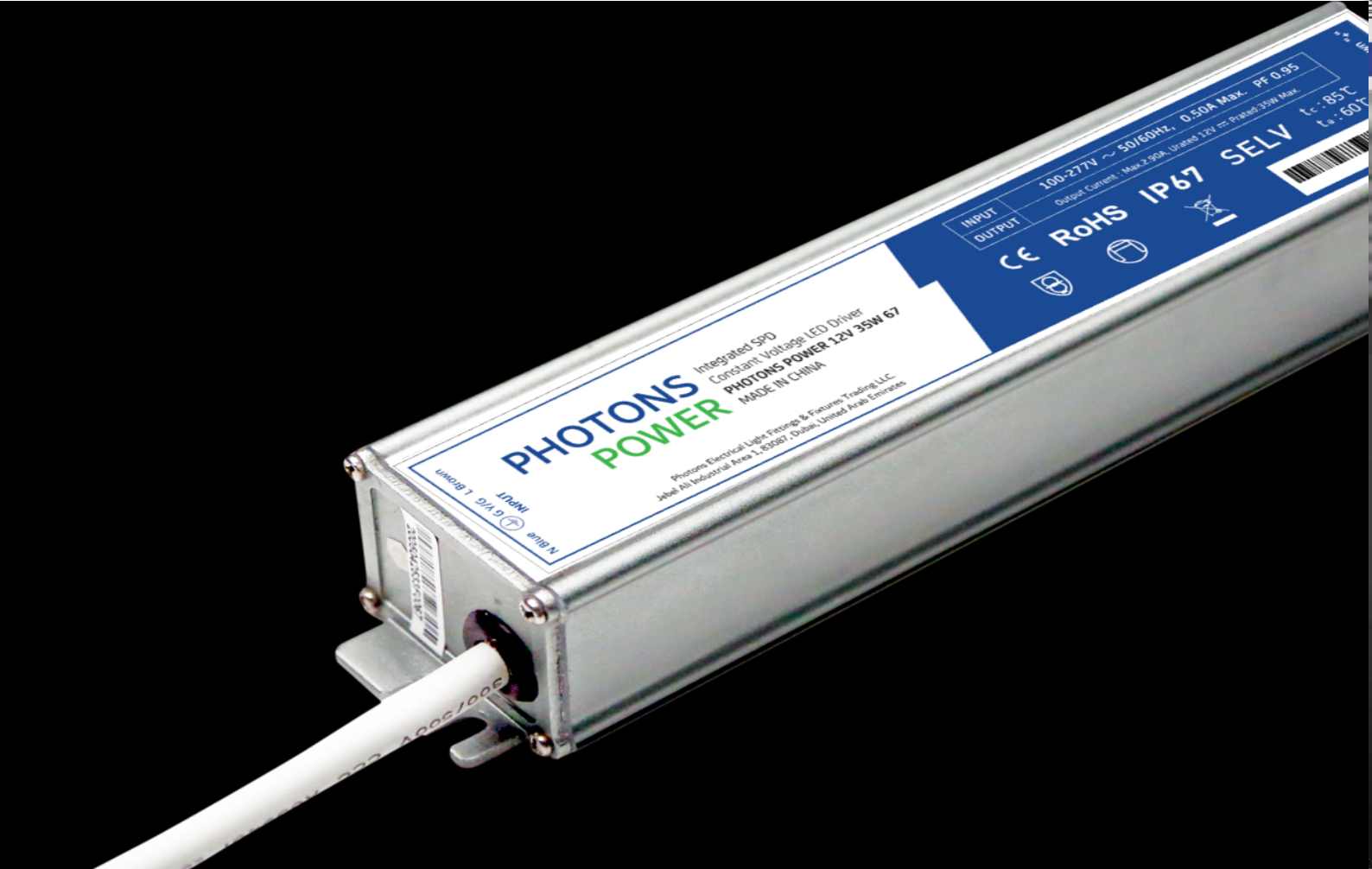


PHOTONS Electricals

**PHOTONS POWER
12V 35W 67**



www.photonselectricals.com

PHOTONS POWER

12V 35W 67



DESCRIPTION

PHOTONS Power series is constant voltage led power supply, designed for lighting used for signage illumination. The power supply has built-in active PFC, multiple protections, and 6KV surge immunity. it's a excellent design with high reliability and long lifetime. 12V / 24V / 36V / 46 V output voltage.

FEATURES

- Constant voltage output
- High power factor >0.96 (230Vac& full load)
- Universal input voltage 90~305Vac
- Overall protection: Short circuit / Over temperature / Over voltage / Over load
- Surge immunity: line-line 4KV, line-earth 6KV
- IP67, glue potted, suitable for dry / wet / damp locations
- Ambient temperature: -40°C +60°C
- 5 years warranty

APPLICATION

Suitable for signage lighting.

MODEL DETAILS

Model Number	Max Output Power (W)	Output Voltage Range (Vdc)	Output Current Range (A)	Output Mode	Typical Efficiency	Power Factor	
						115Vac	230Vac
PHOTONS POWER 12V 35W 67	35	12	0~2.90	CV	85%	0.99	0.96

Note:

All performance parameters are measured at 25°C ambient temperature, 230Vac input, full load conditions, except for those specified.

INPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90Vac	100-277Vac	305Vac	-
Input Frequency	47HZ	50/60	63Hz	-
Leakage Current	-	-	0.75mA	277Vac/50Hz
Input AC Current	-	-	0.5A	100-277Vac & full load
Inrush Current(A)	-	-	75A	Cold start, 230Vac & full load
Power Factor	0.95	0.96	-	230Vac, 100% load
THD	-	-	20%	230Vac, 100% load

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%	-	5%	Full load
Output Ripple Voltage	-	-	3%	Full load, Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor.
Output overshoot	-	-	10%	When the power is on
Line Regulation	-	-	3%	25°C ±10°C ambient temperature, 100% load, change input from 90Vac to 305Vac.
Load Regulation	-	-	3%	25°C ±10°C ambient temperature, 230Vac input voltage, load changes from 50% to 100%.
Turn-on Delay Time	-	-	3S	100V - 277Vac, 100% load

SAFETY STANDARDS

Safety Category	Country / Territory	Standards
CCC	China	GB19510.1, GB19510.14
CE	Europe	EN61347-1, EN61347-2-13

EMC COMPLIANCE

Safety Category	Country / Territory	Standards
CCC	China	GB 17743, GB 17625.1
CE	Europe	EN 55015, EN 61000-3-2, EN 61000-3-3
		EN61000-4-2,3,4,5,6,8,11
		EN61547

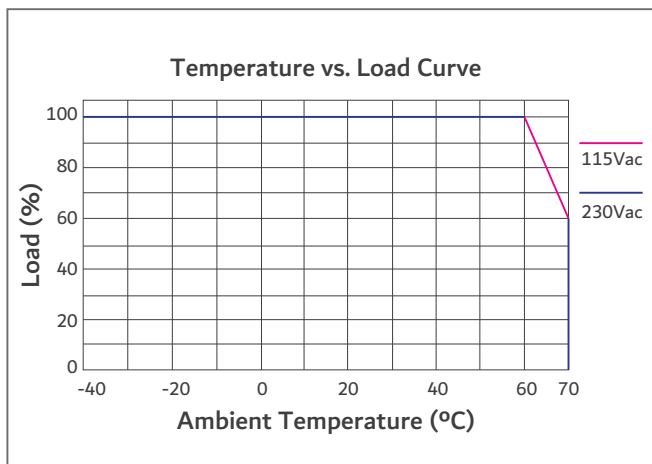
Note:

This LED power supply meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the power supply and on the fixture itself.

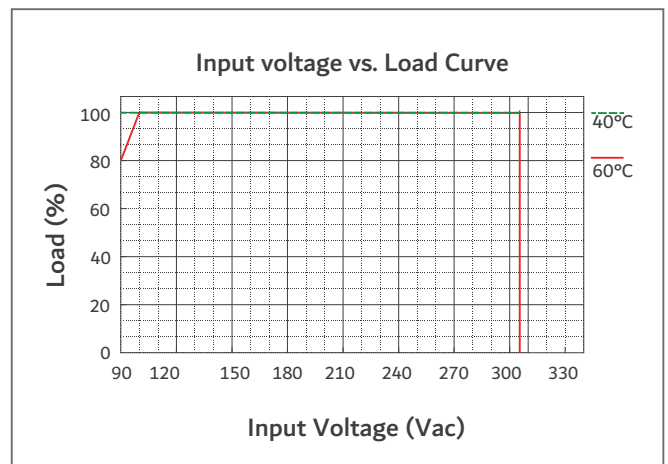
GENERAL SPECIFICATIONS

Parameter		Min.	Typ.	Max.	Notes
Efficiency @ 115Vac Vo=12V		82%	84%	-	Measured at full load and 25°C ambient temperature
Efficiency @ 230Vac Vo=12V		83%	85%	-	Measured at full load and 25°C ambient temperature
Efficiency @ 277Vac Vo=12V		83%	85%	-	Measured at full load and 25°C ambient temperature
Dielectric Strength	Input-Output	-	3750Vac	-	10mA/60S
	Input-PE	-	1600Vac	-	
	Output- PE	-	1600Vac	-	
Grounding Resistance		-	-	0.1Ω	25A/60S
Insulation Resistance		100MΩ	-	-	Input-Output, Input-PE, Output-PE, 500Vdc/60S/25°C/70%RH
MTBF		-	200000 Hours	-	230Vac, 80% load (MIL-HDBK-217F)
Lifetime		-	50000 Hours	-	230Vac & 100% load, 70°C case temperature, refer to lifetime VS Tc curve for details
Operating Case Temperature for Safety Tc_s		-40°C	-	+85°C	-
Operating Case Temperature for Warranty Tc_w		-40°C	-	+60°C	-
Storage Temperature		-40°C	-	+85°C	Humidity: 20% to 95% RH
Dimensions (L×W×H)mm		199x 42.5 x 34mm			-
Net Weight		510±50g/PCS			-
Package		L410 x W255 x H200mm/15 PCS			-

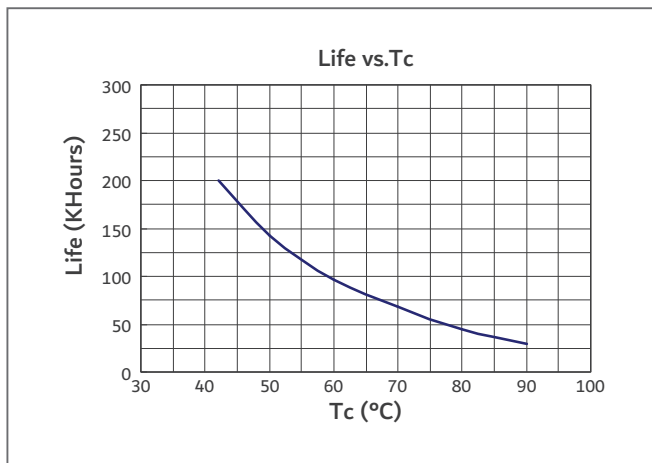
DERATING CURVE



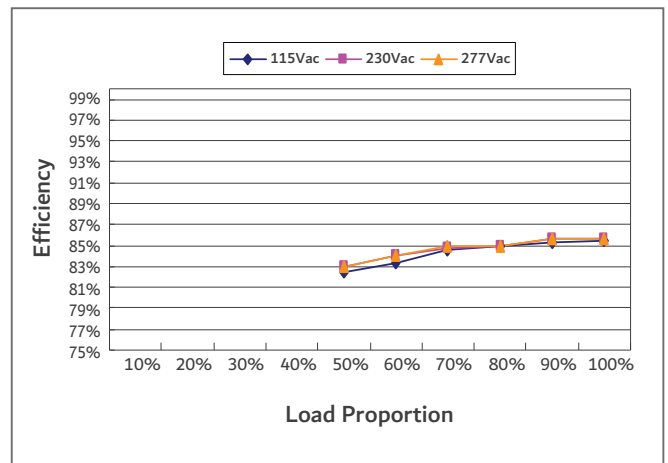
OUTPUT POWER VS INPUT VOLTAGE



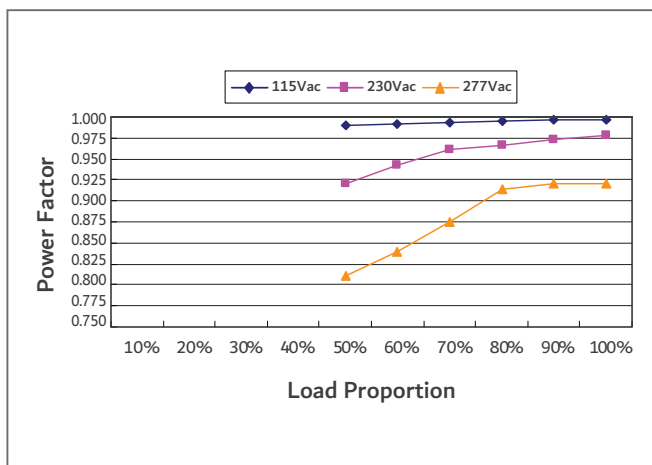
LIFETIME VS CASE TEMPERATURE



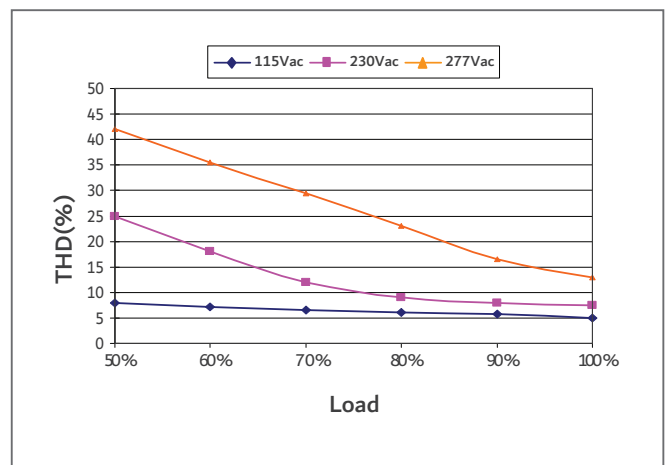
EFFICIENCY VS LOAD



POWER FACTOR VS LOAD



TOTAL HARMONIC DISTORTION



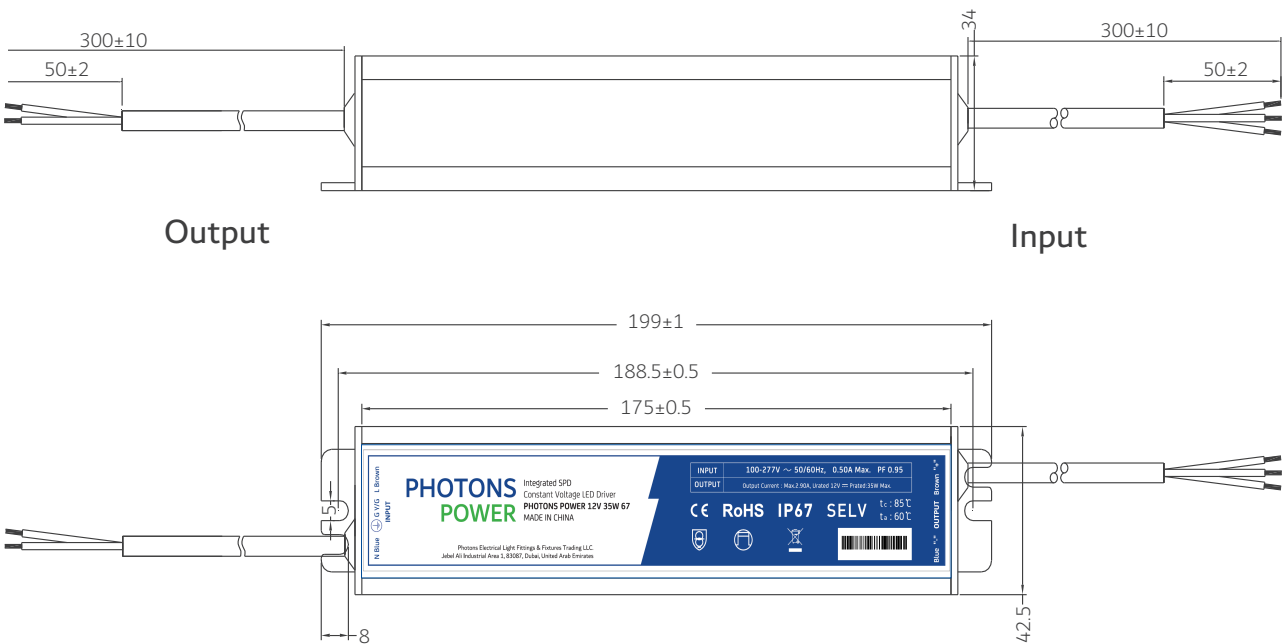
PROTECTIONS

Parameter	Notes
Short Circuit Protection	The input power shall decrease when the output rail short, the power supply shall not be damaged.
Over Current Protection	The product will enter hiccup status when 2 maximum load current applied to the output, and the product shall be self-recovery when the fault condition is removed.
Over Voltage Protection	When the output voltage is over 1.1-1.5 Rated Load Voltage, the driver shuts off automatically and enters protection status, the power supply will work normally after fault condition removed and AC input reapply.

MECHANICAL OUTLINE

PHOTONS POWER 12V 35W 67

Unit:mm



Wire	Specification	Note
AC Input	CCC+VDE 3x1.0mm ² L=300mm	For CE
	18AWG 3C L=300mm	For UL
DC Output	CCC+VDE 2x1.0mm ² L=300mm	For CE
	18AWG 2C L=300mm	For UL

فوتونز اليكتریکال لتجارة ادوات النارة ولوازمها ش.ذ.م.م

PHOTONS ELECTRICALS LIGHT FITTINGS & FIXTURES TRADING L.L.C

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