

# SPH250 SERIES

LED Power Supplies: 250 Watts



## Specifications

<b>Input Voltage</b>	90 ~ 305VAC
<b>Frequency</b>	47~63Hz
<b>Input Current</b>	1.5A @ 230VAC
<b>Output V/A</b>	See table
<b>Output Power</b>	250 watts
<b>Output Ripple &amp; Noise</b>	12V @ 500mV, 15V @ 600mV, 24V @ 800mV, 36 & 48V @ 1000mV
<b>Output Current Tolerance</b>	±5%
<b>Line Regulation</b>	±2%
<b>Load Tolerance</b>	±3%
<b>Rise Time</b>	Typically 30ms ( max 500ms 10-90% voltage )
<b>Hold Up Time</b>	Typically 15mS at 230V input
<b>Power Factor</b>	> 0.95
<b>Efficiency</b>	Model Dependent 92 ~ 94%
<b>Inrush Current</b>	Cold start 45A @ 230V
<b>Leakage Current</b>	0.75mA @ 230V 50Hz
<b>Protection:</b>	
<b>Over Current</b>	1.1 ~ 1.6% times rated current. ( Auto Recovery )
<b>Short Circuit</b>	Hiccup mode with auto recovery
<b>Overvoltage</b>	Yes. Recycle input power after approx 30sec
<b>Over Temperature</b>	Recycle input power after unit has cooled off
<b>Operating Temp.</b>	-40°C ~ +70°C ( 80% load at +70°C )
<b>Humidity</b>	5~95% RH
<b>Temp Coefficient</b>	±0.05% per °C
<b>IP Rating</b>	IP65 ( IP66 option)
<b>Cooling</b>	Free air convection
<b>Connections</b>	Input & Output flying leads Input Power Cord & Plug - Option
<b>Safety</b>	EN61347-1, EN61347-2-13
<b>Isolation Voltage</b>	Input – Output: 5.3KV DC 1min.
<b>EMC</b>	EN55015 Class B
<b>Immunity</b>	EN61000-4-2
<b>Harmonics</b>	EN6100-3-2
<b>MTBF</b>	225Khrs per MIL-HDBK-217F ( 25° C )
<b>Mechanical</b>	250 x 74 x 38mm 1.26kg

## Features

- **Constant Voltage / Constant Current** operation
- Output Voltage adjustment
- Wide input range: 90 ~ 305VAC
- High Efficiency up to 89%
- Power Factor Correction typically 0.95
- IP65 sealed unit
- Output short circuit protection
- Over temperature protection
- Safety: EN61347-1 & -2
- EMC and Immunity compliant
- Optional mains power cord

## Description

The **SPH250** series power supplies are designed specifically for use with LED applications and available with output voltage options from 12 ~ 48VDC.

These units can operate in **Constant Voltage** or **Constant current** mode and output voltage & current is fully adjustable, providing total flexibility.

Electronic protection turns off the power supplies in case of short circuit or overload, as well as open circuit or over temperature.

These units are designed to be hard wired in fixed installations, or with an optional power cord, that can be connected to the input terminals with a standard AC plug, for easy installation to any GPO socket / outlet.

Model	Output		Output Adjustment		Power W
	V	A	V	A	
SPH250-12A	12V	18A	10.5-13.5V	10.8 ~ 18A	250W
SPH250-15A	15V	15.4A	13.5 - 17V	9.2 ~ 15.4A	250W
SPH250-24A	24V	10.4A	22 - 27V	6 ~ 10.4A	250W
SPH250-36A	36V	7A	33 – 40V	4.2 ~ 7.0A	250W
SPH250-48A	48V	5.2A	43 - 53V	3.1 ~ 5.2A	250W

- For optional input mains power cord & plug, add **-AC** to model.

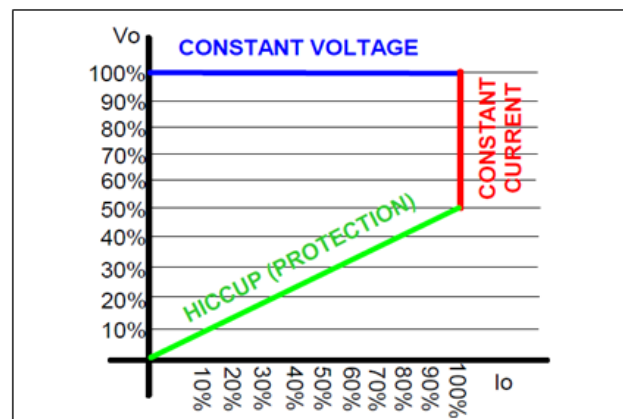


Fig 1: Typical Constant Voltage / Constant Current curve.