

OWP150T-1H24V

Summary

OWP150T-1H24V is a Triac/ELV constant voltage output LED dimming driver.

The driver supports leading edge (Triac) and trailing edge (ELV) dimmer, to achieving a smooth dimming effect

Product Features

- Single-channel constant voltage output, with a maximum output current of 6.25A
- Input surge protection: Differential mode: 6kV, Common mode: 6kV
- Waterproof rating of IP67, suitable for outdoor lighting
- Protection: overload, overcurrent, and short circuit protection
- With a lifespan of 50,000 hours and a 5-year warranty


RoHS
CE
UK
CA

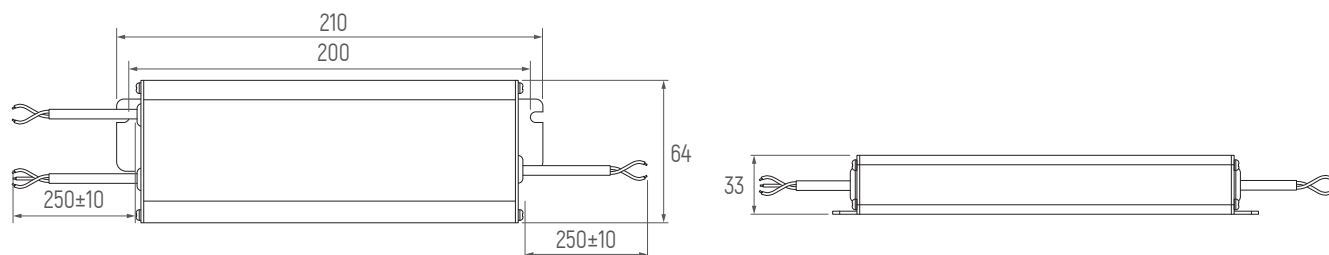



IP67
SELV

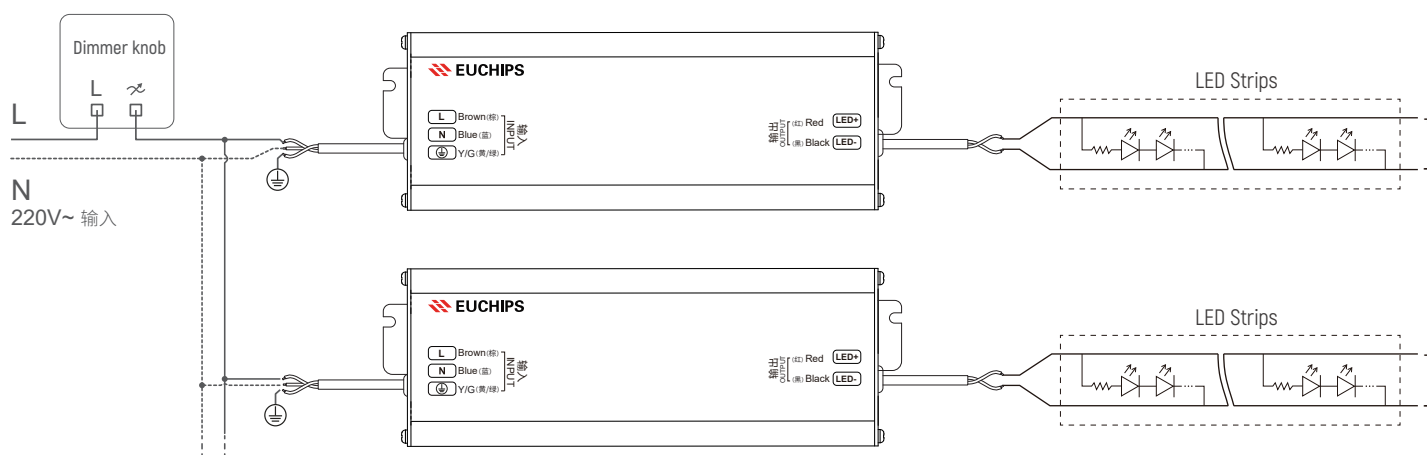

Technical Parameters

Model	OWP150T-1H24V	
Input	Efficiency	≥90%@230VAC, full load
	Voltage	220VAC-240VAC
	Frequency	50/60Hz
	Current	0.77A@230VAC
	Power Factor	≥0.95@230VAC, full load
	THD	<10%@230VAC, full load
	Inrush Current	Cold start, 39.6A@230VAC 750us,
	No load power	≤4.0W@230VAC
	Turn on delay Time	<0.75s (@230VAC, When the light begins to shine)
Output	Current	6.25A
	Voltage	24VDC
	Voltage range	24VDC±3%
	Power	150W max
	Channel	1
	Overpower limit	≥130%
	Ripple Voltage	≤240mV (p-p)
	Frequency	20KHz PWM
Protection	Short Circuit	Output shutdown, auto-resume after fault cleared.
	Over Current	Hiccup protection, auto-recovery after Fault Clearance
	Over Load	Hiccup protection, auto-recovery after Fault Clearance
Function	Dimming Type	Triac Leading edge and trailing edge phase-cut dimming
	Dimming Range	1%-100%
	Dimming curve	Logarithmic
	Flicker	Flicker free
Safety & EMC	Surge	L-N: 6KV (Differential mode), L-PE: 6KV N-PE: 6KV (Common mode)
	Withstand Voltage	I/P-O/P: 3000Vac/1min/5mA I/P-PE:1500Vac/1min/<5mA O/P-PE:500Vac/1min/<5mA
	Safety standards	EN61347-1, EN61347-2-13, EN62384
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547
Others	Insulation Resistance	5M Ω
	Working Temp.	-40~+60°C
	Storage Temp., Humidity	-40~+85°C, 20~90% RH
	tc	90 °C for safety & life
	Lifetime	50,000h@tc:90 °C
	Warranty Condition	5years
	Switch Cycle	>25,000 times
	Material	Metal
	IP Rating	IP67
	Dimension	210*64*33mm (L*W*H)
	Packing[weight]	Net weight: 800g±5%/PCS; 20PCS/Carton; 16.5kg±5%/Carton; Carton Size: 347*257*214mm(L*W*H)

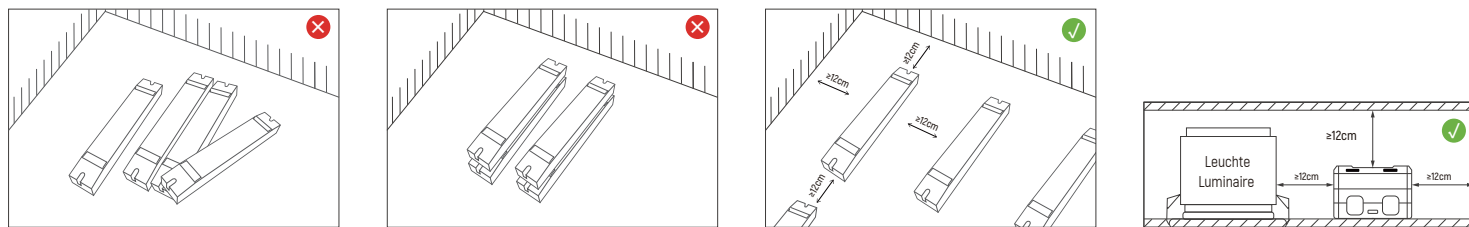
Wiring Diagram



Dimension(mm)



Installation Precautions



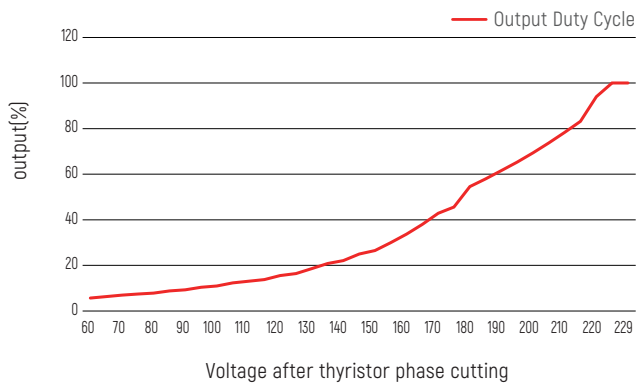
Please do not stack the products. The distance between two products should be $\geq 12\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.

Max. quantity of drivers per miniature circuit breaker

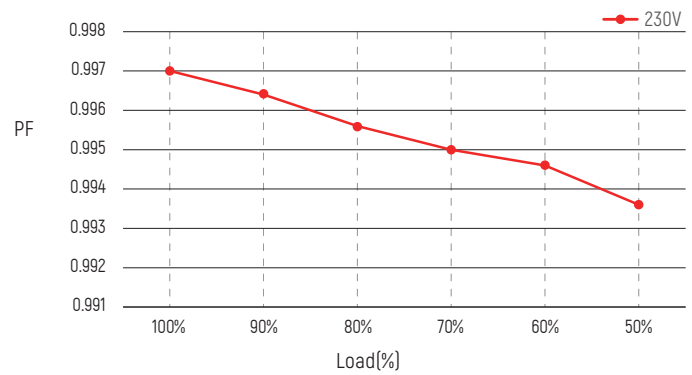
Specification item	Value	Condition
Inrush current I_{peak}	39.6A (230V)	Input Voltage 230V
Inrush current T_{width}	750us (230V)	Input Voltage 230V, measured at 50% I_{peak}

MCB	Input Voltage 230V Drivers	MCB	Input Voltage 230V Drivers
B10	2pcs	C10	4pcs
B13	3pcs	C13	5pcs
B16	4pcs	C16	6pcs
B20	5pcs	C20	8pcs
		D16	13pcs

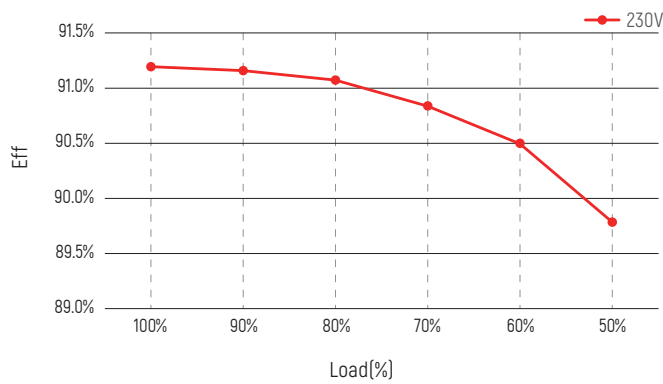
Triac Dimming curve



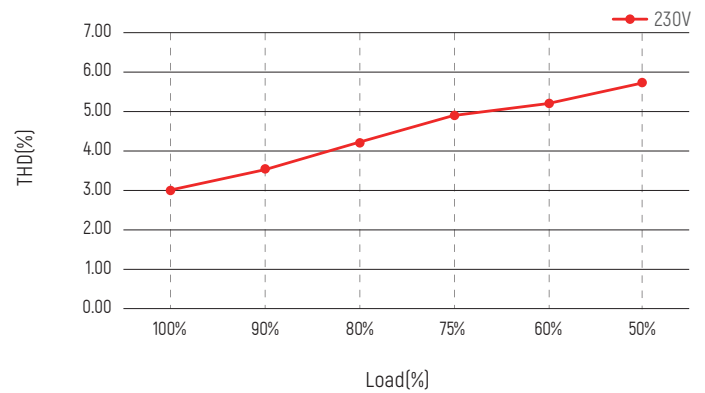
PF vs Load Curve



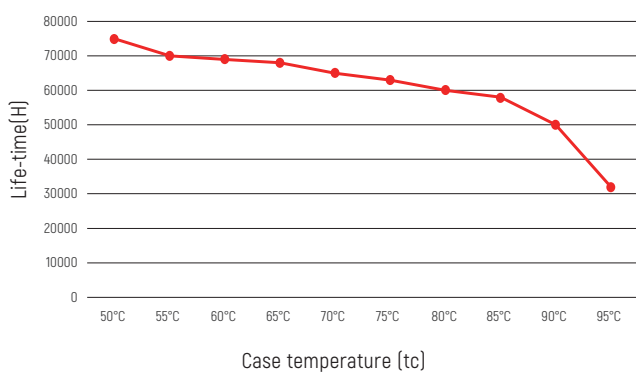
Efficiency vs Load Curve



THD vs Load Curve



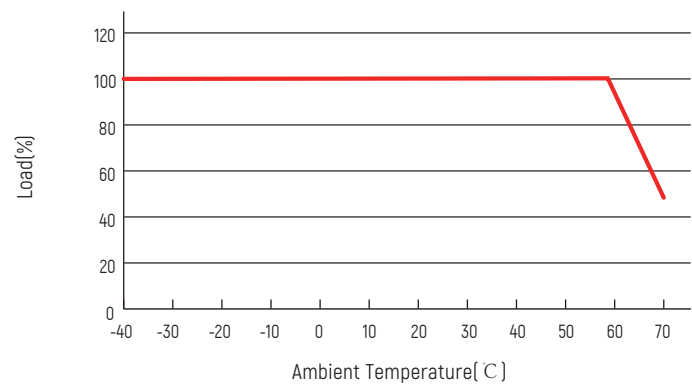
Life-time vs. case temperature



The lifetime of the LED driver is shown in the figure above (calculated based on 90% reliability).

The relationship between t_c and t_a also depends on the luminaire design.

Derating Curve



Cautions

This product must be installed and adjusted by a qualified professional.		
1	Confirmation of installation conditions	· Waterproof and Protection: 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. · Heat dissipation requirements: 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.
2	Power check	· Before use, check the product parameters and confirm that the output voltage and current of the LED power supply meet the requirements
3	Safe wiring	· 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 ², (Please refer to the silk screen printing or wiring diagram in the instruction manual for specific wire diameter requirements). · If the power supply (metal casing) is installed on a grounded lighting component or equipment, the power supply needs to be grounded. · Avoid hot plugging. Disconnect power and restart the driver before connecting the LED load.
4	Wiring confirmation	· Before power on debugging, ensure that the wiring is secure and avoid poor contact to prevent unstable current or equipment damage.
5	Repair suggestions	· 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.

※ 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.

※ 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.

OWP150T-1H24V

概述

OWP150T-1H24V 是一款可控硅恒压输出 LED 调光驱动器。
这款驱动器支持前沿切相和后沿切相调光器，实现平滑调光的效果

产品特点

- 单通道恒压输出，最大输出电流为6.25A
- 输入浪涌保护：差模：6kV，共模：6kV
- 防水等级IP67，适用于户外照明
- 保护：过载、过流、短路保护
- 寿命50,000小时，5年质保

技术参数

产品型号	OWP150T-1H24V	
输入	效率	≥90%@230VAC, 满载
	输入电压	220VAC-240VAC
	输入频率	50/60Hz
	电流	0.77A@230VAC
	功率因数	≥0.95@230VAC, 满载
	THD	<10%@230VAC, 满载
	浪涌电流	冷启动, 39.6A@230VAC 750us,
	空载功耗	≤4.0W@230VAC
	启动延时	≤0.75s (@230VAC, 当光线开始亮起)
输出	电流	6.25A
	电压	24VDC
	电压范围	24VDC±3%
	功率	150W max
	通道	1
	过功率限制	≥130%
	纹波电压	≤240mV (p-p)
	频率	20KHz PWM
保护	短路保护	关闭输出，排除故障后自恢复
	过流保护	打嗝保护，排除故障后自恢复
	过载保护	打嗝保护，排除故障后自恢复
功能	调光模式	可控硅 前沿切相和后沿切相调光
	调光范围	1%-100%
	调光曲线	对数
	频闪	无频闪
安全与电磁兼容	雷击浪涌	L-N: 6KV [差模], L-PE: 6KV N-PE: 6KV [共模]
	耐受电压	I/P-O/P: 3000Vac/1min/5mA I/P-PE:1500Vac/1min/<5mA O/P-PE:500Vac/1min/<5mA
	安全标准	EN61347-1, EN61347-2-13, EN62384
	电磁兼容	EN55015, EN61000-3-2, EN61000-3-3, EN61547
	绝缘阻抗	5MΩ
其它	工作环境温度	-40~+60℃
	储存温度、湿度	-40~+85℃, 20-90% RH
	tc	90℃ 安规 & 寿命
	寿命	50,000h@tc:90℃
	质保	5年
	开关机次数	>25,000 次
	材料	金属
	防水等级	IP67
	产品尺寸	210*64*33mm [长*宽*高]
	包装信息	净重: 800g±5%/个; 20个/箱; 16.5kg±5%/箱; 外箱尺寸: 347*257*214mm[L*W*H]



RoHS

CE

UKCA

IP67
防护等级

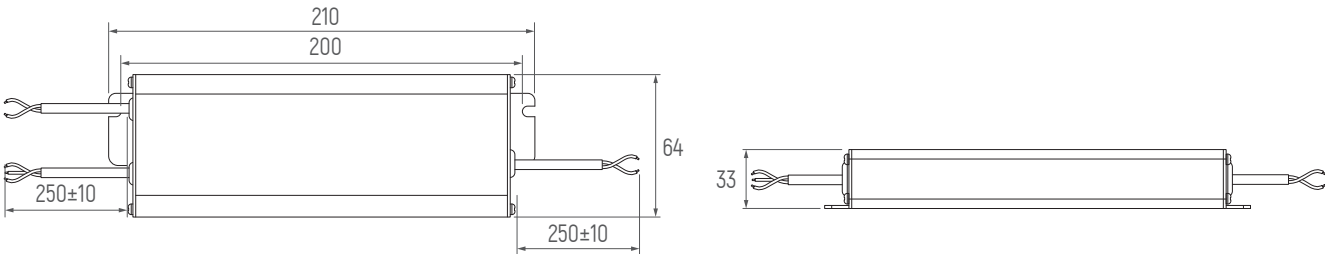
无频闪

短路保护

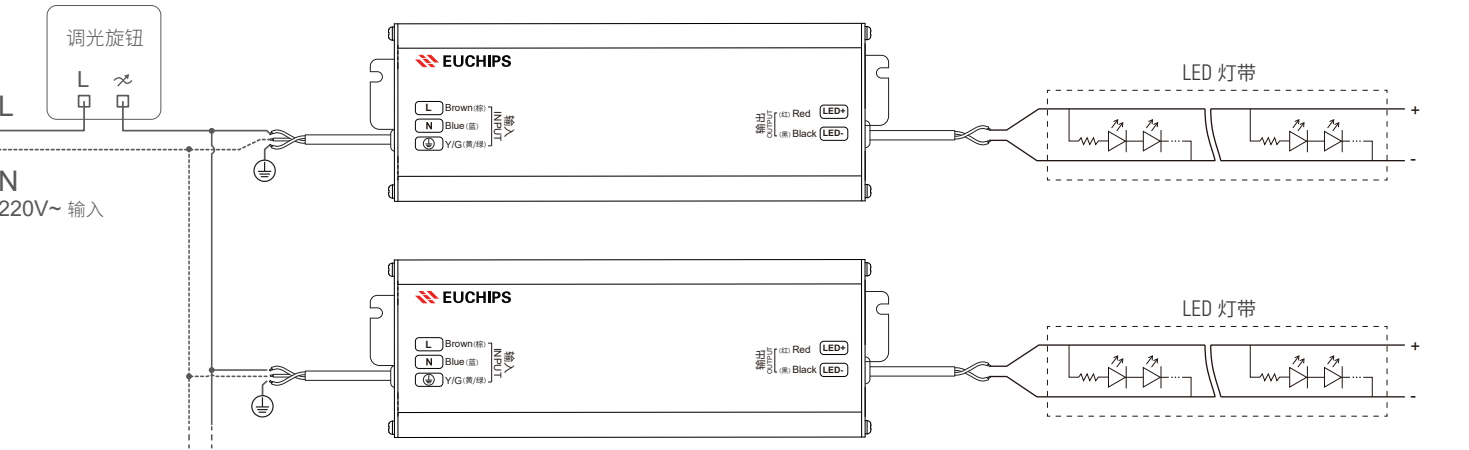
过载保护

过流保护

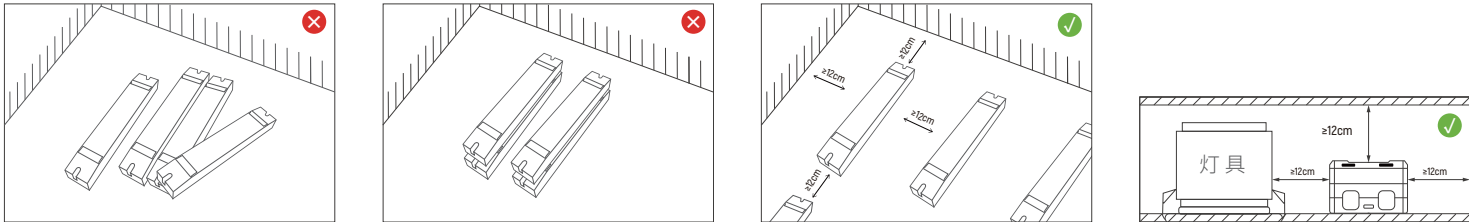
尺寸图



接线图



安装规范要求



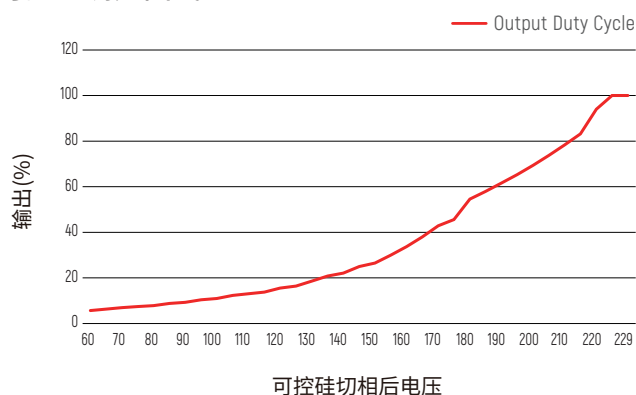
请勿将产品堆叠摆放，产品与产品间隔距离应≥12cm，避免影响产品散热和使用寿命。

断路器带载说明

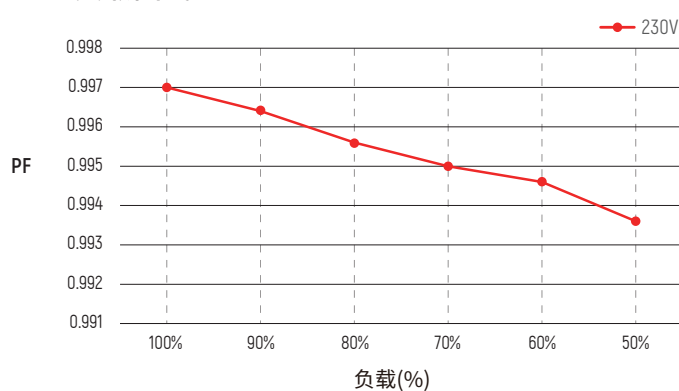
规范项	值	备注
浪涌电流 I _{peak}	39.6A [230V]	输入电压230V
浪涌电流 T _{width}	750us [230V]	输入电压230V, 在50%I _{peak} 下测试

MCB	输入电压230V 驱动器数量	MCB	输入电压230V 驱动器数量
B10	2pcs	C10	4pcs
B13	3pcs	C13	5pcs
B16	4pcs	C16	6pcs
B20	5pcs	C20	8pcs
		D16	13pcs

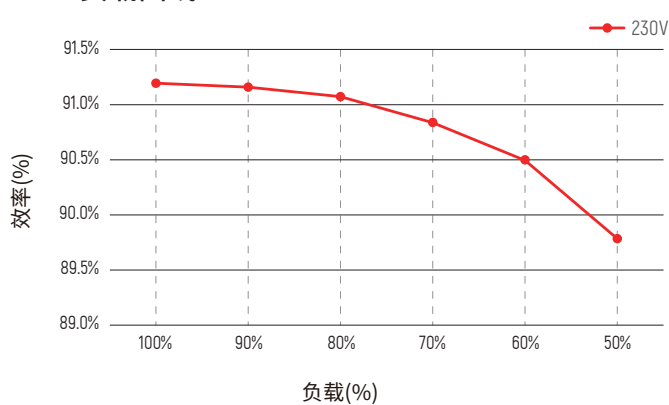
可控硅调光曲线



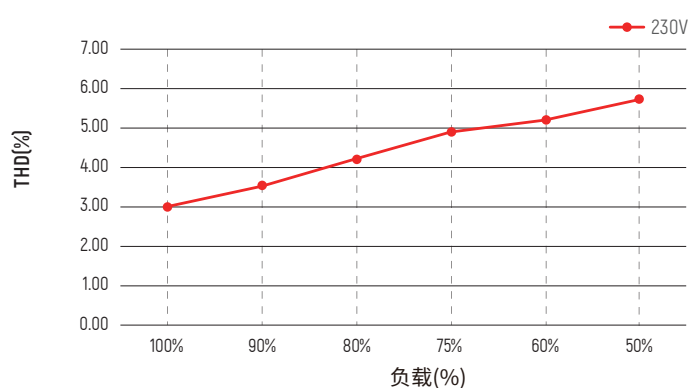
PF vs 负载曲线



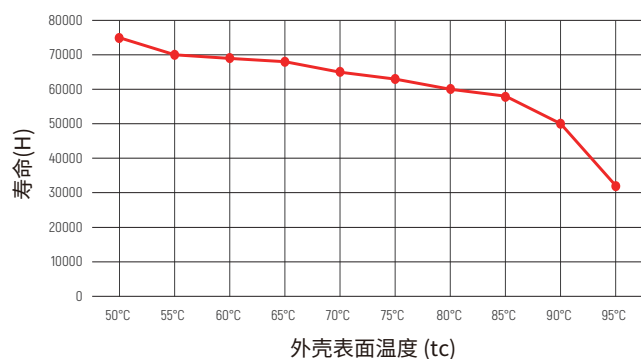
Eff vs 负载曲线



THD vs 负载曲线

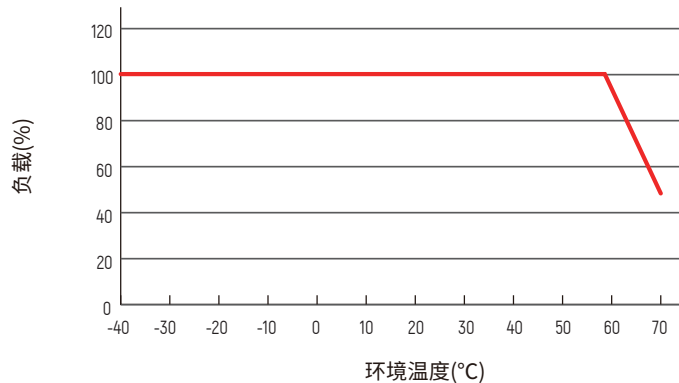


寿命 vs tc温度



LED驱动器的使用寿命如上图所示(按90%可靠度计算)
tc-ta温度的关系也取决于灯具的设计。

降额曲线



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	· 防水与防护: 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。 · 散热要求: 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。
2	电源检查	· 使用前, 检查产品参数, 确认LED电源的输出电压、电流符合要求
3	安全接线	· 需使用符合规格的线缆, 确保导线的截面与驱动电源要求匹配。通常为 0.75 – 2.5 mm² 的实心线缆, (具体线径要求请参阅丝印或说明书接线图)。 · 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。 · 避免热插拔, 连接 LED 负载前应断电并重启驱动。
4	接线确认	· 通电调试前, 确保接线牢固, 避免接触不良, 以防电流不稳或设备损坏。
5	维修建议	· 如产品发生故障, 请勿私自维修。如有疑问, 请联系供应商或销售处理。

※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最唯一补救方式, 且欧切斯不承担因修理或更换产生的附带损害赔偿赔偿责任, 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。