

OPTOTRONIC Programmable Compact LED Drivers

57357 / OTi55W/120-277/2A0 DIM-1AUX



The OPTOTRONIC programmable dimmable family consists of highly efficient, constant current 25W, 40W and 55W LED power supplies. They are programmable between the range of 150 to 1250 mA for the 25W, 400 to 1400mA for the 40W, and 700 to 2000mA for the 55W with a 1mA resolution. The OPTOTRONIC programmer does not require the power supply to be powered or connected to AC line voltage while programming. The power supplies are available in dimming to 1% with built in 0–10V dimming enabling direct integration and operation with standard dimmers, sensors, as well as energy and light management systems. In case of LED module thermal overload, the family's integrated LED thermal protection function allows the power supply to reduce the output current. This function is fully customizable by the customer. The family comes in a standard industry housing with dual entry connectors to simplify installation. Dedicated auxiliary DC output helps integration of fixture integrated sensors like the OSRAM Connected Lighting Module (CLM) DIM thus eliminating need of secondary DC supply.



Product family features

- Universal input voltage - 120–277VAC 50/60Hz
- UL Class 2 output for safe operation
- Protection against line voltage on 0-10 V dimming wires
- AUX output models available
- Custom programmable with 1mA resolution to perfectly match LED load and maximize performance
- Programming does not require powering up or connecting the power supply to AC line voltage
- Wide output current and voltage range
- Available in dimming to 1% with 0–10 V dimmers
- Integrated OEM programmable features include: constant lumen maintenance, end-of-life indication, LED thermal protection, Vaux (12V/20V/24V), soft start, and dim-to-off
- Familiar standard industry housing – 5.0" x 2.4" x 1.2" (L x W x H)
- Available with mounting feet (F-style) or PEM studs (J-style) to simplify installation
- Conforms UL SREC for NTC based thermal protection

Product datasheet

Areas of application

- Downlights
- In-grade fixtures
- Recessed troffer
- Wall washing

Product datasheet

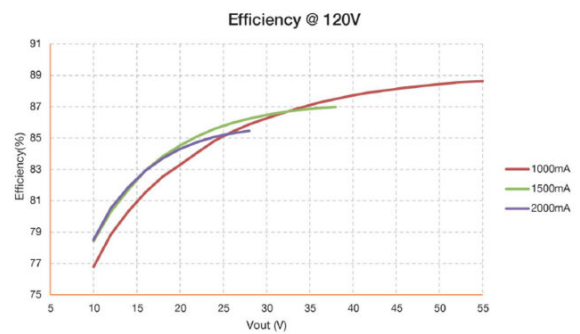
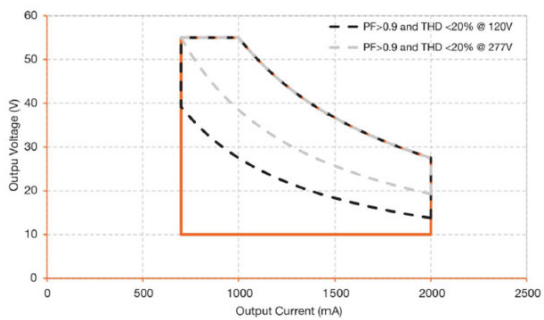
Technical data

General product information

Product Name	OTI55W1202772A0DIM1AUX 20/CS 1/SKU
Ordering Abbreviation	OTI55W/120-277/2A0 DIM-1AUX
Brand Name	OSRAM
General Description	OTi55 Gen 2.0 Compact 1% - F Type + AUX
Programmable Features	Output Current/Soft start/Dim-to-Off/Dimming Level/LED thermal protection/Constant lumen output/End-of-life indicator/Vaux (12/20/24V)
Programming Tool	51645
Type	Constant Current
Product Number	57357

Electrical data

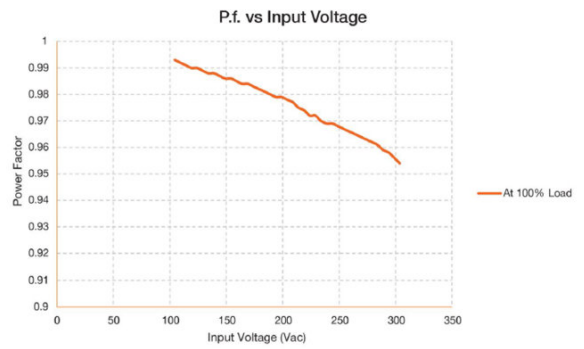
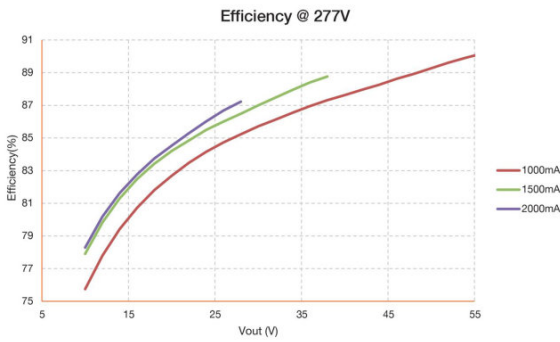
Nominal Total Max Wattage	55 W
Nominal Voltage	120-277 V



Operating Window

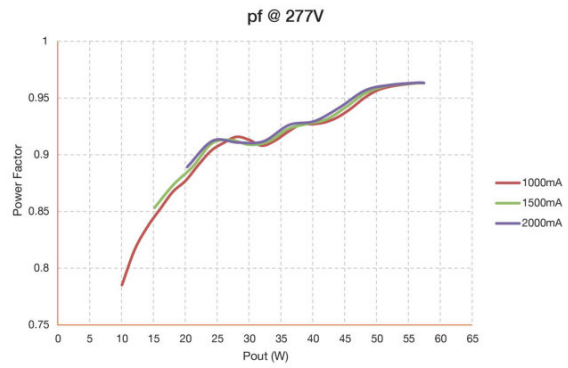
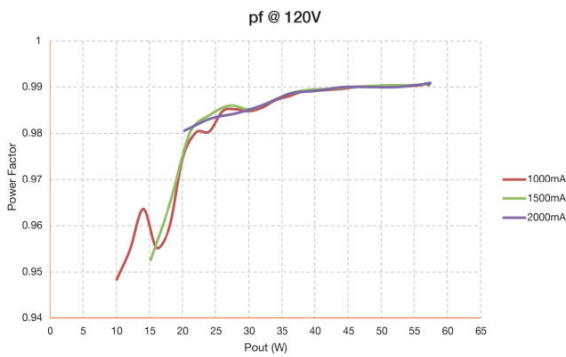
Typical Efficiency v Load 120 V 60 Hz

Product datasheet



Typical Efficiency v Load 277 V 60 Hz

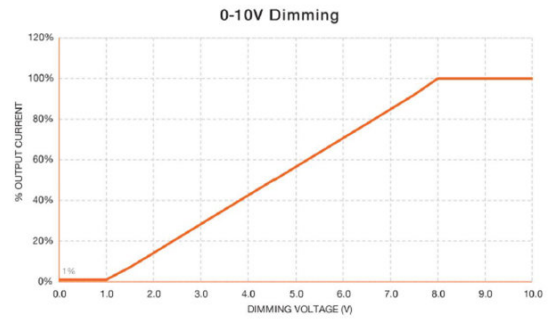
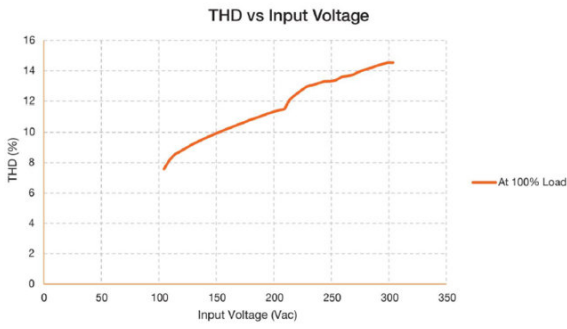
Typical Power Factor v Load



Typical Power Factor v Load

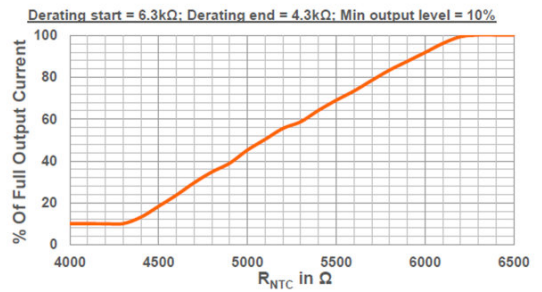
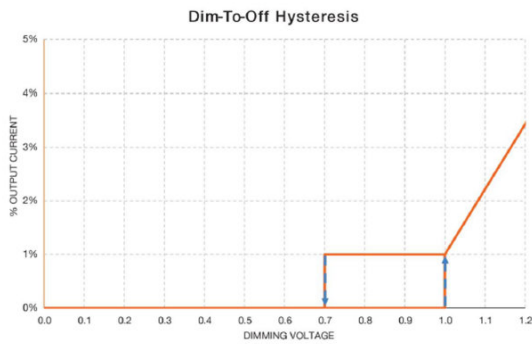
Typical Power Factor v Load

Product datasheet



Typical THD v Load

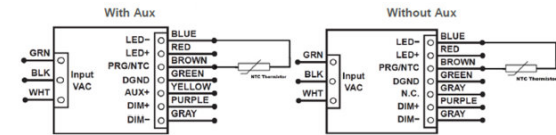
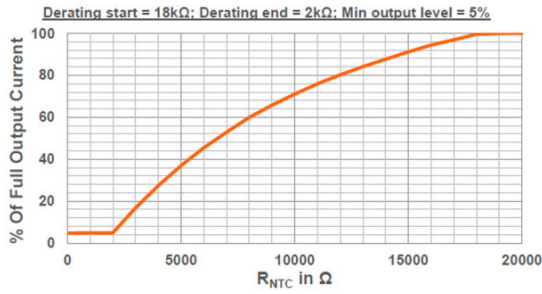
0-10 V Control Input



0-10 V Control Input

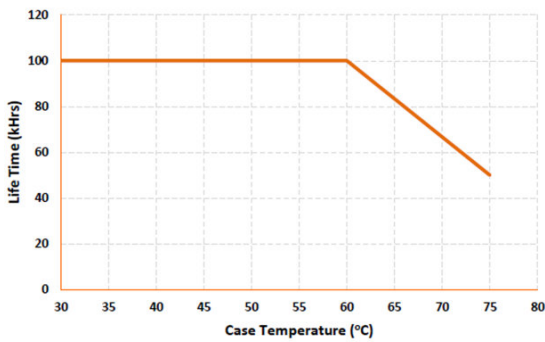
LED Thermal Protection perc. of Out Curr

Product datasheet



LED Thermal Protection perc. of Out Curr

LED Thermal Protection - Wiring Diagram



Lifetime vs. Case Temp

Electrical specifications - Auxiliary output (for AUX models only)

Output Current (mA) Aux Only	40
Output Voltage (VDC) Aux Only	12/20/24V (configurable)
Voltage Regulation	+/- 10%

Max. Output Power Aux Only	1W
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Electrical specifications - Dimming

Dimming Control	0 – 10V (Isolated) ¹⁾
Dimming Input Isolation [CRM]	2.5KV
Dimming Range	1-100% ²⁾
Dimming Type	Current Reduction
Dim-to-Off OFF/ON	0.7V/1V
Source/Sink Current	0.2mA

¹⁾ CAUTION: More than one power supply present

²⁾ Driver can be dimmed to TRUE 1% level (1.5mA) of the programmed output current of the driver. Programmable with 1mA resolution with +/- 3% accuracy.

Electrical specifications - Input

Efficiency @ Full load 120V	≥88%
Efficiency @ Full load 277V	≥89%
Frequency Range (Hz)	50 – 60 Hz (+/- 5%)
Input Current (A) 120V	0.6
Input Current (A) 277V	0.26
Input Voltage (VAC)	120V-277V (+/- 10%)
Inrush Current (Apk, T@50% of Apk) 120V	12.6, 120s ¹⁾
Inrush Current (Apk, T@50% of Apk) 277V	15.6, 116s ¹⁾
Power Factor @ Full load 120V	>0.9
Power Factor @ Full load 277V	>0.9
THD @ Full load 120V	<20%
THD @ Full load 277V	<20%

¹⁾ Complies with NEMA 410 inrush current.

Electrical specifications - LED thermal protection (NTC)

NTC Value Active Range	≤25kΩ ¹⁾
Temperature Derating start	User defined

¹⁾ External NTC cannot leave the fixture. The PRG/ NTC control circuit terminals or lead wires are not isolated.

Electrical specifications - Output

LED Power-Up Time	< 0.5sec CA T-24 Compliant
Line Regulation	< 5%
Load Regulation	<3%
Max. Output Power (W)	55W ¹⁾
Output Current (mA)	700-2000mA (1mA step) - 1000mA default
Output Ripple Current	<20% @ 2000mA

Product datasheet

Output Short-Circuit Protection	Yes, non-latching
Output Voltage (VDC)	10-55VDC
Over Load Protection	Yes, non-latching
Over Temperature Protection	Foldback to 50% at 100°C
Over Voltage Protection	Yes, non-latching

¹⁾ 54W LED + 1W Aux on AUX models.

Environmental specifications

Ambient Operating Temperature	-30°C to 50°C
Case Temperature (Tc)	90°C Max - 75°C (50kHrs) ¹⁾
EMI Compliance	FCC Part 15 Class A
IP Rating	IP20
Max. Case Temperature (Tc)	90°C Max - 75°C (50kHrs) ¹⁾
Max. Relative Humidity (%)	85% non-condensing
Max. Storage Temp.	75°C
Sound Rating	Class A
Transient Protection	NEMA SSL 1 - 2010 / Non-Roadway 2.5KV
UL Environmental Rating	Dry & Damp
UL File number	E320395

¹⁾ 5 year warranty applicable at 75°C

Packaging Information

Item number	EAN/UPC	Packaging	Quantity	Outside dimensions l x w x h	Gross weight
57357	4052899518322	Unpacked (SKU)	1		
57357	4052899518339	Shipping box (Case)	20	12.5 in x 10.2 in x 2.6 in	8.7 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.

Accessories Mandatory

Product name	Accessory name	Item number	EAN/UPC
OTI55W/120-277/2A0 DIM-1AUX	OT PROGRAMMER	51645	▶ 4052899209640

Disclaimer

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