

SPH60 SERIES

LED Power Supplies: 60 Watts



Specifications

Input Voltage	90 ~ 305VAC
Frequency	47~63Hz
Input Current	0.33A @ 230VAC
Output V/A	See table
Output Power	60 watts
Output Ripple & Noise	12V @ 150mV, 15V @ 200mV, 24V @ 280mV, 36 & 48V @ 450 / 550mV
Output Current Tolerance	±5%
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°C ~ +70°C (80% load at +70°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 ~ 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	
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.

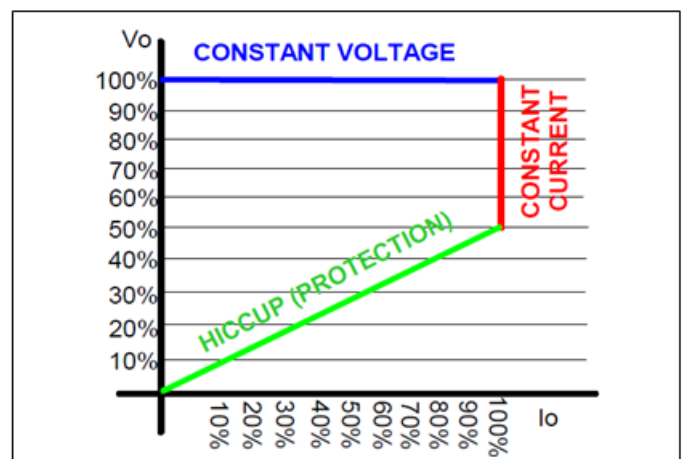


Fig 1: Typical Constant Voltage / Constant Current curve.