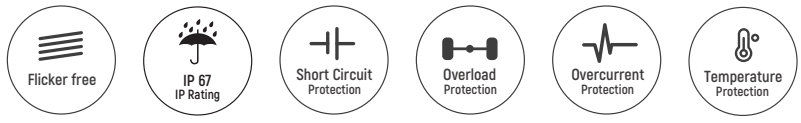
OWP60-1W24V-T

Product Features

· Ambient Temperature: (-40 to +60) ℃
· Ripple: ≤240mV (p-p)
· Certifications: CE + UL compliant
· Surge Protection:L-N 6KV， L/N-G 6KV
· Compact Size
· Waterproof Connector Supported
· Short circuit, Overload, Overcurrent, Over-Temperature Protection (OTP)
· Suitable for Dry, Damp & Wet Locations

Application

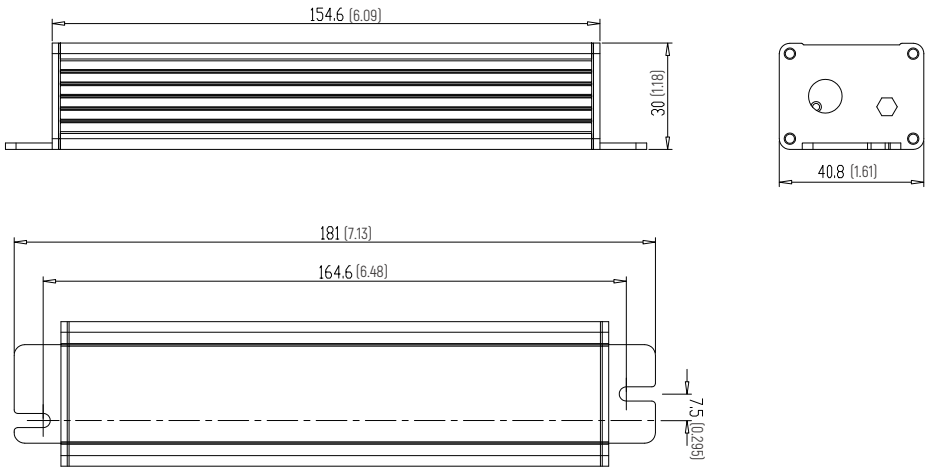
LED Strip Light



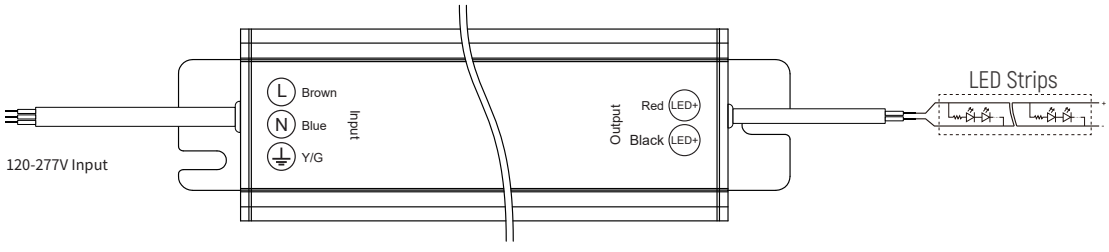
Technical Paramaters

Model	OWP60-1W24V-T	
Input	Voltage	UL Rated 120-277Vac， CE Rated 220-240Vac
	Frequency Range(Hz)	50/60Hz
	Efficiency	≥88%@120VAC, ≥89%@230VAC, ≥90%@277VAC, full load
	PF	≥0.95@120V-277VAC,full load
	Current	0.7A max@120VAC, 0.35A max@230VAC, 0.28A max@277VAC, full load
	THD	<10%@120-277VAC, full load
	Inrush current	Cold start, 18A@120VAC 200us, 36A@230VAC 200us, 46A@277VAC 210us,
	No load power	<0.5W
	Turn on Time	≤ 0.5 s, at120-270Vac (When the light begins to shine)
Output	Voltage	24VDC
	Voltage Accuracy	±3%
	Current	2.5A
	Power	60W
	Channel	1
	Ripple Voltage	≤240mV(p-p)
Protection	Over load	Hiccup Protection, Auto-recovery after Fault Clearance
	Short circuit	No Output, Auto-recovery after Fault Clearance
	Over Current	Hiccup Protection, Auto-recovery after Fault Clearance
	Over temperature	Output power drops to 50% at 75-80°C ambient (Tc ≈95°C-100°C), recovering automatically when temperature normalizes.
Safety&EMC	Surge	L-N 6KV L/N-G 6KV
	Withstand Voltage	I/P-O/P:3000Vac/1min/<5mA, I/P-G:1800Vac/1min/<5mA, O/P-G:500Vac/1min/<5mA,
	Safety standards	EN61347-1， EN61347-2-13 ， UL8750， UL1310， UL879
	EMC Emission	EN55015， FCC Part 15 Class B
	EMC immunity	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547
	Insulation Resisance	5MΩ
Others	Dimension	181*40.8*30mm(7.13*1.61*1.18 Inch)(L*W*H)
	Packing size	Net weight: 385g (0.849 lb)±5%/PCS; 30PCS/Carton; 12.05kg (26.57 lb)±5%/Carton; Carton Size: 425x185x170mm(7.13*1.61*1.18 Inch)(L*W*H)
	Working temp.	ta:-40-60 ℃ (-40°F~140°F)
	tc	85°C(185°F)
	Storage Temp., Humidity	-40°C~85°C(-40°F~185°F), 20-90%RH
	Lifetime	50,000h@tc:85°C(185°F)
	Warranty	5 years
	IP rating	IP67
	Material	Metallic/Silver
	Switch cycle	>25000 times

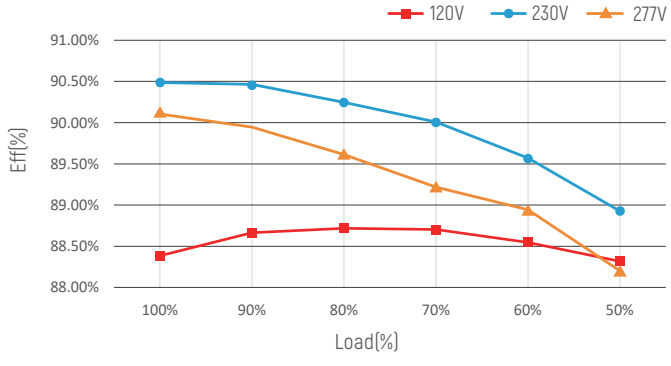
Dimension mm (Inch)



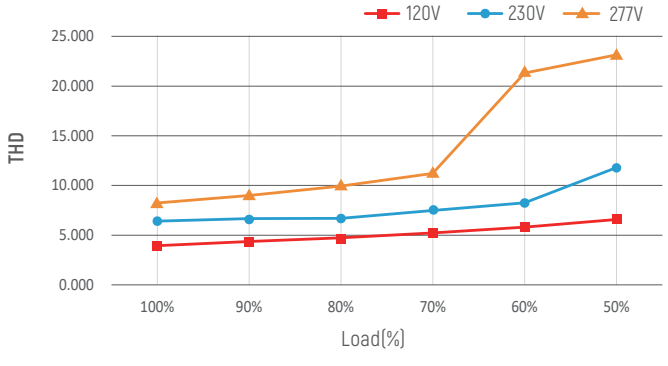
Wiring



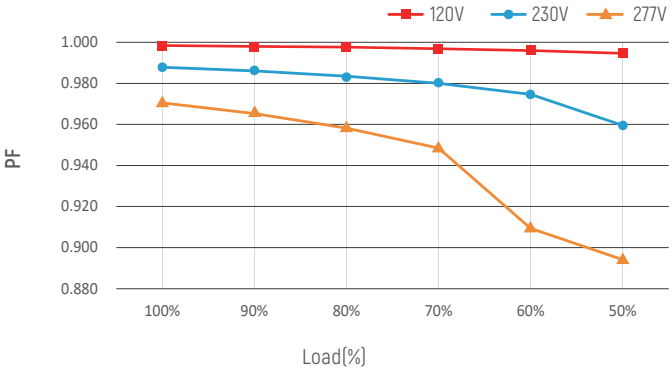
Efficiency vs Load Curve



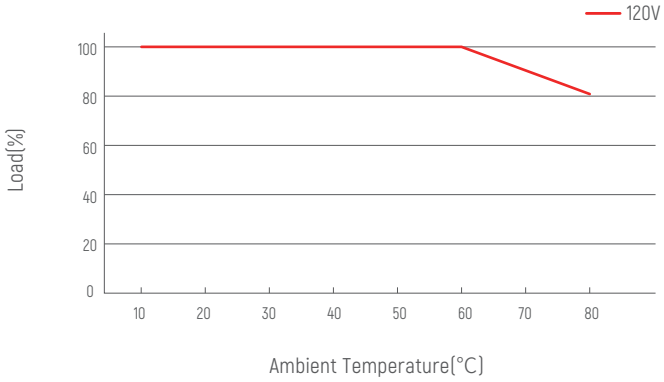
THD vs Load Curve



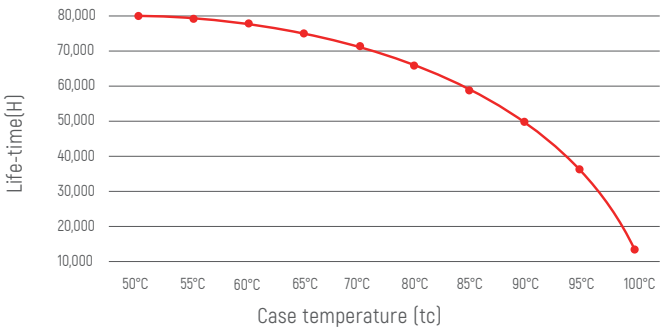
PF vs Load Curve



Derating Curve



Life-time vs. case temperature



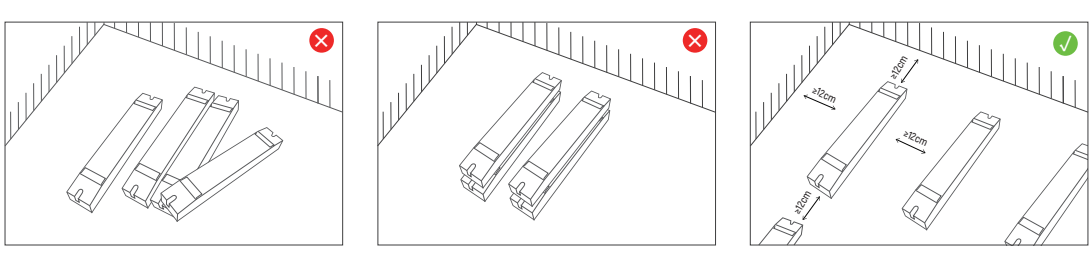
The life-time of the led driver is shown in the figure above
(calculated based on the 90% survival rate).
The relation of tc ta temperature depends also on the luminaire design.

Max. quantity of drivers per miniature circuit breaker

Specification item	Value	Value	Value	Condition
Inrush current I_{peak}	18A (120V)	36A (230V)	46A (277V)	Input Voltage120V/230V/277V
Inrush current T_{width}	200us (120V)	200us (230V)	210us (277V)	Input Voltage120V/230V/277V, measured ta 50% I_{peak}

MCB	Input Voltage 120V Drivers	Input Voltage 230V Drivers	Input Voltage 277V Drivers	MCB	Input Voltage 120V Drivers	Input Voltage 230V Drivers	Input Voltage 277V Drivers
B10	13pcs	11pcs	8pcs	C10	13pcs	18pcs	14pcs
B13	18pcs	14pcs	10pcs	C13	18pcs	24pcs	18pcs
B16	22pcs	18pcs	13pcs	C16	22pcs	30pcs	22pcs
B20	27pcs	22pcs	16pcs	C20	27pcs	37pcs	28pcs
				D16	22pcs	45pcs	44pcs

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.

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.
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.

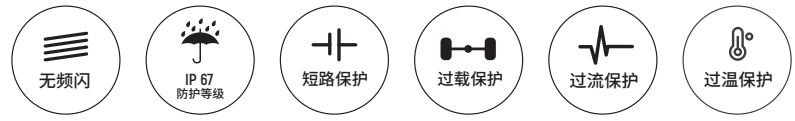
OWP60-1W24V-T

产品特点

·环境温度：(-40~+60) °C
·纹波：≤240mV(p-p)
·符合CE+UL
·雷击：L-N 6KV，L/N-G 6KV
·小体积
·支持防水接头
·短路，过载，过流，过温保护(OTP)
·适用于干燥、潮湿和湿润的场所

应用

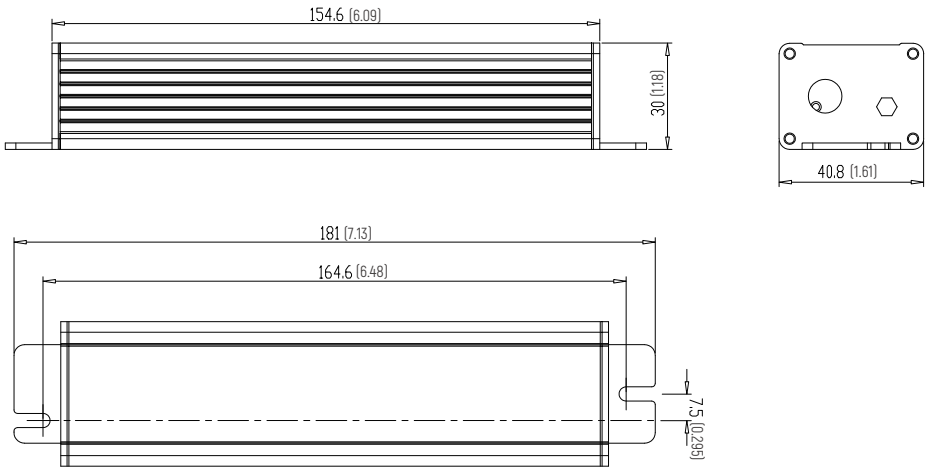
LED灯带



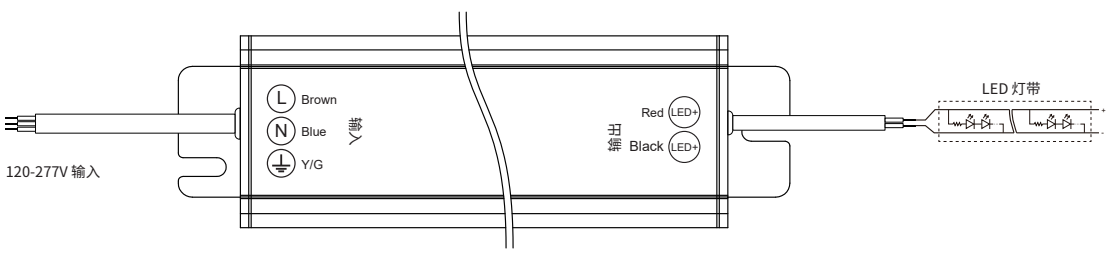
技术参数

型号	OWP60-1W24V-T	
输入	电压	UL额定120-277Vac，CE额定220-240Vac
	频率	50/60Hz
	效率	≥88%@120VAC, ≥89%@230VAC, 90%@277VAC,满载
	功率因数	≥0.95@120V-277VAC,满载
	电流	0.7A max@120VAC,0.35A max@230VAC, 0.28A max@277VAC, 满载
	THD	<10%@120-277VAC, 满载
	浪涌电流	冷启动, 18A@120VAC 200us，36A@230VAC 200us，46A@277VAC 210us,
	空载功耗	<0.5W
	启动时间	≤ 0.5 s, at120-270Vac (当灯光亮起时)
输出	电压	24VDC
	电压精度	±3%
	电流	2.5A
	功率	60W
	通道	1
	纹波电压	≤240mV(p-p)
保护	过负载	降低电压打嗝保护，排除故障输出正常
	短路	短路无输出，排除故障输出正常
	过流保护	降低电压打嗝保护，排除故障输出正常
	过温保护	Yes，75-80°C环温（tc在95-100°C），功率降至50%，环温恢复，自恢复
安规 电磁兼容	雷击浪涌	L-N 6KV L/N-G 6KV
	耐压	I/P-O/P:3000Vac/1min/<5mA, I/P-G:1800Vac/1min/<5mA, O/P-G:500Vac/1min/<5mA,
	安全标准	EN61347-1，EN61347-2-13 ，UL8750，UL1310，UL879
	电磁兼容	EN55015， FCC Part 15 Class B
	EMC抗扰度	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547
	绝缘阻抗	5MΩ
其它	尺寸	181*40.8*30mm(7.13*1.61*1.18 Inch)(长*宽*高)
	包装尺寸	净重: 385g(0.849 lb)±5%/PCS; 30PCS/Carton; 12.05kg(26.57 lb)±5%/箱; 外箱尺寸: 425x185x170mm(7.13*1.61*1.18 Inch)(长*宽*高)
	工作温度	ta:-40~+60°C(-40°F~140°F)
	tc温度点	85°C(185°F)
	储存温度、湿度	-40°C~85°C(-40°F~185°F), 20-90%RH
	寿命	50,000h@tc:85°C(185°F)
	质保	5年
	防水等级	IP67
	材质	金属/银色
	开关周期	>25000 times

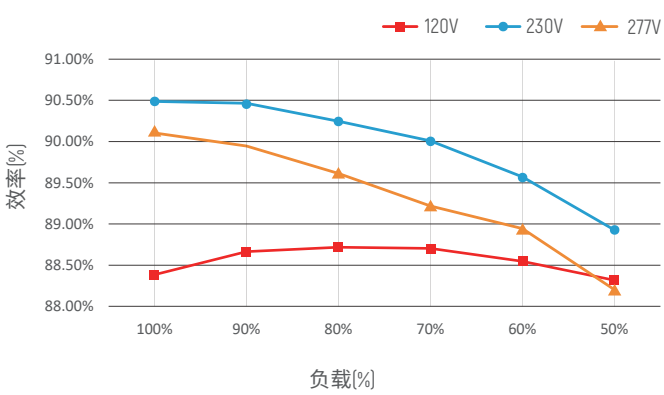
尺寸 mm (Inch)



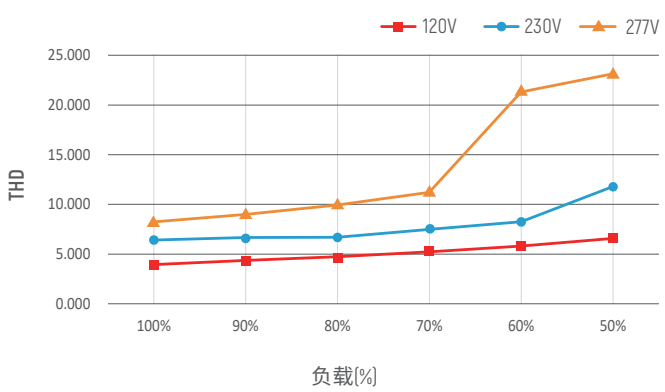
接线图



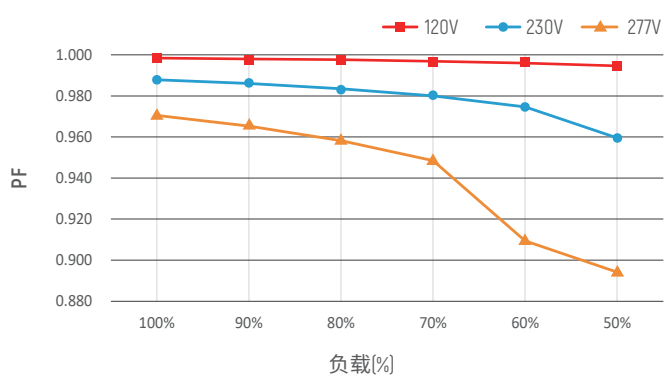
效率 vs 负载曲线



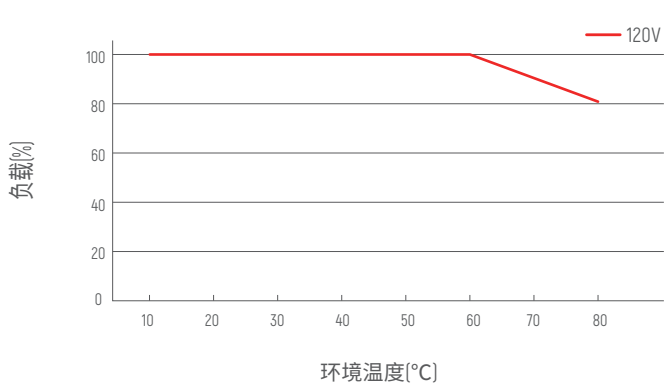
THD vs 负载曲线



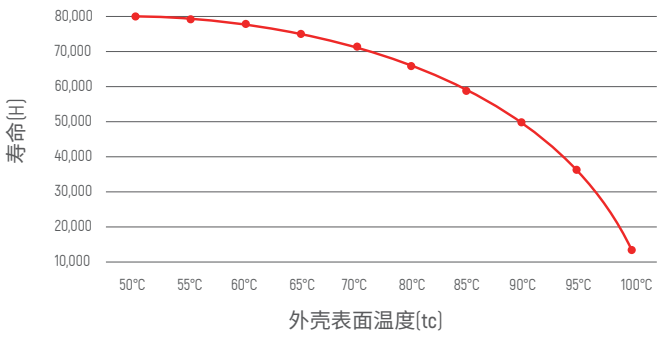
PF vs 负载曲线



降额曲线



寿命 vs tc温度



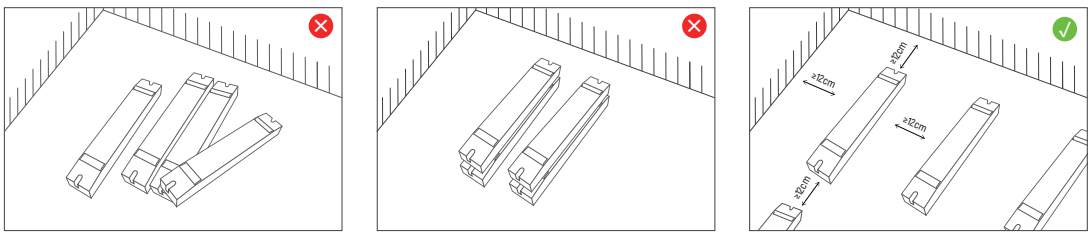
LED驱动器的使用寿命如上图所示（根据90%的带载率计算）。
tc-ta温度的关系也取决于灯具的设计。

断路器带载说明

规范项	值	值	值	备注
浪涌电流 Ipeak	18A (120V)	36A (230V)	46A (277V)	输入电压120V/230V/277V
浪涌电流 Twidth	200us (120V)	200us (230V)	210us (277V)	输入电压120V/230V/277V, 在50%Ipeak下测试

MCB	输入电压120V 驱动器数量	输入电压230V 驱动器数量	输入电压277V 驱动器数量	MCB	输入电压120V 驱动器数量	输入电压230V 驱动器数量	输入电压277V 驱动器数量
B10	13pcs	11pcs	8pcs	C10	13pcs	18pcs	14pcs
B13	18pcs	14pcs	10pcs	C13	18pcs	24pcs	18pcs
B16	22pcs	18pcs	13pcs	C16	22pcs	30pcs	22pcs
B20	27pcs	22pcs	16pcs	C20	27pcs	37pcs	28pcs
				D16	22pcs	45pcs	44pcs

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。

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。