

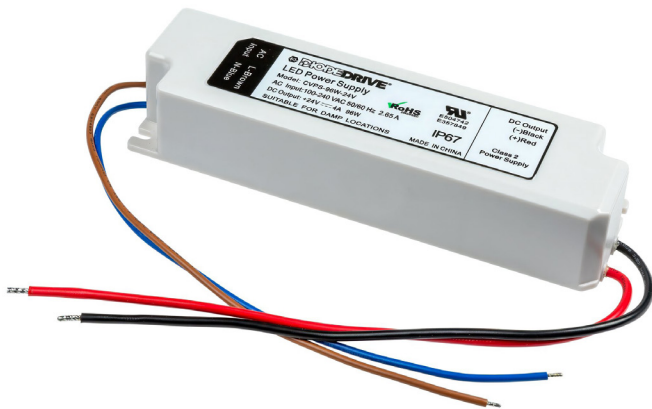


CVPS Series

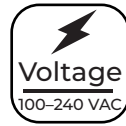
Constant Voltage Power Supply Specifications

Project _____

Date _____ Type _____



CVPS-96W-24V



Available Models¹

12 VDC Output

- CVPS-20W-12V
- CVPS-40W-12V
- CVPS-60W-12V
- CVPS-100W-12V

24 VDC Output

- CVPS-20W-24V
- CVPS-40W-24V
- CVPS-60W-24V
- CVPS-96W-24V

Part Number Breakdown

Example: CVPS-60W-24V

Series	Output Power			Output Voltage
CVPS [Constant Voltage Power Supply]	20W [20W]	40W [40W]	60W [60W]	12V [12 VDC] or 24V [24 VDC]
	96W [96W]			24V [24 VDC]
	100W [100W]			12V [12 VDC]

Overview

This Constant Voltage Power Supply saves energy with up to 89% efficiency. This driver provides consistently regulated voltage for LED lighting systems, preserving the lifespan of LEDs. The durable, IP67 waterproof polycarbonate housing enables flexible placement indoors or out. Waterproof connectors are required for outdoor installation (sold separately). An optional 18AWG power cord is available for plug-and-play installation. See accessories below. Easily install the power supply using the mounting tabs and wire pigtailed with stripped and tinned leads. .

Features

- Class 2 Power Supply: 20W, 40W, 60W; Class 1: 100W
- Universal 100-240 VAC input, single constant voltage output
- Energy-saving high-efficiency operation up to 89%
- IP67 waterproof for indoor or outdoor locations
- Protections: short circuit, overload, overvoltage, and overtemperature

Product Details

- Constant voltage operation
- IP67 waterproof
- 100-240 VAC input

Certifications and Compliances

- UL Recognized - UL 8750 (FKSZ2), UL 879 (UYMR2)
- CE compliant



Applications

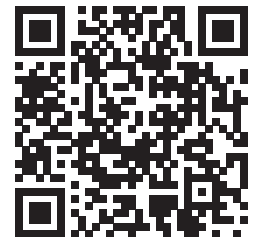
- Home Interiors
- Outdoor Kitchens
- Outdoor Signs and Advertisements
- Stage & Theaters
- Strip Lights
- Toe Kick Lighting
- Trade Shows
- Under-Cabinet Lighting

Optional Accessories

- 2m, 1-15P power cord (PWRC2-18-2M)

Warranty

- 3-year warranty



T 866.201.2238
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 www.diode-drive.com
 email: commercialsales@diode-drive.com

¹Contact customer service if interested in other options.



CVPS Series

Constant Voltage Power Supply Specifications

Specifications - 12 VDC output

Model	CVPS-20W-12V	CVPS-40W-12V	CVPS-60W-12V	CVPS-100W-12V	
OUTPUT					
Output Voltage ($\pm 4\%$)	12 VDC				
Output Power	20W	40W	60W	100W	
Output Current (max)	1670mA	3340mA	5000mA	8340mA	
Output Ripple and Noise (max)	120mV p-p				
Line Regulation	$\pm 1\%$				
Load Regulation	$\pm 1.5\%$	$\pm 2\%$			
Set Up Time (cold start)	50ms (at full load) 110 VAC/230 VAC				
Holding Time (TYP)	15ms (at full load) 110 VAC/230 VAC				
INPUT					
Rated Voltage Range ($\pm 10\%$)	100-240 VAC				
Input Frequency	50/60Hz				
Leakage Current	< 0.75 mA (@240 VAC)				
Power Factor (TYP)	PF $\geq 0.5/110V$ (at full load); PF $\geq 0.45/230V$ (at full load)				
Efficiency (TYP)	84.5%	84%	88.5%	88%	
Input Current (max)	115 VAC	500mA	980mA	1330mA	2100mA
	230 VAC	240mA	500mA	650mA	1100mA
Inrush Current (TYP, cold start@230V)	50A	55A	50A	60A	
DIMMING					
Dimming Control	Non-dimmable				
PROTECTIONS					
Overload	% of rated power	110-150	104-145	110-135	110-130
	Protection Type	Constant current limiting, auto recovery after load reduced	Hiccup mode, auto recovery after load reduced	Hiccup mode, auto recovery after load reduced	Constant current limiting, auto recovery after load reduced
Short Circuit	Hiccup mode, automatically recovers after fault conditions removed				
Overvoltage	13-18V, Hiccup mode, automatically recovers after fault conditions removed				
Over Temperature	100°C $\pm 10^\circ\text{C}$ (RTH2)	100°C $\pm 10^\circ\text{C}$ (RTH2)	100°C $\pm 5^\circ\text{C}$ (RTH)	60°C $\pm 5^\circ\text{C}$	
	Shut down O/P voltage, recovers automatically after temperature goes down				





CVPS Series

Constant Voltage Power Supply Specifications

Specifications - 12 VDC output

Model	CVPS-20W-12V	CVPS-40W-12V	CVPS-60W-12V	CVPS-100W-12V
ENVIRONMENTAL				
Ambient Operating Temp.	-20 to 50°C (-4 to 122°F)	-25 to 50°C (-13 to 122°F)	-20 to 40°C (-4 to 104°F)	-25 to 40°C (-13 to 104°F)
IP Rating	IP67			
Environmental Rating	Suitable for Damp Locations, Waterproof			
Operating Humidity	10 to 90% relative humidity (non-condensing)			
Storage Temp. and Humidity	-25 to 75°C (-4 to 167°F), 5 to 95% relative humidity			
Temperature Coefficient	±0.05%/°C (0 to 40 °C)			
Vibration	10-300Hz, 1G, 10 minutes (for each X, Y, Z axis)			
RELIABILITY				
MTBF	≥ 200K hours (25°C) [MIL-HDBK-217F]			
Warranty	3 years			
SAFETY				
Safety Standards	UL 8750			
Withstand Voltage	I/P-O/P: 3.75kVAC			
Insulation Resistance	I/P-O/P : 100MΩ/500 VDC 25°C/70% RH			
MECHANICAL HOUSING				
Connection Type	Pigtail			
Housing Color	White			
Material	Polycarbonate Housing			
Wire Gauge (I/O)	18AWG	18AWG	18AWG	18/14AWG





CVPS Series

Constant Voltage Power Supply Specifications

Specifications - 24 VDC output

Model	CVPS-20W-24V	CVPS-40W-24V	CVPS-60W-24V	CVPS-96W-24V	
OUTPUT					
Output Voltage ($\pm 2\%$)	24 VDC				
Output Power	20W	40W	60W	96W	
Output Current (max)	830mA	1670mA	2500mA	4000mA	
Output Ripple and Noise (max)	240mV p-p				
Line Regulation	$\pm 0.5\%$				
Load Regulation	$\pm 1\%$				
Set Up Time (cold start)	50ms (at full load) 110 VAC/230 VAC				
Holding Time (TYP)	15ms (at full load) 110 VAC/230 VAC				
INPUT					
Rated Voltage Range ($\pm 10\%$)	100-240 VAC				
Input Frequency	50/60Hz				
Leakage Current	$< 0.75\text{mA}$ (@240 VAC)				
Power Factor (TYP)	PF $\geq 0.5/110\text{V}$ (at full load); PF $\geq 0.45/230\text{V}$ (at full load)				
Efficiency (TYP)	85%	86%	89.5%	89%	
Input Current (max)	115 VAC	500mA	980mA	1330mA	
	230 VAC	240mA	500mA	650mA	
Inrush Current (TYP, cold start@230V)	50A	55A	50A	60A	
DIMMING					
Dimming Control	Non-dimmable				
PROTECTIONS					
Overload	% of rated power	110-150	104-145	110-135	110-130
	Protection Type	Constant current limiting, auto recovery after load reduced	Hiccup mode, auto recovery after load reduced	Hiccup mode, auto recovery after load reduced	Constant current limiting, auto recovery after load reduced
Short Circuit	Hiccup mode, automatically recovers after fault conditions removed				
Overvoltage	24.5-35V, Hiccup mode, automatically recovers after fault conditions removed				
Over Temperature	100°C $\pm 10^\circ\text{C}$ (RTH2)	100°C $\pm 10^\circ\text{C}$ (RTH2)	100°C $\pm 5^\circ\text{C}$ (RTH)	60°C $\pm 5^\circ\text{C}$	
	Shut down O/P voltage, recovers automatically after temperature goes down				





CVPS Series

Constant Voltage Power Supply Specifications

Specifications - 24 VDC output

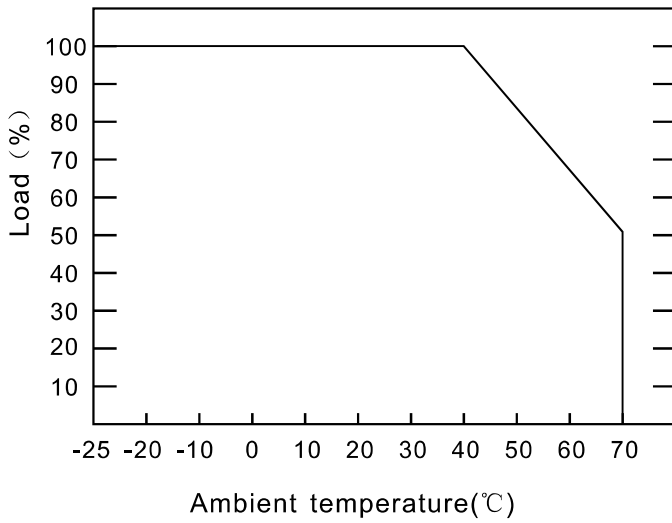
ENVIRONMENTAL				
Model	CVPS-20W-24V	CVPS-40W-24V	CVPS-60W-24V	CVPS-96W-24V
Ambient Operating Temperature	-20 to 50°C (-4 to 122°F)	-25 to 50°C (-13 to 122°F)	-20 to 40°C (-4 to 104°F)	-25 to 40°C (-13 to 104°F)
IP Rating	IP67			
Environmental Rating	Suitable for Damp Locations, Waterproof			
Operating Humidity	10 to 90% relative humidity (non-condensing)			
Storage Temp. and Humidity	-25 to 75°C (-4 to 167°F), 5 to 95% relative humidity			
Temperature Coefficient	±0.05%/°C (0 to 40°C)			
Vibration	10-300Hz, 1G, 10 minutes (for each X, Y, Z axis)			
RELIABILITY				
MTBF	≥ 200K hours (25°C) [MIL-HDBK-217F]			
Warranty	3 years			
SAFETY				
Safety Standards	UL 8750			
Withstand Voltage	I/P-O/P: 3.75k VAC			
Insulation Resistance	I/P-O/P : 100MΩ/500 VDC 25°C/70% RH			
MECHANICAL HOUSING				
Connection Type	Pigtail			
Housing Color	White			
Material	Polycarbonate Housing			
Wire Gauge (I/O)	18AWG	18AWG	18AWG	18/14AWG



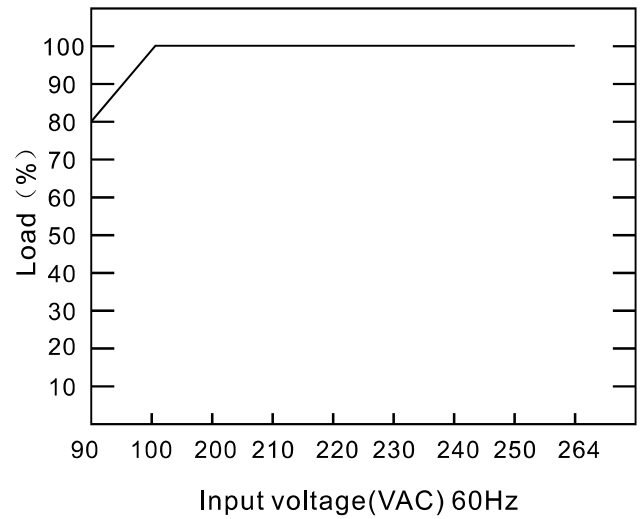
CVPS Series

Constant Voltage Power Supply Specifications

Temperature Derating Curve



Input Derating Curve

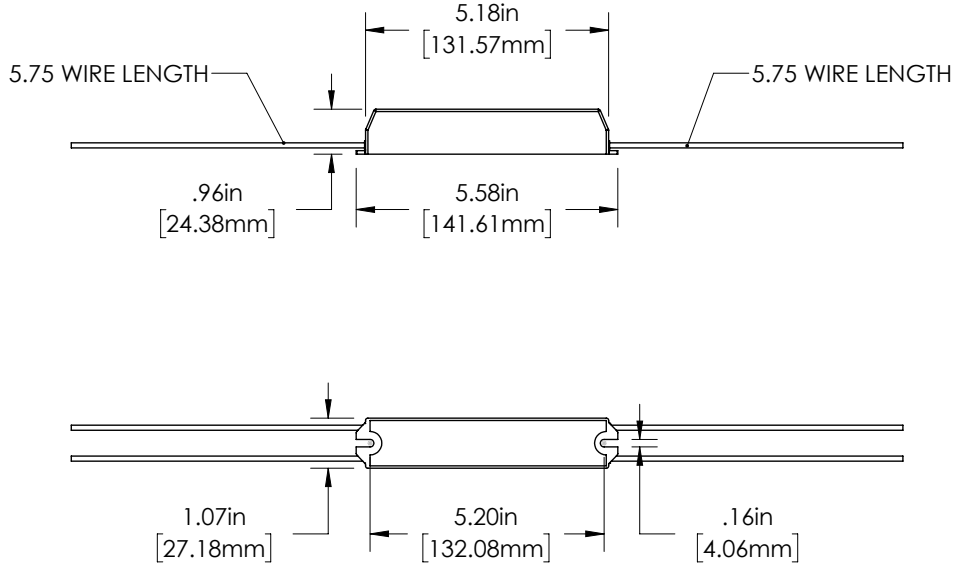


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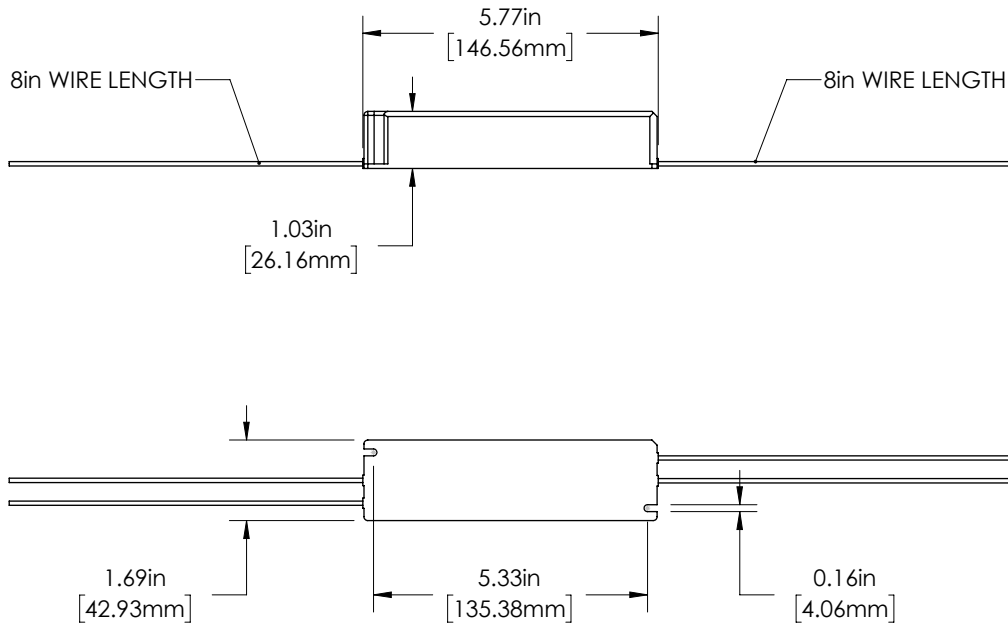
Constant Voltage Power Supply Specifications

Dimensional Drawings

CVPS-20W-x



CVPS-40W-x

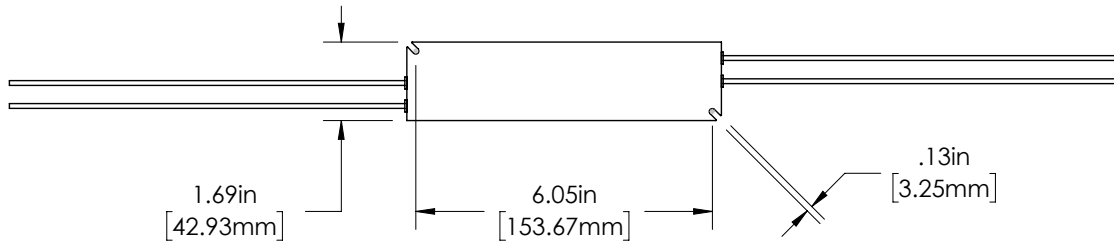
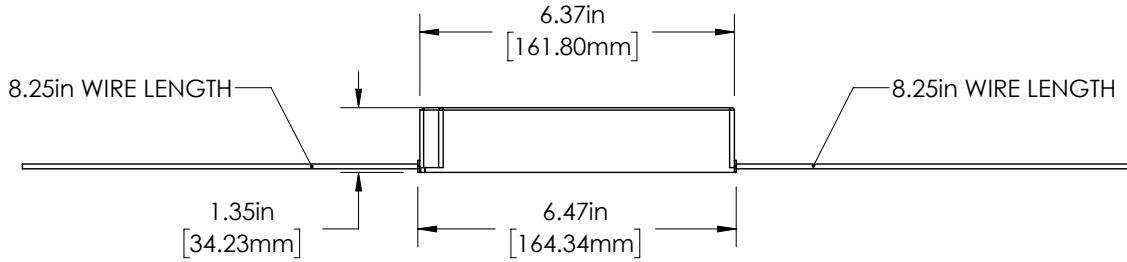


CVPS Series

Constant Voltage Power Supply Specifications

Dimensional Drawings (cont.)

CVPS-60W-x



CVPS-96W-24V, CVPS-100W-12V

