

## OPTOTRONIC Linear Programmable LED Drivers

57452 / OTi 50/120-277/1A4 DIM-1 L G2



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).

### Product family features

- 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

### Areas of application

- Indirect/direct
- Linear
- Recessed troffer

## Technical data

### General product information

Product Name	OTi501202771A4DIM1LG2 10/CS 1/SKU
Ordering Abbreviation	OTi 50/120-277/1A4 DIM-1 L G2
General Description	OTi50 LIN UNV 0-10V G2 NO AUX
Programmable Features	Output current, Dimming level, Dim-to-off, Soft Start, LED thermal protection, Auxiliary output voltage, Constant lumen output, End-of-life indicator
Programming Tool	51645 & 51647/51648

### Electrical specifications - Dimming

Dimming Control	0 – 10V (Isolated)
Dimming Input Isolation [CRM]	2.5kV
Dimming Range	1-100%
Dimming Type	Analog
Dim-to-Off OFF/ON	0.7V/1V
Source/Sink Current	0.2mA max

### Electrical specifications - Input

Efficiency @ Full load 120V	≥88%
Efficiency @ Full load 277V	≥89%
Frequency Range (Hz)	50 – 60 Hz (+/- 10%)
Input Current (A) 120V	0.52
Input Current (A) 277V	0.23
Input Voltage (VAC)	120V-277V (+/- 10%)
Inrush Current (Apk, T@50% of Apk) 120V	1.33, 57μs
Inrush Current (Apk, T@50% of Apk) 277V	2.66, 46μs
Power Factor @ Full load 120V	>0.9
Power Factor @ Full load 277V	>0.9
THD @ Full load 120V	<10%
THD @ Full load 277V	<20%

### Electrical specifications - LED thermal protection (NTC)

NTC Value Active Range	≤25kΩ
Temperature Derating start	User defined

### Electrical specifications - Output

LED Power-Up Time	<1sec
Line Regulation	<5%

## Product datasheet

<b>Load Regulation</b>	<5%
<b>Max. Output Power (W)</b>	50W
<b>Output Current (mA)</b>	400-1400mA (1mA step), Default 1050mA
<b>Output Ripple Current</b>	<20% @ 1400mA
<b>Output Short-Circuit Protection</b>	Yes, non-latching
<b>Output Voltage (VDC)</b>	10-55VDC
<b>Over Load Protection</b>	Yes, non-latching
<b>Over Temperature Protection</b>	Foldback at 110°C
<b>Over Voltage Protection</b>	Yes, non-latching

### Environmental specifications

<b>Ambient Operating Temperature</b>	-30°C to 50°C
<b>Case Temperature (Tc)</b>	85°C Max, 75°C – 5 Year Warranty <sup>1)</sup>
<b>EMI Compliance</b>	FCC Part 15 Class A
<b>Max. Relative Humidity (%)</b>	85% non-condensing
<b>Max. Storage Temp.</b>	70°C
<b>Sound Rating</b>	Class A
<b>Transient Protection</b>	NEMA SSL 1 - 2010, Non-Roadway 2.5KV
<b>UL Environmental Rating</b>	Dry & Damp
<b>UL File number</b>	E320395

<sup>1)</sup> Warranty applicable only at 75°C

### Packaging Information

Item number	EAN/UPC	Packaging	Quantity	Outside dimensions l x w x h	Gross weight
57452	4062172018760	Unpacked (SKU)	1		
57452	4062172018777	Shipping box (Case)	10	12.2 in x 6.4 in x 2.4 in	5.5 lb

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

### Disclaimer

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