

# SL POWER SLE18 SERIES

18 W Single Output External Power Adapters



Advanced Energy's SL Power SLE18 series of plug-in wall-mount AC-DC power adapters feature both medical and ITE safety approvals. It meets Department of Energy Level VI and European Code of Conduct V5 Tier 2 Directive efficiency standards.

#### SPECIAL FEATURES

- Medical and ITE safeties
- Interchangeable AC plugs
- 2 x MOPP input to output isolation
- Suitable for medical equipment up to class BF
- Low leakage current less than 100 μA
- Overvoltage, overcurrent and short circuit protection
- EU CoC V5 Tier 2 compliant
- DoE Efficiency level VI
- $\blacksquare\,\leqslant\,0.075$  W standby power
- Up to 5000 m operating altitude

## 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
- RCM ITE: AS/NZS 62368-1

#### AT A GLANCE

#### **Total Power**

18 W

#### **Input Voltage**

90 to 264 VAC

#### # of Outputs

Single



### **ELECTRICAL SPECIFICATIONS**

Input				
Input Voltage Range	90 to 264 VAC			
Frequency	47 to 63 Hz			
Input Current	0.5 A @ 90 VAC			
Inrush Current	70 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: 5,656 VDC			
Insulation Resistance	Input to output: 100 Mohms, 500 VDC			
Output				
Output Voltage	5.0 V, 12.0 V, 18.0 V, 24.0 V			
Voltage Regulation	±6% for 5.0 V model, ±5% for other models			
Start-up Delay	≤ 3 s			
Overvoltage Protection	120% to 150% rated output voltage, recycle input to reset			
Overload Protection	120% to 150% rated output power, auto-recovery			
Short Circuit Protection	Trip and restart, hiccup mode			

## RELIABILITY

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

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 to +45°C ambient		
Storage Temperature	-20 to +60°C		
Operating Humidity	10% to 90% RH, non-condensing		
Storage Humidity	5% to 90% RH		
Operating Altitude	5,000 m		
Weight	140 g		
Dimension	88 x 30 x 57 mm		
Packing Quantity	Individual box: 60/carton, egg-crate: 50/carton		



## **EMC/EMI COMPLIANCE**

Conducted Emissions	Medical: IEC/EN 60601-1-2, CISPR 11			
	ITE: EN 55022, CISPR 22			
Radiated Emissions	Medical: IEC/EN 60601-1-2, CISPR 11 ITE: EN 55022, 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, ±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 - SLE18 SERIES**

Model Number <sup>3,4,5</sup>	Maximum Power	Output Voltage¹	Maximum Load	Ripple & Noise <sup>2</sup>	Line Regulation	Load Regulation	Efficiency (Average)
SLE18S0503B01	15.0 W	5.0 V	3.0 A	200 mV pk-pk	± 1%	± 5%	81.84%
SLE18S1203B01	18.0 W	12.0 V	1.5 A	200 mV pk-pk	± 1%	± 5%	85.05%
SLE18S1803B01	18.0 W	18.0 V	1.0 A	200 mV pk-pk	± 1%	± 5%	85.19%
SLE18S2403B01	18.0 W	24.0 V	0.7 A	200 mV pk-pk	± 1%	± 5%	85.26%
SLE18S0599B01	15.0 W	5.0 V	3.0 A	200 mV pk-pk	± 1%	± 5%	81.84%

Note:

1. Other output voltages in the range of 5 V through 24 V are available, contact our sales reprentative for details.

2. Measured at output connector with 20 MHz bandwidth and 0.1  $\mu\text{F}$  ceramic in parallel with 10  $\mu\text{F}$  electrolytic capacitors.

3. "B" in the model number (SLE18S0503B01) indicates interchangeable blade model.

4. "03" in the model number indicates 2.5 x 5.5 x 9.5 mm straight barrel type connector. "99" indicates USB "A" port output.

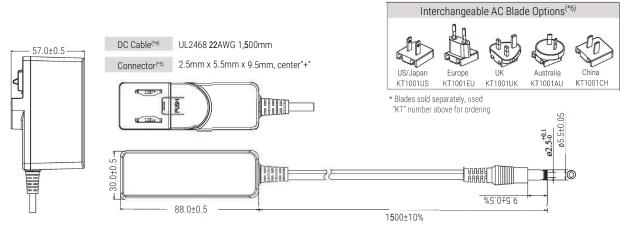
Other output connector options are available, please contact our sales representative for details.

5. Power supply is not fitted with the AC blade, this is to be ordered separately. See outline drawing below for details.

6. 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.

### SLE18

### MECHANICAL DRAWINGS



Unit: mm





Advanced Energy (AE) has devoted more than four 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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