RoHS 2

Compliant



#### 150W, 347-480Vac Input, Constant Current Programmable LED Driver

#### **Features**

Power Rating: 150W

Input Voltage: 347-480Vac

Constant current design

Output current(2000mA-4700mA)

Selectable output through POT switch

Efficiency up to 91%

Optional dimming function: 0-10V, PWM, Resistor, Timing

Protections: SCP, OTP, OVP

IP65

5-year warranty

Surge Protection: L/N-PE/GND: 4KV, L-N 2KV



### Application

· High bay lights

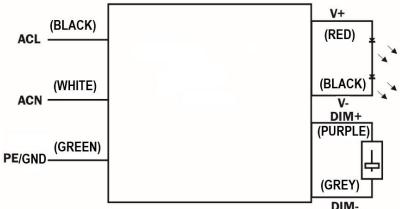
■ **Model List**\*(See part number scheme for model number details)

| Model Number    | Input<br>Voltage<br>Range | Output<br>Power | Output<br>Voltage | Output<br>Current<br>Min. | Output<br>Current Max. | Efficiency | Certification |  |
|-----------------|---------------------------|-----------------|-------------------|---------------------------|------------------------|------------|---------------|--|
| L3HCD150S470STR | 347-480Vac                | 150W            | 24-42V            | 2600mA                    | 4700mA                 | 90%        | UL/cUL        |  |
| L3HCD150S360STR | 347-480Vac                | 150W            | 32-58V            | 2000A                     | 3600mA                 | 91%        | UL/cUL        |  |

#### Notes:

- Output current selectable by POT switch
- 2. Torque: 0.98 to 19.6mN-m (10 to 200gf·cm) max.
- 3. Stop strength: 49.0mN·m (500gf·cm) min

# ■ Wiring Diagram / Dimming



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DIM-

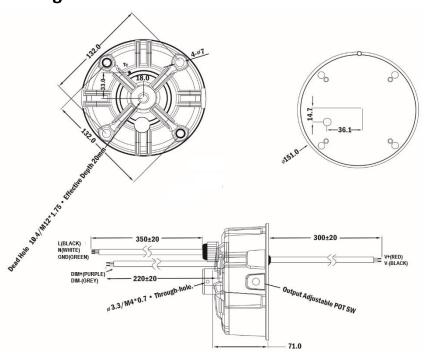
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# ■ Input Characteristics

| Parameter             | Min    | Тур. | Max    | Remarks                       |
|-----------------------|--------|------|--------|-------------------------------|
| Rated AC input range  | 347Vac |      | 480Vac |                               |
| AC input range        | 180Vac |      | 528Vac |                               |
| Input frequency range | 47Hz   |      | 63Hz   |                               |
| Max input current     |        |      | 1.2A   | 180Vac, full load             |
| Inrush current        |        |      | 60A    | 347Vac/50Hz, cold start       |
| No load power         |        | 2W   | 4W     | 347Vac/50Hz, No load          |
| Power factor          | 0.93   | 0.95 |        | 347Vac/50Hz, full load        |
| Power factor          | 0.90   |      |        | 200-480Vac/50Hz, 80-100% Load |
| THD                   |        | 8%   | 10%    | 347Vac/50Hz, full load        |
| וחט                   |        |      | 25%    | 200-480Vac/50Hz, 70-100% Load |

# **■** Mechanical Design



| Wire Specifications |   |  |  |  |  |  |  |
|---------------------|---|--|--|--|--|--|--|
| Input Wire          | UL STW #18AWG, 3 X 0.824MM <sup>2</sup> , O.D. 9MM, GREEN: PE/GND, BLACK: L, WHITE: N |  |  |  |  |  |  |
| Output Wire         | UL SJTW #18AWG 2X2.08MM², O.D. 9MM, RED: V+, BLACK: V-                                |  |  |  |  |  |  |
| Dim Wire            | STYLE 2733, #22AWG O.D. 5.0MM, PURPLE: DIM+, GREY: DIM-                               |  |  |  |  |  |  |

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# Safety Compliance

| Certific                 | ation         | Standard                       | Status   | Remark  |  |
|--------------------------|---------------|--------------------------------|--|---------|--|
| UL/c                     | UL            | UL8750                         | ٧  |         |  |
| CE                       | į             | EN 61347-2-13:2014<br>EN61347- |  |         |  |
|                          |               | 1:2008+A1:2011+A2:2013         |  |         |  |
| Iter                     | m             | Standard                       | Remark   |         |  |
| la sulation              | Input-output  | 3200Vac/5mA Max/60s            | Reinforced insu                                  | ılation |  |
| Insulation<br>Strength   | Primary-Earth | 1600Vac/5mA Max/60s            | Basic insulat                                    | ion     |  |
| Strength                 | Sec Earth     | 1000Vac/5mA Max/60s            | Function insul                                   | ulation |  |
| Insulation<br>Resistance | Input-output  | ≥10 MΩ                         | Testing Voltage:                                 | 500Vdc  |  |
| Ground R                 | Resistor      | ≤0.1Ω                          | 25A/1mir   | 1       |  |
| Leakage (                | Current       | ≤0.75mA                        | 480Vac   |         |  |
| Ite                      | m             | Criterion                      | Remark   |         |  |
| Conduction               | Emission      | EN55015:2013+A1:2015           | 2015   |         |  |
| Radiation                | Emission      | EN55015:2013+A1:2015           | EN55015:2013+A1:2015                             |         |  |
| Harmonic Curre           | ent Emissions | IEC/EN 61000-3-2               | Class C  |         |  |
| Sur                      | ge            | IEC/EN61000-4-5                | Difference mode 4KV, Common n<br>6KV Criterion B |         |  |

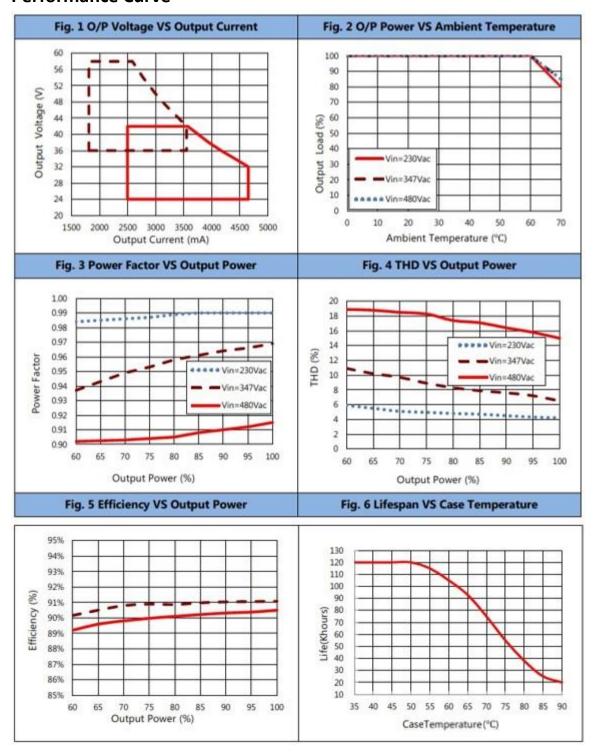
#### **Disclaimer:**

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

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### ■ Performance Curve



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| and a                 | POVERmatters                |             |                |   |   |  |
|-----------------------|-----------------------------|-------------|----------------|---|---|--|
| Par                   | rameter                     | Min         | Тур.           | Max   | Remarks                                 |  |
|                       | Dim Vmax                    | -20V        |                | 14V   | 3 in 1 Dimming; 1-5V  Dimming optional; |  |
| 0-10V                 | Dim Range                   | 10% lo max  |                | 100% Io set                                   | Negative Logic Dim                      |  |
| Dimming               | Voltage                     | 1V          |                | 10V   | Optional                                |  |
| (optional)            | OFF                         | 0.3V        | 0.5V           | 0.7V  | − Dim-off value                         |  |
|                       | On                          | 0.5V        | 0.7V           | 0.9V  | – Diffi-Off Value                       |  |
|                       | High                        | 5V          |                | 10V   |   |  |
| PWM                   | Low                         | -0.3V       |                | -0.6V   |   |  |
| Dimming<br>(Optional) | Frequency                   | 200Hz       |                | 2KHz  |   |  |
|                       | PWM Duty                    | 1%          |                | 99%   |   |  |
| Resistor              | Resistance                  | 10K Ohm     |                | 100K Ohm                                      |   |  |
| Dimming (optional)    | Dimming                     | 10% lo max  |                | 100% lo Set                                   |   |  |
| Timing                | IC Control                  |             | By Programmin  | Typically, 3-4 sections                       |   |  |
| Curve<br>(optional)   | Timing                      | 5H/6        | 5H/7H/8H per s | DefaultMode:24<br>Hour/Circle with 50% load   |   |  |
|                       | ОТР                         | 90°C        | 100 °C         | 110 °C  | Tc, Self-recovery                       |  |
| Protection            | Short Circuit<br>Protection | Driver will | l not damage w | Remove abnormal, Self-<br>recovery            |   |  |
| Lif                   | e Time                      |             | 55,000hrs      | 347Vac full load, Tc 75°C                     |   |  |
| 1                     | MTBF                        |             | 200,000hrs     | 347Vac full load, Ta=25°C,<br>(MIL-HDBK-217F) |   |  |
| Temperat              | ure Coefficient             | -0.03%/°C   |                | 0°C~85°C                                      |   |  |
| Тс                    |                             |             |                |   |   |  |
| W                     | arranty                     |             | 5 years        | Tc75°C  |   |  |
| Net                   | Weight                      |             | 1.5kg          |   |   |  |
| Din                   | nension                     | 1           | φ151mm*71mı    | DxH   |   |  |

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## Dimming

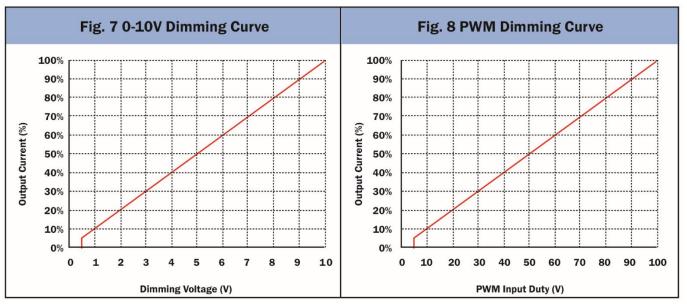
# 0-10V Dimming (Typ.)

| Voltage<br>Range               | 1V  | 2V  | 3V  | 4V  | 5V  | 6V  | 7V  | 8V  | 9V  | 10V  | Open        |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------------|
| Rated<br>Current<br>Percentage | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 95-<br>108% |
| PWM Duty                       | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | Open        |
| Rated<br>Current<br>Percentage | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 95-<br>108% |

#### Resistor(Typ.)

| Resistor   | 10ΚΩ | 20ΚΩ | 30ΚΩ | 40ΚΩ | 50ΚΩ | 60ΚΩ | 70ΚΩ | 80ΚΩ | 90ΚΩ | 100 ΚΩ | Open |
|------------|------|------|------|------|------|------|------|------|------|--------|------|
| Rated      | 10%  | 20%  | 30%  | 40%  | 50%  | 60%  | 70%  | 80%  | 90%  | 100%   | 95-  |
| Current    |      |      |      |      |      |      |      |      |      |        | 108% |
| Percentage |      |      |      |      |      |      |      |      |      |        |      |

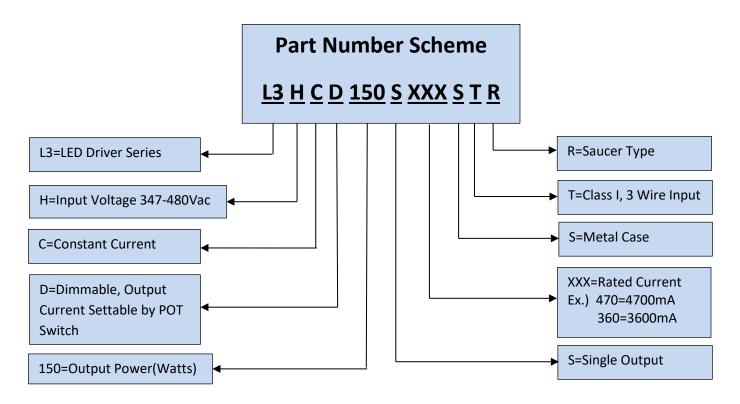
# **■** Dimming Curve



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<sup>\*</sup>Product images are for illustrative purposes only and may vary from actual design.

<sup>\*</sup>Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.