

OPTOTRONIC® Programmable Constant Current Outdoor Dimmable LED Drivers

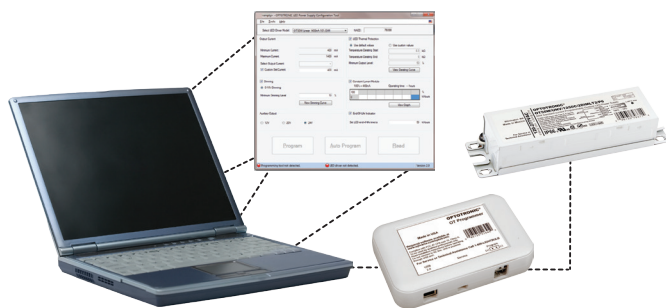


The OPTOTRONIC programmable dimmable family consists of highly efficient, constant current LED drivers for outdoor applications. One click programming through the OPTOTRONIC Programmer allows OEMs to configure the output current with 1mA resolution. OEMs can customize this portfolio using the AstroDIM feature which is an autonomous dimming feature for night-time power reduction based on an internal timer that can be set for an entire year.

The outdoor family of drivers dim down to 10% with 0-10V, DALI and D4i control options. (1% dimming available on the 95W and 190W drivers). These drivers enable direct integration and operation with standard dimmers and sensors, as well as energy and light management systems.

D4i certified LED drivers enable bi-directional communications between the driver and the fixture-integrated component. It provides exact luminaire-specific data, including diagnostics, to light management systems.

Configuration Overview



Applications

- Architectural Building Mount
- Bollards
- Cobra Heads
- Decorative Landscape
- High Mast
- Industrial High Bay
- Mini Wall Packs
- Roadway Lighting
- Shoe Box

Key Features & Benefits

- OEM programmable with 1mA resolution to perfectly match LED load and maximize performance
- Specification grade dimming down to 10% on 0-10V (1% for 95, 190W), DALI and D4i control drivers.
- Integrated OEM programmable features include
 - AstroDIM
 - Constant lumen maintenance
 - LED thermal protection
 - AUX output
- Programming doesn't require powering up or connecting the power supply to AC line voltage
- High level of line transient protection in outdoor applications (6kV)
- 4kV EFT Protection for industrial applications
- Available in both Universal Input Voltage - 120-277VAC 50/60Hz, 347-480VAC 50/60Hz, and 277-480VAC 50/60Hz for 190W only
- UL Damp Rated
- IP66 Rated
- UL Class P Listed

*60W only

Products

Maximum Power	Input Voltage	Minimum Dimming	Output Current Range
50W G2	120-277 V	10%	350-800 mA
50W G2	120-277 V	10%	600-1250 mA
50W G1	120-277 V	10%	350-800 mA
50W G1	120-277 V	10%	600-1250 mA
50W	120-277 V	10%	1000-2100 mA
60W ¹	120-277 V	10%	500-1600 mA
95W ²	120-277 V	1%	700-2750 mA
95W ²	347-480 V	1%	700-2750 mA
100W D4i ¹	120-277 V	10%	600-1250 mA
100W G2	120-277 V	10%	350-800 mA
100W G2	120-277 V	10%	600-1250 mA
100W G1	120-277 V	10%	350-800 mA
100W G1	120-277 V	10%	600-1250 mA
100W G1 ²	120-277 V	10%	500-1600 mA
100W ¹	347-480 V	10%	350-800 mA
100W ¹	347-480 V	10%	600-1250 mA
180W D4i ¹	120-277 V	10%	600-125 mA
180W G2	120-277 V	10%	1000-1800 mA
180W G1	120-277 V	10%	350-800 mA
180W G1	120-277 V	10%	600-1250 mA
180W ¹	347-480 V	10%	350-800 mA
180W ¹	347-480 V	10%	600-1250 mA
190W ²	120-277 V	1%	700-2750 mA
190W ²	277-480V	1%	700-2750 mA
200W ²	120-277 V	10%	500-900 mA
200W ²	120-277 V	10%	900-1400 mA

¹D4i certified and DALI

²Driver with AUX and Dim-to-Off

Specifications and Certifications



Electrical Specifications

Maximum Output Power (W)	Nominal Input Voltage (VAC)	Maximum Input Current (A)	Power Factor	THD	Line Transient	Efficiency	Environmental Rating	UL File #	Type HL
50W G2	120-277VAC 50/60Hz	0.48 @ 120V, 0.21 @ 277V	>0.9	<20%	ANSI C62.41 Category B 4kV EFT	≥88%	Dry and Damp	E333135	Yes
50W G1	120-277VAC 50/60Hz	0.52 @ 120V, 0.22 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥85%	Dry and Damp	E333135	Yes
60W D4i ¹	120-277VAC 50/60Hz	0.68 @ 120V, 0.31 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV 2kV EFT	≥87%	Dry and Damp	E333135	Yes
60W	120-277VAC 50/60Hz	0.60 @ 120V, 0.25 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥87%	Dry and Damp	E333135	Yes
95W	120-277VAC 50/60Hz	0.92 @ 120V, 0.40 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥90%	Dry and Damp	E333135	Yes
95W	347-480VAC 50/60Hz	0.32 @ 347V, 0.23 @ 480V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥90%	Dry and Damp	E333135	Yes
100W D4i	120-277VAC 50/60Hz	0.95 @ 120V, 0.41 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV 4kV EFT	≥92%	Dry and Damp	E333135	Yes
100W G2	120-277VAC 50/60Hz	0.95 @ 120V, 0.40 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV 4kV EFT	≥92%	Dry and Damp	E333135	Yes
100W G1	120-277VAC 50/60Hz	0.95 @ 120V, 0.40 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥90%	Dry and Damp	E333135	Yes
100W G1	120-277VAC 50/60Hz	1.04 @ 120V, 0.47 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥90%	Dry and Damp	E333135	Yes
100W	347-480VAC 50/60Hz	0.95 @ 347V, 0.40 @ 480V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥90%	Dry and Damp	E333135	Yes
180W D4i	120-277VAC 50/60Hz	1.68 @ 120V, 0.72 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV 4kV EFT	≥93%	Dry and Damp	E333135	Yes
180W G2	120-277VAC 50/60Hz	1.68 @ 120V, 0.72 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV 4kV EFT	≥94%	Dry and Damp	E333135	Yes
180W	120-277VAC 50/60Hz	1.70 @ 120V, 0.75 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥92%	Dry and Damp	E333135	Yes
180W	347-480VAC 50/60Hz	0.60 @ 347V, 0.44 @ 480V	>0.9	<20%	ANSI C62.41 Category B 6kV	≥91%	Dry and Damp	E333135	Yes
190W	120-277VAC 50/60Hz	0.92 @ 120V, 0.40 @ 277V	>0.9	<20%	ANSI C82.77-5-2015 6kV 4kV EFT	≥91%	Dry and Damp	E333135	Yes
190W	277-480VAC 50/60Hz	0.78 @ 277, 0.62 @ 347V, 0.48 @ 480V	>0.9	<20%	ANSI C82.77-5-2015 6kV 4kV EFT	≥90%	Dry and Damp	E333135	Yes
200W	120-277VAC 50/60Hz	1.83 @ 120V, 0.80 @ 277V	>0.9	<20%	ANSI C62.41 Category B 6kV, 4kV EFT	≥93%	Dry and Damp	E333135	Yes

¹ D4i certified LED Driver.

Ordering Information

Input Voltage 120-277V (0-10V)

tem Number	Original Item Number	Ordering Abbreviation	Total Output Power	Output Current Range	Default Current Setting	Output Voltage Range (VDC)	Dimming Control	Dimming Range	LED Thermal Protection ¹	Class P
*275TJ6	57343	OTi50W/UNV/800C/2DIM/P6/G2	50W	350-800mA (programmable)	530mA	30-120V	0-10V	10-100%	Yes	Yes
*275TJX	57344	OTi50W/UNV/1250C/2DIM/P6/G2	50W	600-1250mA (programmable)	700mA	15-55V	0-10V	10-100%	Yes	Yes
*2743YM	79370	OT50W/UNV/800C/2DIMLT2/P6	50W	350-800mA (programmable)	530mA	30-120V	0-10V	10-100%	Yes	Yes
*2743YN	79371	OT50W/UNV/1250C/2DIMLT2/P6	50W	600-1250mA (programmable)	700mA	15-55V	0-10V	10-100%	Yes	Yes
*2743YG	79278	OTi50W/UNV/2100C/2DIMLT2/P6	50W	1000-2100mA (programmable)	2000mA	15-55V	0-10V	10-100%	Yes	–
*2743XJ	57509	OTi95W/UNV/2750C/2DIM+/P6	95W	700-2750mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes
*2743XK	57510	OTi95W/UNV/2750C/2DIM+/P6/AUX	95W	700-2750mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes
*276YY9	–	OTi100W/UNV/800C/G2/2DIM/P6/J20	100W	350-800mA (programmable)	530mA	50-185V	0-10V	10-100%	Yes	Yes
*276YYC	–	OTi100W/UNV/1250C/G2/2DIM/P6/J20	100W	600-1250mA (programmable)	700mA	30-100V	0-10V	10-100%	Yes	Yes
*2743YK	79368	OT100W/UNV/800C/2DIM/P6	100W	350-800mA (programmable)	530mA	50-185V	0-10V	10-100%	Yes	Yes
*2743YL	79369	OT100W/UNV/1250C/2DIM/P6	100W	600-1250mA (programmable)	700mA	30-100V	0-10V	10-100%	Yes	Yes
*2743XH	57505	OTi100W/UNV/1600C/2DIM+/P6/AUX	100W	500-1600mA (programmable)	1050mA	40-185V	0-10V	10-100%	Yes	Yes
*275TK8	57536	OTi180W/UNV/800C/2DIM/P6/G2	180W	350-800mA (programmable)	700mA	82-280V	0-10V	10-100%	Yes	Yes
*275TKE	57537	OTi180W/UNV/1250C/2DIM/P6/G2	180W	600-1250mA (programmable)	1050mA	70-210V	0-10V	10-100%	Yes	Yes
*275TKH	57538	OTi180W/UNV/1800C/2DIM/P6/G2	180W	1000-1800mA (programmable)	1500mA	50-150V	0-10V	10-100%	Yes	Yes
*2743YH	79366	OT180W/UNV/800C/2DIM/P6	180W	350-800mA (programmable)	530mA	82-280V	0-10V	10-100%	Yes	Yes
*2743YJ	79367	OT180W/UNV/1250C/2DIM/P6	180W	600-1250mA (programmable)	700mA	70-210V	0-10V	10-100%	Yes	Yes
*2779JN	–	OTi 190W UNV 2750C 2DIM P6 DIM-1	190W	700 - 2750 mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes
* 2779JP	–	OTi 190W UNV 2750C 2DIM P6 AUX DIM-1	190W	700 - 2750 mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes
*2743Y2	58051	OTi200W/UNV/900C/2DIM+/P6	200W	500-900mA (programmable)	700mA	125-285V	0-10V	10-100%	Yes	Yes
*2743Y3	58052	OTi200W/UNV/900C/2DIM+/P6/AUX	200W	500-900mA (programmable)	700mA	125-285V	0-10V	10-100%	Yes	Yes
*2743Y4	58055	OTi200W/UNV/1400C/2DIM+/P6	200W	900-1400mA (programmable)	1050mA	75-180V	0-10V	10-100%	Yes	Yes
*2743Y5	58056	OTi200W/UNV/1400C/2DIM+/P6/AUX	200W	900-1400mA (programmable)	1050mA	75-180V	0-10V	10-100%	Yes	Yes

Input Voltage 120-277V (DALI/D4i)

*2743XF	57501	OTi60W/UNV/1600C/DALI/P6	60W	500-1600mA (programmable)	1050mA	15-55V	DALI	10-100%	Yes	Yes
*2743XG	57502	OTi60W/UNV/1600C/DX/AUX	60W	500-1600mA (programmable)	1050mA	15-55V	D4i	10-100%	Yes	Yes
*2743XP	57557	OTi60W/UNV/1600C/DX/DNN/AUX	60W	500-1600mA (programmable)	1050mA	15-55V	D4i	10-100%	Yes	Yes
*281R7F	–	OT100F-M1A0DL1/1250MA/MAX	100W	600-1250mA (programmable)	1050mA	50-100V	D4i	10-100%	Yes	Yes
*278UE9	–	OT180F-M1A0DL1/1250MA/MAX	180W	600-1250mA (programmable)	1050mA	70-210V	D4i	10-100%	Yes	Yes

Input Voltage 347-480V

*2743XL	57511	OTi95W/HV/2750C/2DIM+/P6/AUX	95W	700-2750mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes
*2743YA	79206	OT100W/347-480/800C/2DIM/P6	100W	350-800mA (programmable)	530mA	50-185V	0-10V	10-100%	Yes	Yes
*2743YC	79207	OT100W/347-480/1250C/2DIM/P6	100W	600-1250mA (programmable)	700mA	30-100V	0-10V	10-100%	Yes	Yes
*2743YE	79208	OT180W/347-480/800C/2DIM/P6	180W	350-800mA (programmable)	530mA	82-280V	0-10V	10-100%	Yes	Yes
*2743YF	79209	OT180W/347-480/1250C/2DIM/P6	180W	600-1250mA (programmable)	700mA	70-210V	0-10V	10-100%	Yes	Yes

Input Voltage 277-480V

*2779JS	–	OTi 190W 277-480 2750C 2DIM P6 DIM-1	190W	700 - 2750 mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes
*2779JT	–	OTi 190W 277-480 2750C 2DIM P6 AUX DIM-1	190W	700 - 2750 mA (programmable)	2700mA	15-54V	0-10V	1-100%	Yes	Yes

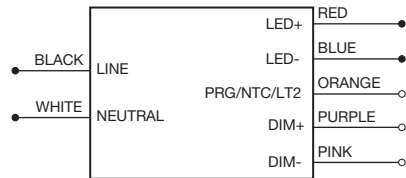
Minimum and Maximum Ratings

Parameter	Values
Input Voltage Range	108-305VAC; 312-528VAC
Maximum Case Temperature (Tc point)	90°C (194°F) for 50W, 60W, 100W, 180W; 88°C (190°F) for OTi200W; 85°C (185°F) for OTi95W and OTi190W
Maximum Case Temperature for 5-Year Life and Warranty	88°C (190°F) for 50W G1; 85°C (185°F) for 95W, 100W G1/D4i & 180W G1/G2/D4i, 190W, 200W; 83°C (181°F) for 100W G2; 81°C (177°F) for 50W G2; 80°C (176°F) for 60W, OTi100W
Ambient Operating Temperature (reference)	-40°C to 50°C (-40°F to 122°F) for 60W D4i; -40°C to 55°C (-40°F to 131°F) for 50W, 95W HV, 100W & 180W (G1, G2, D4i), 190W, 200W; -40°C to 60°C (-40°F to 140°F) for 60W DALI and 95W UNV
Storage Temperature	70°C Max (158°F)
Maximum Relative Humidity	95% (Non-condensing)

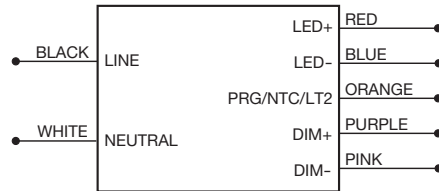
Wiring Diagrams

Input Voltage 120-277V

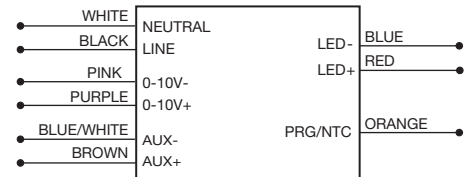
OT50, OT100, OTi100 G2 and OT180 (120-277V)



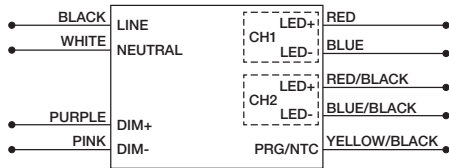
OTi50W, OTi100W and OTi180W



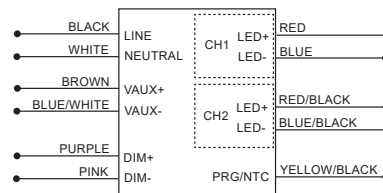
OTi95W and OTi200W



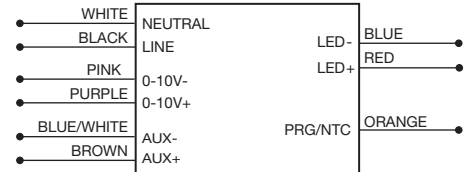
OTi190W



OTi190W AUX

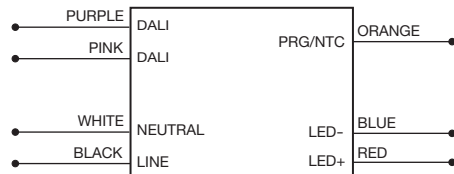


OTi200W

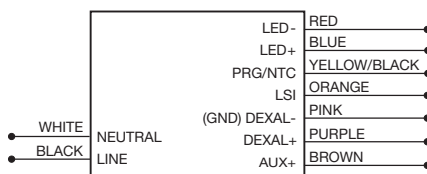


Input Voltage 120-277V (DALI /D4i)

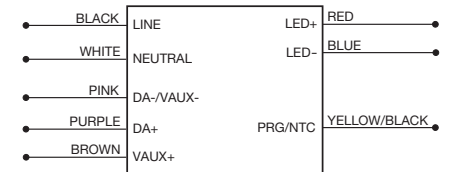
OTi60W (DALI)



OTi60W (D4i certified)

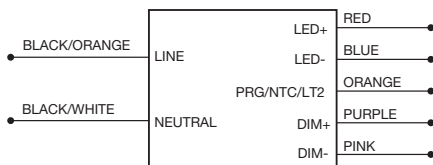


OTi100W and OTi180W (D4i certified)

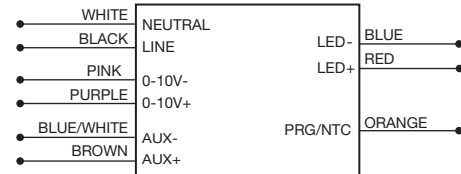


Input Voltage 347-480V

OT100 and OT180

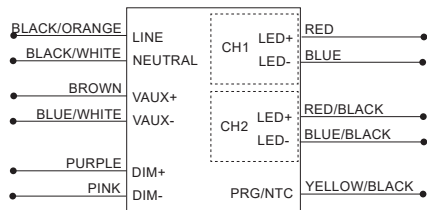


OTi95W and OTi200W

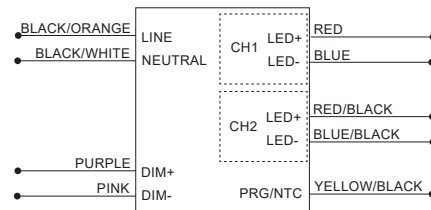


Input Voltage 277-480V

OTi 190W AUX



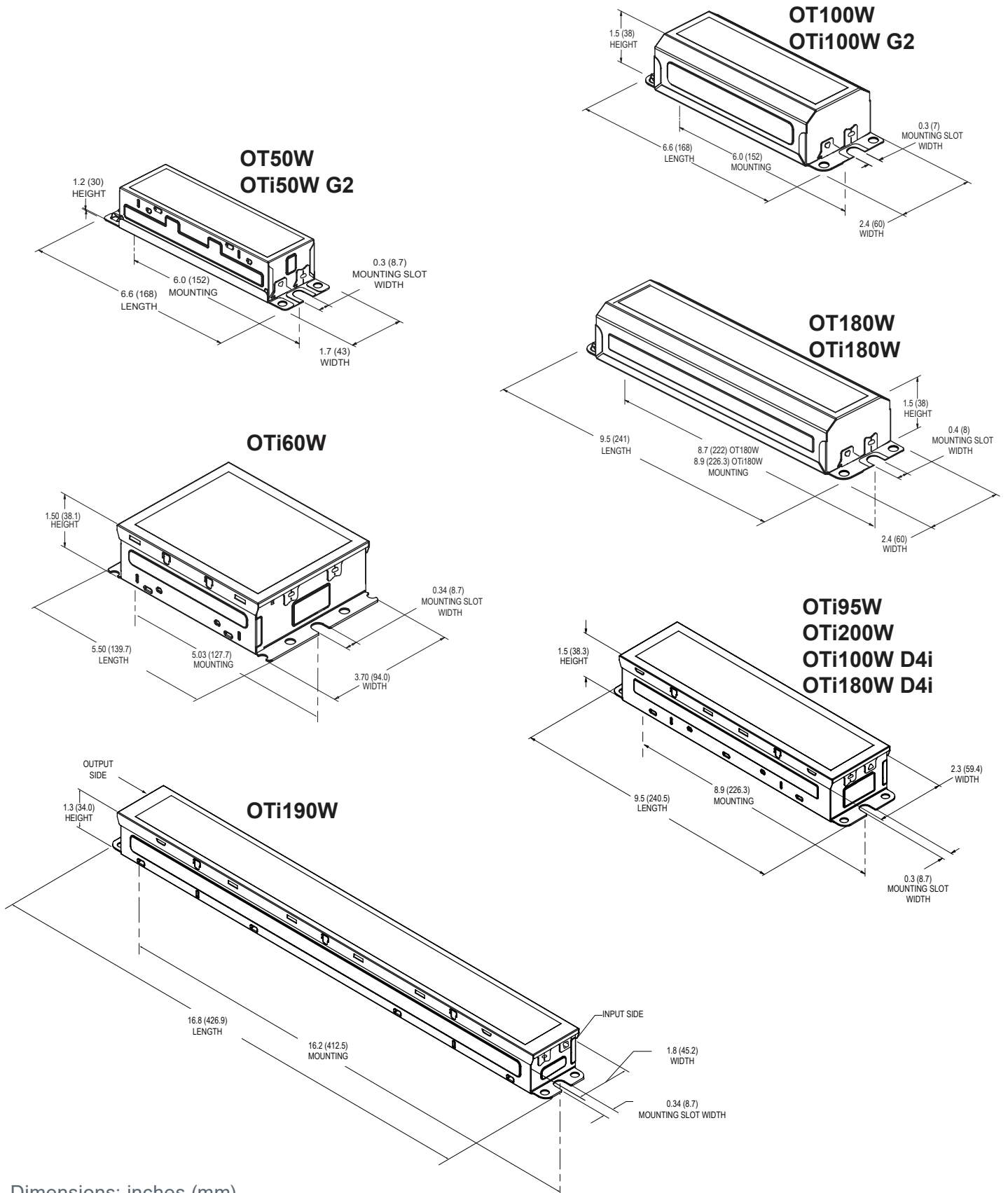
OTi 190W NON-AUX



Notes:

1. Always ensure the load is within the power supply rating for current, voltage and wattage.
2. The number of boards that can be connected in parallel depends on power supply output specification.
3. Connecting boards in series is not recommended.
4. Wire length outside of enclosure is approximately xx inches

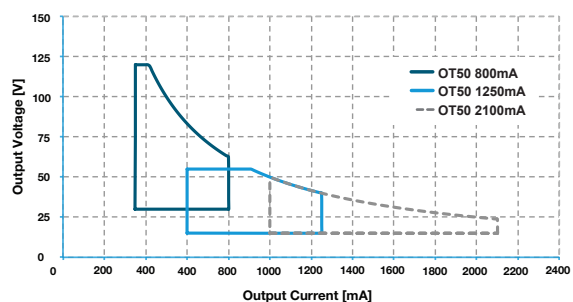
Mechanical Drawings



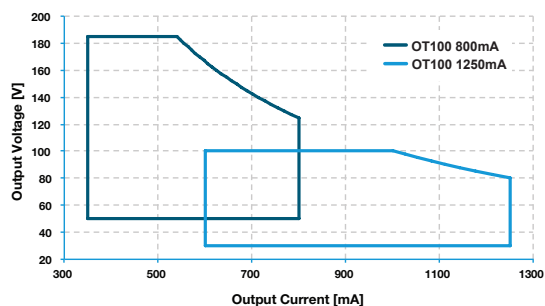
Dimensions: inches (mm)

Operating Range

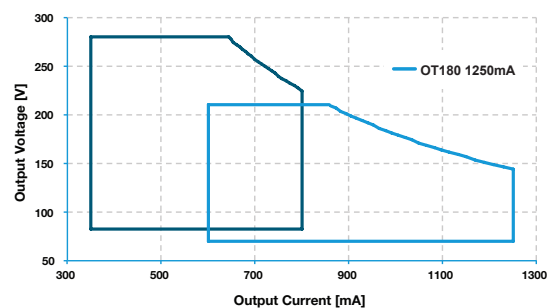
OT50W



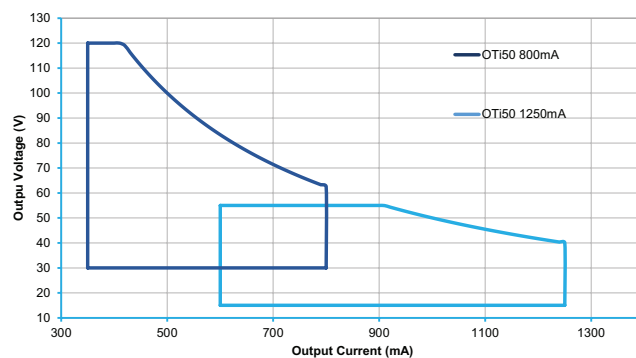
OT100W



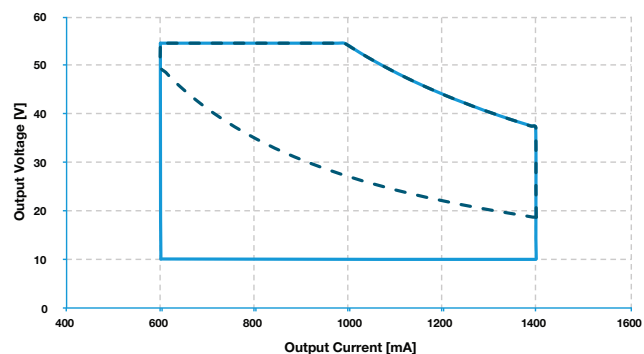
OT180W



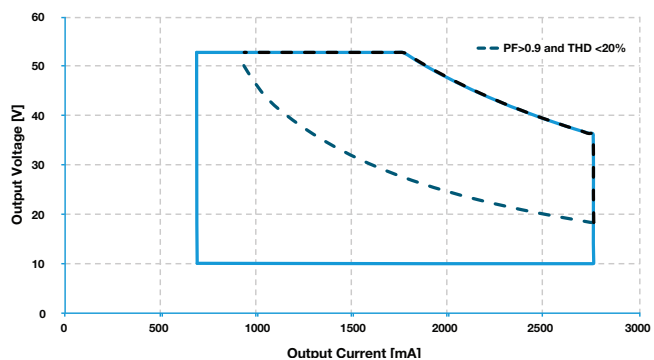
OTi50W



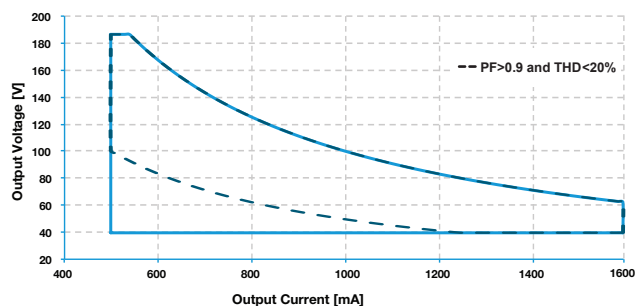
OTi60W



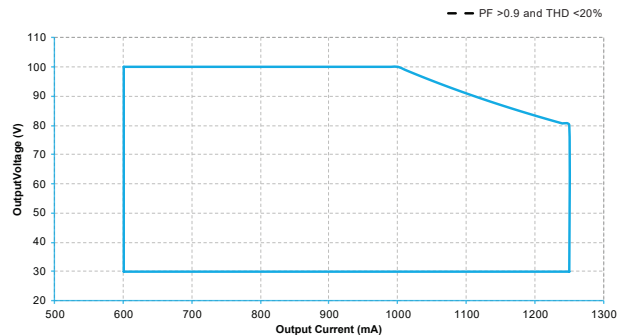
OTi95W



OTi100W G1

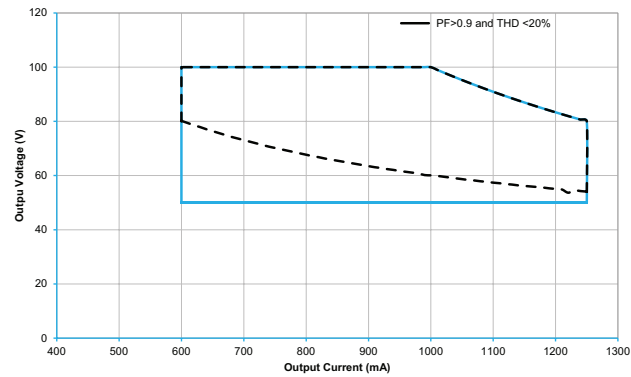


OTi100W G2

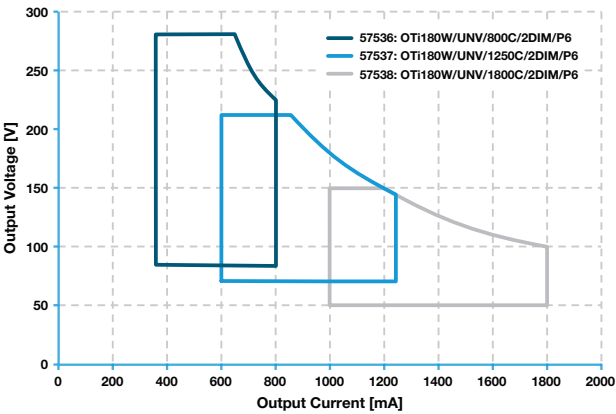


Operating Range (continued)

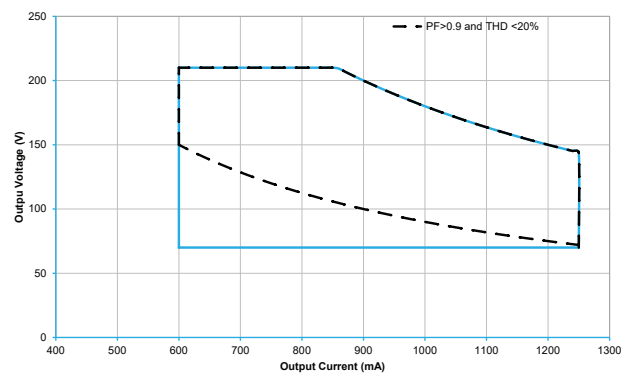
OTi100W D4i



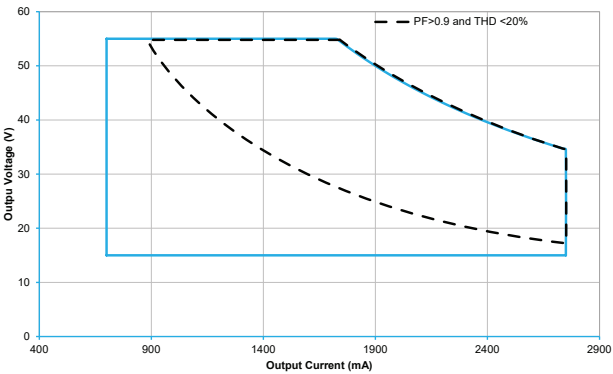
OTi180W



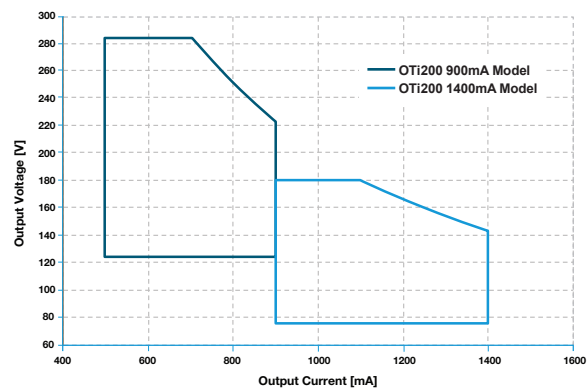
OTi180W D4i



OTi190W



OTi200W



Ordering Guide

OT	50W	UNV	800C	2DIM	+	LT2	P6	AUX
OT = OPTOTRONIC OTi= OPTOTRONIC Intelligent	Output Wattage	Input Voltage UNV = 120-277V 347-480 = 347-480V	Max. Output Current (mA)	0-10V Dimming DALI D4i certified	AstroDIM	LEDset 2	IP66	AUX Available

Accessories



Item Number	Original Item Number	Ordering Abbreviation	Description	Required Accessory
*274A17	51645	OTPROGRAMMER	USB Programming Tool	Yes
*2743V2	79360	OTOutdoorPGRMTool	Programming Tool for Outdoor Drivers	No

Packaging

OT50W Quantity: 20 pieces per case Weight: 0.9 lbs ea./18 lbs per case (approx.)	OT100W Quantity: 20 pieces per case Weight: 1.4 lbs ea./28 lbs per case (approx.)	OT180W Quantity: 10 pieces per case Weight: 2.2 lbs ea./22 lbs per case (approx.)	OTi50W G2 Quantity: 20 pieces per case Weight 1 lb ea./20lbs per case (approx.)
OTi60W Quantity: 20 pieces per case Weight: 0.88 lbs ea./17.6 lbs per case (approx.)	OTi95W Quantity: 10 pieces per case Weight: 1.98 lbs ea./19.8 lbs per case (approx.)	OTi100W Quantity: 10 pieces per case Weight: 1.98 lbs ea./19.8 lbs per case (approx.)	OTi100W D4i, OTi 180W D4i, OTi180W and OTi200W Quantity: 10 pieces per case Weight: 2.3 lbs ea./22.8 lbs per case (approx.)
OTi190W Quantity: 10 pieces per case Weight: 2.95 lbs ea./29.5 lbs per case (approx.)			

Warranty

OPTOTRONIC® by eldoLED Products are covered by a 5-year limited warranty. Complete warranty terms can be found at: <https://www.eldoled.com/legal/terms-and-conditions>

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