



The OPTOTRONIC Compact Drivers have several architectural grade features that offer functionality that supports architectural lighting design. OPTOTRONIC LED drivers support true 1% dimming across the entire driver programmable output current range. This key specification gives lighting designers the flexibility and precise light output they require. The synchronized ON/OFF timing and dimming control meet efficacy requirements and ensure consistent dimming levels across multiple luminaires. The DIM-to-OFF feature enables luminaires to smoothly transition from dim to off. And, offers an AUX power output option to power and extend DIM-to-OFF capability to fixture-integrated sensors and controls.

OEMs can fully customize programmable features into a driver which helps optimize production line efficiency by utilizing the one-click programming feature of the OPTOTRONIC Programmer. The OPTOTRONIC Programmer does not require the power supply to be powered up or connected to AC line voltage while programming.

## Application Information

### Applications

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

## Key Features & Benefits

- Architectural-grade features include:
  - True 1% dimming
  - Synchronized ON/OFF and dimming control
  - DIM to OFF
  - Dimming interface protection
- Custom programmable with 1 mA resolution to perfectly match LED load and maximize performance
- Integrated OEM program-mable features include:
  - Constant lumen maintenance
  - End-of-life indication
  - LED thermal protection
  - Soft start
- Programming does not require powering up or connecting the power supply to AC line voltage
- Available optional auxiliary output to power 12V, 20V, and 24V low power applications
- Familiar standard industry housing – 5.0" x 2.4" x 1.1" (L x W x H)
- Wide output current and voltage range
- Available with mounting feet (F-style) or PEM studs (J-style) to simplify installation
- Universal Input Voltage
  - 120-277V<sub>AC</sub> 50/60Hz
  - 347V<sub>AC</sub> 50/60Hz
- UL Class 2 output for safe operation

## Product Offering

| Max. Power | Housing Type         | Connectors  | Minimum Dimming | Output Current Range | Dedicated Aux <sup>3</sup> 12V/20V/24V |
|------------|----------------------|-------------|-----------------|----------------------|----------------------------------------|
| 25W        | F-style <sup>1</sup> | Dual Entry  | 1%              | 150–1250mA           | Yes                                    |
| 25W        | J-style <sup>2</sup> | Bottom Feed | 1%              | 150–1250mA           | Yes                                    |
| 40W        | F-style <sup>1</sup> | Dual Entry  | 1%              | 400–1400mA           | Yes                                    |
| 40W        | J-style <sup>2</sup> | Bottom Feed | 1%              | 400–1400mA           | Yes                                    |
| 55W        | F-style <sup>1</sup> | Dual Entry  | 1%              | 700–2000mA           | Yes                                    |
| 55W        | J-style <sup>2</sup> | Bottom Feed | 1%              | 700–2000mA           | Yes                                    |

<sup>1</sup> feet

<sup>2</sup> PEM stud

<sup>3</sup> 1W max

## Specifications and Certifications



Compliant to 47 CFR, Part 15 Class A  
Compliant to UL STD 60730-1 for SREC

Compatible with CA T-24 requirement for flicker and startup time

Electrical Specifications

| Maximum Output Power (W) | Nominal Input Voltage (V <sub>ac</sub> ) | Maximum Input Current (A)    | Power Factor | THD  | Line Transient | Efficiency | Environmental Rating | UL File # |
|--------------------------|------------------------------------------|------------------------------|--------------|------|----------------|------------|----------------------|-----------|
| 25W                      | 120-277V <sub>ac</sub> 50/60 Hz          | 0.26A @ 120V<br>0.12A @ 277V | >0.9         | <20% | NEMA SSL1-2010 | 87%        | Damp/Dry             | E333135   |
| 25W                      | 347V <sub>ac</sub> 50/60 Hz              | 0.105 @ 347V                 | >0.9         | <20% | NEMA SSL1-2010 | 85%        | Damp/Dry             | E333135   |
| 40W                      | 120-277V <sub>ac</sub> 50/60 Hz          | 0.41A @ 120V<br>0.18A @ 277V | >0.9         | <20% | NEMA SSL1-2010 | 87%        | Damp/Dry             | E333135   |
| 40W                      | 347V <sub>ac</sub> 50/60 Hz              | 0.155 @ 347V                 | >0.9         | <20% | NEMA SSL1-2010 | 87%        | Damp/Dry             | E333135   |
| 55W                      | 120-277V <sub>ac</sub> 50/60 Hz          | 0.6A @ 120V<br>0.26A @ 277V  | >0.9         | <20% | NEMA SSL1-2010 | 89%        | Damp/Dry             | E333135   |

Ordering Information

| Item Number | NAED  | Ordering Abbreviation          | Total Output Power | Output Current Range       | Default Current | Output Voltage Range (V <sub>oc</sub> ) | Dimming Control | Dimming Range | LED Thermal Protection | Housing Type |
|-------------|-------|--------------------------------|--------------------|----------------------------|-----------------|-----------------------------------------|-----------------|---------------|------------------------|--------------|
| 120-277V    |       |                                |                    |                            |                 |                                         |                 |               |                        |              |
| *2743VY     | 57347 | OTi25W/120-277/1A2/DIM-1       | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A1J     | 57348 | OTi25W/120-277/1A2/DIM-1/J     | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743W0     | 57349 | OTi25W/120-277/1A2/DIM-1 AUX   | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A1K     | 57350 | OTi25W/120-277/1A2/DIM-1 J/AUX | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743W1     | 57351 | OTi40W/120-277/1A4/DIM-1       | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A1L     | 57352 | OTi40W/120-277/1A4/DIM-1/J     | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743W2     | 57353 | OTi40W/120-277/1A4/DIM-1 AUX   | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A1M     | 57354 | OTi40W/120-277/1A4/DIM-1 J/AUX | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743W3     | 57355 | OTi55W/120-277/2A0/DIM-1       | 55W                | 700-2000 mA (Programmable) | 1000mA          | 10-55V                                  | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A1N     | 57356 | OTi55W/120-277/2A0/DIM-1/J     | 55W                | 700-2000 mA (Programmable) | 1000mA          | 10-55V                                  | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743W4     | 57357 | OTi55W/120-277/2A0/DIM-1 AUX   | 55W                | 700-2000 mA (Programmable) | 1000mA          | 10-55V                                  | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A1P     | 57358 | OTi55W/120-277/2A0/DIM-1/J AUX | 55W                | 700-2000 mA (Programmable) | 1000mA          | 10-55V                                  | 0-10V           | 1-100%        | Yes                    | J-Style      |
| 347V        |       |                                |                    |                            |                 |                                         |                 |               |                        |              |
| *2743XR     | 57994 | OTi25W/347/1A2/DIM-1           | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A3P     | 57995 | OTi25W/347/1A2/DIM-1/J         | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743XS     | 57996 | OTi25W/347/1A2/DIM-1 AUX       | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A3R     | 57997 | OTi25W/347/1A2/DIM-1 J/AUX     | 25W                | 150-1250mA (Programmable)  | 500mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743XT     | 57998 | OTi40W/347/1A4/DIM-1           | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A3S     | 57999 | OTi40W/347/1A4/DIM-1/J         | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |
| *2743XU     | 58008 | OTi40W/347/1A4/DIM-1 AUX       | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | F-Style      |
| *274A3T     | 58009 | OTi40W/347/1A4/DIM-1 J/AUX     | 40W                | 400-1400mA (Programmable)  | 700mA           | 8-55V                                   | 0-10V           | 1-100%        | Yes                    | J-Style      |

Ordering Guide

| OTi                     | 55W            | / | 120-277                         | / | 2A0                           | / | DIM-1       | / | J               | / | AUX |
|-------------------------|----------------|---|---------------------------------|---|-------------------------------|---|-------------|---|-----------------|---|-----|
| OPTOTRONIC® intelligent | Output Wattage |   | Input Voltage (120-277V) (347V) |   | Maximum output current 2000mA |   | 1% Dimmable |   | J-Style Housing |   | AUX |

Accessories

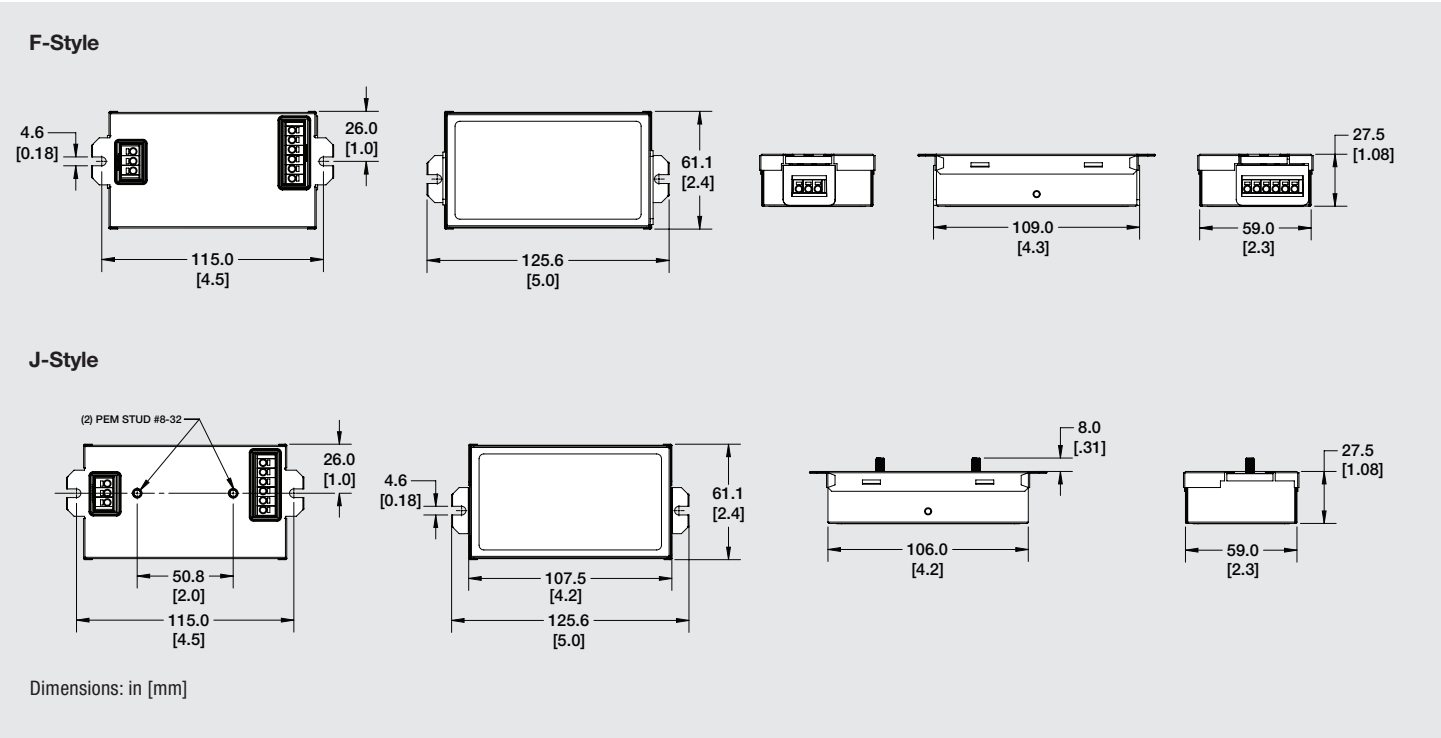
| Item Number | NAED  | Ordering Abbreviation     | Description          | Required Accessory |
|-------------|-------|---------------------------|----------------------|--------------------|
| *274A17     | 51645 | OTPROGRAMMER COMM BOX PRG | USB Programming Tool | Yes                |
| *274A18     | 51646 | OTPROGRAMMING NEST        | Programming fixture  | Optional           |



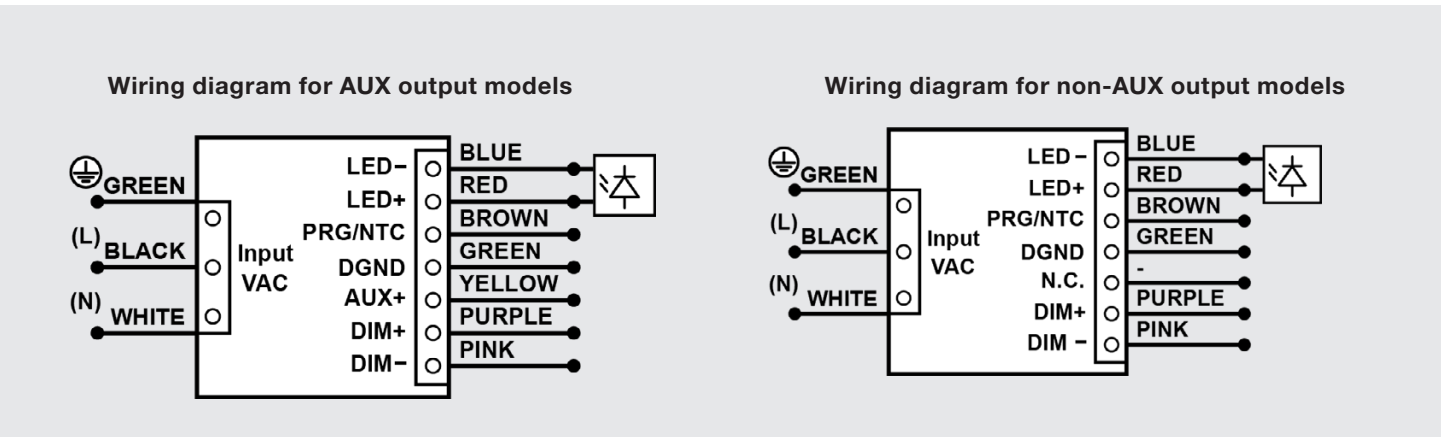
Minimum and Maximum Ratings

| Parameter                                             | Values                                                                                                                                                                            |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage Range                                   | 108-305V <sub>AC</sub>                                                                                                                                                            |
| Maximum Case Temperature (T <sub>c</sub> point)       | 90°C (185°F)                                                                                                                                                                      |
| Maximum Case Temperature for 5-Year Life and Warranty | 80°C (176°F) for 25W/40W models; 75°C (167°F) for 55W                                                                                                                             |
| Ambient Operating Temperature (reference)             | OTi25W: -30°C to 50°C (-22°F to 122°F)<br>OTi40W: -35°C to 50°C (-22°F to 122°F)<br>OTi55W: -35°C to 45°C (-31°F to 113°F)<br>OTi25W, 40W: (347V): -40°C to 50°C (-40°F to 122°F) |
| Storage Temperature                                   | -35°C to 75°C (-31°F to 167°F)                                                                                                                                                    |
| Maximum Relative Humidity                             | 85% (Non-condensing)                                                                                                                                                              |

Assembly Diagram

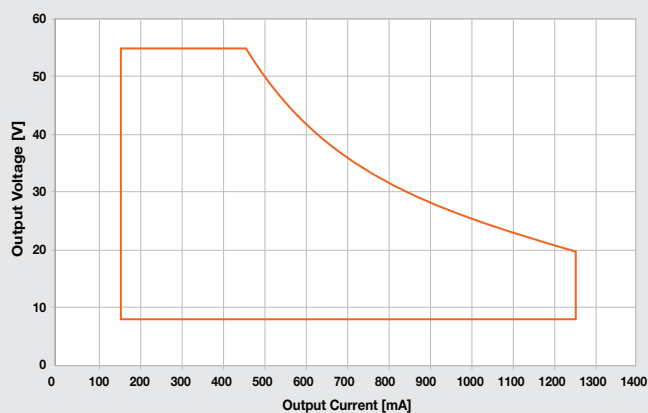


Wiring Diagram

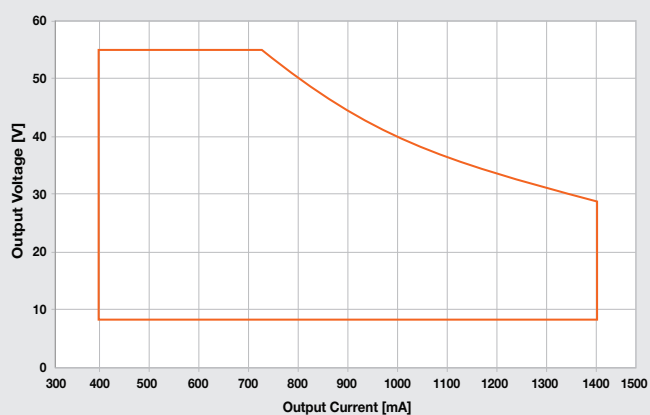


## Operating Range

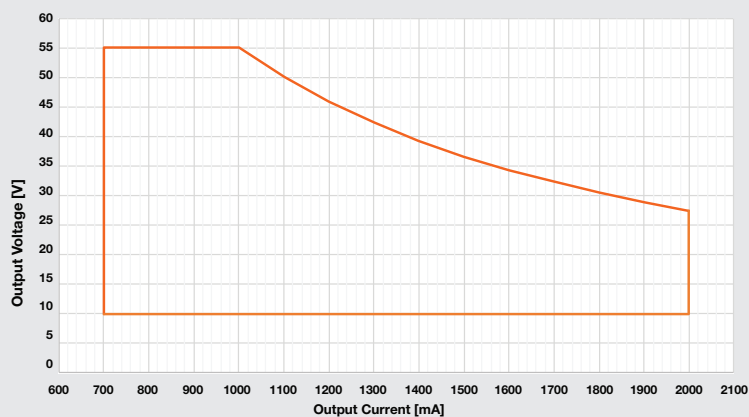
**OTi25W**



**OTi40W**



**OTi55W**



## Packaging

Quantity: 20 pieces per case

Weight: 0.5 lbs ea./10 lbs per case (approx.)

## Warranty

eldoLED OPTOTRONIC® 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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Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.