

OPTOTRONIC®



Programmable Compact Constant Current Dimmable LED Power Supplies



The OPTOTRONIC programmable dimmable family consists of highly efficient, constant current 25W and 40W LED power supplies. They are customer programmable between the range of 150 to 1250 mA for the 25W and 400 to 1400mA for the 40W with a 1mA resolution. 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 in dimming to 1% or 10% 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.

Application Information

Applications

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

Key Features & Benefits

- Customer 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% or 10% with 0–10V dimmers
- Integrated, customer configurable, LED thermal protection feature
- 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
- Universal Input Voltage – 120–277V AC 50/60Hz
- UL Class 2 output for safe operation

Product Offering

Max. Power	Housing Type	Connectors	Minimum Dimming	Output Current Range
40W	F-style (feet)	Dual Entry	1% 10%	400 - 1400mA
40W	J-style (PEM studs)	Bottom Feed	1% 10%	400 - 1400mA
25W	F-style (feet)	Dual Entry	1% 10%	150 - 1250mA ¹
25W	J-style (PEM studs)	Bottom Feed	1% 10%	150 - 1250mA ¹

1. 10% dimming model output current range is 350-1050mA



Specifications and Certifications



Compliant to 47 CFR, Part 15 Class A



Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Electrical Specifications

Maximum Output Power (W)	Nominal Input Voltage (V _{AC})	Maximum Input Current (A)	Power Factor	THD	Line Transient	Efficiency	Environmental Rating	UL File #
40W	120-277VAC 50/60 Hz	0.42A @ 120V 0.17 A @ 277V	>0.9	<20%	ANSI C62.41 Cat.A	85% Typical	Damp	E320395
25W	120-277VAC 50/60 Hz	0.25A @ 120V 0.11 A @ 277V	>0.9	<20%	ANSI C62.41 Cat.A	80% Typical	Damp	E320395

Ordering Information

OT40

Item Number	Ordering Abbreviation	Total Output Power	Output Current Range ²	Default Current	Output Voltage Range (V _{oc})	Dimming Control	Dimming Range	LED Thermal Protection	Housing Type
79441	OT40W/PRG1400C/UNV/DIM-1/J	40W	400-1400 mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes	J-Style
79442	OT40W/PRG1400C/UNV/DIM-1	40W	400-1400 mA (programmable)	700mA	10-55V	0-10V	1-100%	Yes	F-Style
79449	OT40W/PRG1400C/UNV/DIM/J	40W	400-1400 mA (programmable)	700mA	10-55V	0-10V	10-100%	Yes	J-Style
79448	OT40W/PRG1400C/UNV/DIM	40W	400-1400 mA (programmable)	700mA	10-55V	0-10V	10-100%	Yes	F-Style

OT25

Item Number	Ordering Abbreviation	Total Output Power	Output Current Range ²	Default Current	Output Voltage Range (V _{oc})	Dimming Control	Dimming Range	LED Thermal Protection	Housing Type
79406 ³	OT25W/PRG1250C/UNV/DIM-1/J	25W	150-1250 mA (programmable) ¹	500mA	10-55V	0-10V	1-100%	Yes	J-Style
79405 ³	OT25W/PRG1250C/UNV/DIM-1	25W	150-1250 mA (programmable) ¹	500mA	10-55V	0-10V	1-100%	Yes	F-Style
79404	OT25W/PRG1250C/UNV/DIM/J	25W	350-1250 mA (programmable)	500mA	10-55V	0-10V	10-100%	Yes	J-Style
79403	OT25W/PRG1250C/UNV/DIM	25W	350-1250 mA (programmable)	500mA	10-55V	0-10V	10-100%	Yes	F-Style

1. Output current below 350mA is in PWM mode.

2. The lowest output current of the driver is 14mA and the minimum percentage of dimming is dependent on the programmed output current of the driver for 1% models.

3. 79405 and 79406 will dim down to 10% only when operating under 350mA.

Ordering Guide

OT	40W	/	PRG	1400C	/	UNV	/	DIM-1	/	J
OPTOTRONIC®	Output Wattage		Programmable	Max. Output Current (mA)		Input Voltage (120-277V)		0-10V Dimmable		J-Style Housing

Accessories

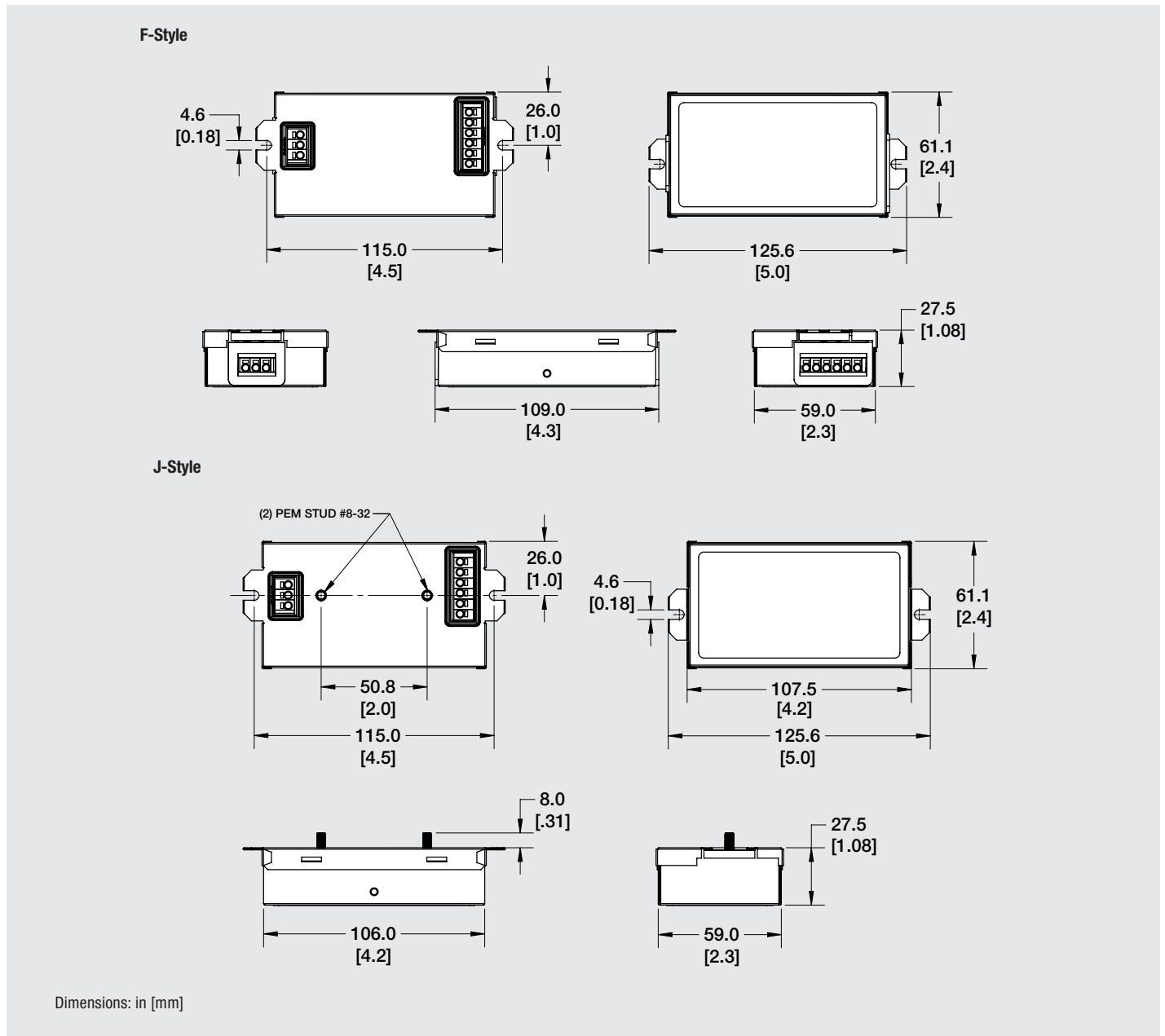


Item Number	Ordering Abbreviation	Description	Required Accessory
51645	OT Programmer	USB Programming Tool	Yes
51646	OT Programming nest	Programming fixture	Optional

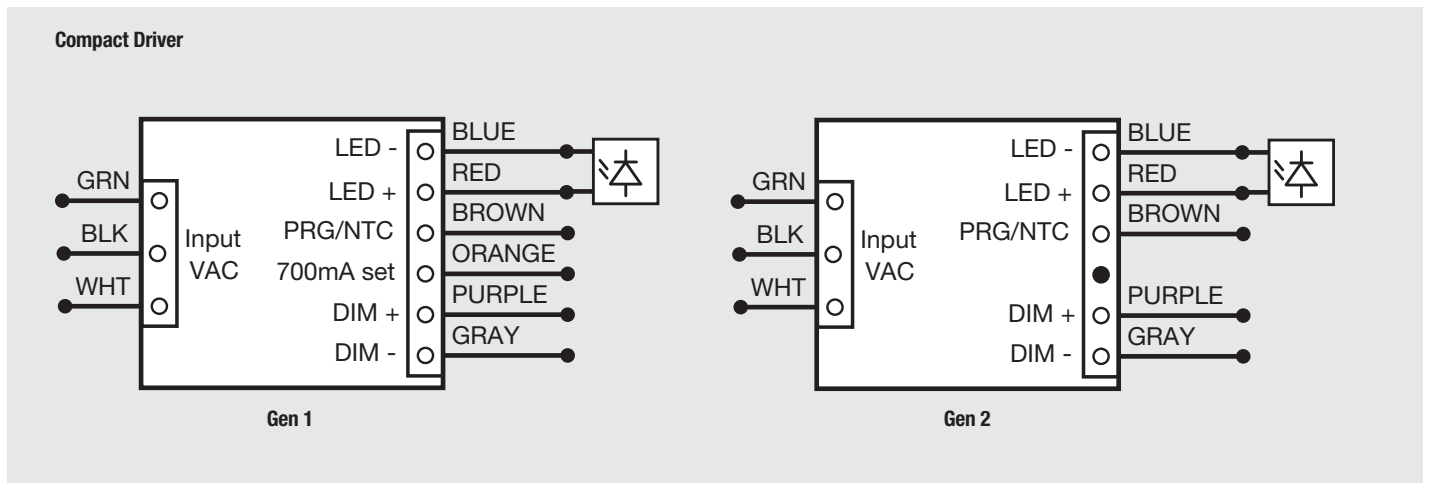
Minimum and Maximum Ratings

Parameter	Values
Input Voltage Range	108 - 305V _{AC}
Maximum Case Temperature (T _c point)	85°C (185°F)
Maximum Case Temperature for 5 year life and warranty	75°C (165°F)
Ambient Operating Temperature (reference)	OT40W: -30°C to 50°C (-22°F to 122°F), OT25W: -30°C to 50°C (-22°F to 122°F)
Storage Temperature	-35°C to 75°C (-31°F to 167°F)
Maximum Relative Humidity	85% (Non-condensing)

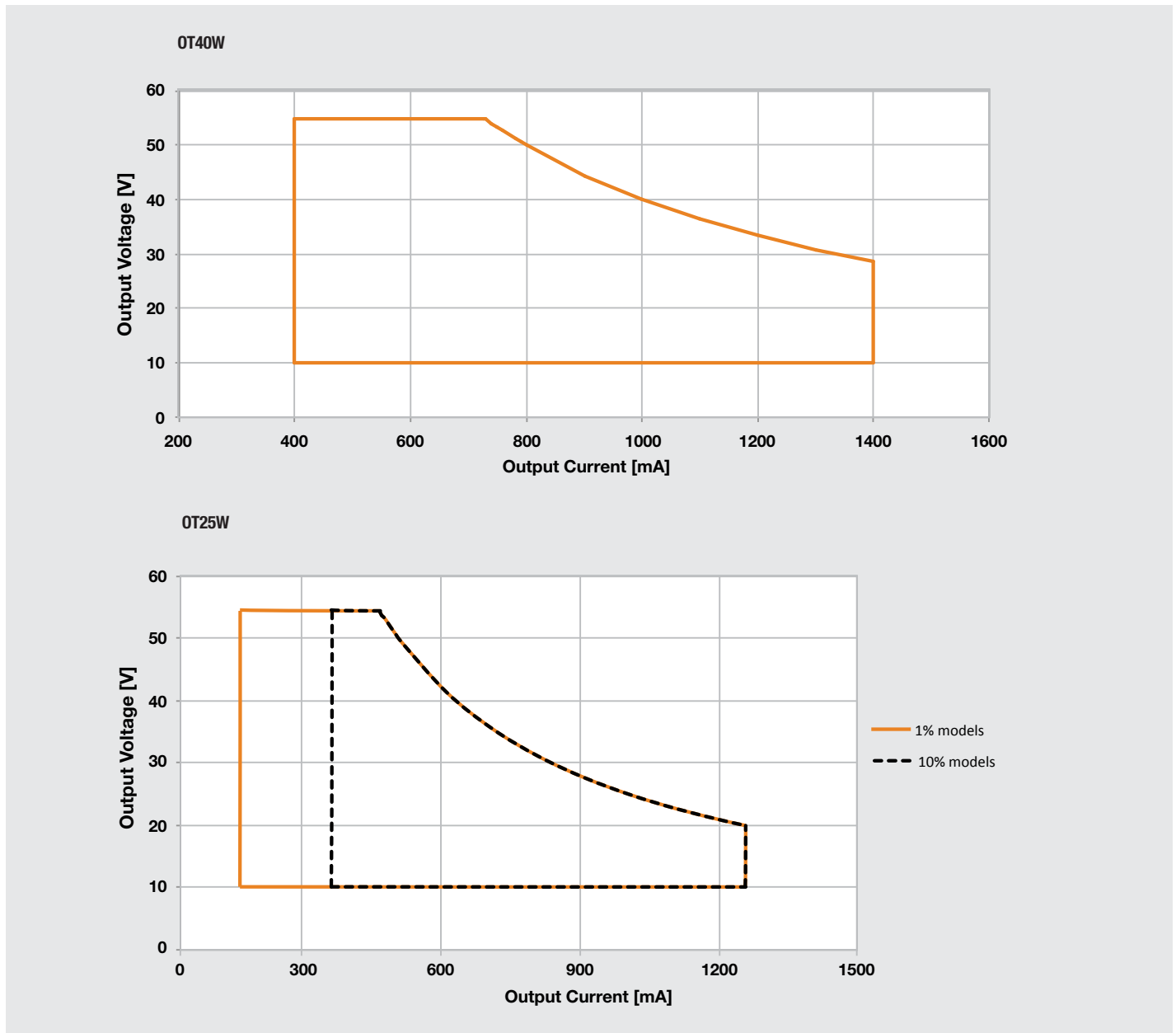
Assembly Diagram



Wiring Diagram



Operating Range



Packaging

Quantity: 20 pieces per case

Weight: 0.5 lbs ea./10 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.

OSRAM

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