



LEAN LINE  
SL POWER ELECTRONICS



Medical



Industrial

## FEATURES AND BENEFITS

Medical & ITE Safety Approvals	CoC V5 Tier 2(2016)
2 x MOPP Input to Output Isolation	≤0.075W Standby Power
Suitable for Medical Equipment Up to Class BF <sup>(*)</sup>	9V to 54V Outputs, Up to 48W
Low Leakage Current ≤100uA	5,000m Operating Altitude
DOE Efficiency Level VI	AC Inlet IEC60320 C8 (class II) or C14 (class I) input



## MODEL SELECTION

Model Number	Volts	Current	Rated Power	Ripple & Noise	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
SLE48S0903N01	9.0V	5.0A	45.0W	120mV pk-pk	±5%	Line: ±1% Load: ±5%	87.80%	≤3s
SLE48S1203N01	12.0V	4.0A	48.0W	120mV pk-pk	±5%		87.80%	≤3s
SLE48S1503N01	15.0V	3.2A	48.0W	120mV pk-pk	±5%		87.80%	≤3s
SLE48S1803N01	18.0V	2.66A	47.88W	120mV pk-pk	±5%		87.80%	≤3s
SLE48S2403N01	24.0V	2.0A	48.0W	150mV pk-pk	±5%		87.80%	≤3s
SLE48S4803N01	48.0V	1.0A	48.0W	300mV pk-pk	±5%		87.80%	≤3s
SLE48S0903F01	9.0V	5.0A	45.0W	120mV pk-pk	±5%	Line: ±1% Load: ±5%	87.80%	≤3s
SLE48S1203F01	12.0V	4.0A	48.0W	120mV pk-pk	±5%		87.80%	≤3s
SLE48S1503F01	15.0V	3.2A	48.0W	120mV pk-pk	±5%		87.80%	≤3s
SLE48S1803F01	18.0V	2.66A	47.88W	120mV pk-pk	±5%		87.80%	≤3s
SLE48S2403F01	24.0V	2.0A	48.0W	150mV pk-pk	±5%		87.80%	≤3s
SLE48S4803F01	48.0V	1.0A	48.0W	300mV pk-pk	±5%		87.80%	≤3s

Notes:

1. Measured at output connector with 20MHz bandwidth and 0.1µF ceramic in parallel with 10µF electrolytic capacitors.
2. Other output voltages in the range of 9V through 54V are available, contact us for details.
3. "N" in the model number (SLE48S2403N01) indicates IEC60320 C8 inlet (class II). "F" indicates C14 (class I). C6, (class I) and C18 (class II) inputs are available, Contact SL Power for details.
4. "03" in the model number indicates 2.5 x 5.5 x 9.5mm straight barrel type connector. Other output connector options are available, please contact our sales representative for details.
5. Power supply is not provided with a line cord.
6. Power supplies are not medical equipment (applied parts), medical product manufacturers shall take responsibility for further evaluation of class B/BF/CF compliance of their end product.



## INPUT

Input Voltage and Frequency	90VAC–264VAC 47Hz–63Hz
Input Current	1.1A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current <sup>(max)</sup>	≤100µA at 264VAC

## EMI/EMC COMPLIANCE

Conducted Emissions	Medical: IEC/EN 60601-1-2, CISPR 11 ITE: EN55032, CISPR 22
Radiated Emissions	Medical: IEC/EN 60601-1-2, CISPR 11 ITE: EN55032, CISPR 22
Immunity	Medical: IEC/EN 60601-1-2 ITE: EN55024, CISPR 24
Electro-Static Discharge (ESD) Immunity on Power Ports	EN61000-4-2, ±15kV air, ±8kV contact
Radiated RF EM Fields Susceptibility <sup>3</sup>	EN61000-4-3, 10V/m, 3V/m (80MHz–2.7GMHz)
Electrical Fast Transients (EFT)/Bursts	EN61000-4-4, ±2kV on AC port, ±1kV on signal ports
Surges, Line to Line (DM) and Line to Ground (CM)	EN61000-4-5, ±1kV line to line (diff mode)
Conducted RF Immunity	EN61000-4-6, 3Vrms, 6Vrms (0.15MHz–80MHz)
Power Frequency Magnetic Field Immunity	EN61000-4-8, 30A/m
Voltage Dip Immunity	EN61000-4-11, 0%, 70%, 0% of UT
Harmonic Current Emissions	EN61000-3-2, Class A
Flicker Test	EN61000-3-3

## PACKAGING

Weight, Packing Qty	13kg, Individual Box: 40/carton
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## MECHANICAL DRAWING

DC Cable<sup>(\*)</sup>: UL1185 16AWG Black 1299MM+100mm

Connector<sup>(\*)</sup>: 2.5x5.5x9.5mm, fork type, center "+"

## SAFETY

CB	Medical: IEC60601-1, ANSI/AAMI ES60601-1 ITE: IEC62638-1, UL62638-1
UL	Medical: CAN/CSA C22.2 NO. 60601-1 ITE: CAN/CSA C22.2 NO. 62638-1
TUV	Medical: EN60601-1 ITE: EN62638-1
CCC	China GB4943

## ENVIRONMENT

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to 60°C
Weight	265 grams
Dimensions	122.0mm x 51.0mm x 31.5mm
Operating Humidity	10% RH to 90% RH, non-condensing
Storage Humidity	5% RH to 90% RH
Operating Altitude	5,000m
Dielectric Withstand Voltage	5,656VDC input to output
Insulation Resistance	10M Ohms, 500VDC input to output

## PROTECTION

Overload Protection	120%–180% rated output power, Auto-recovery
Overvoltage Protection	120%–180% rated output voltage input to reset
Short circuit Protection	Trip and restart - Hiccup Mode

## RELIABILITY

MTBF	>190,000 hours MIL-HDBK-217 at 25°C
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## ISOLATION

Isolation Safety Rating	4,000VAC Input to Output (2 x MOPP)
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### Interchangeable AC Plug Options



