EUPS20T-1HMC

Product Features

· Single channel constant current output, multi-level current optional

· Support Leading edge (Phase-Cut) and Trailing edge (ELV)

· Short circuit, overload, overvoltage, V0 flame retardant housing

· High voltage input: 220VAC ~ 240VAC

· Protection level IP20, suitable for indoor Ⅰ Ⅱ Ⅲ lamps

· Dimming range 1%-100% dimming, smooth dimming without step sense and stroboscopic

· Built-in PFC chip to improve energy efficiency and reduce pollution

· Life of 50,000 hours, 5 years warranty

· Suitable for LED indoor lamps, such as downlights, panel lights, etc

Application

Down light

Technical Paramaters

Model	EUPS20T-1HMC				
Input	Voltage	220VAC-240VAC			
	Frequency Range(Hz)	50/60Hz			
	Efficiency	≥80%@230VAC, full load			
	PF	≥0.95@230VAC, full load			
	Current	0.15A max			
	THD	<10%@230VAC, full load			
	Inrush current	Cold start, 6.8A@230VAC 12us			
	Standby power	≤1.5W			
	No load power	≤1.5W			
	Turn on Time	≤ 0.75 s, at230Vac (When the light begins to shine)			
output	Current/Voltage/Power	350mA/9-45VDC/15.75W	400mA/9-45VDC/18W	450mA/9-44VDC/20W	500mA/9-40VDC/20W
		550mA/9-36VDC/20W	600mA/9-33VDC/20W	650mA/9-30VDC/20W	700mA/9-28VDC/20W
	Channel	1			
	Current Accuracy	± 5% (accuracy below 200mA ± 7%)			
	Ripple current	±3%			
	No load output voltage	59VDC max			
Function	Dimming type	TRIAC/ELV			
	Dimming range	1% -100% dimming until turned off			
	Dimming curve	logarithm			
	Flicker	Flicker-free			
Protection	Short circuit	Hiccup Protection, Auto-recovery after Fault Clearance			
	Over load	Reduce current hiccup protection, troubleshoot and output normally			
	Over Voltage	Reduce current hiccup protection, troubleshoot and output normally			
Safety&EMC	Surge	L-N:1KV			
	Safety standards	I/P-O/P: 3000VAC/1min/5mA			
	Safety standards	CCC (China) GB19510.1，GB19510.14		TUV (Germany) EN61347-1, EN61347-2-13, EN62493	
		CB (CB member 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	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547			
	Insulation Resisance	5M Ω			
Others	Working temp.	-20℃~50℃			
	Storage Temp., Humidity	-40℃~85℃ 20-90%RH (No condensation)			
	tc	90℃			
	Material	PC			

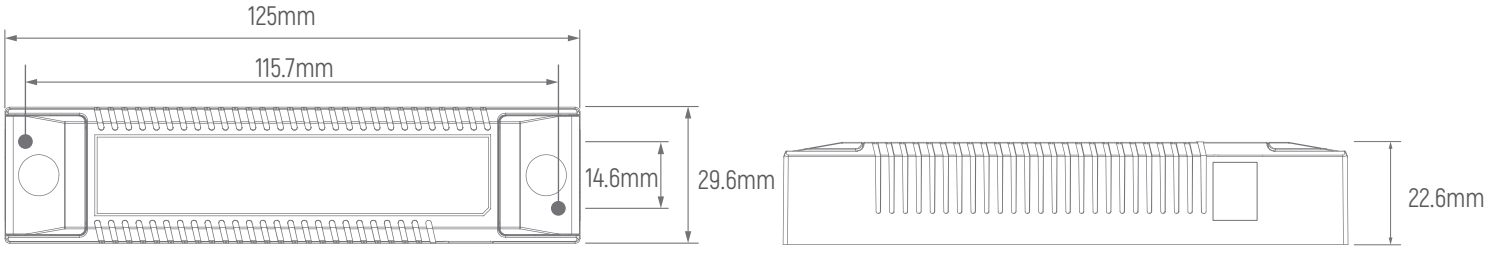
Current selection table

		1 2 3							
ON	OFF	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA
		9-45V	9-45V	9-44V	9-40V	9-36V	9-33V	9-30V	9-28V

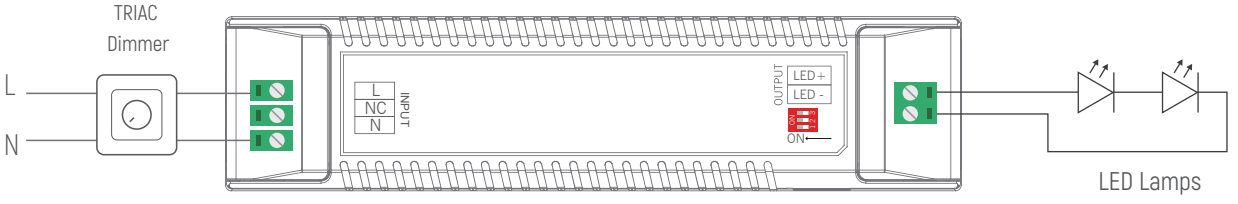
Note: The factory default setting current is 350mA (1, 2, 3 are in OFF state)

Others	IP rating	IP20
	Lifetime	50,000h@tc:90°C
	Warranty	5 years
	Switch cycle	>25,000times
	Dimension	125*29.6*22.6mm(L*W*H)
	Packing size	Net weight: 100g±5%/PCS; 120PCS/Carton; 12.5kg±5%/Carton; Carton Siz: 433*230*200mm(L*W*H)
Remarks	All parameters were measured at an input voltage of 230VAC/50Hz and an ambient temperature of 25 ℃ without any special instructions.	

Dimension(mm)



Wiring Diagram



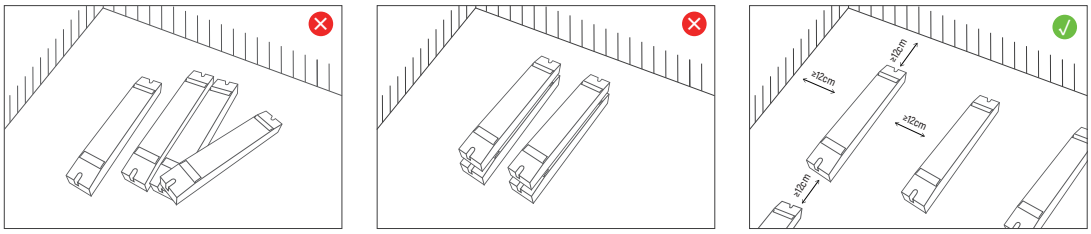
INPUT 220VAC-240VAC

Max. quantity of drivers per miniature circuit breaker

Specification item	Value	Condition
Inrush current I_{peak}	6.8A	Input Voltage 230VAC
Inrush current T_{width}	12us	Input Voltage 230VAC, measured ta 50% I_{peak}

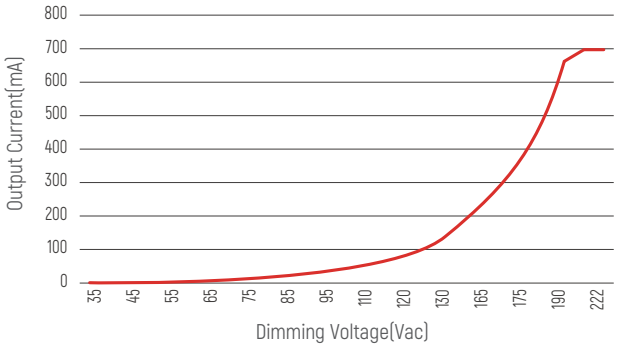
MCB	Input Voltage 230V Drivers	MCB	Input Voltage 230V Drivers
B10	66pcs	C10	66pcs
B13	86pcs	C13	86pcs
B16	106pcs	C16	106pcs
B20	133pcs	C20	133pcs
		D16	106pcs

Installation Precautions

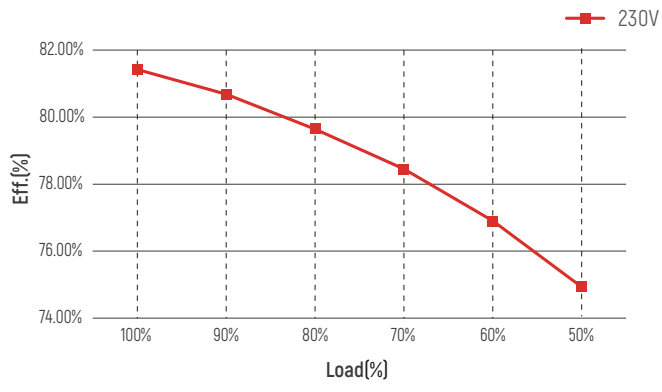


Please do not stack the products. The distance between two products should be>12cm so as not to affect heat dissipation and the lifespan of the products.

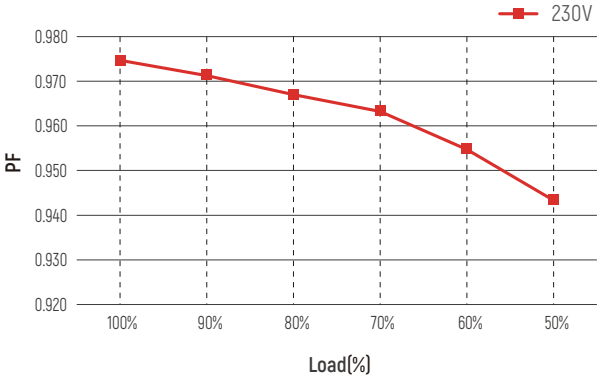
Dimming curve



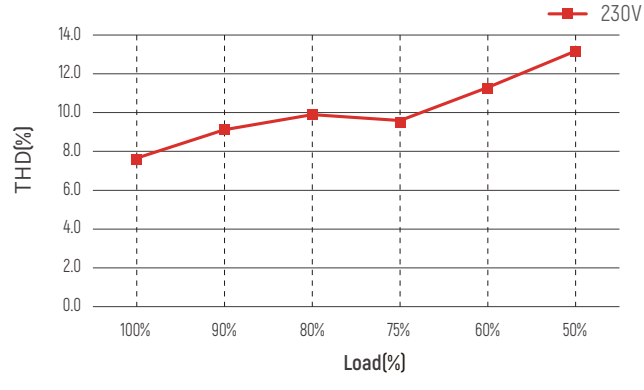
Efficiency vs. Load



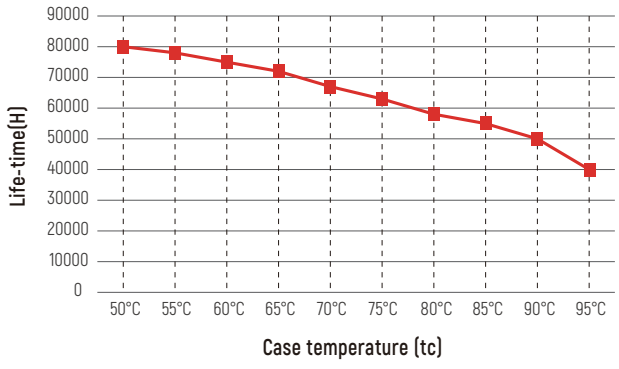
PF vs. Load



THD vs. Load

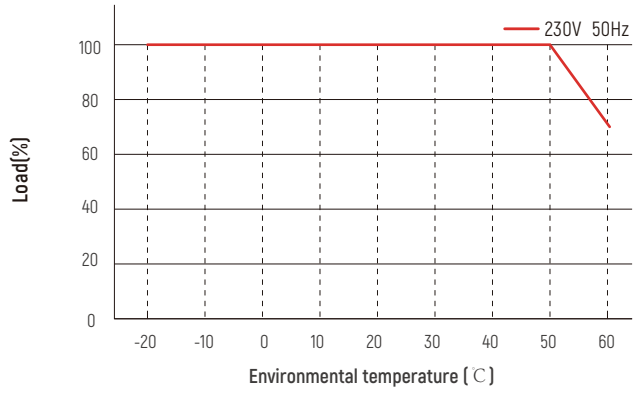


Life-time vs. case temperature



The life-time of the led driver is shown in the figure above
(calculated based on the 90% survival rate).
The relation of tc ta temperature depends also 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. · To avoid hot swapping, power off 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.

EUPS20T-1HMC

产品特点

· 单道恒流输出，多级电流可选

· 支持前沿/后沿切相调光

· 短路、过载、过压、V0级阻燃外壳

· 高电压输入：220VAC ~ 240VAC

· 防护等级IP20，适用于室内 I II III类灯具

· 调光范围1%-100%调光，调光平滑无阶梯感无频闪

· 内置PFC芯片，提高能源利用率，减少污染

· 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	EUPS20T-1HMC				
输入	电压	220VAC-240VAC			
	频率	50/60Hz			
	效率	≥80%@230VAC, 满载			
	功率因数	≥0.95@230VAC, 满载			
	电流	0.15A max			
	THD	<10%@230VAC, 满载			
	浪涌电流	冷启动, 6.8A@230VAC 12us			
	待机功耗	≤1.5W			
	空载功耗	≤1.5W			
	启动延时	≤ 0.75 s, at230Vac（当灯光亮起时）			
输出	电流/电压/功率	350mA/9-45VDC/15.75W	400mA/9-45VDC/18W	450mA/9-44VDC/20W	500mA/9-40VDC/20W
		550mA/9-36VDC/20W	600mA/9-33VDC/20W	650mA/9-30VDC/20W	700mA/9-28VDC/20W
	通道	1			
	电流精度	±5%（200mA以下精度±7%）			
	纹波电流	±3%			
	空载电压	59VDC max			
功能	调光方式	可控硅(前沿、后沿)			
	调光范围	1%-100% 变暗直至关闭			
	调光曲线	对数			
	频闪	无频闪			
保护	短路保护	短路无输出，排除故障输出正常			
	过载保护	降低电流打嗝保护，排除故障输出正常			
	过压保护	降低电流打嗝保护，排除故障输出正常			
安规与电磁兼容	雷击浪涌	L-N:1KV			
	耐压标准	I/P-O/P: 3000VAC/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			
	绝缘阻抗	5MΩ			
其他	工作温度	-20℃~50℃			
	储存温度，湿度	-40℃~85℃ 20-90%RH（无凝露）			
	tc	90℃			
	材质	PC			

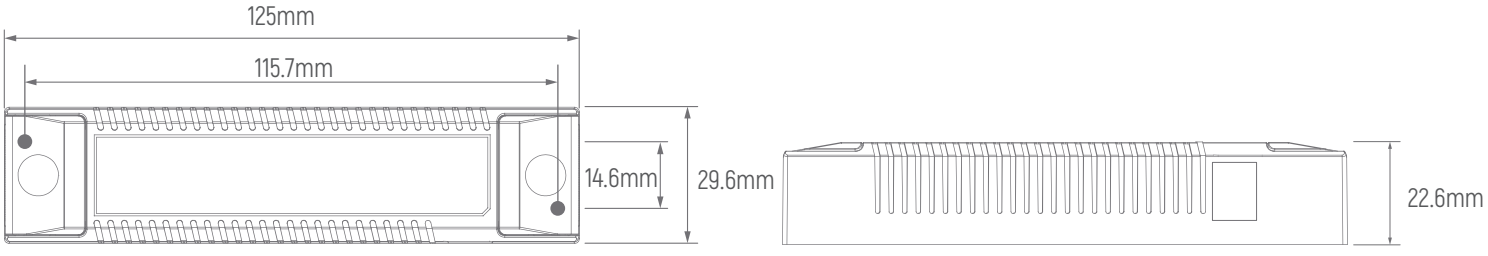
电流选择表

		1 2 3							
ON	OFF	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA
		9-45V	9-45V	9-44V	9-40V	9-36V	9-33V	9-30V	9-28V

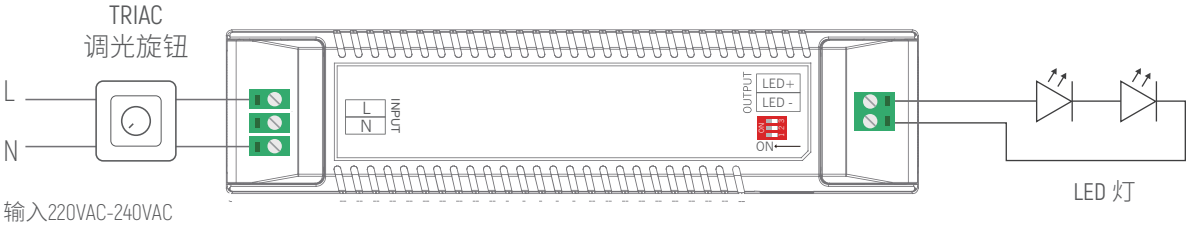
备注：出厂默认设置电流为350mA(1,2,3在OFF状态)

	防水等级	IP20
	寿命	50,000小时@tc:90°C
	质保	5年
	开关周期	>25,000次
	裸机尺寸	125*29.6*22.6mm(长*宽*高)
	包装尺寸(重量)	净重: 100g±5%/PCS; 120PCS/Carton; 12.5kg±5%/箱; 外箱尺寸: 433*230*200mm(长*宽*高)
备注	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

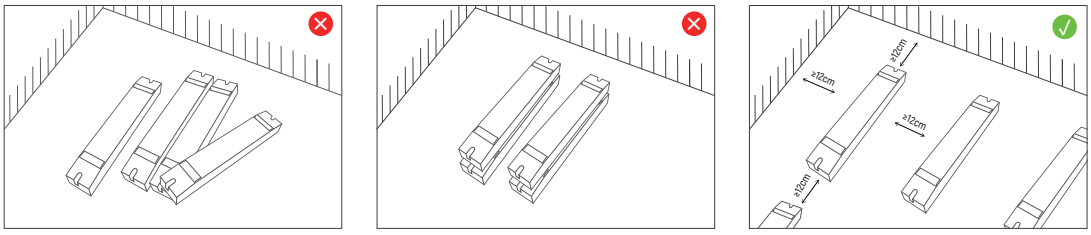


断路器带载说明

规范项	值	备注
浪涌电流 Ipeak	6.8A	输入电压230VAC
浪涌电流 Twidth	12us	输入电压230VAC, 在50%Ipeak下测试

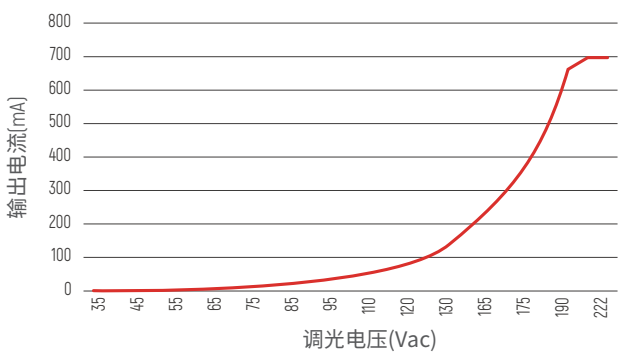
MCB	输入电压230V 驱动器数量	MCB	输入电压230V 驱动器数量
B10	66pcs	C10	66pcs
B13	86pcs	C13	86pcs
B16	106pcs	C16	106pcs
B20	133pcs	C20	133pcs
		D16	106pcs

安装规范要求

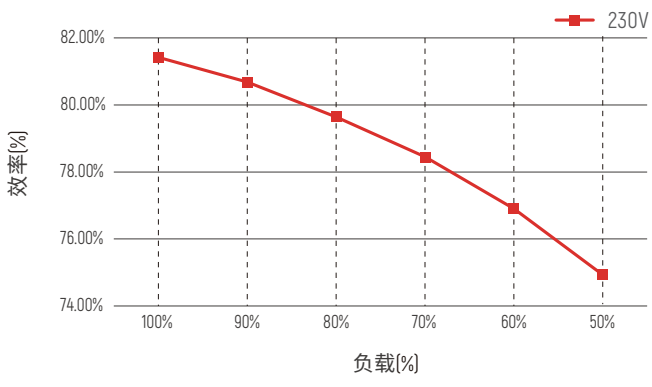


请勿将产品堆叠摆放，产品与产品间隔距离应≥12cm，避免影响产品散热和使用寿命。

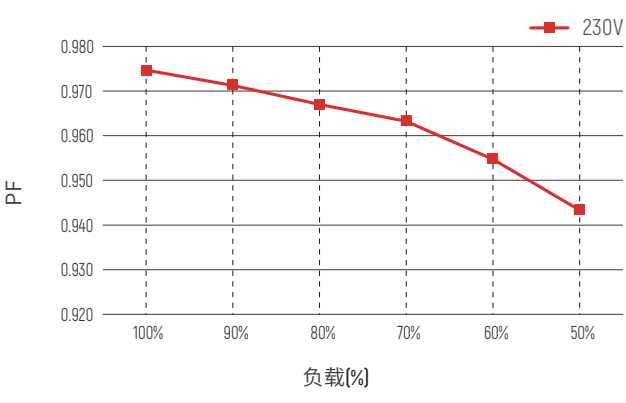
调光曲线



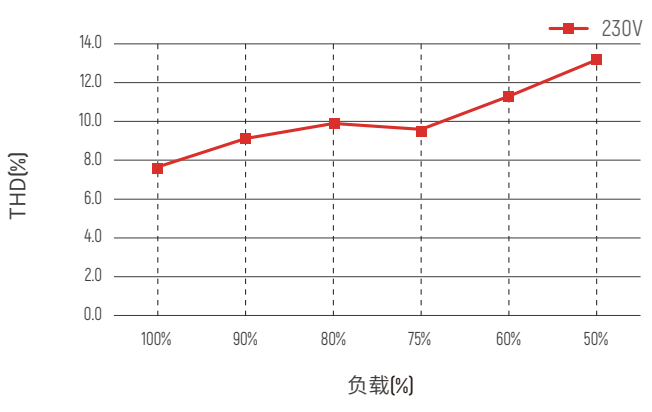
效率 vs 负载



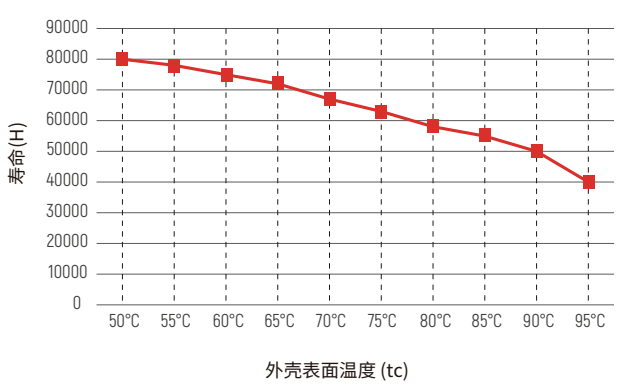
PF vs 负载



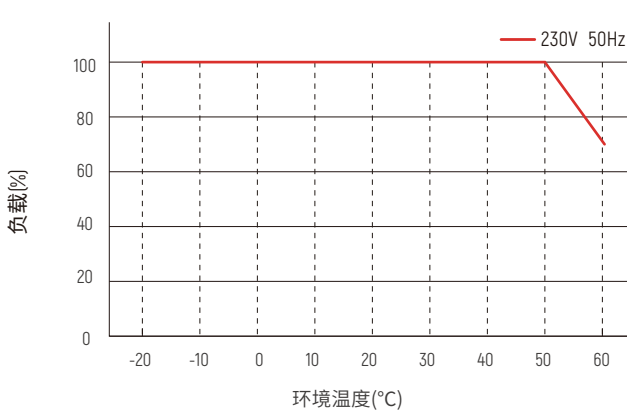
THD vs 负载



寿命 vs tc温度



降额曲线



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	·**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 mm^2 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。