

## Electronic 12Vdc and 24Vdc LED Constant Voltage Power Supplies



OPTOTRONIC constant voltage LED power supplies are available in a variety of sizes and are electronically stabilized. The wide range of input voltages on select models, from 120 to 277V<sub>AC</sub>, enables worldwide use on single-phase AC power lines. These supplies are available with 12V<sub>DC</sub> and 24V<sub>DC</sub> outputs and are protected against open circuit, short circuit, overload and overheating conditions.

### Application Information

#### Applications

- Ambience lighting inside furniture
- Backlighting
- Compact installations
- Effect lighting
- General lighting
- Low & medium power applications
- Panel lighting
- Path and roadway marking
- Signs
- Step & seat marking
- Wall washing

### Key Features & Benefits

- Wet and damp-rated designs available for use in outdoor applications
- Wide input voltage range: 120-277V<sub>AC</sub> (select models)
- Broad ambient temperature range for use in extreme application conditions
- Electronically stabilized output voltage with low-line ripple
- Integrated dimming (select models)
- Short circuit, overload and over-heat protection for sustained performance
- High-power factor and efficiency
- Compact enclosures for variety of applications and fixture designs
- UL Class 2 output for safe operation
- Exceptional line and load regulation

### Product Offering

Ordering Abbreviation	Output Wattage	Output Voltage
OT20W/12V/UNV	20	12
OT60W/12V/UNV	60	12
OT60W/12V/UNV/DIM*	60	12
OT20W/24V/UNV	20	24
OT50W/24V/120V/LP	50	24
OT96W/24V/UNV	96	24
OT96W/24V/UNV/DIM*	96	24
OT96W/24V/UNV/JBX	96	24

\*Dimmable

### Specifications and Certifications



The OT20, OT60, OT60DIM, OT96 and OT96DIM are UL8750 Recognized for the US and Canada Class 2 Unit and are listed in the UL Sign Components Manual (SAM).



The OT96 (51626) is UL48 Listed for US and Canada Class 2 Unit



The OT60 (51632), OT60DIM and OT96 are CSA Approved



## Ordering Information

Item Number	Ordering Abbreviation	Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Nominal Input Power (W)	Output Voltage (V <sub>oc</sub> )	Output Power Range (W)	Max. Line Ripple (V)	UL File #	Location Rating
12V LED Power Supplies										
51604	OT20W/12V/UNV	120 277	0.27 0.17	> 0.9	25	12	0.1-20	±1.0	E320395	Damp
51632	OT60W/12V/UNV	120 277	0.60 0.26	0.99	71	12	1-60	±1.0	E320395 E258264	Wet

### 24V LED Power Supplies

51804	OT20W/24V/UNV	120 277	0.27 0.17	> 0.9	25	24	0.1-20	±1.0	E320395	Damp
51598	OT50W/24V/120V/LP	120	0.47	0.99	56	24	0.9-50	±0.2	E248522	Dry
51522	OT96W/24V/UNV	120 277	0.97 0.39	0.9	107	24	1-96	±1.0	E320395	Wet
51626	OT96W/24V/UNV/JBX	120 277	0.91 0.39	0.99	108	24	0.8-96	±1.0	E320395 UL Listed	Wet

Item Number	Ordering Abbreviation	Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Nominal Input Power (W)	Output Voltage (V <sub>oc</sub> )	Output Power Range (W)	Max. Line Ripple (V)	Dimming Mode	Dimming Control	Dimming Range	UL File #	Location Rating
51633	OT60W/12V/UNV/DIM	120 277	0.60 0.26	0.99	71	12	1-60	±1.0	PWM	0-10V <sub>bc</sub>	10-100%	E320395 E258264	Wet
51520	OT96W/24V/UNV/DIM	120 277	0.97 0.39	0.9	107	24	1-96	±1.0	PWM	0-10V <sub>bc</sub>	10-100%	E320395	Wet

\*Output Voltage Tolerance ±5%

#### Notes

All power supplies can be remotely mounted up to 32 feet. Although it is possible to exceed the remote mounting distance, the installer and/or end user must take precautions to prevent and/or test the effects of EMI (electromagnetic interference).

## Ordering Guide

<b>OT</b> OPTOTRONIC®	<b>96W</b> Output Wattage	/	<b>24V</b> Output Voltage	/	<b>UNV</b> Input Voltage UNV = 120-277V
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## Minimum and Maximum Ratings

Parameter	Power Supply	Values
Input Voltage Range (Min/Max)	OT50	108-132V <sub>AC</sub>
	OT20, OT60 and OT96	108-305V <sub>AC</sub>
Input Frequency		50/60Hz
Ambient Temperature Range	OT50W	-20°C through +50°C
	OT96	-20°C through +40°C
	OT60	-25°C through +50°C
	OT20	-40°C through +60°C
	OT96JBX	-30°C through +70°C (2% de-rating per °C from 50°C)
Max. Case Temperature	OT50	70°C
	OT96	75°C
	OT60	80°C
	OT20 and OT96JBX	90°C

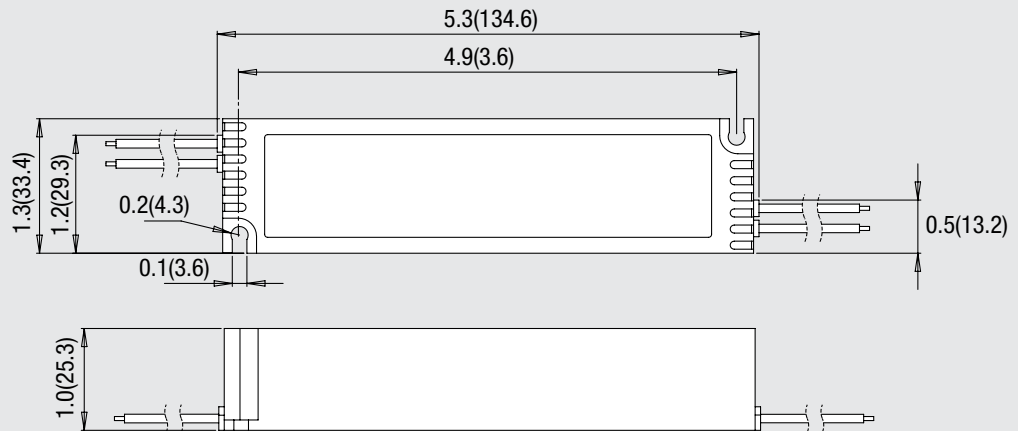
## Assembly and Wiring Diagrams

### OT20W/12V and 24V Case:

#### Packaging:

Quantity: 50 pieces/carton  
 Weight: .46 lbs each (approx.)  
 22.98 lbs/carton

#### Wiring: Leads only



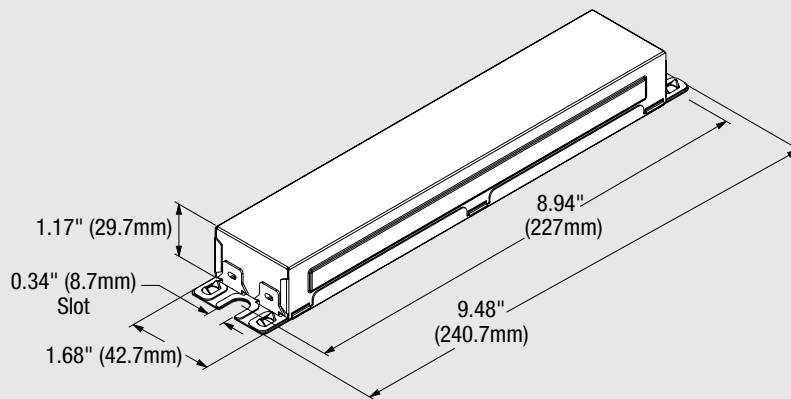
### OT60W/12V and OT96W/24V Case:

#### Packaging:

Quantity: 10 pieces/carton  
 Weight: 1.35 lbs each (approx.)  
 14.00 lbs/carton

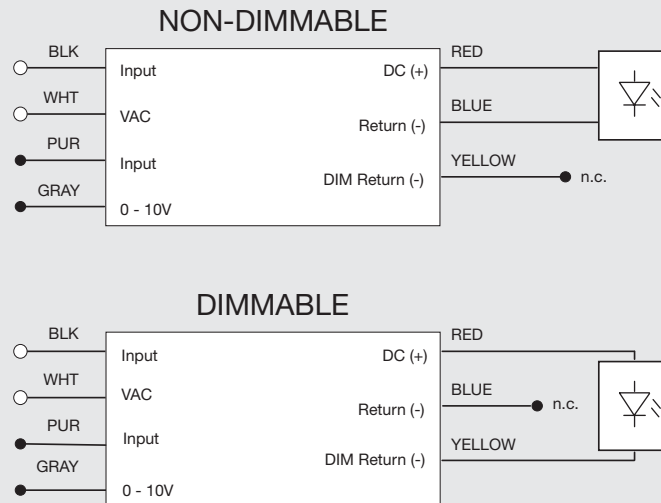
#### Wiring: Leads only (no connectors)

Input: 9" (18AWG wire)  
 black & white wires  
 Output: 9" (18AWG wire)  
 red+ & blue- wires



### Wiring Diagram for OT60W/DIM/12V (51633) and OT96DIM/24V:

DIM Input: 9" (18AWG wire) gray & purple  
 DIM Output: 9" (18AWG wire) yellow



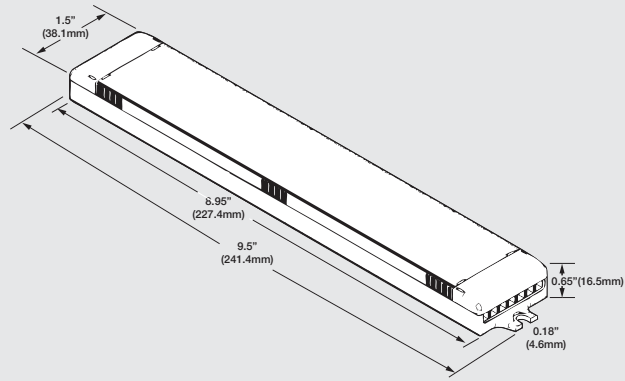
## Assembly and Wiring Diagrams (Cont.)

### OT50W/24V Case:

#### Packaging:

Quantity: 20 pieces/carton  
Weight: 0.4 lbs each (approx.)  
8.5 lbs/carton

**Wiring:** Connectors only (No leads provided)  
Use 14-22AWG solid or stranded copper wire only

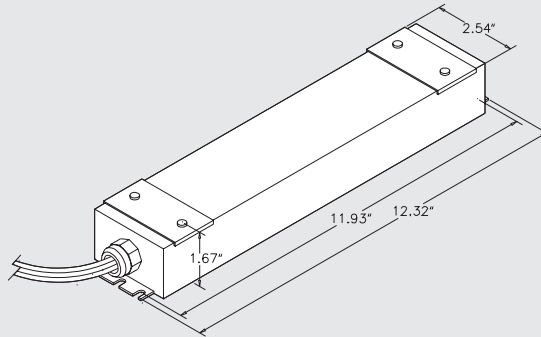


### OT96JBX/24V Case (Wet Rated):

#### Packaging:

Quantity: 16 pieces/carton  
Weight: 2 lbs each (approx.)  
33 lbs/carton

**Wiring:** Leads only (2.76" 18AWG wire)  
Input: black (L), white (N), & green/yellow (GRD)  
wires with a UL Listed, 1/2" metallic fitting  
Output: gray (+) & black (-) with a UL Listed,  
1/2" plastic fitting



## Warranty

OPTOTRONIC® Products are covered by our LED Module, OPTOTRONIC Power Supply or Control Warranty. For additional information or to download the warranty registration form, refer to the latest version of the warranty (LED089) available in the literature section of [www.osram-america.com](http://www.osram-america.com).

Product Warranty: 5 years  
System Warranty: 5 years

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