

OPTOTRONIC®

Electronic 10.5V DC & 12V DC LED Power Supplies



OPTOTRONIC power supplies are compact and electronically stabilized. The wide range of input voltage on select models, from 100 to 277V AC, enables worldwide use on single-phase AC power lines. These supplies are available in 10.5Vdc and 12Vdc outputs and are protected against open circuit, short circuit, overload and overheating conditions.

Key Features & Benefits

- Damp rated designs available for use in outdoor applications
- Wide input voltage range: 100-277V 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 overheat 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
OT6/100-120/10CE*	6	10.5
OT20W/10V/120-240V*	20	10.5
OT25/120/10*	25	10.5
OT50W/10V/UNV	50	10.5
OT10W/12V/120-240V	10	12
OT25W/12V/UNV	25	12
OT60W/12V/UNV**	60	12
OT60W/12V/UNV/DIM**	60	12

LED power supplies compatible with: 10.5V or 12V LED modules

*Discontinued

**New Model

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 and seat marking
- Wall washing

Specifications and Certifications



OPTOTRONIC LED power supplies are UL1310 and UL48 Recognized for the US and Canada Class 2 Unit. OT10W, OT25W, OT50W, OT60W and OT60W/DIM are listed in the UL Sign Components Manual (SAM)



OT50W, OT60W and OT60W/DIM are CSA approved.



This light source meets restrictions on hazardous substances.

(except for Item# 51505)

FCC 47CFR Part 15 compliant

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	Date

Ordering Information

		Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Nominal Input Power (W)	Output Voltage (VDC)	Output Power Range (W)	Max. Line Ripple (V)	Remote ¹ Mounting (ft)	UL File #	Location Rating		
10V LED Power Supplies													
51502	OT6/100-120/10CE*	120	0.11	0.55	7.5	10.5±0.5	0.4-6	±0.2V	32	E258264	Damp		
51599	OT20W/10V/120-240V*	120 240	0.22 0.11	0.92	24	10.5±0.5	1-20	±1.1V	12	E220096	Damp		
51505	OT25/120/10*	120	0.28	0.92	31	10.5±0.5	3-25	±1.1V	10	E220096	Dry		
51509 ²	OT50W/10V/UNV	120 277	0.51 0.22	0.99	61	10.5±1.0	0.4-50	±0.2V	32	E258264	Damp		
12V LED Power Supplies													
51601	OT10W/12V/120-240V	120 240	0.18 0.09	0.6	13	12±1.0	1-10	±1.1V	12	E258264	Damp		
51602	OT25W/12V/UNV	120 277	0.26 0.12	0.95	30	12±1.0	1-25	±1.1V	10	E258264	Damp		
51632 ³	OT60W/12V/UNV	120 277	0.60 0.26	0.99	71	12±1.0	1-60	±1.0V	32	E320395 E258264	Damp		
Dimmable 12V LED Power Supply													
Item Number	Ordering Abbreviation	Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Nominal Input Power (W)	Output Voltage Range (VDC)	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±1.0	1-60	+/- 1.0V	PWM	0-10V DC	10 –100%	E320395 E258264	Damp

*Discontinued

1. Although it is possible to exceed the remote mounting distances, the installer and/or end user must take precautions to prevent and/or test the effects of EMI (electromagnetic interference).

2. 51509 replaces 51506 (OT25/120/10CORD), which is discontinued.

3. 51632 replaces 51603 (OT60/12V/UNV), which is discontinued.

Ordering Guide

OT	10W	/	12V	/	120-240
OPTOTRONIC®	Output Wattage		Output Voltage		Input Voltage

Minimum and Maximum Ratings

Parameter	Power Supply	Values
Input Voltage Range (Min/Max)	OT6 OT10 and OT20 OT25/12V, OT50 and OT60	90-132 VAC 108-254 VAC 108-305 VAC
Input Frequency		50/60Hz
Ambient Temperature Range	OT6 OT10, OT25/12V and OT60 OT20 OT50	-20°C through +50°C -25°C through +50°C -30°C through +60°C -25°C through +60°C
Max. Case Temperature	OT6 and OT20 OT10, OT25 OT60	70°C 90°C 80°C

Assembly and Wiring Diagrams

OT6W Case:

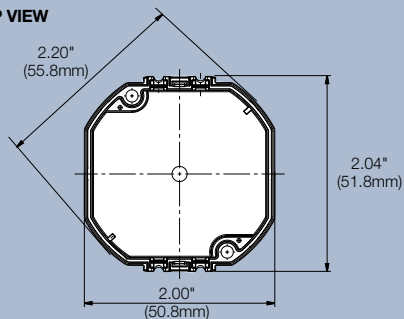
Packaging:

Quantity: 20 pieces/carton
Weight: 0.12 lbs each (approx.)
3 lbs/carton

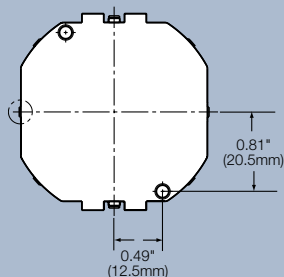
Wiring: Leads only (no connectors)

Input: (18AWG wire)
Output: (18AWG wire)

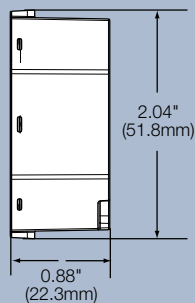
TOP VIEW



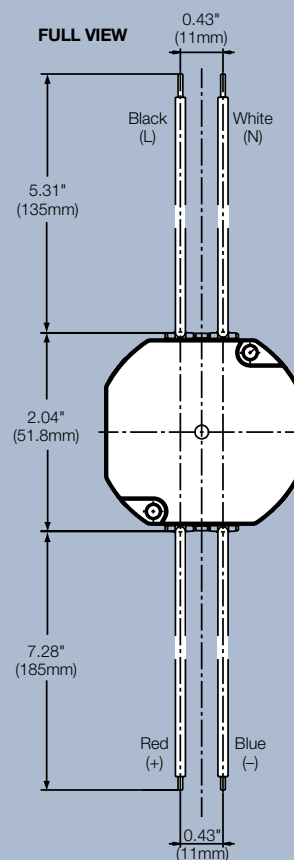
BOTTOM VIEW



SIDE VIEW



FULL VIEW



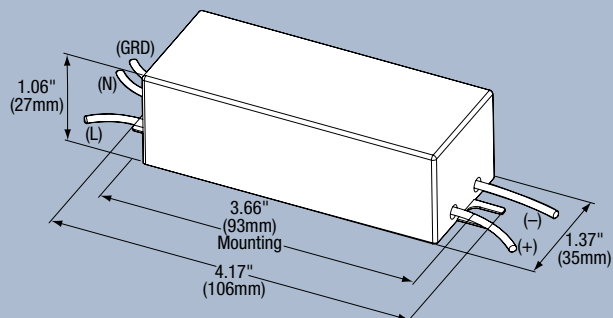
OT10W Case:

Packaging:

Quantity: 60 pieces/carton
Weight: 0.404 lbs each (approx.)
24.25 lbs/carton

Wiring: Leads only

(18" 18AWG wire)



Green (GRD)
White (N)
Black (L)

Red (+)
Black (-)

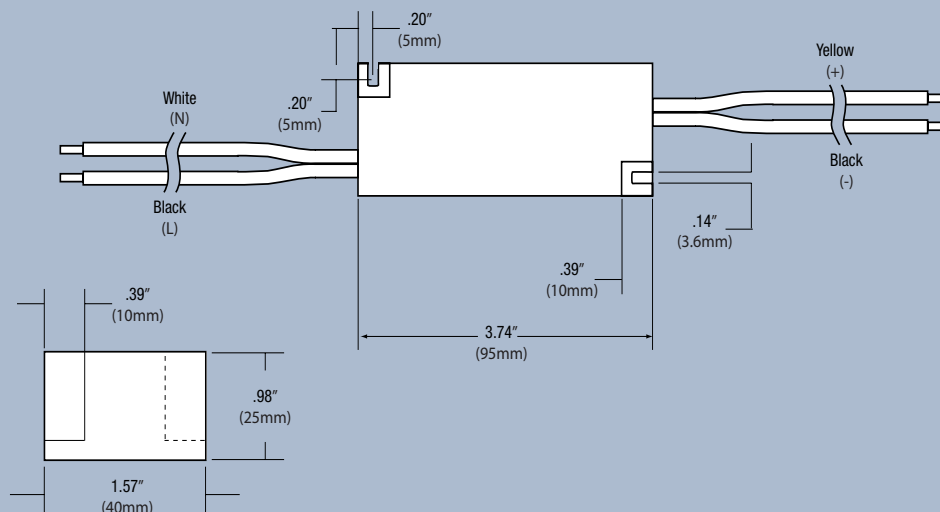
OT20W Case:

Packaging:

Quantity: 80 pieces/carton
Weight: 0.41 lbs each (approx.)
32.4 lbs/carton

Wiring: Leads only

(6" 18AWG)



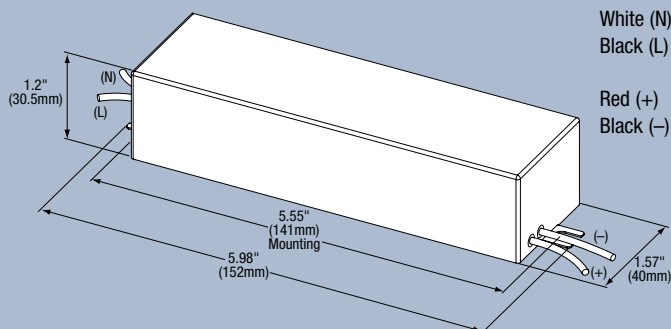
Assembly and Wiring Diagrams (continued)

OT25W/12V Case:

Packaging:

Quantity: 24 pieces/carton
Weight: 1.17 lbs each (approx.)
28.0 lbs/carton

Wiring: Leads only
(18" 18AWG)

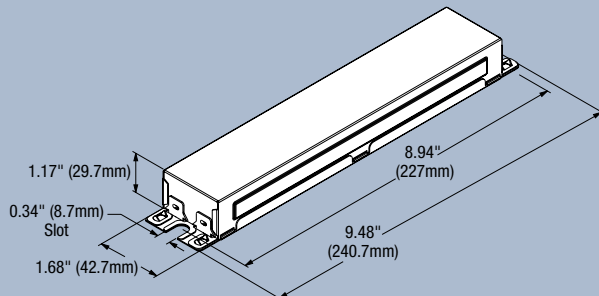


OT50W and OT60W Case:

Packaging:

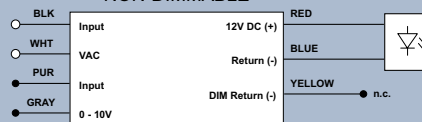
Quantity: 10 pieces/carton
Weight: 1.35 lbs each (approx.)
14.00 lbs/carton

Wiring: Leads only (no connectors)
Input: 9" (18AWG wire)
black & white wires
Output: 9" (18AWG wire)
red+ & blue- wires

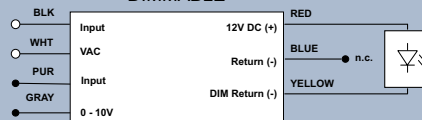


**Wiring Diagram for
OT60W/DIM (51633):**

NON-DIMMABLE



DIMMABLE



For complete power supply and LED module details, refer to the OSRAM SYLVANIA LED Systems Specification Guide or go to www.osram.com

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.com/LED.

Product Warranty: 3 years

System Warranty: 5 years

United States

OSRAM SYLVANIA

100 Endicott Street
Danvers, MA 01923
1-800-LIGHTBULB

Trade

Phone: 800-255-5042

Fax: 800-255-5043

National Accounts

Phone: 800-562-4671

Fax: 800-562-4674

OEM/Special Markets

Phone: 800-762-7191

Fax: 800-762-7192

Retail

Phone: 800-842-7010

Fax: 800-842-7011

SYLVANIA Lighting Services

Phone: 800-323-0572

Fax: 800-537-0784

Display/Optic

Phone: 888-677-2627

Fax: 855-543-1043

Canada

OSRAM SYLVANIA LTD.

2001 Drew Road
Mississauga, ON L5S 1S4
1-800-LIGHTBULB

Trade

Phone: 800-263-2852

Fax: 800-667-6772

OEM/Special Markets/Display/Optic

Phone: 800-265-2852

Fax: 800-667-6772

Retail

Phone: 800-720-2852

Fax: 800-667-6772

SYLVANIA Lighting Services

Phone: 800-663-4268

Fax: 866-239-1278

Mexico

OSRAM MEXICO

Tultitlan/Edo de Mexico

Phone: 011-52-55-58-99-18-50

ENCELIUM Technologies

United States

Phone: 201-928-2400

Fax: 201-928-4028


Canada

Phone: 905-731-7678

Fax: 905-731-1401

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Specifications subject to change without notice.

