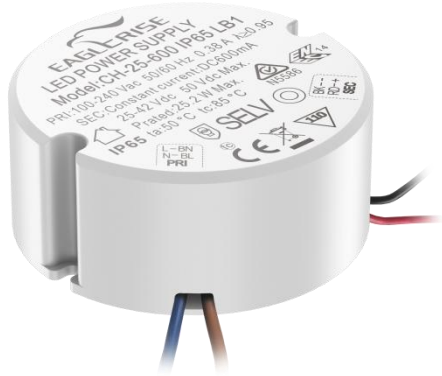


25W Constant Current – IP65



■ Approve



Features

- Class II, SELV, Built-in
- Input Voltage 100-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.95C
- Efficiency $\geq 86\%$
- IP65 Ingress protection
- 5 years warranty

Applications

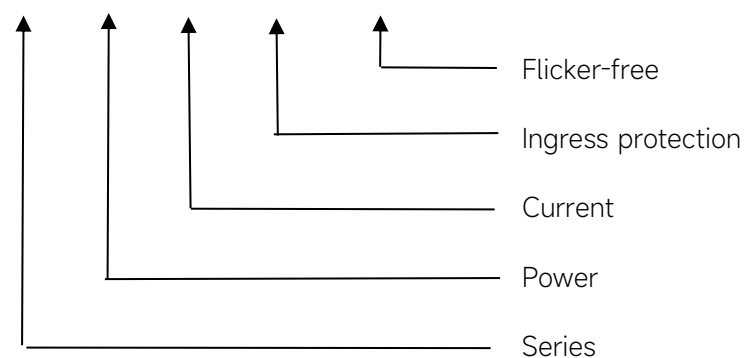
- Outdoor-Wall light
- Lawn light

◆ Description

CH-25-XXX IP65 LB1 is an 25W constant current LED driver that operates from 90-264Vac input with 300 to 800mA output current. With it's compact dimensions from $\Phi 65 \times 28\text{mm}$ it is easy to integrate in Outdoor-Wall light lights and Lawn lights. To ensure trouble-free operation, protection is provided against output short circuit and over Load

◆ Model code

CH-25-XXX IP65 LB1



◆ Specification

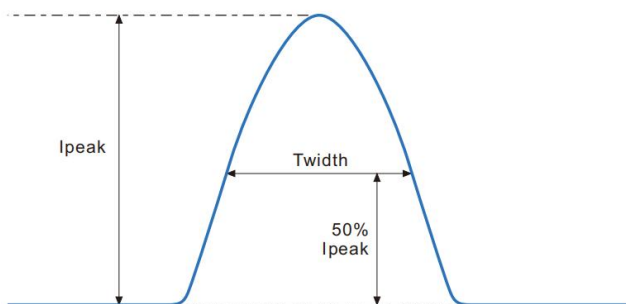
| | | | | | | |
|-------------|--|--------------------------------|----------|----------|-----|------------|
| Output | Constant Current | 300mA | 350mA | 500mA | ... | 700mA |
| | Voltage Range | 50-84VDC | 43-72VDC | 30-50VDC | ... | 19-31.5VDC |
| | Unload voltage Max. | 98VDC | 85VDC | 63VDC | ... | 42VDC |
| | Current Accuracy | ±5% | | | | |
| | Output HF current ripple(≥1KHz) | ±5% | | | | |
| | Output LF current ripple(≤120Hz) | ±5% | | | | |
| | SVM | ≤0.4 | | | | |
| | Pst | ≤1 | | | | |
| | Efficiency(Typ.) | ≥86% | | | | |
| Input | Rated input voltage | 100-240VAC | | | | |
| | Range of input voltage | 90-264VAC | | | | |
| | Frequency(Hz) | 50/60 Hz | | | | |
| | Displacement factor | ≥0.9 | | | | |
| | Power Factor | 0.95C | | | | |
| | Input Current max | 0.38A | | | | |
| | Start-up time | < 0.5S | | | | |
| | No Load Power | ≤0.5W | | | | |
| | THD (Typ.) | < 12% | | | | |
| Protection | Over Load Protection | 103-120% YES/Auto Resume | | | | |
| | Over Voltage Protection | > 98VDC | > 85VDC | > 63VDC | ... | > 42VDC |
| | Short circuit Protection | YES/Auto Resume | | | | |
| capability | Surge capability (L-N) | 1KV | | | | |
| | Surge capability (L/N-Ground) | NA | | | | |
| Environment | Operating Temperature | -20°C~+50°C | | | | |
| | Humidity | 20%-90%RH | | | | |
| | Tc | 85°C | | | | |
| | Storage Temperature | -25°C~+60°C | | | | |
| | Life time | > 50000h@Tc=80°C,230VAC | | | | |
| | Noise | ≤20dB(A)@10cm | | | | |
| Surface | Dimension | Φ65X28(DXH)mm | | | | |
| standards | EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547; | | | | | |
| Others | ErP | EU 2019/2020 | | | | |
| | RoHS | RoHS (2011/65/EU) (EU)2015/863 | | | | |
| Note | 1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. | | | | | |

◆ Model list

| NO. | Model number | Output | | | Max.Prated (W) |
|-----|--------------------|-----------------------|------------------------------|-------------------------------|----------------|
| | | Constant current (mA) | Normal working voltage (VDC) | No load working voltage (VDC) | |
| 1 | CH-25-300 IP65 LB1 | 300 | 50-84 | 98 | 25.2 |
| 2 | CH-25-350 IP65 LB1 | 350 | 43-72 | 85 | 25.2 |
| 3 | CH-25-400 IP65 LB1 | 400 | 37.5-63 | 75 | 25.2 |
| 4 | CH-25-450 IP65 LB1 | 450 | 33.5-56 | 68 | 25.2 |
| 5 | CH-25-500 IP65 LB1 | 500 | 30-50 | 63 | 25 |
| 6 | CH-25-550 IP65 LB1 | 550 | 27-45.5 | 55 | 25 |
| 7 | CH-25-600 IP65 LB1 | 600 | 25-42 | 50 | 25.2 |
| 8 | CH-25-650 IP65 LB1 | 650 | 23-38.5 | 50 | 25 |
| 9 | CH-25-700 IP65 LB1 | 700 | 21.5-36 | 46 | 25.2 |
| 10 | CH-25-750 IP65 LB1 | 750 | 20-33.5 | 44 | 25.1 |
| 11 | CH-25-800 IP65 LB1 | 800 | 19-31.5 | 42 | 25.2 |

◆ Inrush Current

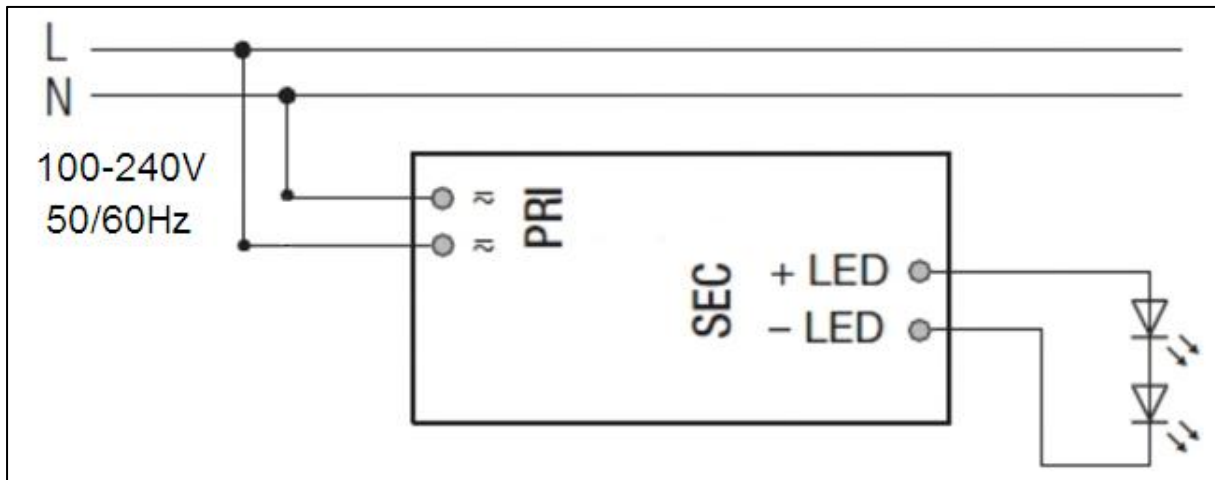
| I _{peak} | T _{width} | B10 | B16 | B20 | C10 | C16 | C20 |
|-------------------|--------------------|-------|-------|-------|-------|-------|-------|
| 13.4A | 116μs | 21pcs | 33pcs | 42pcs | 21pcs | 33pcs | 42pcs |



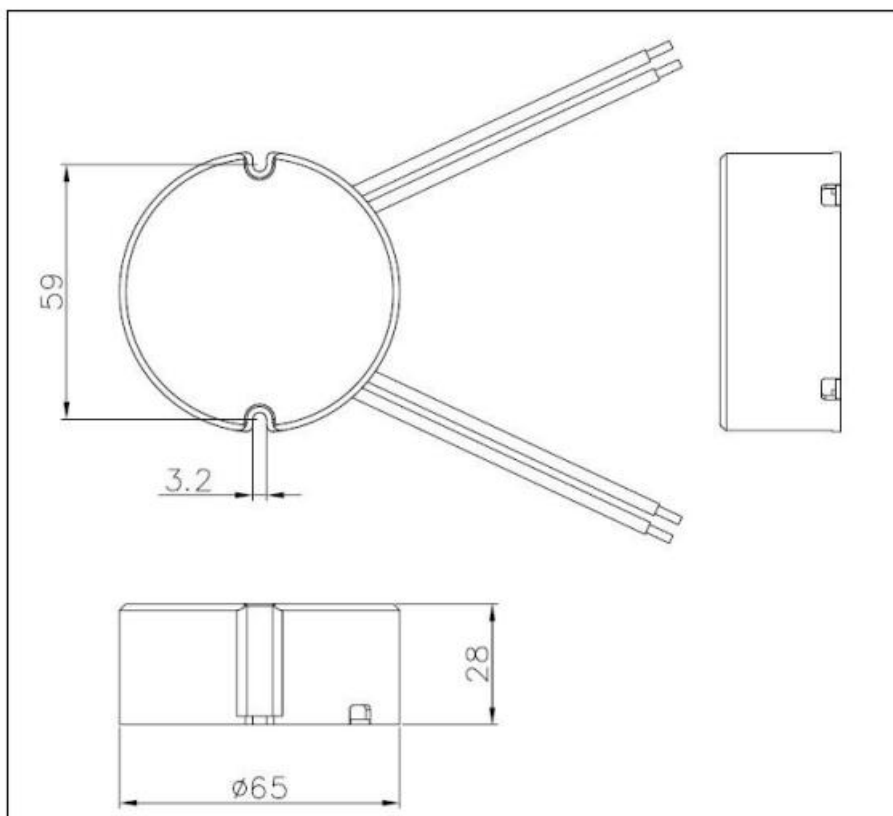
Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ **Wiring diagram**

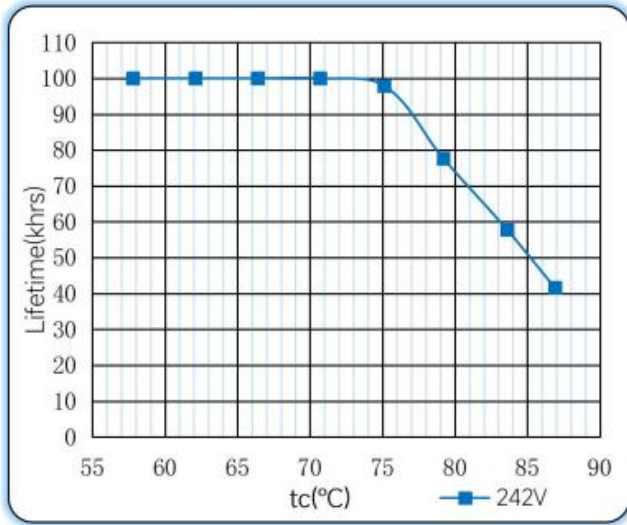


◆ **2D diagram**

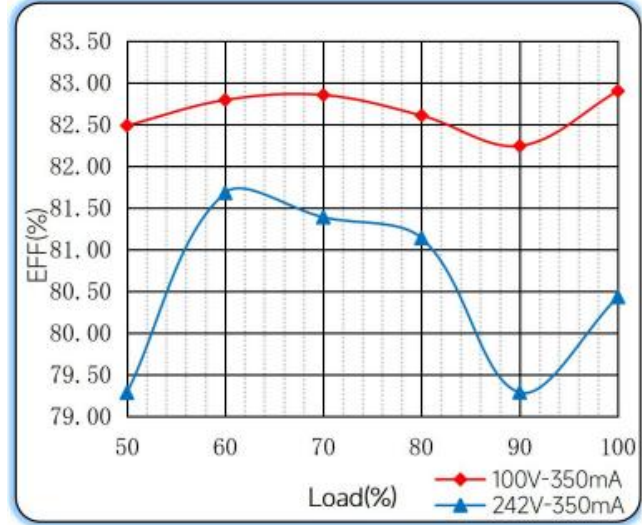


◆ Curve for CH-25-350 IP65 LB, I_o=350mA

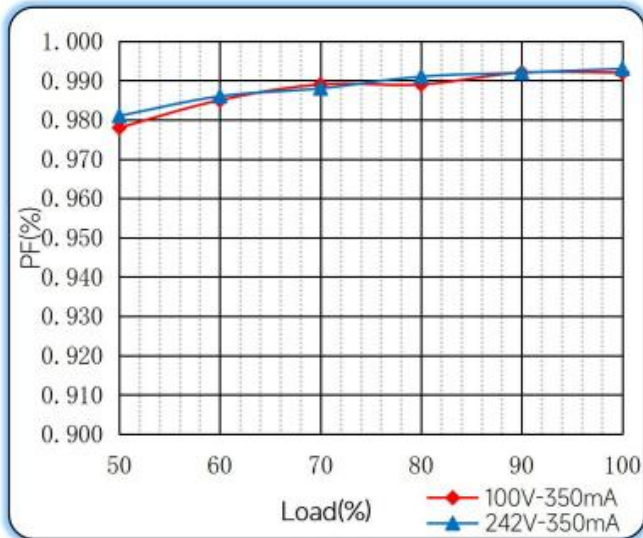
Lifetime vs. Temperature Curve



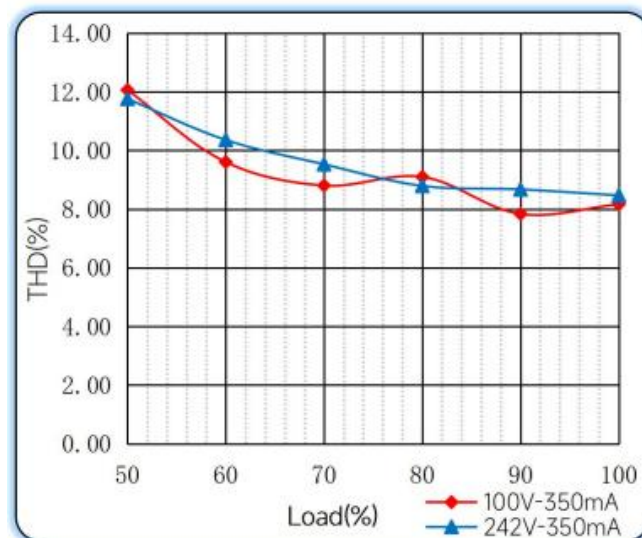
Efficiency vs. Load



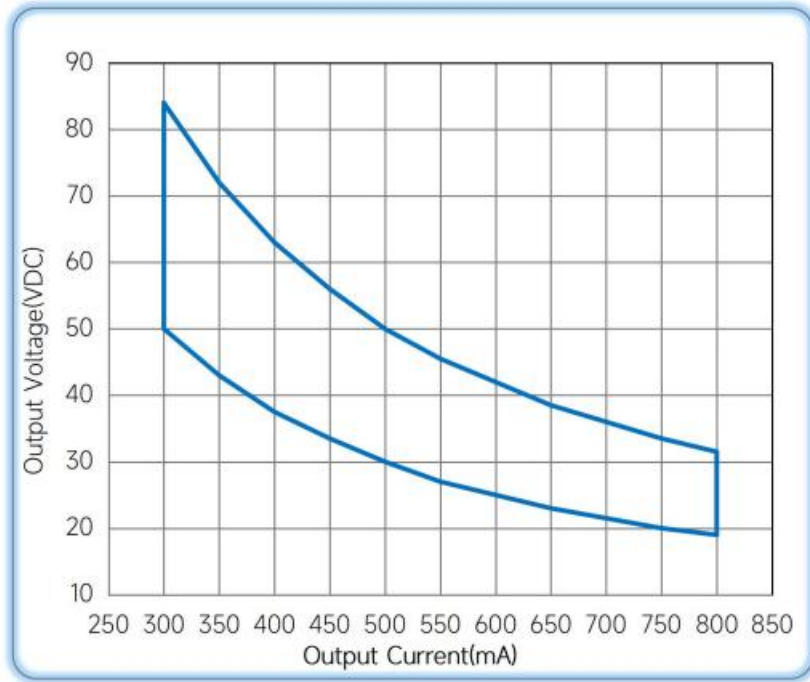
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

| ITEM | BEFORE | AFTER | VERSION | DATE |
|---------|--------|--------|---------|------------|
| Initial | | | A | 2022/05/15 |
| Approve | | Update | B | 2025/07/01 |

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Manual