5 Tier 2 compliant
- DoE Efficiency level VI
- Up to 5000 m operating altitude
- Low leakage current less than 100 μA
- AC inlet IEC60320 C8 (class II) or interchangeable (class II) plugs

SAFETY

- CB Medical: IEC 60601-1
ANSI/AAMI ES 60601-1
ITE: IEC 62368-1,
UL 62368-1
- UL Medical: CAN/CSA C22.2.
No. 60601-1
ITE: CAN/CSA C22.2
No. 62368-1
- TUV Medical: EN 60601-1
ITE: EN 62368-1

ELECTRICAL SPECIFICATIONS

Input	
Input Voltage Range	90 to 264 VAC
Frequency	47 to 63 Hz
Input Current	1.3 A @ 90 VAC
Inrush Current	100 A @ 240 VAC cold start
Touch Leakage Current	≤ 100 μA @ 264 VAC
Isolation Safety Rating	Input to output: 4,000 VAC (2 x MOPP)
Dielectric Withstand Voltage	Input to output: 4,000 VAC
Insulation Resistance	Input to output: 10 Mohms, 500 VDC
Output	
Output Voltage	5 V, 9 V, 12 V, 15 V, 20 V
Voltage Regulation	±5%
Start-up Delay	≤ 3 s
Overvoltage Protection	120% to 200% rated output voltage, recycle input to reset
Overload Protection	120% to 200% rated output power, auto-recovery
Short Circuit Protection	Trip and restart, hiccup mode

RELIABILITY

MTBF	> 100,000 hours MIL-HDBK-217 at 25°C
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ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 to +40°C ambient
Storage Temperature	-20 to +70°C
Operating Humidity	5% to 95% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000 m
Weight	185 g (Desktop); 205 g (Wall plug)
Dimension	51.5 x 88.0 x 28.0 mm
Packing Quantity	Desktop: 16.8 Kg box - 80/carton; Wall plug: 14.3 Kg box - 60/carton

EMC/EMI COMPLIANCE

Conducted Emissions	Medical: IEC/EN 60601-1-2, CISPR 11 ITE: EN 55032, Class B, CISPR 22
Radiated Emissions	Medical: IEC/EN 60601-1-2, CISPR 11 ITE: EN 55032 Class B, CISPR 22
Immunity	Medical: IEC/EN 60601-1-2 ITE: EN 55024, CISPR 24
Electro-Static Discharge (ESD) Immunity on Power Ports	EN 61000-4-2, ±15 kV air, ±8 kV contact
Radiated RF EM Fields Susceptibility	EN 61000-4-3, 10 V/m, 3 V/m (80 MHz to 2700 MHz)
Electrical Fast Transients (EFT) / Bursts	EN 61000-4-4, ±2 kV on AC port, ±1 kV on signal ports
Surges, Line to Line (DM) and Line to Ground (CM)	EN 61000-4-5, ±2 kV line to ground, ±1 kV line to line (diff mode)
Conducted RF Immunity	EN 61000-4-6, 3 Vrms, 6 Vrms (0.15 MHz to 80 MHz)
Power Frequency Magnetic Field Immunity	EN 61000-4-8, 30 A/m
Voltage Dip Immunity	EN 61000-4-11, 0%, 70%, 0% of UT
Harmonic Current Emissions	EN 61000-3-2, Class A
Flicker Test	EN 61000-3-3

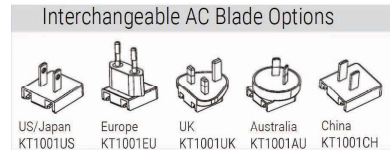
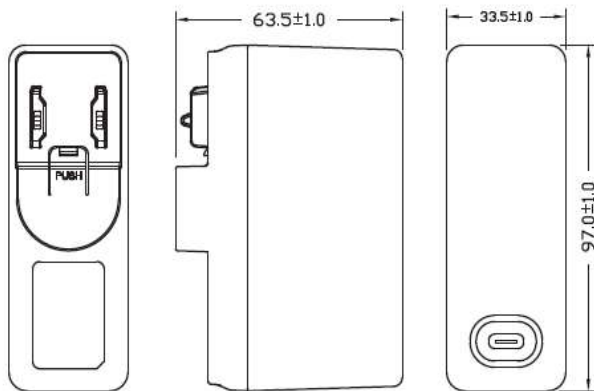
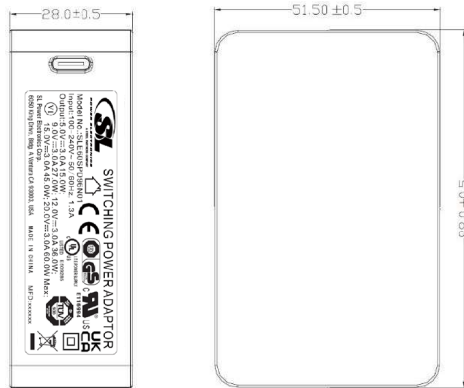
ORDERING INFORMATION - SLE60PD SERIES

Model Number ²	Maximum Power	Output Voltage	Maximum Load	Ripple & Noise ¹	Line Regulation	Load Regulation	Input Configuration ^{3,4}
SLE60SPD96N01	60 W	5, 9, 12, 15, 20 V	3 A	150 mV pk-pk	± 2%	± 5%	Class II Desktop, IEC60320 C8 Receptacle
SLE60SPD96B01	60 W	5, 9, 12, 15, 20 V	3 A	150 mV pk-pk	± 2%	± 5%	Class II Interchangeable Blades (Sold Separately)

Note:

1. Measured at output connector with 20 MHz bandwidth and 0.1 µF ceramic in parallel with 10 µF electrolytic capacitors.
2. "N" in the model number (SLE60SPD96N01) indicates IEC60320 C8 inlet (class II).
3. Power supply is not provided with a line cord.
4. Power supply is not provided with a USB-C cable.
5. Power supplies are not medical equipment (applied parts), medical product manufacturers take responsibility for further evaluation of class B/BF/CF compliance of their end product.

MECHANICAL DRAWINGS



DC Connector: USB TYPE-C

Unit: mm



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ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE | TRUST

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