

OPTOTRONIC®



Electronic 10.5V_{DC}, 12V_{DC} & 24V_{DC} LED 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_{AC} enables worldwide use on single-phase AC power lines. These supplies are available with 10.5V_{DC}, 12V_{DC} and 24V_{DC} 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

- Damp rated designs available for use in outdoor applications
- Wide input voltage range: 120-277V_{AC} (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
OT50W/10V/UNV	50	10.5
OT20W/12V/UNV	20	12
OT60W/12V/UNV	60	12
OT60W/12V/UNV/DIM*	60	12
OT17W/24V/UNV	17	24
OT30/120/24CORD	30	24
OT50W/24V/120V/LP	50	24
OT75W/24V/UNV	75	24
OT96W/24V/UNV	96	24
OT96W/24V/UNV/DIM*	96	24
OT96W/24V/UNV/JBX	96	24
OT240W/3X24V/120-240V/JBX	240	24

*Dimmable

Specifications and Certifications



The OT17, OT20, OT50, OT60, OT60DIM, OT75, OT96, OT96DIM are UL1310 and UL48 Recognized for the US & Canada Class 2 Unit.



The OT50 (51509), OT60 (51632), and OT60DIM (51633) are listed in the UL Sign Components Manual (SAM)



The OT96 (51626) & OT240 (51627) are UL48 Listed for US & Canada Class 2 Unit



The OT30 is ETL listed and conforms to UL1310



The OT50 (51509), OT60 (51632), OT60DIM, OT75 and OT96 are CSA approved



Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Ordering Information

Item Number	Ordering Abbreviation	Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Nominal Input Power (W)	Output Voltage (V _{oc})	Output Power Range (W)	Max. Line Ripple (V)	UL File #	Location Rating
10V LED Power Supplies										
51509	OT50W/10V/UNV	120 277	0.51 0.22	0.99	61	10.5	0.4-50	±0.2	E258264	Damp
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	Damp
24V LED Power Supplies										
51622	OT17W/24V/UNV	120 277	0.19 0.10	0.92	21	24	0.8-17	±1.0	E220096	Damp
51521	OT30/120/24CORD	120	0.63	0.5	38	24	1-30	±1.5	3137489	Dry
51598	OT50W/24V/120V/LP	120	0.47	0.99	56	24	0.9-50	±0.2	E248522	Dry
51514	OT75W/24V/UNV	120 277	0.76 0.33	0.99	90	24	0.9-75	±0.2	E258264	Damp
51522	OT96W/24V/UNV	120 277	0.97 0.39	0.9	107	24	1-96	±1.0	E320395	Damp
51626	OT96W/24V/UNV/JBX	120 277	0.91 0.39	0.99	108	24	0.8-96	±1.0	E320395 UL Listed	Wet ²
51627	OT240W/3x24V/120-240V/JBX	120 240	2.39 1.19	0.99	285	24	0.8-240	±1.0	E320395 UL Listed	Wet ²

Item Number	Ordering Abbreviation	Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Nominal Input Power (W)	Output Voltage (V _{oc})	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 _{bc}	10-100%	E320395 E258264	Damp
51520	OT96W/24V/UNV/DIM	120 277	0.97 0.39	0.9	107	24	1-96	±1.0	PWM	0-10V _{bc}	10-100%	E320395	Damp

*Output Voltage Tolerance ±5%

Notes:

1. 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).

2. Use wiring rated and marked PLTC, CL3R, and "sun resistant"

Ordering Guide

OT OPTOTRONIC®	75W Output Wattage	/	24V Output Voltage	/	UNV Input Voltage UNV = 120-277V
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Minimum and Maximum Ratings

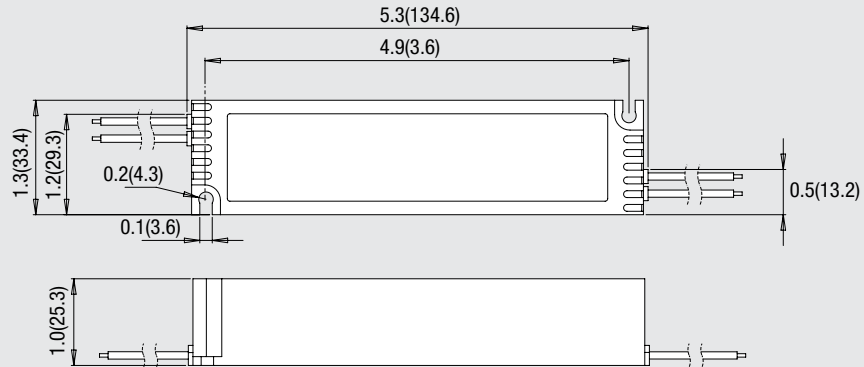
Parameter	Power Supply	Values
Input Voltage Range (Min/Max)	OT240	108-254V _{AC}
	OT30 and OT50	108-132V _{AC}
	OT17, OT20, OT50/10V, OT60 OT75, and OT96	108-305V _{AC}
Input Frequency		50/60Hz
Ambient Temperature Range	OT50W	-20°C through +50°C
	OT30 and OT96	-20°C through +40°C
	OT60	-25°C through +50°C
	OT50/10V and OT75	-25°C through +60°C
	OT25	-40°C through +60°C
	OT17, OT96JBX, OT240	-30°C through +70°C (2% de-rating per °C from 50°C)
Max. Case Temperature	OT30	45°C
	OT50	70°C
	OT96	75°C
	OT25 and OT60	80°C
	OT17, OT50/10V, OT75, OT96JBX and OT240	90°C

OT20W/12V Case:

Packaging:

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

Wiring: Leads only



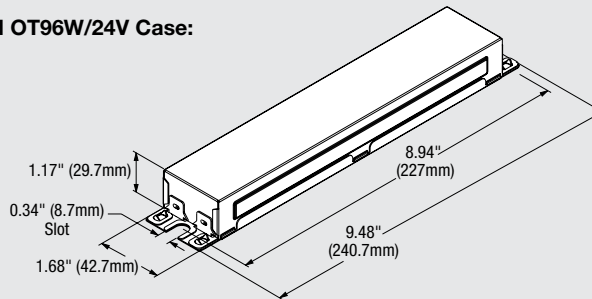
OT50W/10V, OT60W/12V, OT75W/24V and OT96W/24V Case:

Packaging:

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

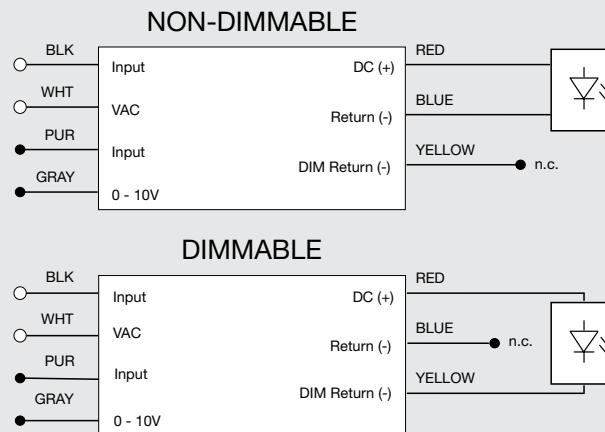
Wiring: Leads only (no connectors)

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



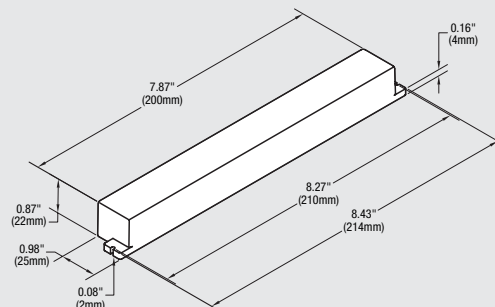
OT17W/24V Case:

Packaging:

Quantity: 50 pieces/carton
Weight: 0.36 lbs each (approx.)
18.3 lbs/carton

Wiring: Leads only (no connectors)

Input: 6" (18AWG wire) black & white wires
Output: 6" (18AWG wire) gray+ and black- wires



Assembly and Wiring Diagrams (Cont.)

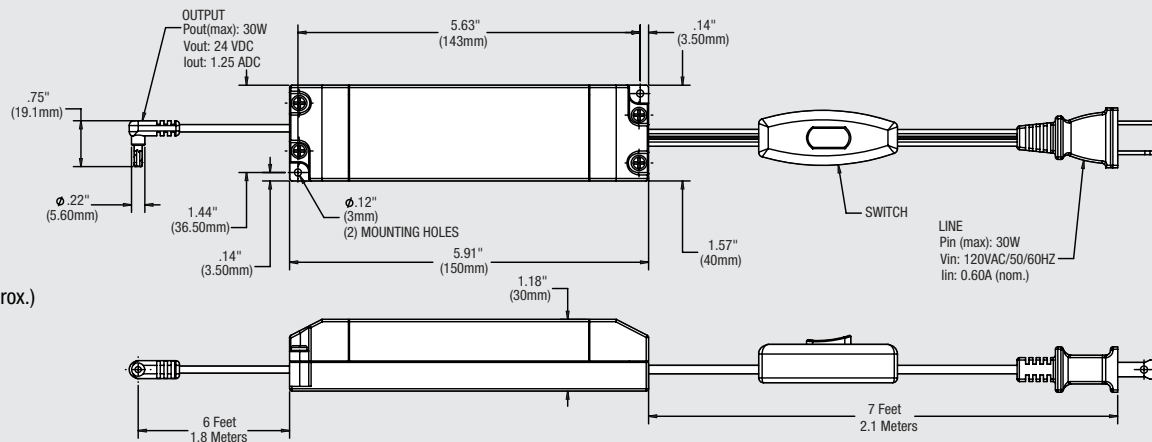
OT30W/24V Case:

Packaging:

Quantity: 50 pieces/carton

Weight: 0.63 lbs each (approx.)

31.77 lbs/carton



OT50W/24V Case:

Packaging:

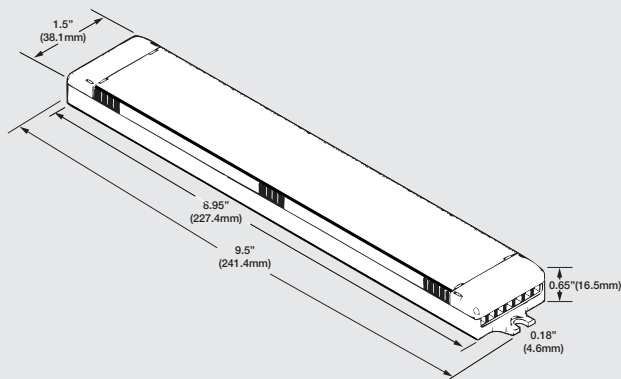
Quantity: 20 pieces/carton

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

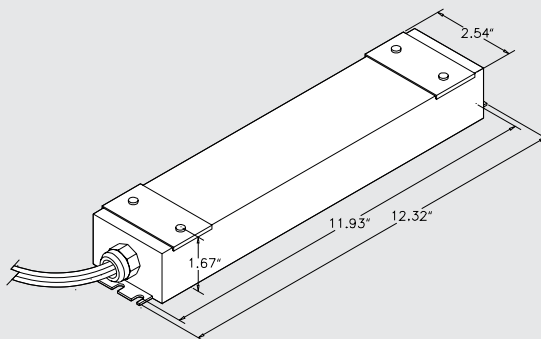
Weight: 2 lbs each (approx.)

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



Assembly and Wiring Diagrams (Cont.)

OT240W/24V Case:

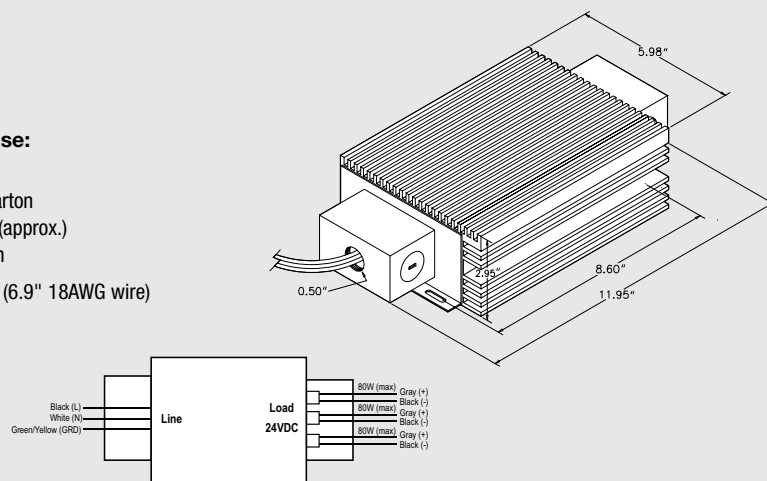
Packaging:

Quantity: 5 pieces/carton

Weight: 11 lbs each (approx.)

53 lbs/carton

Wiring: Leads only (6.9" 18AWG wire)



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/LED.

Product Warranty: 3 years

System Warranty: 5 years

OSRAM GmbH

Corporate Headquarters:

100 Endicott Street

Danvers, MA 01923 USA

Phone 1-800-LIGHTBULB

www.osramamericas.com

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