LED Intelligent CT Driver (constant voltage)

- Dimming interface: 0-10V/1-10V/PWM/RI, Push DIM/CCT
- 0-10V DIM and color temperature adjusting driver, 2 independently SELV constant voltage output channels.
- Constant power design, adjust different color temperature to keep the same brightness.
- Dimming range from 0-100%, LED start at 0.1% possible.
- With soft-on and fade in function, visual more comfortable.
- 0-100% flicker-free, High frequency exemption level.
- Color temperature adjusting range: 2700-6500K
- Automatic recognition of 0-10V, 1-10V input signal.
- Ultra-low consumption of 0-10V ports: < 0.05mA.
- Innovative thermal management technology, intelligent power life protection.
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- Fully-protected plastic housing with design of dismountable end cover.
- Compliant with Safety Extra Low Voltage standard.
- Over-heat Protection: Enter hiccups mode if the PCB temperature ≥110°C, auto recovers.
- Over Voltage Protection: Shut down the output when non-load voltage ≥13V, re-power on to recover after fault condition is removed.
- Short Circuit Protection: Enter hiccup mode if short circuit occurs, auto recovers.
- Constant Power Design: Adjust different color temperature to keep the same brightness.
- Intelligent thermal adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers.
- Shut down the output when non-load voltage ≥24V, re-power on to recover after fault condition is removed.
- 5 years warranty (Rubycon capacitor).
- Up to 5000-hour life time.

**Specification**

<table>
<thead>
<tr>
<th>Model</th>
<th>LM-75-12-G2A2</th>
<th>LM-75-24-G2A2</th>
<th>LM-100-24-G2A2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Voltage</td>
<td>12Vdc</td>
<td>24Vdc</td>
<td>24Vdc</td>
</tr>
<tr>
<td>Output Voltage Range</td>
<td>12Vdc ±0.5Vdc</td>
<td>24Vdc ±0.5Vdc</td>
<td>24Vdc ±0.5Vdc</td>
</tr>
<tr>
<td>Output Current</td>
<td>Max. 6.25A</td>
<td>Max. 3.125A</td>
<td>Max. 4.17A</td>
</tr>
<tr>
<td>Output Power</td>
<td>Max. 75W</td>
<td>Max. 100W</td>
<td>Max. 75W</td>
</tr>
<tr>
<td>Output Power Range</td>
<td>0-75W</td>
<td>0-100W</td>
<td>0-100W</td>
</tr>
<tr>
<td>Strobe Level</td>
<td>High frequency exemption level.</td>
<td>High frequency exemption level.</td>
<td>High frequency exemption level.</td>
</tr>
<tr>
<td>Dimming Range</td>
<td>0-100%, dimming depth: Max. 0.1%</td>
<td>0-100%</td>
<td>0-100%</td>
</tr>
<tr>
<td>Overload Power Limitation</td>
<td>&gt;102%</td>
<td>&gt;102%</td>
<td>&gt;102%</td>
</tr>
<tr>
<td>Ripple &amp; Noise</td>
<td>&lt;200mV</td>
<td>&lt;300mV</td>
<td>&lt;300mV</td>
</tr>
<tr>
<td>PPM Frequency</td>
<td>3600Hz</td>
<td>3600Hz</td>
<td>3600Hz</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>220-240Vac</td>
<td>220-240Vac</td>
<td>220-240Vac</td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60Hz</td>
<td>50/60Hz</td>
<td>50/60Hz</td>
</tr>
<tr>
<td>Input Current</td>
<td>Max. 8.4A/250Vac</td>
<td>Max. 8.5A/250Vac</td>
<td>Max. 8.5A/250Vac</td>
</tr>
<tr>
<td>Efficiency (typ.)</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
</tr>
<tr>
<td>Inrush Current (typ.)</td>
<td>Cold start 30A at 230Vac (twidth=372μs measured at 50% Ipeak)</td>
<td>Cold start 45.2A at 230Vac (twidth=372μs measured at 50% Ipeak)</td>
<td>Cold start 45.2A at 230Vac (twidth=372μs measured at 50% Ipeak)</td>
</tr>
<tr>
<td>Control surge capability</td>
<td>L-N:2KV</td>
<td>L-N:2KV</td>
<td>L-N:2KV</td>
</tr>
<tr>
<td>Leakage Current</td>
<td>Max. 8.5mA</td>
<td>Max. 8.5mA</td>
<td>Max. 8.5mA</td>
</tr>
<tr>
<td>Working Temperature</td>
<td>1a: -20°C ~ 50°C, tc: 80°C</td>
<td>1a: -20°C ~ 50°C, tc: 80°C</td>
<td>1a: -20°C ~ 50°C, tc: 80°C</td>
</tr>
<tr>
<td>StorageTemp., Humidity</td>
<td>-40°C ~ 80°C, 10-95%RH, non-condensing</td>
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<td>-40°C ~ 80°C, 10-95%RH, non-condensing</td>
</tr>
<tr>
<td>Temp. Coefficient</td>
<td>±0.03%/°C (0-50°C)</td>
<td>±0.03%/°C (0-50°C)</td>
<td>±0.03%/°C (0-50°C)</td>
</tr>
<tr>
<td>Vibration</td>
<td>10-500Hz, 20 12min./1cycle, period for 72min. each along X, Y, Z axes.</td>
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<tr>
<td>Over-heat Protection</td>
<td>Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers.</td>
<td>Shut down the output when non-load voltage ≥13V, re-power on to recover after fault condition is removed.</td>
<td>Shut down the output when non-load voltage ≥24V, re-power on to recover after fault condition is removed.</td>
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<tr>
<td>Short Load Protection</td>
<td>Shut down the output when current load ≥102%, auto recovers.</td>
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<tr>
<td>Short Circuit Protection</td>
<td>Enter hiccup mode if short circuit occurs, auto recovers.</td>
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</tr>
<tr>
<td>WITHD Voltage</td>
<td>1P-0/P: 3700Vac</td>
<td>1P-0/P: 3700Vac</td>
<td>1P-0/P: 3700Vac</td>
</tr>
<tr>
<td>Isolation Resistance</td>
<td>1P-0/P: 1000MΩ/500VDC/25°C/70%RH</td>
<td>1P-0/P: 1000MΩ/500VDC/25°C/70%RH</td>
<td>1P-0/P: 1000MΩ/500VDC/25°C/70%RH</td>
</tr>
<tr>
<td>Safety Standard</td>
<td>IEC/EN61347-1, IEC/EN61347-2-13</td>
<td>EN61547</td>
<td>EN61547</td>
</tr>
<tr>
<td>EMC Emission</td>
<td>EN55015, EN51000-3-2 Class C, IEC41000-3-3</td>
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<tr>
<td>EMC Immunity</td>
<td>EN61000-4-2,3,4,5,6,8,11</td>
<td>EN61000-4-2,3,4,5,6,8,11</td>
<td>EN61000-4-2,3,4,5,6,8,11</td>
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<tr>
<td>Strb Test Standard</td>
<td>IEEE 1789</td>
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</tr>
</tbody>
</table>

**Others**

- The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (frecuicp flickering). When you order, please remark controlling the constant current LED fixture (e.g. MR16 lamp, underground light, LED wall washer, constant current LED strip, etc.), then we can prepare the special programs.

**Dimensions**

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</thead>
<tbody>
<tr>
<td>Weight</td>
<td>293g±10g</td>
<td>293g±10g</td>
<td>293g±10g</td>
</tr>
<tr>
<td>Dimming Interface</td>
<td>0-10V/1-10V/PWM/RI, Push DIM/CCT</td>
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<tr>
<td>Over Voltage Protection</td>
<td>&gt;13V, re-power on to recover after fault condition is removed.</td>
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**Product Information**

- www.ltech-led.com

**Manufacturer**

- Ltech LED
Wiring Diagram

0-10V Connection

1. Brightness adjustment.

2. Color temperature adjustment.

3. Brightness and color temperature adjustment respective.

4. Brightness and color temperature adjustment simultaneous.

Push DIM/CCT Connection

1. Brightness adjustment.

2. Color temperature adjustment.

3. Brightness and color temperature adjustment respective.

4. Brightness and color temperature adjustment simultaneous.

Push DIM/CCT

- **DIM**
  - On/off control: Short press.
  - Stepless dimming: Long press.
  - With every other long press, the brightness goes to the opposite direction.
  - Dimming memory: Brightness will be the same as previously adjusted when turning on again.

- **CCT**
  - Color temperature adjustment: Long press.
  - With every other long press, the color temperature level goes to the opposite direction.
  - Color temperature memory: Color temperature will be the same as previously adjusted when turning on again.

**Applicable to brightness adjustment, color temperature adjustment and brightness/CT adjustment respective of Push DIM/CCT connection.**

Application of Protective Cover

Wire pressing board:

- Push the wire pressing board to fix the wire.
- Push outward the side plate, meanwhile use the tool to uninstall the wire pressing board.

Uninstall protective cover:

- Break off the bottom left and right to remove the protective cover.

**Adopting constant power program design, it keeps the same brightness in color temperature dimming, twice the rated power load can be connected.**

- 75W driver, 75W X 2CH load can be connected, the total power of the 2 channels will be kept in 75W.
- 100W driver, 100W X 2CH load can be connected, the total power of the 2 channels will be kept in 100W.

**Dimming interface priority: First 0-10V, next Push DIM/CCT.**

E.g.: LM-75-12-G2A2
**LM-100-24-G2A2**

- **Efficiency vs Load**
  - AC230V/50Hz
  - Efficiency [%]
  - Load [%]

- **Power Factor Characteristic**
  - AC230V/50Hz
  - PF
  - Load [%]

- **THD vs Load**
  - AC230V/50Hz
  - THD
  - Load [%]

- **Over Load Diagram**
  - AC230V/50Hz
  - VO [V]
  - IO [A]

Flicker Test Form

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*IEEE 1789*

**Limit of Modulation in low risk area**

- Modulation frequency of Optical output (limit [%])
  - $f \leq 68$ Hz: 0.3
  - $68 < f \leq 100$ Hz: $0.025 \times f$
  - $f > 1250$ Hz: Exemption assessment

**Limit of Modulation in no effect area**

- Modulation frequency of Optical output (limit [%])
  - $f = 10$ Hz: 0.1
  - $10 < f \leq 100$ Hz: $0.01 \times f$
  - $f > 3125$ Hz: Exemption assessment (High frequency exemption)

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*No further notice if any changes in the manual. Product function depends on the goods. Please feel free to contact your supplier if any question.*