**Features**

- Constant Voltage + Constant Current mode output
- Metal housing design with functional Ground
- Built-in active PFC function
- No load / Standby power consumption <0.5W
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming (dim-to-off); Smart timer dimming; DALI
- Typical lifetime>50000 hours
- 5 years warranty

**Description**

ELG-200 series is a 200W AC/DC LED driver featuring the dual mode constant voltage and constant current output. ELG-200 operates from 100~305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 93%, with the fanless design, the entire series is able to operate for -40°C ~ +90°C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress protection level allows this series to fit both indoor and outdoor applications. ELG-200 is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

**Model Encoding**

<table>
<thead>
<tr>
<th>Type</th>
<th>Function</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>Io and Vo fixed.</td>
<td>In Stock</td>
</tr>
<tr>
<td>A</td>
<td>Io and Vo adjustable through built-in potentiometer.</td>
<td>In Stock</td>
</tr>
<tr>
<td>B</td>
<td>3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance)</td>
<td>In Stock</td>
</tr>
<tr>
<td>AB</td>
<td>Io and Vo adjustable through built-in potentiometer &amp; 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance)</td>
<td>In Stock</td>
</tr>
<tr>
<td>DA</td>
<td>DALI control technology.</td>
<td>In Stock</td>
</tr>
<tr>
<td>Dx</td>
<td>Built-in Smart timer dimming function by user request.</td>
<td>By request</td>
</tr>
<tr>
<td>D2</td>
<td>Built-in Smart timer dimming and programmable function.</td>
<td>In Stock</td>
</tr>
</tbody>
</table>
## SPECIFICATION

### OUTPUT

<table>
<thead>
<tr>
<th>Model</th>
<th>ELG-200-12</th>
<th>ELG-200-24</th>
<th>ELG-200-36</th>
<th>ELG-200-42</th>
<th>ELG-200-48</th>
<th>ELG-200-54</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Voltage</td>
<td>12V</td>
<td>24V</td>
<td>36V</td>
<td>42V</td>
<td>48V</td>
<td>54V</td>
</tr>
<tr>
<td>Constant Current Region Note.2</td>
<td>6 ~ 12V</td>
<td>12 ~ 24V</td>
<td>18 ~ 36V</td>
<td>21 ~ 42V</td>
<td>24 ~ 48V</td>
<td>27 ~ 54V</td>
</tr>
<tr>
<td>Rated Current</td>
<td>16A</td>
<td>8.4A</td>
<td>5.5A</td>
<td>4.76A</td>
<td>4.16A</td>
<td>3.72A</td>
</tr>
<tr>
<td>Rated Power</td>
<td>200VAC ~ 305VAC</td>
<td>192W</td>
<td>201.6W</td>
<td>199.8W</td>
<td>199.9W</td>
<td>199.68W</td>
</tr>
<tr>
<td>100VAC ~ 180VAC</td>
<td>144W</td>
<td>150W</td>
<td>149.76W</td>
<td>149.94W</td>
<td>149.76W</td>
<td>150.12W</td>
</tr>
<tr>
<td>Ripple &amp; Noise Note.3</td>
<td>0.00715VAC</td>
<td>0.00715VAC</td>
<td>0.00715VAC</td>
<td>0.00715VAC</td>
<td>0.00715VAC</td>
<td>0.00715VAC</td>
</tr>
<tr>
<td>Voltage Adj. Range</td>
<td>Adjustable for A/AB-Type only (via built-in potentiometer)</td>
<td>11.2 ~ 12.8V</td>
<td>22.4 ~ 25.6V</td>
<td>33.5 ~ 38.5V</td>
<td>38 ~ 45V</td>
<td>44.8 ~ 51.2V</td>
</tr>
<tr>
<td>Current Adj. Range</td>
<td>Adjustable for A/AB-Type only (via built-in potentiometer)</td>
<td>8 ~ 16A</td>
<td>4.2 ~ 8.4A</td>
<td>2.78 ~ 5.55A</td>
<td>2.38 ~ 4.76A</td>
<td>2.08 ~ 4.16A</td>
</tr>
<tr>
<td>Voltage Tolerance Note.4</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Line Regulation</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>±0.5%</td>
</tr>
<tr>
<td>Load Regulation</td>
<td>±2.0%</td>
<td>±2.0%</td>
<td>±2.0%</td>
<td>±2.0%</td>
<td>±2.0%</td>
<td>±2.0%</td>
</tr>
<tr>
<td>Setup, Rise Time Note.6</td>
<td>500ms, 100ms/230VAC, 100ms, 100ms/115VAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold Up Time (Typ.)</td>
<td>10ms/ 230VAC 10ms/ 115VAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Consumption Note.7</td>
<td>NO LOAD / STANDBY</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
</tr>
<tr>
<td>No Load Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
<td>Power Consumption Note.7</td>
</tr>
</tbody>
</table>

### PROTECTION

- **Over Current**: 95% ~ 100%
- **Short Circuit**: Constant current limiting, recovers automatically after fault condition is removed
- **Over Voltage**: 13.5 ~ 18V, 27 ~ 34V, 42 ~ 49V, 47 ~ 54V, 54 ~ 63V, 60 ~ 67V
- **MAX. CASE TEMPERATURE**: $T_{case}$ = 90°C
- **Max. Humidity**: 20 ~ 95% RH non-condensing
- **Storage Temp. Humidity**: -40 ~ +90°C, ±0.3% / (0 ~ 50°C)
- **Vibration**: 10 ~ 500Hz, 5G 12min./cycle, period for 72min. each along X, Y, Z axes

### SAFETY & EMC

- **Safety Standards**: UL6750(type "HL"), CSA22.2 No. 250.13-12; IEC/EN/AS/NZS 61347-1, IEC/EN/AS/NZS 61347-2-13 independent, EN63484; EAC TP TC04.BIS IS15885(12); IEC/EN/AS/NZS 61347-2-13 approved, KC KN61347-1, KN61347-2-13
- **DALI Standards**: Comply with IEC62386-101,102,207 for DA-Only type
- **Withstand Voltage**: 1500VAC / 1500VDC / 1500VRMS / 1500VRMS / 1500VRMS / 1500VRMS
- **Isolation Resistance**: 0.1μF, 0.1μF, 0.1μF, 0.1μF, 0.1μF, 0.1μF
- **EMC Emission**: Compliance to EN55015; EN55013-2-3; Class C; (≤50kHz); EN61000-3-2; IEC61852; 1B7629; IAC TP TC 020; KC KN61547; EAC TP TC 020; KC KN61547; IEC TP TC 020; KC KN61547
- **EMC Immunity**: Compliance to EN61000-4-2;4,6,8,11; EN61547, light industry level (surge immunity Line-Earth 90V; Line-Line 40V; EAC TP TC 020; KC KN61547
- **Other**: MEAN WELL ELG-200 Series

### ENVIRONMENT

- **Weight**: 1.22Kg; 12pcs / 15.2Kg / 0.72CUFT
- **Dimensions**: 127.2mm x 43.7mm x 26.2mm

### NOTE

1. All parameters NOT specified are measured at 230VAC input, rated current and 25°C of ambient temperature.
2. Please refer to "DRIVING METHODS OF LED MODULE".
3. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair wire terminated with a 0.1uf & 47uf parallel capacitor.
4. Temperature: includes set up temperature, line regulation and load regulation.
5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" section for details.
6. Length of setup time is measured at first cold start. Tuning ON/OFF the LED may lead to increase of the set up time.
7. No loadstandby power consumption is specified for 230VAC input.
8. The device is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
9. This series meets the typical life expectancy of >50,000 hours of operation when $T_{case}$, particularly $T_{case}$ point (or $T_{MP}$, per DLEC), is about 70°C or less.
10. Please refer to the warranty statement on MEAN WELL’s website
11. The ambient temperature derating of 3.5°C/100m with fanless models and of 5°C/100m with fan models for operating altitude higher than 2000m (6560ft).
LED Driver • Constant Voltage + Constant Current • 144~200W

MEAN WELL ELG-200 Series

**Block Diagram**

- EMI FILTER & RECTIFIERS
- PFC CIRCUIT
- POWER SWITCHING
- RECTIFIERS & FILTER
- DETECTION CIRCUIT
- O.L.P.
- O.V.P.
- PFC CONTROL
- PWM & PFC CONTROL
- Vo+
- Vo-

**DRIVING METHODS OF LED MODULE**

※ This series is able to work in either Constant Current mode (a direct drive way) or Constant Voltage mode (usually through additional DC/DC driver) to drive the LEDs.

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact TRC Electronics for details.

Typical output current normalized by rated current (%)

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TRC ELECTRONICS, INC.  1.888.612.9514  www.trcelectronics.com/mean-well
**DIMMING OPERATION**

- **3 in 1 dimming function (for B/AB-Type)**
  - Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
    - 0 ~ 10VDC, or 10V PWM signal or resistance.
  - Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
  - Dimming source current from power supply: 100μA (typ.)

\[ \text{Applying additive 0 ~ 10VDC} \]

\[ \text{DO NOT connect "DIM- to Vo-"} \]

\[ \text{Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):} \]

\[ \text{DO NOT connect "DIM- to Vo-"} \]

\[ \text{Applying additive resistance:} \]

\[ \text{DO NOT connect "DIM- to Vo-"} \]

---

**Note**: 1. Min. dimming level is about 8% and the output current is not defined when 0% < Iout < 8%.
2. The output current could drop down to 0% when dimming input is about 0kΩ or 0Vdc, or 10V PWM signal with 0% duty cycle.
DALI Interface (primary side; for DA-Type)
- Apply DALI signal between DA+ and DA-.
- DALI protocol comprises 16 groups and 64 addresses.
- First step is fixed at 8% of output.

Smart timer dimming function (for Dxx-Type by User definition)
MEAN WELL Smart timer dimming primarily provides the adaptive proportion dimming profile for the output constant current level to perform up to 14 consecutive hours. 3 dimming profiles hereunder are defined accounting for the most frequently seen applications. If other options may be needed, please contact MEAN WELL for details.

Ex: ◎ D01-Type: the profile recommended for residential lighting

** TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a residential lighting application adopts D01-Type, when turning on the power supply at 6:00pm, for instance:
[1] The power supply will switch to the constant current level at 100% starting from 6:00pm.
[2] The power supply will switch to the constant current level at 70% in turn, starting from 0:00am, which is 06:00 after the power supply turns on.
[3] The power supply will switch to the constant current level at 50% in turn, starting from 1:00am, which is 07:00 after the power supply turns on.
[4] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on.

The constant current level remains till 8:00am, which is 14:00 after the power supply turns on.

Ex: ◎ D02-Type: the profile recommended for street lighting

** TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a street lighting application adopts D02-Type, when turning on the power supply at 5:00pm, for instance:
[1] The power supply will switch to the constant current level at 50% starting from 5:00pm.
[2] The power supply will switch to the constant current level at 80% in turn, starting from 0:00am, which is 01:00 after the power supply turns on.
[3] The power supply will switch to the constant current level at 100% in turn, starting from 8:00pm, which is 03:00 after the power supply turns on.
[4] The power supply will switch to the constant current level at 60% in turn, starting from 1:00am, which is 08:00 after the power supply turns on.
[5] The power supply will switch to the constant current level at 80% in turn, starting from 4:00am, which is 11:00 after the power supply turns on. The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.
**Example:** If a tunnel lighting application adopts D03-Type, when turning on the power supply at 4:30pm, for instance:

1. The power supply will switch to the constant current level at 70% starting from 4:30pm.
2. The power supply will switch to the constant current level at 100% in turn, starting from 6:00pm, which is 01:30 after the power supply turns on.
3. The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on. The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.
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LED Driver • Constant Voltage + Constant Current • 144~200W
MEAN WELL ELG-200 Series

OUTPUT LOAD vs TEMPERATURE (Note.10)

AMBIENT TEMPERATURE, Ta (°C)

If ELG-200 operates in Constant Current mode with the rated current, the maximum workable Ta is 50°C for 12V-model whereas 60°C for other models.

STATIC CHARACTERISTIC

INPUT VOLTAGE (V) 60Hz

De-rating is needed under low input voltage.

TOTAL HARMONIC DISTORTION (THD)

48V Model, Tcase at 80°C

EFFICIENCY vs LOAD

ELG-200 series possess superior working efficiency that up to 93% can be reached in field applications.
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MECHANICAL SPECIFICATION

- Blank-Type (for 12V model)

- Blank-Type (for other models)

CASE NO.: 262A Unit:mm

Max. Case Temperature

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※ A-Type (for 12V model)

※ A-Type (for other models)

※ : Max. Case Temperature

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LED Driver • Constant Voltage + Constant Current • 144~200W
MEAN WELL ELG-200 Series

※ AB-Type (for 12V model)

※ AB-Type (for other models)

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**B/DA/D2-Type (for 12V model)**

- **ACN (Blue)**
- **ACL (Brown)**
- **SJOW 17AWG x 2C & HO5RN-F 1.0mm²**

- **Vo+(Red)**
- **Vo-(Black)**

- **Vo+ (Blue)**
- **Vo-(White)**

- **DIM+ for B-Type**
- **DA+ for DA-Type**
- **PROG+ for D2-Type**

- **DIM- for B-Type**
- **DA- for DA-Type**
- **PROG- for D2-Type**

- **Max. Case Temperature**

**B/DA/D2-Type (for other models)**

- **ACN (Blue)**
- **ACL (Brown)**
- **SJOW 17AWG x 2C & HO5RN-F 1.0mm²**

- **Vo+(Red)**
- **Vo-(Black)**

- **Vo+ (Blue)**
- **Vo-(White)**

- **DIM+ for B-Type**
- **DA+ for DA-Type**
- **PROG+ for D2-Type**

- **DIM- for B-Type**
- **DA- for DA-Type**
- **PROG- for D2-Type**

- **Max. Case Temperature**

File Name: ELG-200-SPEC  2018-08-16
3Y Model (3-wire input)

- Note 1: Please connect the case to PE for the complete EMC deliverance and safety use.
- Note 2: Please contact MEAN WELL for input wiring option with PE.

* ∅: Max. Case Temperature

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Please refer to: http://www.meanwell.com/manual.html