

DEE12-1H300C

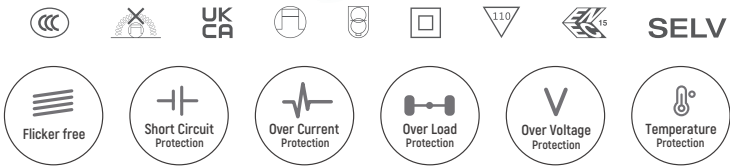
Product Features

- Single constant current output
- Short circuit, overcurrent, overload, overvoltage, over-temperature, V0-level flame-retardant housing
- High voltage input: 220VAC to 240VAC
- Protection grade IP20, suitable for indoor Class II lamps
- Compact body and flicker-free design
- Lifespan: 50,000 hours, 5-year warranty
- It is suitable for LED indoor lighting fixtures, such as downlights, panel lights, etc

Application



Down light

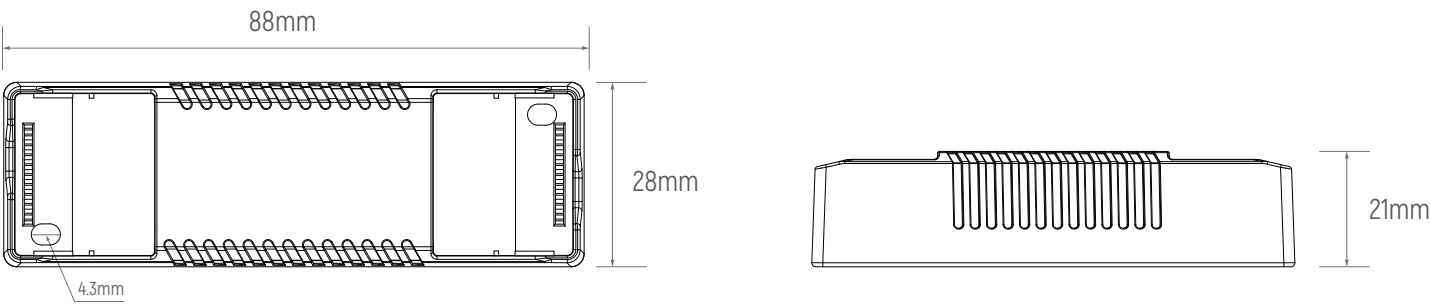


Technical Paramaters

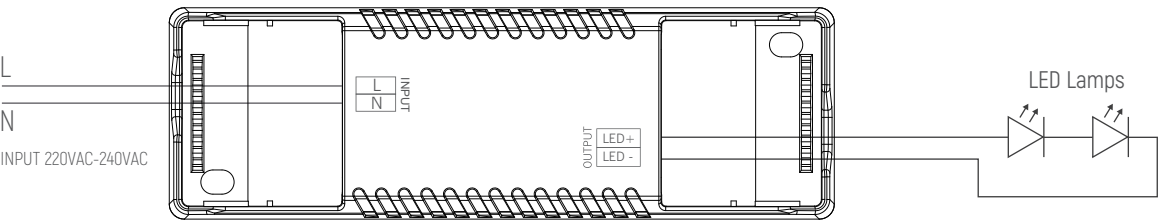
|             |                     |                                                                                                                                                                         |
|-------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model       | DEE12-1H300C        |                                                                                                                                                                         |
| Input       | Input Voltage       | 220VAC-240VAC                                                                                                                                                           |
|             | Frequency Range(Hz) | 50/60Hz                                                                                                                                                                 |
|             | Input Current       | 0.15Amax@230VAC                                                                                                                                                         |
|             | Power Factor        | >0.5@230VAC, Full load                                                                                                                                                  |
|             | Efficiency          | 84%@230VAC, Full load                                                                                                                                                   |
|             | THD                 | /                                                                                                                                                                       |
|             | Standby power       | <0.5W                                                                                                                                                                   |
|             | No-load power       | <0.5W                                                                                                                                                                   |
|             | Inrush Current      | Cold start,8.6A@230V 54us                                                                                                                                               |
| Output      | Output Voltage      | 27VDC-40VDC                                                                                                                                                             |
|             | Output Current      | 300mA                                                                                                                                                                   |
|             | Output Power        | 12W                                                                                                                                                                     |
|             | Current Accuracy    | ±8%                                                                                                                                                                     |
|             | Ripple current      | <3%                                                                                                                                                                     |
|             | Output Power Range  | 8.1W~12W                                                                                                                                                                |
|             | PstLM               | ≤1                                                                                                                                                                      |
|             | SVM                 | ≤0.4                                                                                                                                                                    |
|             | Dimming frequency   | /                                                                                                                                                                       |
|             | Line Regulation     | ±5% @Full load                                                                                                                                                          |
|             | Load Regulation     | ±5% @Full load                                                                                                                                                          |
|             | Turn on delay Time  | 0.5s, at230Vac (When the light begins to shine)                                                                                                                         |
| Protection  | Short circuit       | If the positive and negative terminals of the output are short-circuited, the short-circuit protection function can prevent the product from being permanently damaged. |
|             | Over Current        | Output overcurrent protection,A current limiting                                                                                                                        |
|             | Over load           | Limit the output power to 110%-150% of the rated power                                                                                                                  |
|             | Over Voltage        | Output overvoltage protection                                                                                                                                           |
|             | Over temperature    | When the temperature exceeds the standard value, the output power decreases or the operation stops. Restore after the fault conditions are eliminated                   |
| Safety& EMC | Surge               | L-N:1KV                                                                                                                                                                 |
|             | Withstand Voltage   | I/P-O/P: 3750VAC/1min/5mA                                                                                                                                               |
|             | Safety Standards    | CCC [China] GB19510.1, GB19510.14 TUV [Germany] EN61347-1, EN61347-2-13, EN62493                                                                                        |
|             |                     | CB [CBmember states] IEC61347-1, IEC61347-2-13 CE [European Union] EN61347-1, EN61347-2-13, EN62384                                                                     |
|             |                     | RCM [Australia] AS 61347-1, AS 61347-2-13 ENEC [Europe] EN61347-1, EN61347-2-13, EN62384                                                                                |
|             | EMC Emission        | CCC [China] GB/T17743, GB17625.1                                                                                                                                        |
|             |                     | CE [European Union] EN55015, EN61000-3-2, EN61000-3-3, EN61547                                                                                                          |
|             |                     | RCM [Australia] EN55015, EN61000-3-2, EN61000-3-3, EN61547                                                                                                              |
|             | EMC Immunity        | EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547                                                                                                                                 |

|             |                                                                                                                                       |                                                                                           |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Environment | Working Temp.                                                                                                                         | -20°C~45°C                                                                                |
|             | Storage Temp.                                                                                                                         | -40°C~85°C                                                                                |
|             | Storage Humidity                                                                                                                      | 10-90%RH (No condensation)                                                                |
| Others      | RoHS                                                                                                                                  | Comply with 2011/65/EU                                                                    |
|             | tc                                                                                                                                    | 85°C                                                                                      |
|             | material                                                                                                                              | PC                                                                                        |
|             | IP Rating                                                                                                                             | IP20                                                                                      |
|             | Lifetime                                                                                                                              | 50,000h@tc:80°C                                                                           |
|             | Warranty Condition                                                                                                                    | 5years                                                                                    |
|             | Switch Cycle                                                                                                                          | 25,000times                                                                               |
|             | Body size                                                                                                                             | 88*28*21mm (L*W*H)                                                                        |
|             | Packing[weight]                                                                                                                       | Net weight: 31g±5%/PCS; 120PCS/Carton; 4.3kg±5%/Carton; Carton Size: 300*275*150mm(L*W*H) |
|             | Noise                                                                                                                                 | In a quiet environment, no noise beyond 30-50cm                                           |
| Remark      | All parameters were measured at an input voltage of 230VAC/50Hz and an ambient temperature of 25 °C without any special instructions. |                                                                                           |

Dimension(mm)



Wiring Diagram

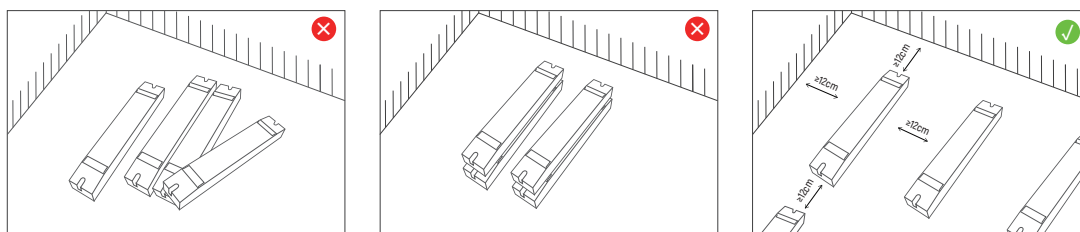


Max. quantity of drivers per miniature circuit breaker

| Specification item                | Value | Condition                                               |
|-----------------------------------|-------|---------------------------------------------------------|
| Inrush current I <sub>peak</sub>  | 8.6A  | Input Voltage 230VAC                                    |
| Inrush current T <sub>width</sub> | 54us  | Input Voltage 230VAC, measured ta 50% I <sub>peak</sub> |

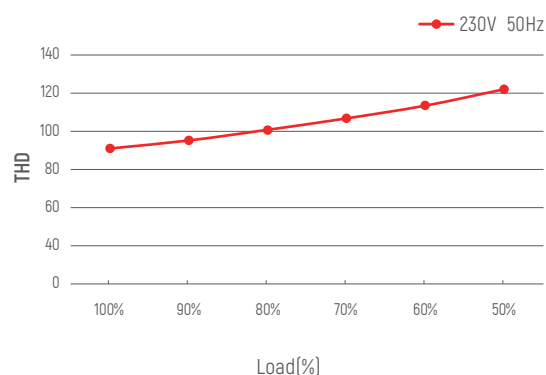
| MCB | Input Voltage 230V Drivers | MCB | Input Voltage 230V Drivers |
|-----|----------------------------|-----|----------------------------|
| B10 | 66pcs                      | C10 | 66pcs                      |
| B13 | 86pcs                      | C13 | 86pcs                      |
| B16 | 106pcs                     | C16 | 106pcs                     |
| B20 | 133pcs                     | C20 | 133pcs                     |
|     |                            | D16 | 106pcs                     |

## Installation Precautions

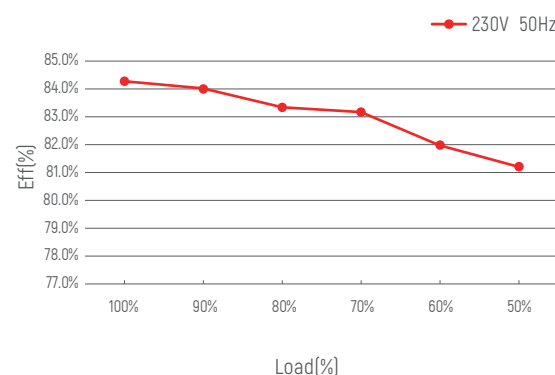


Please do not stack the products. The distance between two products should be  $\geq 12\text{cm}$  so as not to affect heat dissipation and the lifespan of the products.

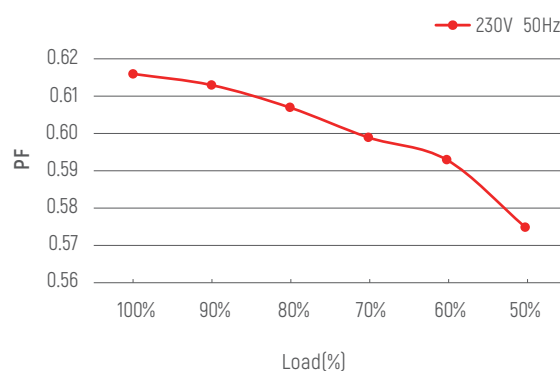
## THD vs Load Curve



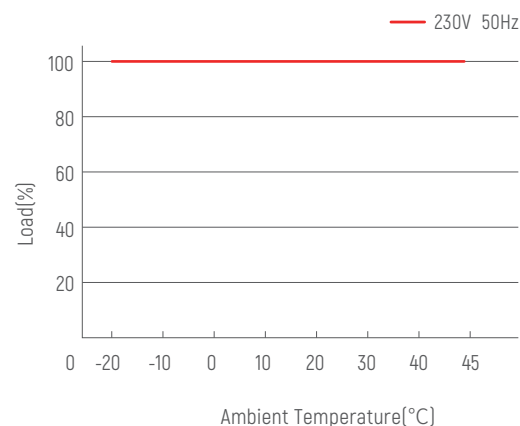
## Efficiency vs Load Curve



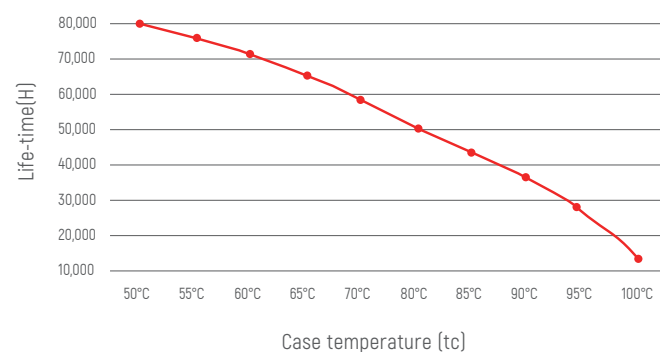
## PF vs Load Curve



## Derating Curve



## Life-time vs. case temperature



The life-time of the led driver is shown in the figure above (calculated based on the 90% survival rate).

The relation of  $t_c$  to  $t_a$  temperature depends also on the luminaire design.

Cautions

| This product must be installed and adjusted by a qualified professional. |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                                                        | Confirmation of installation conditions | <div><div>· <b>Waterproof and Protection:</b> Install in a suitable location according to the waterproof and protection requirements of the power supply. Products without waterproof function should be protected from direct sunlight and rain. When installing outdoors, please use a waterproof box for protection.</div><div>· <b>Heat dissipation requirements:</b> The drive power supply should avoid exposure to high temperature environments. Please ensure that the working environment temperature is within the recommended range. To ensure proper heat dissipation of the drive power supply, a well ventilated area should be selected for installation. Good heat dissipation conditions can help extend product lifespan.</div></div> |
| 2                                                                        | Power check                             | <div><div>· Before use, check the product parameters and confirm that the output voltage and current of the LED power supply meet the requirements</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3                                                                        | Safe wiring                             | <div><div>· Use cables that meet the specifications to ensure that the cross-section of the wire matches the requirements of the driving power supply. Solid cables typically measuring 0.75-2.5 mm <sup>2</sup>, (Please refer to the silk screen printing or wiring diagram in the instruction manual for specific wire diameter requirements).</div><div>· If the power supply (metal casing) is installed on a grounded lighting component or equipment, the power supply needs to be grounded.</div><div>· To avoid hot swapping, power off and restart the driver before connecting the LED load.</div></div>                                                                                                                                      |
| 4                                                                        | Wiring confirmation                     | <div><div>· Before power on debugging, ensure that the wiring is secure and avoid poor contact to prevent unstable current or equipment damage.</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5                                                                        | Repair suggestions                      | <div><div>· If the product malfunctions, please do not repair it without authorization. If you have any questions, please contact the supplier or sales team for assistance.</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

※ The contents of this manual are updated without prior notice. If the function of the product you are using is inconsistent with the instructions,the function of the product shall prevail.

Please contact us if you have any questions .

Warranty Agreement

1. Warranty periods from the date of delivery : 5 years.
2. Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

The following situations are not covered by the free warranty or replacement service:

1. Exceeding the warranty period.
2. Damage caused by human factors such as high voltage, overload, and improper operation.
3. The appearance of the product is severely damaged or deformed.
4. Normal wear and tear or aging during regular product use.
5. Damage caused by natural disasters or force majeure factors.
6. The quality inspection label of the product is damaged (QC PASS).
7. No contract or valid invoice proof signed with EUCHIPS has been provided.
8. The minimym clearance distance from the top and sides ofthe controlgear to normallyflammable building elements are 10 cm

※ Remedies: Repair or replacement is the only remedy provided by EUCHIPS to the customer, and EUCHIPS shall not be liable for incidental damages arising from repair or replacement, unless within the scope of applicable law.

※ Adjustment of Warranty Terms: EUCHIPS reserves the right to modify or adjust the warranty terms, which shall be published in writing.

DEE12-1H300C

产品特点

- 单道恒流输出
- 短路、过流、过载、过压、过温、V0级阻燃外壳
- 高电压输入：220VAC ~ 240VAC
- 防护等级IP20，适用于室内 II 类灯具
- 小巧机身、无频闪设计
- 寿命50,000小时，5年质保
- 适用于LED室内灯具,比如筒灯，面板灯等

应用



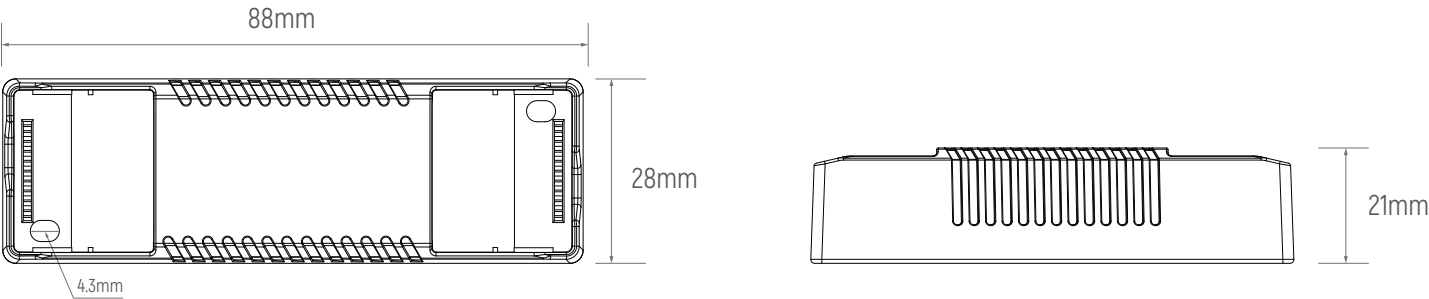
筒灯

技术参数

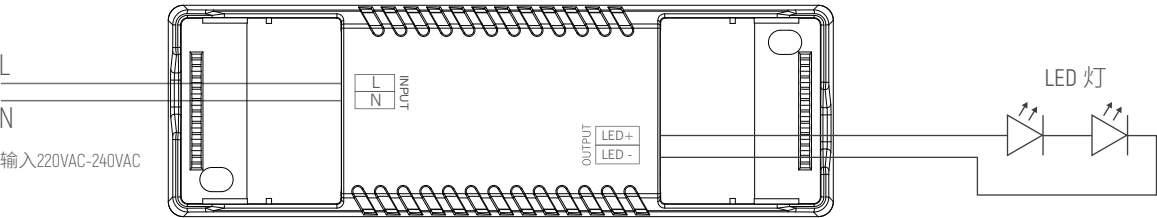
|         |              |                                                                               |
|---------|--------------|-------------------------------------------------------------------------------|
| 产品型号    | DEE12-1H300C |                                                                               |
| 输入      | 输入电压         | 220VAC-240VAC                                                                 |
|         | 频率范围         | 50/60Hz                                                                       |
|         | 输入电流         | 0.15Amax@230VAC                                                               |
|         | 功率因数         | >0.5@230VAC, 满载                                                               |
|         | 效率           | 84%@230VAC, 满载                                                                |
|         | 谐波THD        | /                                                                             |
|         | 待机功耗         | <0.5W                                                                         |
|         | 空载功耗         | <0.5W                                                                         |
|         | 浪涌电流         | 冷启动, 8.6A@230VAC 54us                                                         |
| 输出      | 输出电压         | 27VDC-40VDC                                                                   |
|         | 输出电流         | 300mA                                                                         |
|         | 输出功率         | 12W                                                                           |
|         | 输出电流精度       | ±8%                                                                           |
|         | 纹波电流         | <3%                                                                           |
|         | 输出功率范围       | 8.1W-12W                                                                      |
|         | PstLM        | ≤1                                                                            |
|         | SVM          | ≤0.4                                                                          |
|         | 调光频率         | /                                                                             |
|         | 线性调整率        | ±5% @满载                                                                       |
|         | 负载调整率        | ±5% @满载                                                                       |
|         | 启动延时         | 0.5s, at230Vac(当灯光开始亮起)                                                       |
| 保护      | 短路保护         | 如果输出出现异常，导致产品正极和负极短接，该产品将启动短路保护功能，并且不会因为这种异常而造成产品的永久损坏                        |
|         | 过流保护         | 输出过电流保护A限流                                                                    |
|         | 过载保护         | 将输出功率限制在额定功率的 110%-150%                                                       |
|         | 过压保护         | 输出过电压保护                                                                       |
|         | 过温保护         | 当温度超过标准值时，输出功率降低或停止工作。故障条件消除后恢复                                               |
| 安规与电磁兼容 | 雷击浪涌         | L-N:1KV                                                                       |
|         | 耐压标准         | I/P-O/P: 3750VAC/1min/5mA                                                     |
|         | 安全规范         | CCC [中国] GB19510.1, GB19510.14 TUV [德国] EN61347-1, EN61347-2-13, EN62493      |
|         |              | CB [CB成员国] IEC61347-1, IEC61347-2-13 CE [欧盟] EN61347-1, EN61347-2-13, EN62384 |
|         |              | RCM [澳洲] AS 61347-1, AS 61347-2-13 ENEC [欧洲] EN61347-1, EN61347-2-13, EN62384 |
|         | 电磁兼容         | CCC [中国] GB/T17743, GB17625.1                                                 |
|         |              | CE [欧盟] EN55015, EN61000-3-2, EN61000-3-3, EN61547                            |
|         |              | RCM [澳洲] EN55015, EN61000-3-2, EN61000-3-3, EN61547                           |
|         | EMC抗扰度       | EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547                                       |

|    |                                            |                                                                       |
|----|--------------------------------------------|-----------------------------------------------------------------------|
| 环境 | 工作温度                                       | -20 C ~45 C                                                           |
|    | 储存温度                                       | -40 C ~85 C                                                           |
|    | 储存湿度                                       | 10-90%RH (无凝露)                                                        |
| 其他 | RoHS                                       | 遵守 2011/65/EU                                                         |
|    | tc                                         | 85 C                                                                  |
|    | 材质                                         | PC                                                                    |
|    | 防水等级                                       | IP20                                                                  |
|    | 寿命                                         | 50,000小时@tc:80 C                                                      |
|    | 质保                                         | 5年                                                                    |
|    | 开关周期                                       | 25,000次                                                               |
|    | 裸机尺寸                                       | 88*28*21mm[长*宽*高]                                                     |
|    | 包装尺寸(重量)                                   | 净重: 31g±5%/PCS; 120PCS/Carton; 4.3kg±5%/箱; 外箱尺寸: 300*275*150mm[长*宽*高] |
| 备注 | 噪音                                         | 安静环境下, 30-50cm以外无噪音                                                   |
|    | 全部参数无特别说明, 均在输入电压230VAC/50Hz和25°C的环境温度下测得。 |                                                                       |

产品尺寸(mm)



接线图

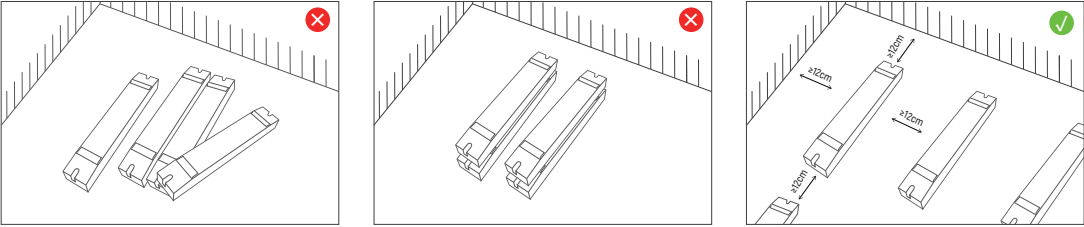


断路器带载说明

| 规范项                     | 值    | 备注                                    |
|-------------------------|------|---------------------------------------|
| 浪涌电流 I <sub>peak</sub>  | 8.6A | 输入电压230VAC                            |
| 浪涌电流 T <sub>width</sub> | 54us | 输入电压230VAC, 在50%I <sub>peak</sub> 下测试 |

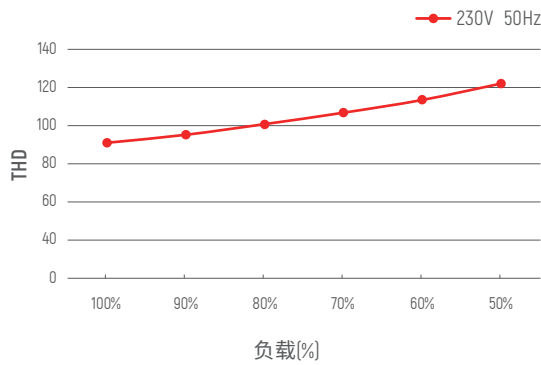
| MCB | 输入电压230V<br>驱动器数量 | MCB | 输入电压230V<br>驱动器数量 |
|-----|-------------------|-----|-------------------|
| B10 | 66pcs             | C10 | 66pcs             |
| B13 | 86pcs             | C13 | 86pcs             |
| B16 | 106pcs            | C16 | 106pcs            |
| B20 | 133pcs            | C20 | 133pcs            |
|     |                   | D16 | 106pcs            |

安装规范要求

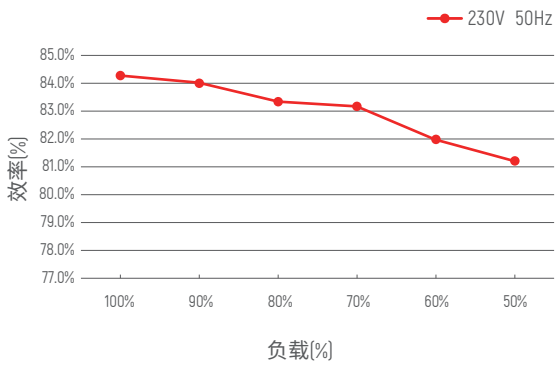


请勿将产品堆叠摆放，产品与产品间隔距离应≥12cm，避免影响产品散热和使用寿命。

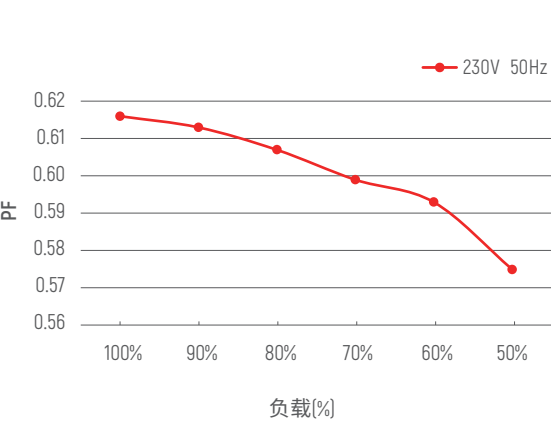
THD vs 负载曲线



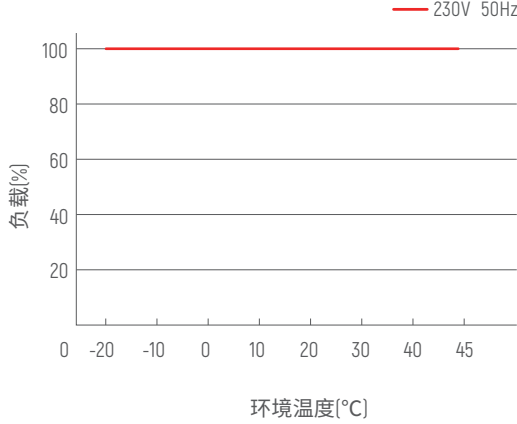
效率 vs 负载曲线



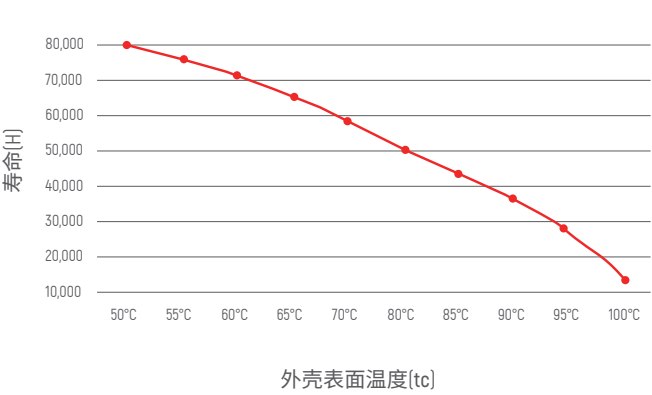
PF vs 负载曲线



降额曲线



寿命 vs tc温度



LED驱动器的使用寿命如上图所示(根据90%的带载率计算)  
tc-ta温度的关系也取决于灯具的设计。

注意事项

| 本产品应由具备专业资格的人员进行调试与安装 |        |                                                                                                                                                                                                                  |
|-----------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                     | 安装条件确认 | <div><div>·防水与防护:</div><div>根据电源的防水和防护要求, 选择合适的位置安装。无防水功能的产品应避免日晒雨淋, 户外安装时请使用防水箱保护。</div><div>·散热要求:</div><div>驱动电源应避免暴露在高温环境中。请确保工作环境温度在推荐范围内。为确保驱动电源正常散热, 安装时应选择通风良好的地方。良好的散热条件有助于延长产品寿命。</div></div>          |
| 2                     | 电源检查   | <div><div>·使用前,</div><div>检查产品参数, 确认LED电源的输出电压、电流符合要求</div></div>                                                                                                                                                |
| 3                     | 安全接线   | <div><div>·需使用符合规格的线缆,</div><div>确保导线的截面与驱动电源要求匹配。通常为 0.75 - 2.5 mm<sup>2</sup> 的实心线缆, (具体线径要求请参阅丝印或说明书接线图)。</div><div>·若电源(金属外壳)安装在已接地的灯具部件或设备上, 需要对电源进行接地处理。</div><div>·避免热插拔, 连接 LED 负载前应断电并重启驱动。</div></div> |
| 4                     | 接线确认   | <div><div>·通电调试前,</div><div>确保接线牢固, 避免接触不良, 以防电流不稳或设备损坏。</div></div>                                                                                                                                             |
| 5                     | 维修建议   | <div><div>·如产品发生故障,</div><div>请勿私自维修。如有疑问, 请联系供应商或销售处理。</div></div>                                                                                                                                              |

※本说明书如有更新, 恕不另行通知。如产品功能与说明书不符, 以实际产品为准。

保修条例

1. **保修期:** 自产品出厂之日起, 享有 **5年保修期**。
2. **保修服务:** 在保修期内, 如因产品质量问题, 欧切斯将提供**免费修理或更换**服务。

非保修条例

以下情况不在免费保修或更换服务范围内:

1. 超出保修期。
2. 由于过高电压、超负载、操作不当等人为原因造成的损坏。
3. 产品外观严重损坏或变形。
4. 产品正常使用过程中产生的磨损或老化。
5. 自然灾害或不可抗力因素造成的损坏。
6. 产品的质量检验标签损坏 (QC PASS)。
7. 未提供与欧切斯签订的合同或有效发票凭证。

※补救措施: 修理或更换是欧切斯对客户的一一补救方式, 且欧切斯不承担因修理或更换产生的附带损害赔偿一责任, 除非在适用法律范围内。

※保修条款的调整: 欧切斯保留修改或调整保修条款的权利, 并以书面形式发布为准。