

OPTOTRONIC®

Programmable Linear Constant Current Dimmable LED Power Supplies



The OPTOTRONIC programmable dimmable family consists of highly efficient, linear, constant current LED power supplies. One click programming through the OPTOTRONIC programmer allows OEMs to configure the output current with 1mA resolution. Also fully customizable by customers are the end of life indicator, LED thermal protection and the constant lumen maintenance features. The OPTOTRONIC programmer does not require the power supply to be powered up or connected to AC line voltage while programming. The power supplies are available with built-in 0-10V dimming protocol with models available in 1% to 10%. The auxiliary output has the capability to power various sensors and is optimized for the OSRAM Connected Lighting Module (CLM). For more information on the CLM, please visit www.osram.us/ds

Key Features & Benefits

- OEM Programmable with 1mA resolution to perfectly match LED load and maximize performance
- Integrated OEM programmable features include:
 - Constant lumen maintenance
 - End of life indication
 - LED thermal protection
 - Dim-to-off
 - Soft start
- Programming doesn't require powering up or connecting the power supply to AC line voltage
- Specification grade dimming down to 1% or 10% on 0-10V dimmers
- Available optional auxiliary output to power 12V, 20V, and 24V low power applications
- Slim form factors
- Input voltage:
 - Universal 120-277V_{AC} 50/60Hz
 - 347V_{AC} 50/60 Hz
- UL Class 2 output for safe operation

Product Offering

Maximum Power	Minimum Dimming ¹	Output Current Range
85W	1% 10%	700 - 2300mA
50W	1% 10%	400 - 1400mA
48W	1% 10%	700 - 2000mA
30W	1% 10%	150 - 1050mA 350 - 1050mA
20W	1% 10%	150 - 700mA

Configuration Overview



Application Information

- Indirect/direct
- Linear
- Recessed troffer

Configurable Features

1%

DIM to Off

<1%

Thermal
NTC
Protection

0-10V
Protection

Constant
Lumen

End of Life

AUX Output

Soft Start
On

Specifications and Certifications



Light is OSRAM

OSRAM

Electrical Specifications

Maximum Output Power (W)	Nominal Input Voltage (V _{AC})	Maximum Input Current (A)	Power Factor	THD	Line Transient	Efficiency	Maximum Auxiliary Output Current (mA)	Auxiliary Output Voltage (V _{DC})*	Environmental Rating	UL File #
85W	120-277V _{AC} 347-480V _{AC} 50/60 Hz	0.83 @ 120V 0.28 @ 347V 0.21 @ 480V 0.36 @ 277V	>0.9	<20%	ANSI C62.41 Cat.A 2.5kV ANSI C82.77-5-2015 (6kV)**	>85%	40	12/20/24	Dry & Damp	E320395
50W	120-277V _{AC} 347V _{AC} 50/60 Hz	0.52 @ 120V 0.2A @ 347V 0.24 @ 277V	>0.9	<20%	ANSI C62.41 Cat.A 2.5kV	>85%	40	12/20/24	Dry & Damp	E320395
48W	120-277V _{AC} 347V _{AC} 50/60 Hz	0.52 @ 120V 0.2A @ 347V 0.23 @ 277V	>0.9	<20%	ANSI C62.41 Cat.A 2.5kV	>85%	40	12/20/24	Dry & Damp	E320395
30W	120-277V _{AC} 347V _{AC} 50/60 Hz	0.31 @ 120V 0.13 @ 347V 0.15 @ 277V	>0.9	<20%	ANSI C62.41 Cat.A 2.5kV	>85%	40	12/20/24	Dry & Damp	E320395
20W	120-277V _{AC} 50/60 Hz	0.23 @ 120V 0.1 @ 277V	>0.9	<20%	ANSI C62.41 Cat.A 2.5kV	>80%	40	12/20/24	Dry & Damp	E320395

*Default auxiliary output is 12V; configurable via OT Programmer
** 6kV transient protection available for high-bay (HB) models only.

Ordering Information

Item Number	Ordering Abbreviation	Total Output Power	Output Current Range ¹	Default Current	Output Voltage Range (V _{DC})	Dimming Control	Dimming Range ²	LED Thermal Protection
Linear 120-277V Drivers								
OTi85								
57420	OTi 85/120-277/2A3 DIM-1 L	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
57421	OTi 85/120-277/2A3 DIM-1 L AUX	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
57422	OTi 85/120-277/2A3 DIM L	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	10-100%	Yes
57424	OTi 85/120-277/2A3 DIM-1 L HB	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
57425	OTi 85/120-277/2A3 DIM-1 L HB AUX	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
57426	OTi 85/120-277/2A3 DIM L HB	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	10-100%	Yes
HB refers to highbay versions that have 6kV surge protection								
OTi50								
79467	OTi50/120-277/1A4 DIM-1 L AUX	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	1-100%	Yes
79516	OTi50/120-277/1A4 DIM-1 L	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	1-100%	Yes
79631	OTi50/120-277/1A4 DIM L	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	10-100%	Yes
OTi48								
79468	OTi48/120-277/2A0 DIM-1 L AUX	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
79517	OTi48/120-277/2A0 DIM-1 L	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
79632	OTi48/120-277/2A0 DIM L	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	10-100%	Yes
OTi30								
79466	OTi30/120-277/1A0 DIM-1 L AUX	30W	150-1050mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes
79515	OTi30/120-277/1A0 DIM-1 L	30W	150-1050mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes
79630	OTi30/120-277/1A0 DIM L	30W	350-1050mA (programmable)	700mA	10-55V	0-10V	10-100%	Yes
OTi20								
79532	OTi20/120-277/0A7 DIM-1 L AUX	20W	150-700mA (programmable)	500mA	10-55V	0-10V	1-100%	Yes
79534	OTi20/120-277/0A7 DIM-1 L	20W	150-700mA (programmable)	500mA	10-55V	0-10V	1-100%	Yes
79535	OTi20/120-277/0A7 DIM L	20W	150-700mA (programmable)	500mA	10-55V	0-10V	10-100%	Yes
Linear 347-480V Drivers								
OTi50								
79670	OTi 50/347/1A4 DIM-1 L AUX	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	1-100%	Yes
79676	OTi 50/347/1A4 DIM-1 L	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	1-100%	Yes
79678	OTi 50/347/1A4 DIM L	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	10-100%	Yes
OTi48								
79671	OTi 48/347/2A0 DIM-1 L AUX	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
79677	OTi 48/347/2A0 DIM-1 L	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
79680	OTi 48/347/2A0 DIM L	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	10-100%	Yes
OTi30								
79669	OTi 30/347/1A0 DIM-1 L AUX	30W	150-1050mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes
79675	OTi 30/347/1A0 DIM-1 L	30W	150-1050mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes
79679	OTi 30/347/1A0 DIM L	30W	350-1050mA (programmable)	700mA	10-55V	0-10V	10-100%	Yes
OTi85								
57428	OTi 85/347-480/2A3 DIM-1 L	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
57429	OTi 85/347-480/2A3 DIM-1 L AUX	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
57430	OTi 85/347-480/2A3 DIM L	85W	700-2300mA (programmable)	1400mA	10-55V	0-10V	10-100%	Yes

1. Output current below 350mA is in PWM mode (not applicable for OTi85W).

2. Dim-to-off and Soft-start are programmable (enable/disable) features. The default mode for both features is disabled for out-of-the-box products.

Ordering Guide

OTi	85	/	120-277	/	2A3	DIM	L	HB	AUX
OPTOTRONIC® Intelligent	Output Wattage		Input Voltage		Output Current (Max)	0-10V Dimming	L = Linear	HB = Highbay	AUX =
	85 = 85W		120-277		2A3 = 2300mA	DIM = 10% Dimming			Auxiliary
	50 = 50W		347		1A4 = 1400mA	DIM-1 = 1% Dimming			Output
	48 = 48W		347-480		1A0 = 1000mA				
	30 = 30W				0A7 = 700mA				
	20 = 20W								

Accessories



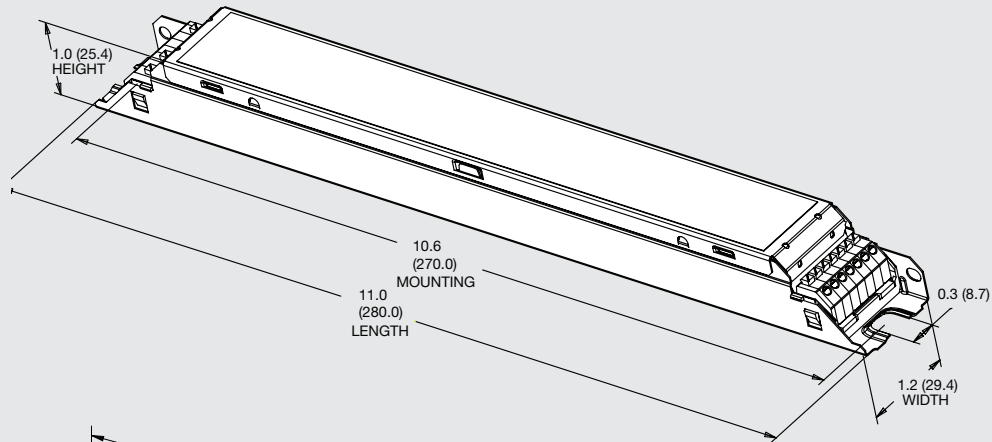
Item Number	Ordering Abbreviation	Description	Required Accessory
51645	OT Programmer	USB Programming Tool	Yes
51647	OTLinearHandheldPRGtool	Programming Tool	No
51648	OTLinearAutoPRGTool	Programming Tool	No

Minimum and Maximum Ratings

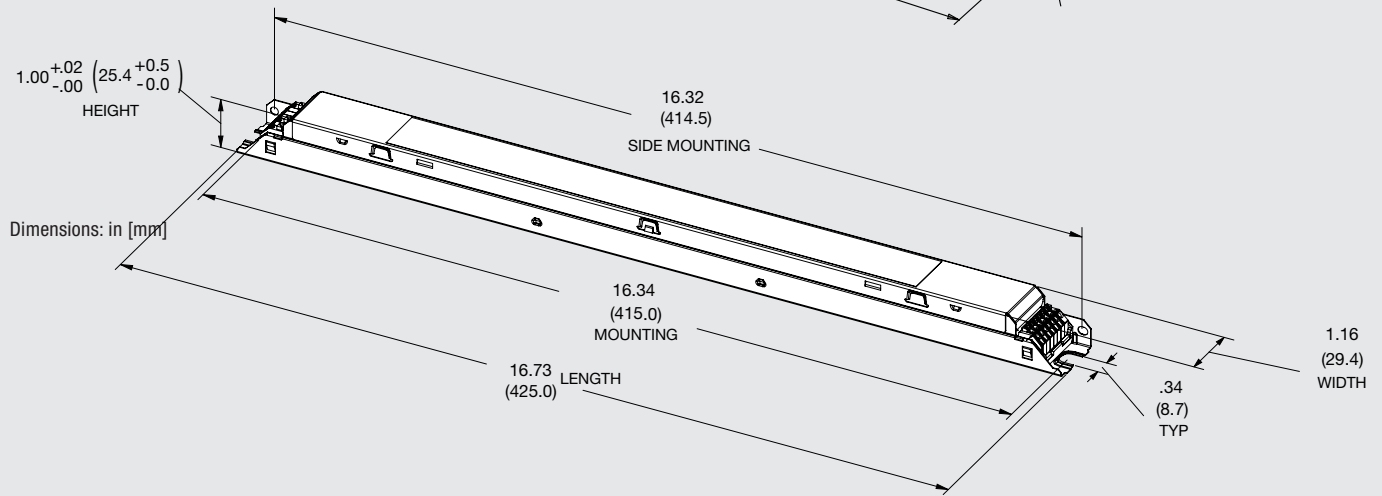
Parameter	Values
Input Voltage Range	108 - 305V _{AC} (UNV); 312-528V _{AC} (High Voltage [HV])
Maximum Case Temperature (T _c point)	90°C (194°F)
Maximum Case Temperature for 5 year life and warranty	75°C (165°F) for 30/48/50W, 80°C (176°F) for 85W
Ambient Operating Temperature (reference)	-30°C to 50°C (-22°F to 122°F)
Storage Temperature	70°C Max (150°F)
Maximum Relative Humidity	85% (Non-condensing)

Assembly Diagram

OTi20W, OTi30W, OTi48W and OTi50W

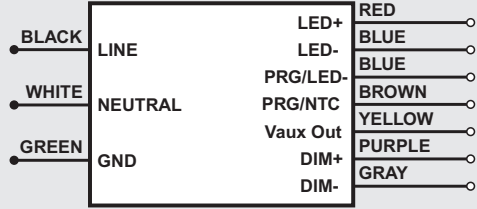


OTi85W

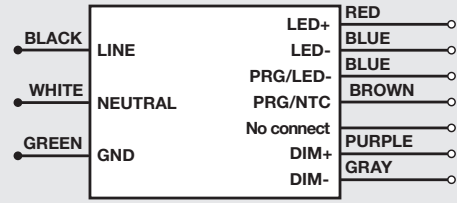


Wiring Diagram

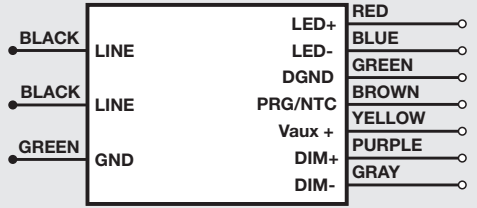
Wiring diagram for AUX output models



Wiring diagram for non-AUX output models



Wiring diagram 85W (347-480) w/AUX

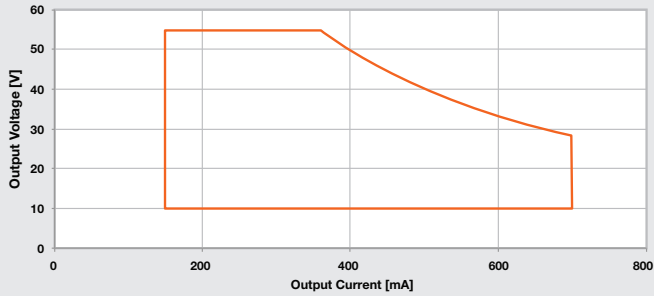


Wiring diagram 85W (347-480) w/o AUX

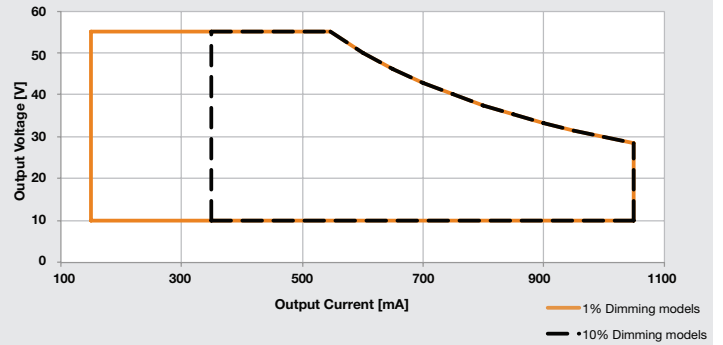


Operating Range

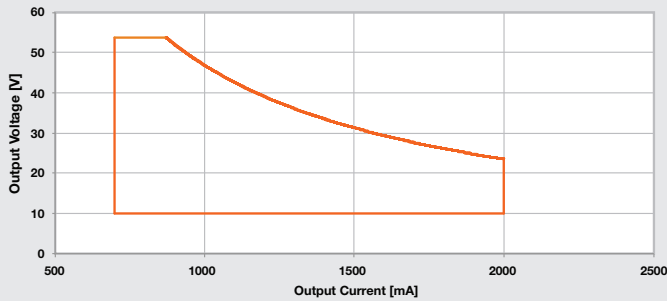
OTi20W



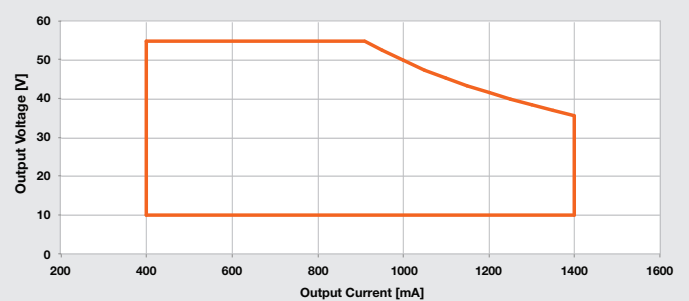
OTi30W



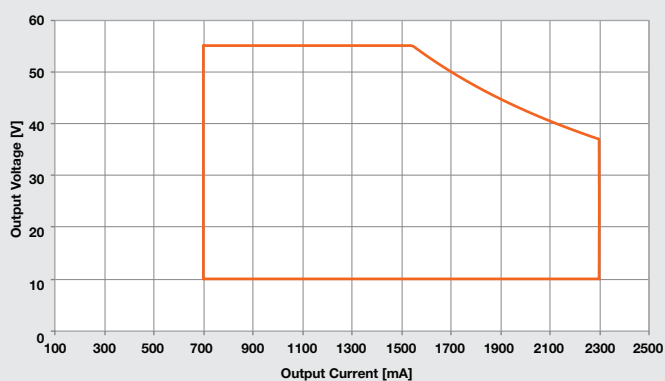
OTi48W



OTi50W



OTi85W



Packaging

OTi20W, OTi30W, OTi48W, and OTi50W

Quantity: 10 pieces per case

Weight: 0.5 lbs ea./5 lbs per case (approx.)

OTi85W

Quantity: 10 pieces per case

Weight: 0.904 lbs ea./9.04 lbs per case (approx.)

Warranty

OPTOTRONIC® Products are covered by our LED Module, OPTOTRONIC Power Supply or Control Warranty.

For additional warranty information or to download the warranty registration form visit www.osram.us/warranty.

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