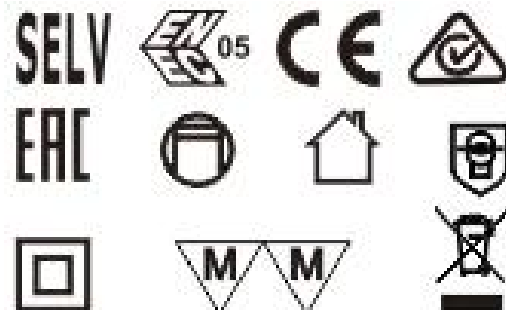


### Constant Voltage Driver

Model:FV60W(24-48)CG



| Model     | Output Current | Input Current | Input Power | Output Power Range | PF   | Efficiency | Output Voltage | No load Voltage |
|-----------|----------------|---------------|-------------|--------------------|------|------------|----------------|-----------------|
| FV60W24CG | 0-2500mA       | 0.31A         | 68W         | 0-60W              | 0.95 | 90%        | 24V            | 25V             |
| FV60W48CG | 0-1250mA       | 0.31A         | 68W         | 0-60W              | 0.95 | 91%        | 48V            | 49V             |

\* Test result @230V, 50Hz, Full Load.

\* Recommended minimum power is 10% load.

### 1. Parameters

| Category | Item                      | Technical Norm   |
|----------|---------------------------|--|
| Features | Output Type               | Constant Voltage   |
|          | Dimming Type              | N/A  |
|          | Output Features           | Isolation  |
|          | IP Grade                  | IP20   |
|          | Insulation Class          | Class II   |
| Input    | Rated Input Voltage       | 220-240VAC   |
|          | Range of Input Voltage    | 176-264VAC   |
|          | Frequency                 | 50/60Hz  |
|          | Input Current             | ≤0.38A   |
|          | Input Power               | ≤68W   |
|          | Power Factor              | ≥0.95 (230VAC, full load)  |
|          | THD                       | ≤15% (230VAC, full load)   |
|          | No-load Power Consumption | ≤0.5W @230VAC  |
| Output   | Output Voltage            | 24V ± 5% or 48V ± 5%   |
|          | Max. Output Power         | 60W  |
|          | Efficiency                | ≥91% (230VAC, full load)   |
|          | Voltage Ripple            | 3% ((V <sub>max</sub> -V <sub>min</sub> ) / (V <sub>max</sub> +V <sub>min</sub> ) 230VAC, full load) |
|          | PstLM                     | ≤1   |
|          | SVM                       | ≤0.4   |
|          | Current Accuracy          | N/A  |

|   |                          |  |
|---|--------------------------|--|
|   | Startup Time             | ≤0.5S(230VAC, full load)   |
| Protection  | Short Circuit Protection | Auto Recovery  |
|   | Overload Protection      | Auto Recovery  |
|   | No-load Protection       | Auto Recovery  |
|   | Insulation voltage       | 3000V 5mA 60S between P-S  |
|   | Insulation resistance    | >100M ohm @ 500VDC   |
|   | Leakage current          | < 250μA, I/P to O/P or I/P to PE @230V input   |
| Environment   | Ta/Operation Temperature | -25....+45°C   |
|   | Ts/Storage Temperature   | -40....+85°C   |
|   | Tc/Enclosure Temperature | 90°C   |
|   | Humidity                 | 10%....90%RH   |
|   | Atmosphere               | 86-108KPa  |
| Construction  | Connection Method        | terminal block   |
|   | Installation             | Independent  |
|   | PRI Wire preparation     | 0.75-1.5 <sup>□</sup>  |
|   | SEC Wire preparation     | 0.5-1.5 <sup>□</sup>   |
|   | Dimension                | 170*57*18mm (L*W*H)  |
| Standards   | Certification            | complied to CE ENEC SAA  |
|   | Safety Standards         | EN61347-1:2015 EN61347-2-13:2014/A1:2017<br>EN62384:2006/A1:2009 EN62493:2015<br>AS61347.2.13:2018 AS/NZS61347.1:2016 Inc A1 |
|   | EMC Standards            | EN IEC 55015:2019 EN61547:2009<br>EN IEC 61000-3-2:2019 EN 61000-3-3:2013/A1:2019  |
|   | Performance              | EN62384  |
|   | Surge                    | L-N/2KV  |
| Others  | RoHS                     | complied to 2011/65/EU   |
|   | Life Time                | 50000h @45°C (Ta)/ 90°C (Tc)   |
|   | Warranty                 | 5years , F.R. < 10000ppm   |
| <p>Remark: 1.All Parameters, if not specified, are measured at 230VAC/50Hz and 25°C ambient temperature.<br/>2.LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.</p> |                          |  |

## 2. Connected quantities of different current Breaker

| TYPE   | Connected quantities of different current Breaker |                    |                    |                    |                  |                  | Input Voltage | Inrush Current (A) | Time (μs) |
|--------|---|--------------------|--------------------|--------------------|------------------|------------------|---------------|--------------------|-----------|
|        | current (A)                                       | 10                 | 13                 | 16                 | 20               | 25               |               |                    |           |
|        | Installation wire diameter                        | 1.5mm <sup>2</sup> | 2.5mm <sup>2</sup> | 2.5mm <sup>2</sup> | 4mm <sup>2</sup> | 4mm <sup>2</sup> |               |                    |           |
| TYPE B | 18  | 23                 | 28                 | 36                 | 44               | @230VAC          | 33.8          | 248                |           |
| TYPE C | 28  | 37                 | 45                 | 57                 | 71               |                  |               |                    |           |
| TYPE D | 45  | 59                 | 73                 | 91                 | 114              |                  |               |                    |           |

### 3. Label

**KGP**  
KGP Electronics GmbH  
Hueckstraße 19  
DE-58511 Lüdenscheid

**LED Driver**  
**FV60W24CG**  
Constant Voltage Type for LED Only  
●tc  
wire preparation  
8mm 0.75-1.5°

**SELV**

**Input Voltage:**220-240VAC  
**Input Frequency:**50/60Hz  
**Power Factor(λ):**≥0.95  
**I<sub>in</sub>:** ≤0.38A  
**U<sub>rated</sub>** =24VDC  
**I<sub>range</sub>**=0-2500mA  
**P<sub>range</sub>**=0-60W  
**T<sub>c</sub>:**90°C  
**T<sub>a</sub>:**-25to+45°C

**05**

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**Input Voltage:**220-240VAC  
**Input Frequency:**50/60Hz  
**Power Factor(λ):**≥0.95  
**I<sub>in</sub>:** ≤0.38A  
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**I<sub>range</sub>**=0-1250mA  
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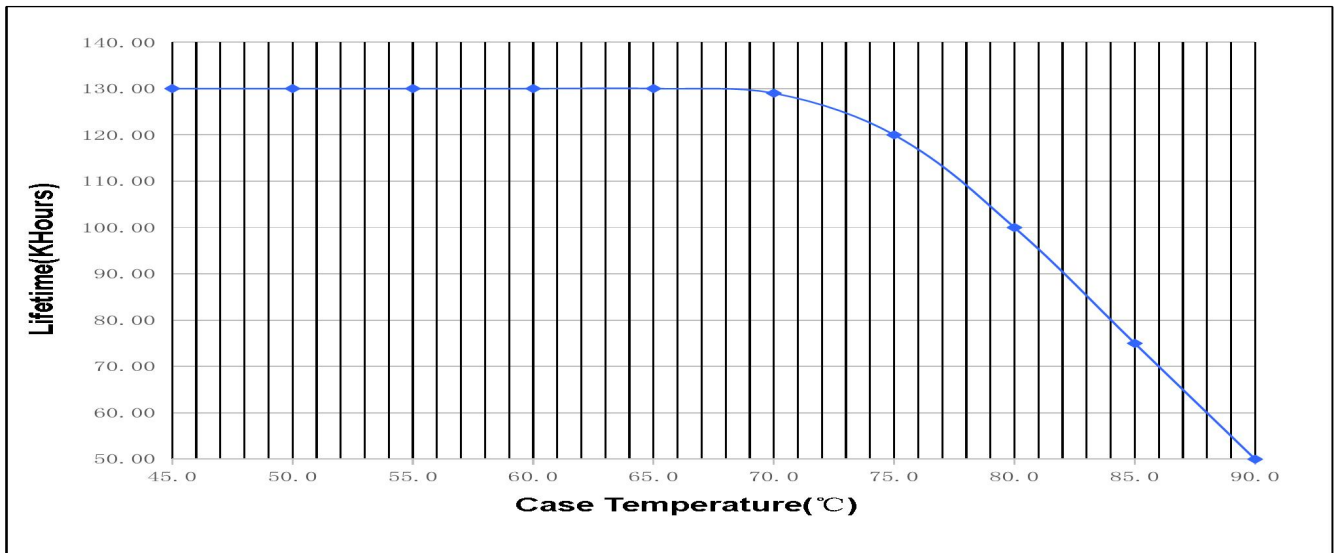
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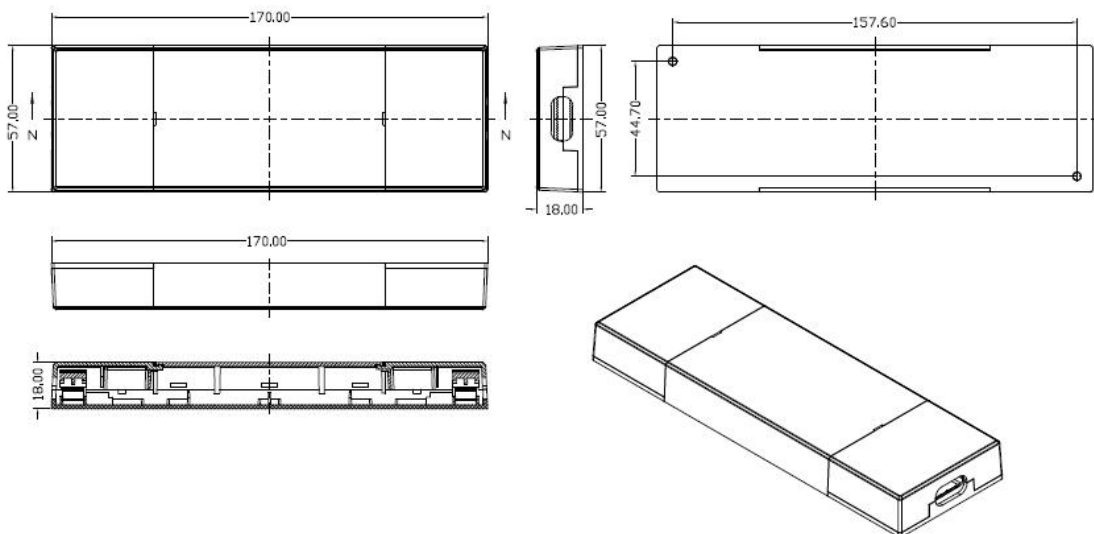
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**T<sub>c</sub>:**90°C  
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**05**

### 4. Lifetime curve



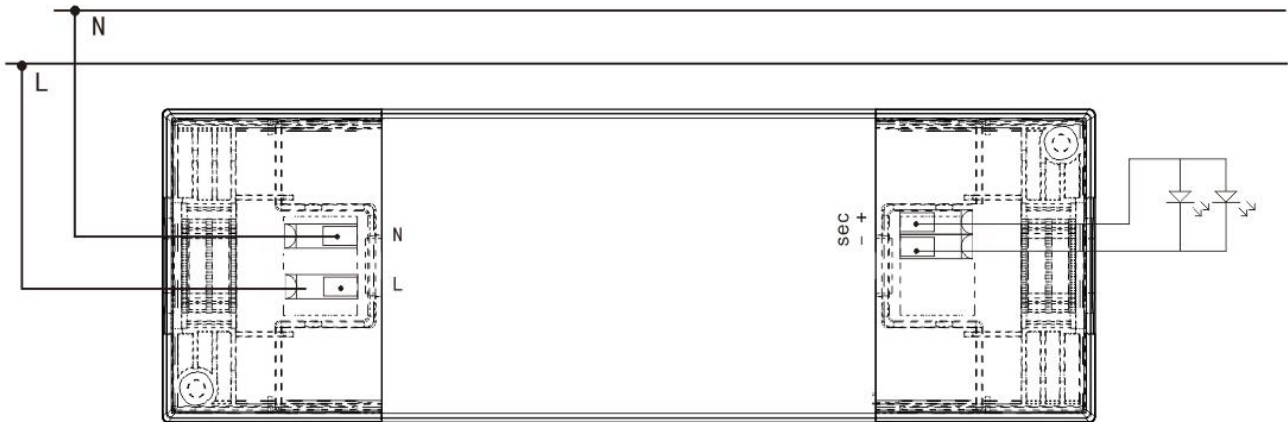
### 5. Dimension (Unit: mm)



### 6. Packing information

| Paching way | Carton<br>L*W*H(mm) | Pcs/Carton | Net weight/<br>Pcs(kg) | Net weight/<br>Carton(kg) | Gross weight /<br>Carton(kg) |
|-------------|---------------------|------------|------------------------|---------------------------|------------------------------|
| standard    | 450*240*200         | 65         | 0.168                  | 10.92                     | 11.45                        |
| Industrial  |                     | 65         | 0.14                   | 9.1                       | 10.63                        |

### 7. Wiring Diagram



### 8. Wiring instructions

- All connections must be kept as short as possible to ensure good EMI behaviour
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Advice the maximum length of output wires is 3 m
- Secondary switching is not permitted (Except for constant voltage)
- Incorrect wiring can damage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metals parts, metal cable clips, louver, etc.)

### 9. REVISION HISTORY

| DATE       | REV. | REMARK           |
|------------|------|------------------|
| 2023-05-09 | V1.0 | Initial release. |
|            |      |                  |
|            |      |                  |
|            |      |                  |