

# 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-americas.com/controls](http://www.osram-americas.com/controls)

### 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
- 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<sub>AC</sub> 50/60Hz
  - 347V<sub>AC</sub> 50/60 Hz
- UL Class 2 output for safe operation
- OSRAM LEDSet interface compatible

### Product Offering

Maximum Power	Minimum Dimming <sup>1</sup>	Output Current Range
85W	10%	1250 - 2000mA 2000 - 2600mA
50W	1% 10%	400 - 1400mA
48W	1% 10%	700 - 2000mA
30W	1% 10%	150 - 1050mA 350 - 1050mA
20W	1% 10%	150 - 700mA

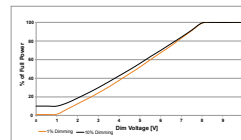
<sup>1</sup> The lowest output current of these drivers is 10mA and the minimum percentage of dimming is dependent on the programmed output current of the driver (not applicable to OT185W).

### Configuration Overview

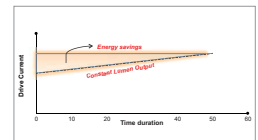
#### 1. Program Units



#### 2. Configurable Features



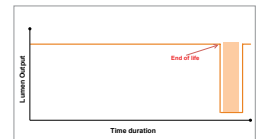
A. 0-10V Dimming



B. Constant Lumen Output



C. Auxiliary Output



D. End of Life Power Supply Indicator

### Application Information

#### Applications

- Indirect/direct
- Linear
- Recessed troffer

#### Specifications and Certifications



Catalog #	Type
Project	
Comments	
Prepared by	

### Electrical Specifications

Maximum Output Power (W)	Nominal Input Voltage (V <sub>AC</sub> )	Maximum Input Current (A)	Power Factor	THD	Line Transient	Efficiency	Maximum Auxiliary Output Current (mA)	Auxiliary Output Voltage (V <sub>OC</sub> )*	Environmental Rating	UL File #
20W	120-277V <sub>AC</sub> 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
30W	120-277V <sub>AC</sub> 347V <sub>AC</sub> 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
48W	120-277V <sub>AC</sub> 347V <sub>AC</sub> 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
50W	120-277V <sub>AC</sub> 347V <sub>AC</sub> 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
85W	120-277V <sub>AC</sub> 50/60 Hz	0.83 @ 120V 0.36 @ 277V	>0.9	<20%	ANSI C62.41 Cat.A 2.5kV	>85%	-	-	Dry & Damp	E320395

\*Default auxiliary output is 12V; configurable via OT Programmer

### Ordering Information

Item Number	Ordering Abbreviation	Total Output Power	Output Current Range <sup>1</sup>	Default Current	Output Voltage Range (V <sub>OC</sub> )	Dimming Control	Dimming Range	LED Thermal Protection
<b>Linear 120-277V Drivers</b>								
<b>OTi85</b>								
79470	OTi85/120-277/2A0 DIM LT2 L	85W	1250-2000mA (programmable)	2000mA	30-55V	0-10V	10-100%	Yes
79471	OTi85/120-277/2A6 DIM LT2 L	85W	2000-2600mA (programmable)	2600mA	20-55V	0-10V	10-100%	Yes
<b>OTi50</b>								
79467	OTi50/120-277/1A4 DIM-1 L AUX	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	1-100%	Yes
79398	OTi50/120-277/1A4 DIM L AUX	50W	400-1400mA (programmable)	1050mA	10-55V	0-10V	10-100%	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
<b>OTi48</b>								
79468	OTi48/120-277/2A0 DIM-1 L AUX	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
79399	OTi48/120-277/2A0 DIM L AUX	48W	700-2000mA (programmable)	1400mA	10-55V	0-10V	10-100%	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
<b>OTi30</b>								
79466	OTi30/120-277/1A0 DIM-1 L AUX	30W	150-1050mA <sup>2</sup> (programmable)	700mA	10-55V	0-10V	1-100%	Yes
79397	OTi30/120-277/1A0 DIM L AUX	30W	350-1050mA (programmable)	700mA	10-55V	0-10V	10-100%	Yes
79515	OTi30/120-277/1A0 DIM-1 L	30W	150-1050mA <sup>2</sup> (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
<b>OTi20</b>								
79532	OTi20/120-277/0A7 DIM-1 L AUX	20W	150-700mA (programmable)	500mA	10-55V	0-10V	1-100%	Yes
79533	OTi20/120-277/0A7 DIM L AUX	20W	150-700mA (programmable)	500mA	10-55V	0-10V	10-100%	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
<b>Linear 347V Drivers</b>								
<b>OTi50</b>								
79670	OTi 50/347/1A4 DIM-1 L AUX	50W	400 - 1400mA (programmable)	1050mA	10-55V	0-10V	1-100%	Yes
79673	OTi 50/347/1A4 DIM L AUX	50W	400 - 1400mA (programmable)	1050mA	10-55V	0-10V	10-100%	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
<b>OTi48</b>								
79671	OTi 48/347/2A0 DIM-1 L AUX	48W	700 - 2000mA (programmable)	1400mA	10-55V	0-10V	1-100%	Yes
79674	OTi 48/347/2A0 DIM L AUX	48W	700 - 2000mA (programmable)	1400mA	10-55V	0-10V	10-100%	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
<b>OTi30</b>								
79669	OTi 30/347/1A0 DIM-1 L AUX	30W	350 - 1050mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes
79672	OTi 30/347/1A0 DIM L AUX	30W	350 - 1050mA (programmable)	700mA	10-55V	0-10V	10-100%	Yes
79675	OTi 30/347/1A0 DIM-1 L	30W	350 - 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

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

2. 79466 and 79517 will dim down to 10% only when operating under 350mA (not applicable for OTi85W).

### Ordering Guide

OTI	85	/	120-277	/	2A0	DIM	LT2	L	AUX
OPTOTRONIC® Intelligent	Output Wattage		Input Voltage		Output Current (Max)	0-10V Dimming DIM = 10% Dimming DIM-1 = 1% Dimming	LT2 = LEDset Control	L = Linear	AUX = Auxiliary Output
	85 = 85W		120-277		2A0 = 2000mA				
	50 = 50W		347		2A6 = 2600mA				
	48 = 48W				1A4 = 1400mA				
	30 = 30W				1A0 = 1000mA				
	20 = 20W				0A7 = 700mA				

## Accessories



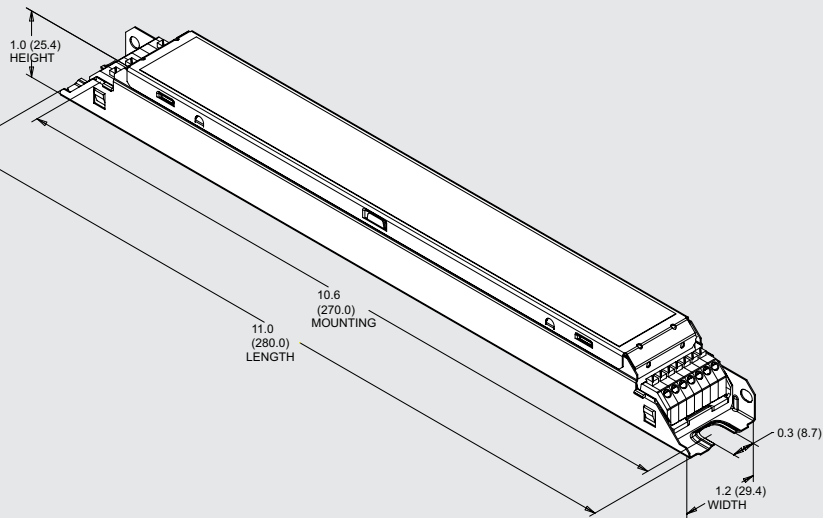
Item Number	Ordering Abbreviation	Description	Required Accessory
51645	OT Programmer	USB Programming Tool	Yes
51647	OTLinearHandheldPRGtool	Programming Tool	No
51648	OTLinearAutoPRGTool	Programming Tool	No

## Minimum and Maximum Ratings

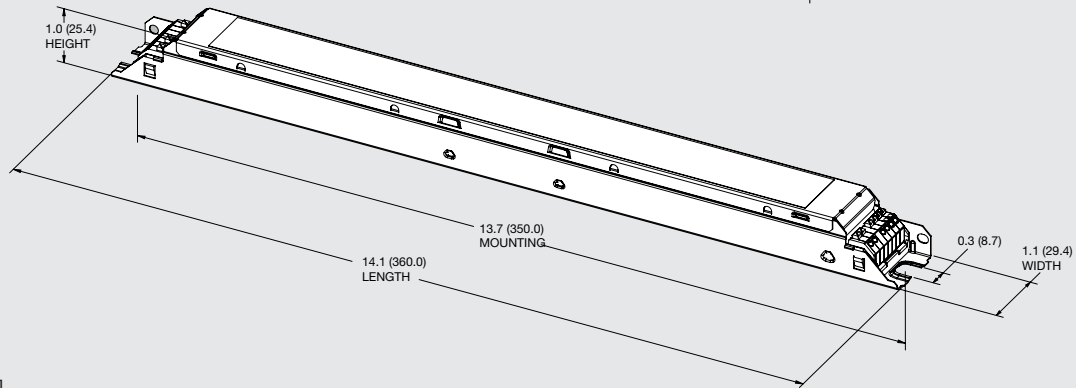
Parameter	Values
Input Voltage Range	108 - 305V <sub>AC</sub>
Maximum Case Temperature (T <sub>c</sub> point)	90°C (194°F)
Maximum Case Temperature for 5 year life and warranty	75°C (165°F) for 30/48/50W, 80°C (176°F) for 85W
Ambient Operating Temperature (reference)	-30°C to 50°C (-22°F to 122°F)
Storage Temperature	70°C Max (150°F)
Maximum Relative Humidity	85% (Non-condensing)

## Assembly Diagram

### OTi20W, OTi30W, OTi48W and OTi50W



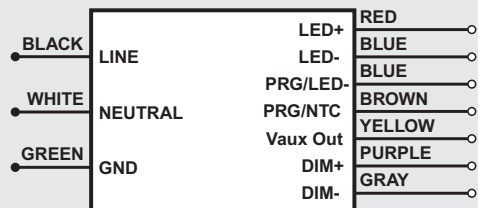
### OTi85W



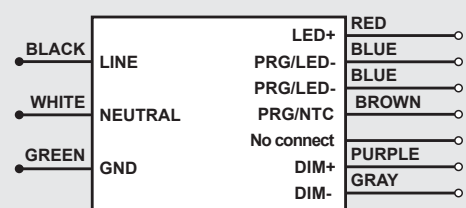
Dimensions: in [mm]

## Wiring Diagram

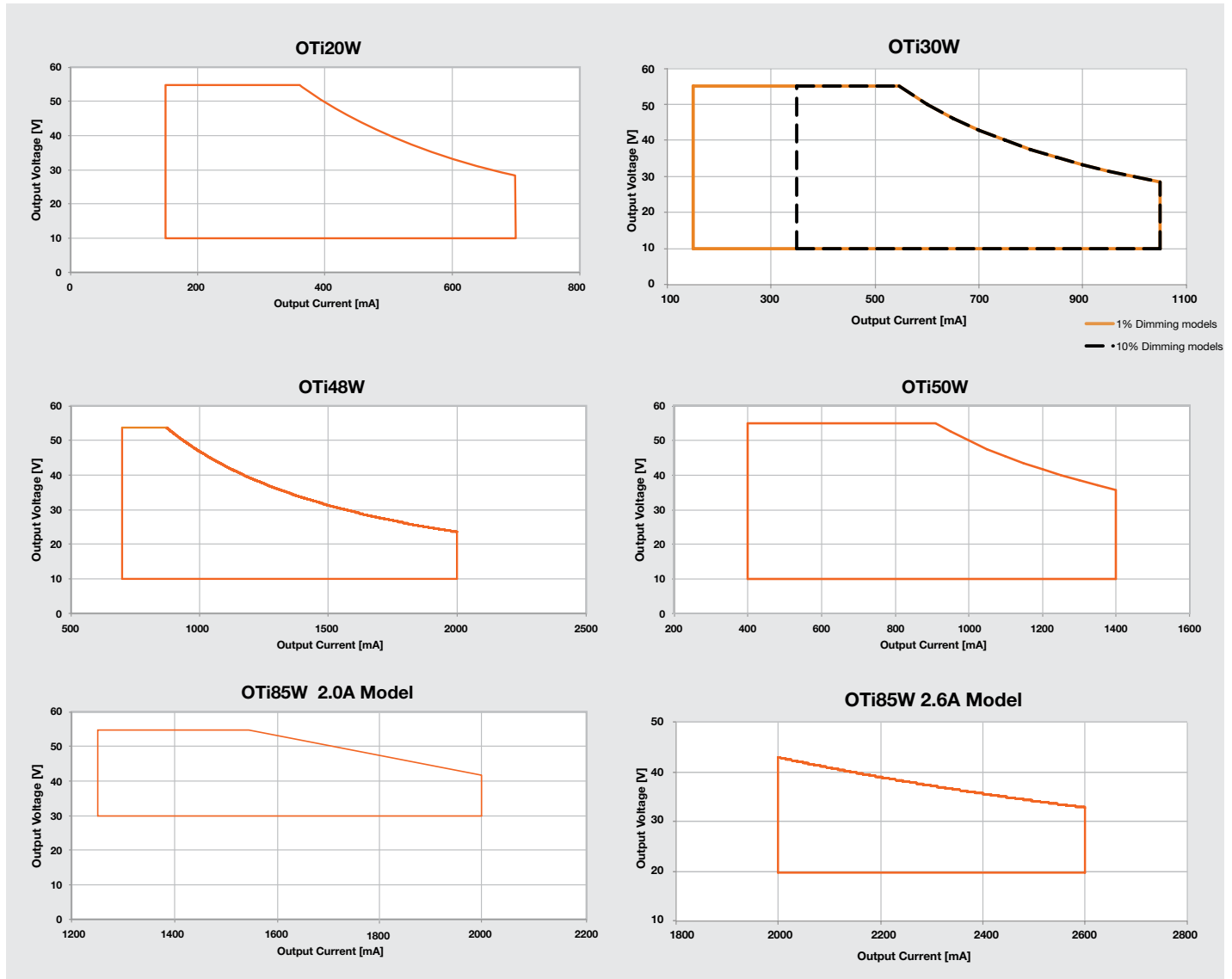
### Wiring diagram for AUX output models



### Wiring diagram for non-AUX output models



## Operating Range



## Packaging

OTi20W, OTi30W, OTi48W, and OTi50W  
 Quantity: 10 pieces per case  
 Weight: 0.5 lbs ea./5 lbs per case (approx.)

OTi85W  
 Quantity: 20 pieces per case  
 Weight: 0.7 lbs ea./13.85 lbs per case (approx.)

## Warranty

OPTOTRONIC® Products are covered by our LED Module, OPTOTRONIC Power Supply or Control Warranty. For additional details, refer to the latest version of the warranty (LED089) available at [www.osram-americas.com](http://www.osram-americas.com).

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