



DC
24V

5 Years
Warranty

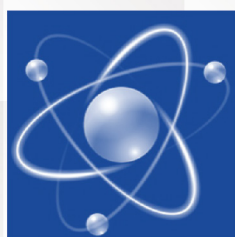
CE

RoHS

Class P

TUV
SUD

Integrated SPD | Constant Voltage LED Driver



PHOTONS Electricals

PHOTONS POWER 24V 320W 67



www.photonselectricals.com

PHOTONS POWER 24V 320W 67



DESCRIPTION

PHOTONS POWER 24V series is constant voltage LED power supply, designed for powering lighting used for signage illumination. The power supply has built-in active PFC, multiple protections, and 10KV surge immunity. It's a excellent design with high reliability and long lifetime. 24V 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 5KV, line-earth 10KV
- 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
						230VAC
PHOTONS POWER 24V 320W 67	320	24	0~13.33	CV	92%	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	-	-	4.0A	100-277Vac & full load
Inrush Current(A)	-	-	150A	Cold start, 230Vac & full load
Power Factor	0.95	0.97	-	230Vac, 100% load
THD	-	-	20%	230Vac, 75~100% load

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%	-	5%	Full load
Output Ripple Voltage	-	-	6%	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, input voltage changes 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	115Vac, 100% load
			3S	230Vac, 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

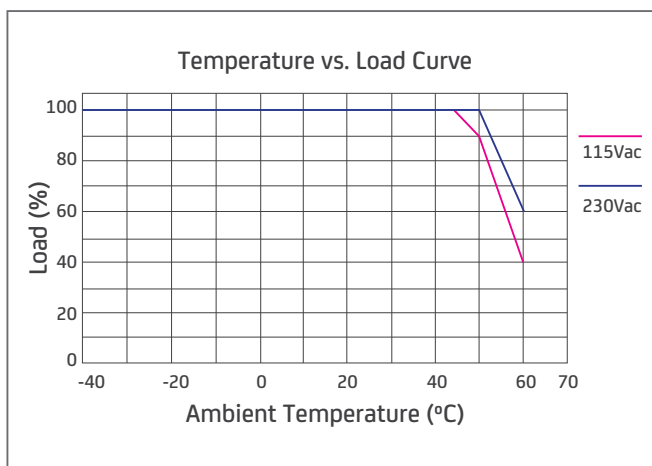
Note:

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.

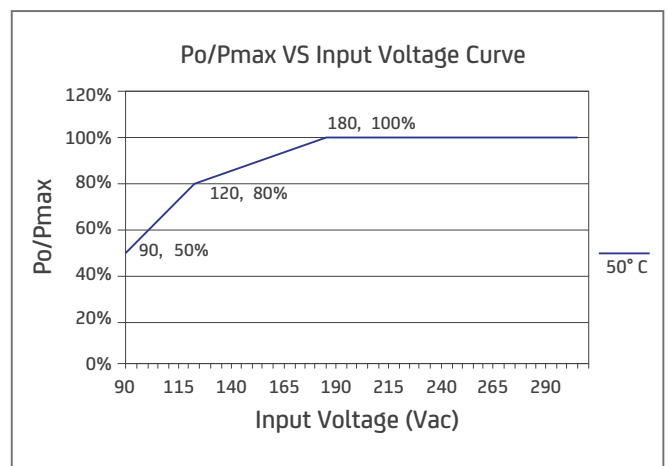
GENERAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Efficiency @ 115VacVo=24V	88%	90%	-	Measured at full load and 25°C ambient temperature
Efficiency @ 230VacVo=24V	90%	92%	-	Measured at full load and 25°C ambient temperature
Efficiency @ 277VacVo=24V	90%	92%	-	Measured at full load and 25°C ambient temperature
Lifetime	-	50000 Hours	-	230Vac & 100% load, 50°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	-	+50°C	-
Storage Temperature	-40°C	-	+85°C	Humidity: 20% to 95% RH
Dimensions (L×W×H)mm	234 x 98 x 40mm			-
Net Weight	1750±50g/PCS			-
Package	L610 x W370 x H160mm/10 PCS			-

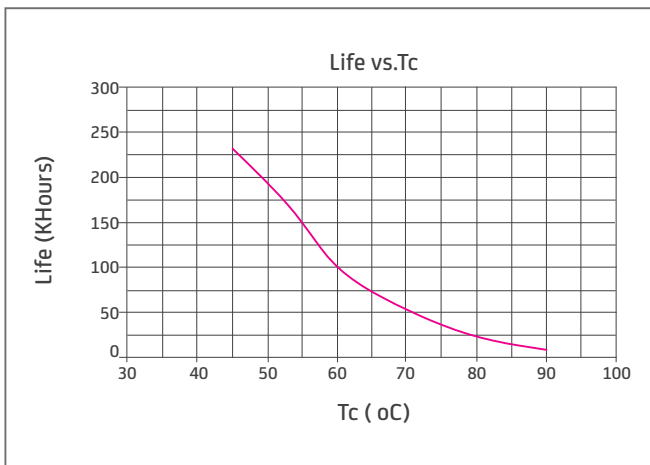
DERATING CURVE



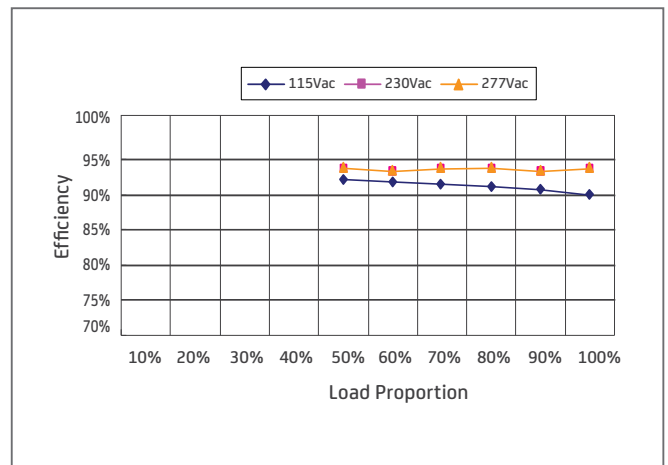
OUTPUT POWER VS INPUT VOLTAGE



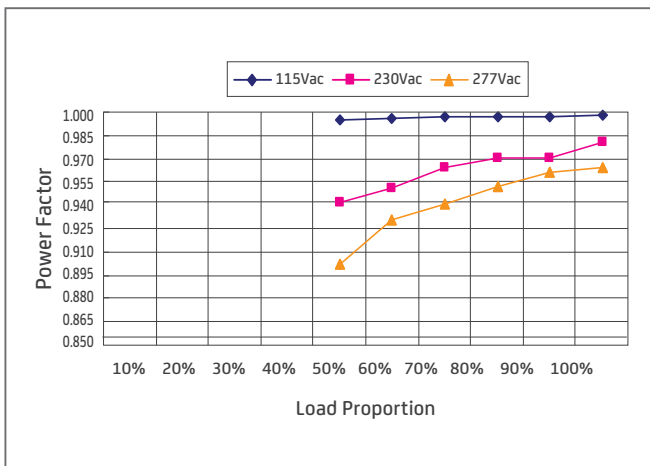
LIFETIME VS CASE TEMPERATURE



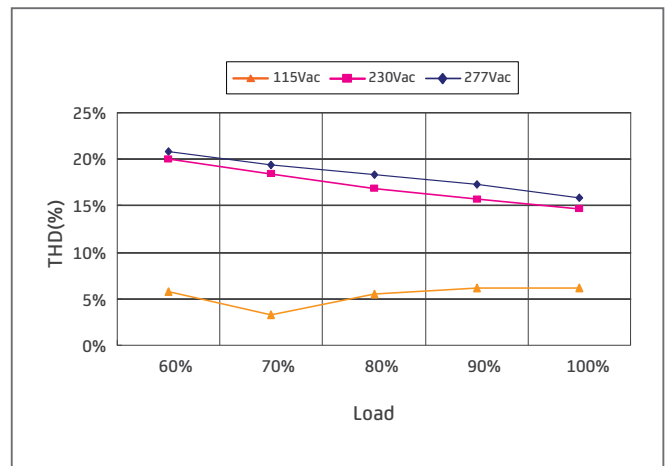
EFFICIENCY VS LOAD



POWER FACTOR VS LOAD



TOTAL HARMONIC DISTORTION



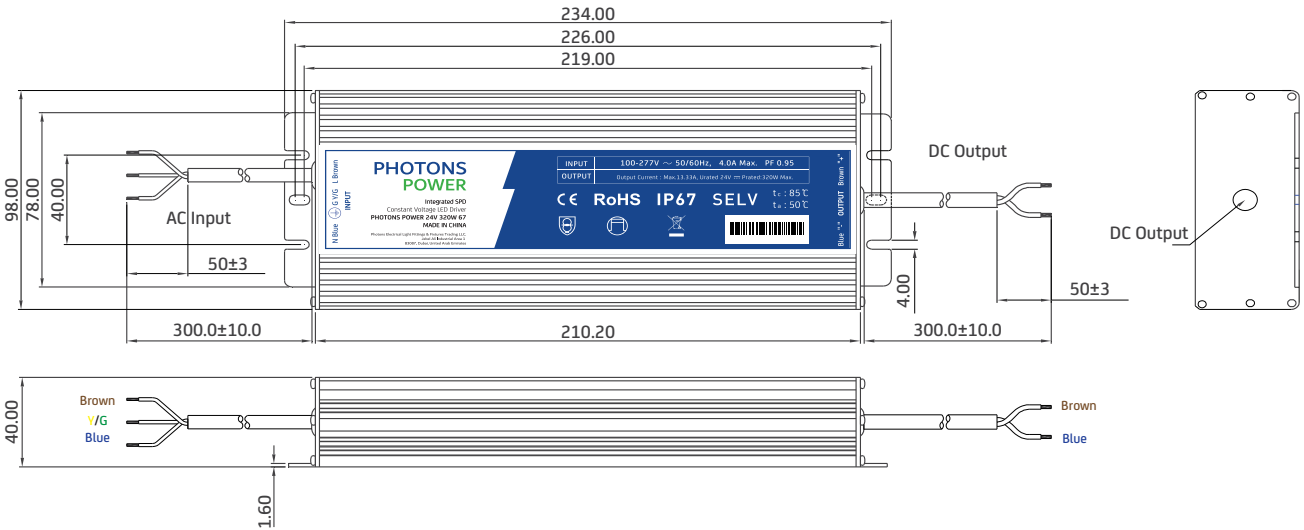
PROTECTIONS

Parameter	Notes
Over Temperature Protection	When the Tc is over 90°C, the power supply shuts off automatically and enters protection status.
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 1.1-1.5 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 1.1-1.3 Rated Load Voltage, the power supply 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 24V 320W 67

Unit:mm



Wire	Specification	Note
AC Input	CCC+VDE 3x1.0mm ² L=300mm	for CE
DC Output	CCC+VDE 2x2.5mm ² L=300mm	for 24V, CE

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

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