

# **100W 12V POWER SUPPLY** PS12-100W-GN-B / 28000510B CLASS 1

#### Product Description:

- Constant voltage LED power supply
- Universal input voltage range, 100-277 VAC
- Connection cable with stripped cable end (length approx. 19.7 in. / 500 mm)
- Polarity identifiers, secondary + red / black
- White finish
- Nominal lifetime 70,000 h (at 230Vac, full load, Tc: 185° F/85° C)
- 7-year guarantee (for Tc: 185° F/85° C)
- Suitable for emergency installation according EN 50172

#### **Properties:**

- Low-profile design
- Low power loss
- Short-circuit shutdown feature w/ automatic restart
- OVP, OCP, OTP and surge protection
- SELV
- IP68
- Encapsulated metal casing



#### CE SELV c Sus FC **IP68** RoHS

CB \M

# **ORDERING GUIDE**

STANDARD	COMPLIANCE
0170107010	00111 201102

No Load Power

Туре	PS12-100W-GN-B	S	afety
Article Number	28000510B	С	ertific
Packaging Carton	12 pc(s).		
Weight per pc.	0.99 lb (0.45 kg)	TE	ECHN
Carton Dimensions	16.34 x 15.75 x 6.69 in. 415 x 400 x 170 mm	R	ated s
Carton Weight	33.1 lb (15 kg)	Ir	nput V

# SPECIFIC TECHNICAL DATA

Max. Casing Temp <sup>T</sup> c	194° F (90° C)
Output Voltage	12.5 V
Max. Input Power	130 W
Output Current Range	0 - 8.33 A
Max. Output Voltage	13.12 V

Certifications UL879, CLASS1, CE, CB, RoHS, FCC, MM			
TECHNICAL DATA			
Rated Supply Voltage	100 - 277V AC		
Input Voltage, AC	90 - 305V AC		
Input Voltage, DC	200 - 240V DC		
Max. Input Current	1.3 A @ 100V AC		
Input Frequency Range	47 - 63 Hz		
Efficiency (at 230 V, 50 Hz, full load)	> 92%		
$\lambda$ (at 230 V, 50 Hz, full load)	> 0.95		
THD	< 20%		
Output Voltage Tolerance	± 5 %		
Output Power (ta ≤ 60°C)	100 W		
Output Power Range	0 - 100 W		

Safety Standards

	REV.06AUG2024
Dimensions (L x W x H)	13.07 x 1.3 x 0.86 in. (332 x 33 x 21.8 mm)
Storage Temperature Ts	-40° - +176° F (-40 ~ +80° C)
Ambient Temperature Ta	-40° - +140° F (-40 ~ +60° C)
Hold on Time at Power Failure (Output)	10 ms
Turn On Time (Output)	≥ 3 s
Inrush Current	70 A

Data sheet subject to change without notice.

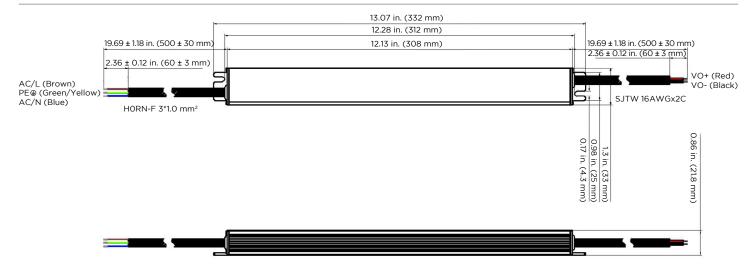
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1.2 W

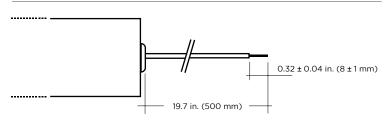


#### **DIMENSION DRAWINGS**



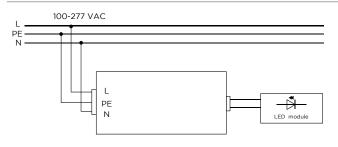
**NOTE:** To prevent exposure to the maximum allowable temperatures for these drivers, the suggested installation spacing between drivers is at least 4 in. (101.6 mm) side-to-side when the distance to the sidewall and top of the enclosure is 2 in. (50.8 mm). When the distance to the sidewall and top of the enclosure is 6 in. (152.4 mm), maintain at least 2 in. (50.8 mm) side-to-side spacing between drivers. Drivers should be placed at a minimum of 1 in. (25.4 mm) apart when arranging them end-to-end regardless of the enclosure size.

# CONNECTION



Primary Cable		Secondary Cable		
L	Ν	PE	+	-
brown	blue	green/yellow	red	black

## WIRING DIAGRAM



#### Installation instructions

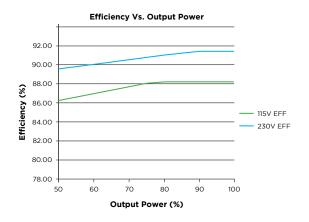
The switching of LEDs on secondary side is not permitted. A proper functioning of the LCU in combination with third party dimming devices (e.g. PWM) cannot be guaranteed.

DRIVER REMOTE DISTANCES			
Wattages	PS12-100W-GN-B		
Wire Gauge	Feet	Meters	
24 AWG / 0.20 mm <sup>2</sup>	1.49	0.455	
22 AWG / 0.33 mm <sup>2</sup>	2.52	0.769	
20 AWG / 0.52 mm <sup>2</sup>	3.86	1.176	
18 AWG / 0.82 mm <sup>2</sup>	6.25	1.905	
16 AWG / 1.31 mm <sup>2</sup>	10.09	3.077	
14 AWG / 2.08 mm <sup>2</sup>	16.00	4.878	
12 AWG / 3.31 mm <sup>2</sup>	25.23	7.692	
10 AWG / 5.26 mm <sup>2</sup>	39.76	12.121	
8 AWG / 8.37 mm <sup>2</sup>	62.48	19.048	

NOTE: Calculations include a standard 10% buffer



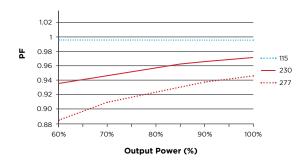
### PERFORMANCE CURVE



120.0 100.0 Lifetime (Khours) 80.0 60.0 Lifetime 40.0 20.0 0.0 55 60 65 70 75 80 85 90 Case Temperature (°C)

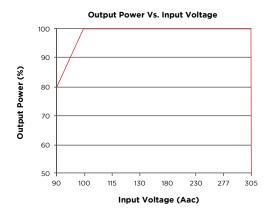
Lifetime Vs. Case Temperature

PF Vs. Output Power

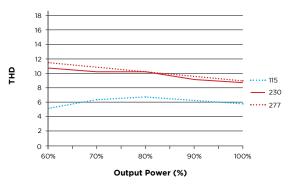


120 100 Output Power (%) 80 60 - 230V - 115V 40 20 0 70 0 10 20 30 40 50 60 Ambient Temperature (°C)

**Output Power Vs. Ambient Temperature** 



THD Vs. Output Power



1. 2. 3. 4.

- The maximum case temperature Tc shall not exceed 194 °F ( 90°C) when used in end product.
- These products are intended to be connect to a max. 20A branch circuit.
- These products are intended for use in dry and damp locations.

Required spacing between power supply according UL48.