SPH60 SERIES

LED Power Supplies: 60 Watts





Specifications

 $\begin{array}{ll} \mbox{Input Voltage} & 90 \sim 305 \mbox{VAC} \\ \mbox{Frequency} & 47 \mbox{~} 63 \mbox{Hz} \end{array}$

Input Current 0.33A @ 230VAC

Output V/A See table
Output Power 60 watts

Output Ripple & 12V @ 150mV, 15V @ 200mV,

Noise 24V @ 280mV, 36 & 48V @ 450 / 550mV

Output Current ±5%

Tolerance

Line Regulation

±3%

Load Tolerance ±3%

Rise Time Typically 30ms (max 500ms 10-90% voltage)

Hold Up Time Typically 15mS at 230V input

Power Factor > 0.95

 Efficiency
 Model Dependent 87 ~ 89%

 Inrush Current
 Cold start 75A @ 230V

 Leakage Current
 0.75mA @ 230V 50Hz

Protection:

Over Current 1.05 ~ 1.3% times rated current.

(Auto Recovery)

Short Circuit Hiccup mode with auto recovery

Overvoltage Yes. Recycle input power after approx 30sec

Over Temperature Recycle input power after unit has cooled off

Operating Temp. $-40^{\circ}\text{C} \sim +70^{\circ}\text{C} \text{ (}80\% \text{ load at } +70^{\circ}\text{C)}$

 Humidity
 5~95% RH

 Temp Coefficient
 ±0.05% per °C

 IP Rating
 IP65 (IP66 option)

 Cooling
 Free air convection

Connections Input & Output flying leads

Input Power Cord & Plug - Option

Safety EN61347-1, EN61347-2-13
Isolation Voltage Input – Output: 5.3KV DC 1min.

 EMC
 EN55015 Class B

 Immunity
 EN61000-4-2

 Harmonics
 EN6100-3-2

MTBF 5 years per MIL-HDBK-217F (25° C)

Mechanical 172 x 53 x 37mm 700g

Features

- Constant Voltage / Constant Current operation
- Output Voltage & Current 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 **SPH60** series power supplies are designed specifically for use with LED applications and available with output voltage options from 12 \sim 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 V A		Output Adjustment V A		Power W
SPH60-12A	12V	5.0A	8 -13.5V	2.5 ~ 5.0A	60W
SPH60-15A	15V	4.0A	10 - 17V	2.0 ~ 4.0A	60W
SPH60-24A	24V	2.5A	15 - 27V	1.25 ~ 2.5A	60W
SPH60-36A	36V	1.67A	32 - 41V	0.85 ~ 1.67A	60W
SPH60-48A	48V	1.25A	42 - 54V	0.6 ~ 1.25A	60W

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

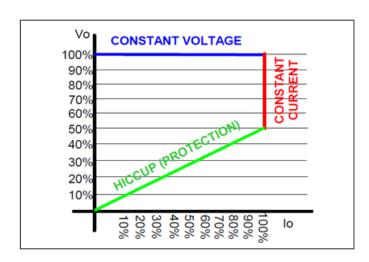


Fig 1: Typical Constant Voltage / Constant Current curve.