EULP10AT-1WPC-WS-120

Summary

EULP10AT-1WPC-WS-120 is a constant current mode output LED driver.
The driver supports leading edge (Triac) and trailing edge (ELV) dimmer,
0-10V to achieve a smooth dimming effect.

Product Feature

- Single channel output, output current can be selected by software
- Compatible with TRIAC (forward-phase or leading-edge),
  ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- TRIAC and ELV dimming at 120 Vac only
- Protections: Over load, Over Voltage and short-circuit
- Suitable for indoor LED lighting application

Application

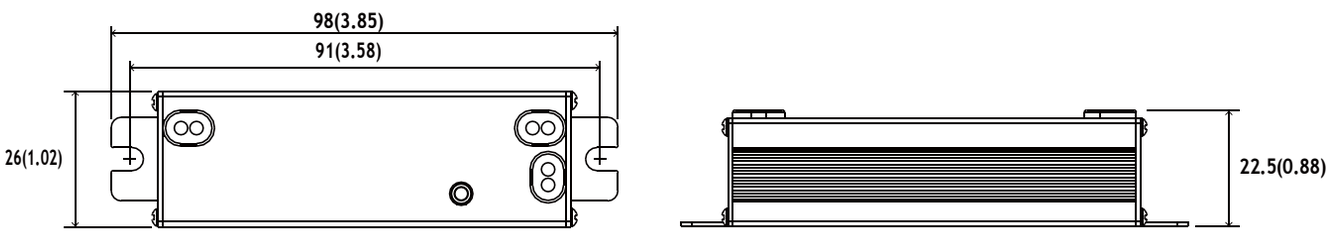
Down Light

Technical Parameters

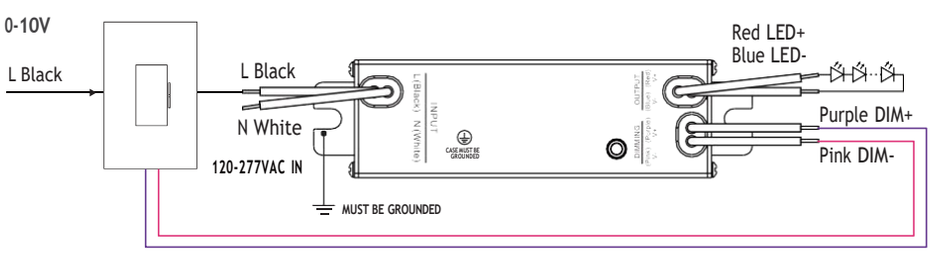
Model	EULP10AT-1WPC-WS-120	
Input	Efficiency	≥74%@120VAC, ≥71%@277VAC, full load
	Rated Voltage	120-277VAC
	Frequency Range(Hz)	50/60Hz
	Current	0.2A max@120VAC, 0.1A max@277VAC
	Power Factor	≥0.9@120VAC, ≥0.85@277VAC
	THD(full load)	≤20%@120VAC, ≤25%@277VAC
	Inrush Current(max)	Cold start, 3A@120VAC 60us, 6A@277VAC 30us
Output	Current Range	120-300mA (Current adjustable) (Default Current: 300mA)
	Voltage Range	9-42VDC
	Output Power	10W Max
	Current	1
	Current Tolerance	±8%
	Ripple current	/
	Standby power	≤2W
	No load power	≤2W
	No load output voltage	59VDC max
	Turn on delay Time	≤1s, @120Vac (When the light begins to shine)
Function	Dimming Type	0-10V Tirac/ELV
	Dimming Range	0-10V: 1%-100% Triac: 3%-100%
	Dimming curve	Linearity(0/1-10V); Logarithm(Triac/ELV)
	Flicker	Flicker free
Protection	Short-circuit	Short circuit without output, troubleshooting results in normal output
	Over load	Yes, Current drops, troubleshooting output is normal
	Over Voltage	Yes, Current drops, troubleshooting output is normal
Safety& EMC	Surge	L-N: 2.5kV (Ring wave)
	Withstand Voltage	I/P-O/P:2000Vac/1min/<5mA
	Safety Standards	UL1310
	EMI	FCC Part 15 Class B @120v FCC Part 15 Class A @277v

Others	Working Temp.	-20℃~50℃
	Storage Temp., Humidity	-40℃~80℃, 5%-90%RH
	tc	75℃
	Material	Metal
	IP Rating	IP20
	Lifetime	50,000h@tc:70℃
	Warranty Condition	5years
	Switch Cycle	>25,000 times
	Dimension	98*26*22.5mm (3.85*1.02*22.5 Inch)（L*W*H）
	Packing(weight)	Net weight: 95g(0.2 lb)±5%/PCS; --PCS/Carton; --kg±5%/Carton; Carton Size:---*---*---mm(L*W*H)

Dimension: mm (Inch)

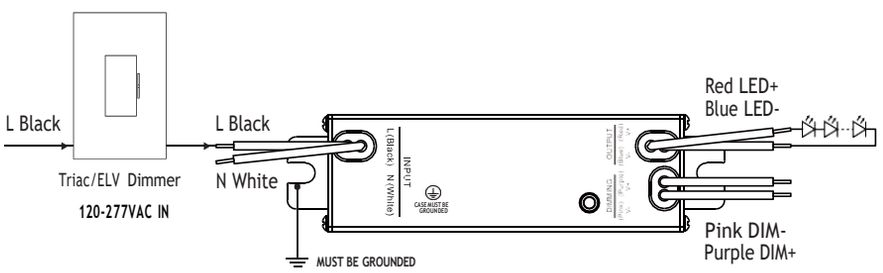


Wiring Diagram



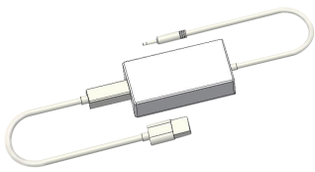
Metal case
All material to be ROHs compliant to Directive 2002/95/EC
Wires to be Stranded with UL approval
Input: Black & White: 150mm , 18AWG
Output: Red & Blue: 150mm , 18AWG
Dimming: Purple & Pink: 160mm , 20AWG

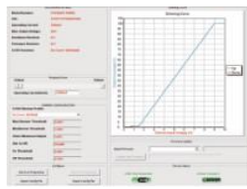
Triac/ELV



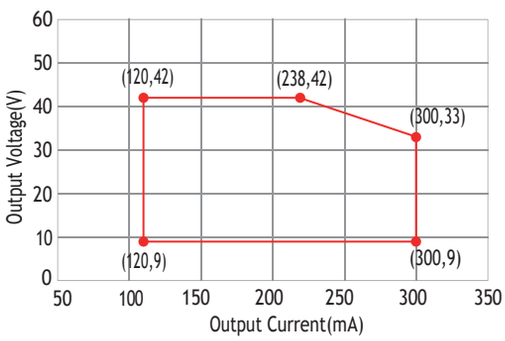
Configurable functions

-Data log reading: SKU, serial number, batch number, FW revision version
-Output current adjustment, Adjustment range:120-300mA (factory default: 300mA)
-Dimming depth editing (factory default: see technical parameter table, editable range 10% Max)
-Dimming curve editing. Built in linear and logarithmic fixed curves, can be directly selected for use. At the same time, it has built-in custom curves and supports editing curves.
-Support parameter copying/replication and batch editing.


EU-PROG Programming connector


Interface

Work Window



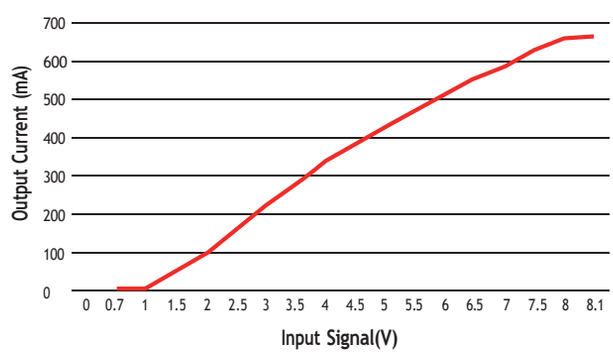
Adjustable output current

The current can be adjusted through a programmer, with a range of 120-300mA and a minimum adjustment current of 1mA. Example: 121mA/122mA/123mA~~300mA.

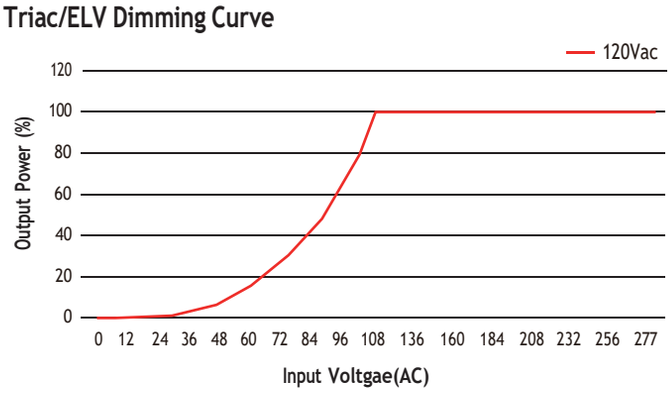
The table provides examples of partial currents:

Output Current	120mA	150mA	200mA	250mA	300mA
Output Voltage	9-42VDC	9-42VDC	9-42VDC	9-40VDC	9-33VDC
Output Power	5W	6.3W	8.4W	10W	10W

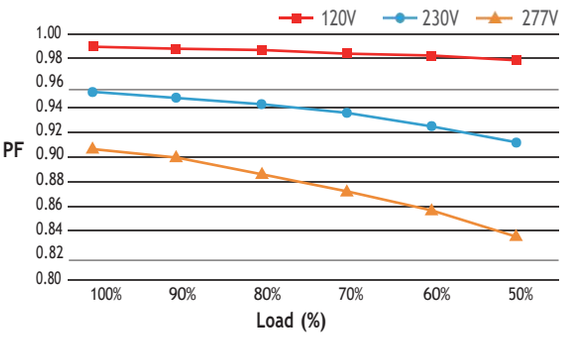
0-10V Dimming Curve



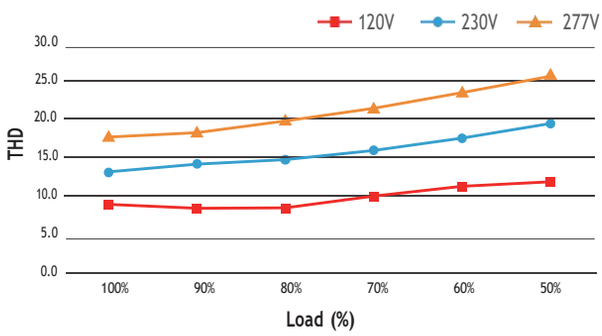
Triac/ELV Dimming Curve



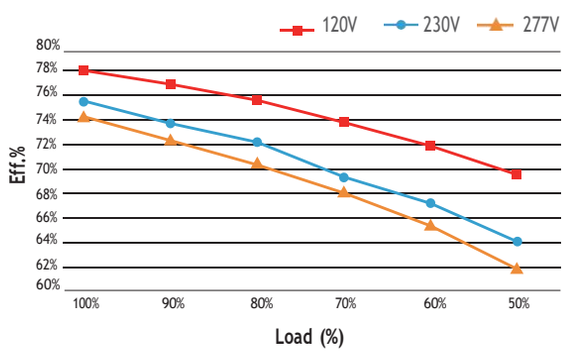
PF vs Load Curve



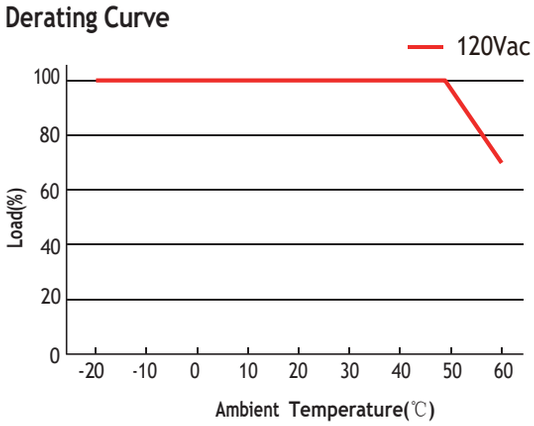
THD vs Load Curve



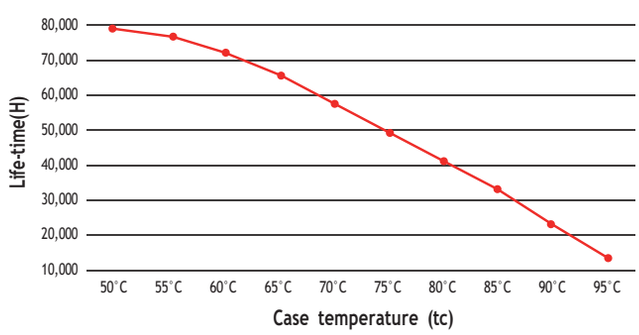
Efficiency vs Load Curve



Derating Curve



Life-time vs. case temperature



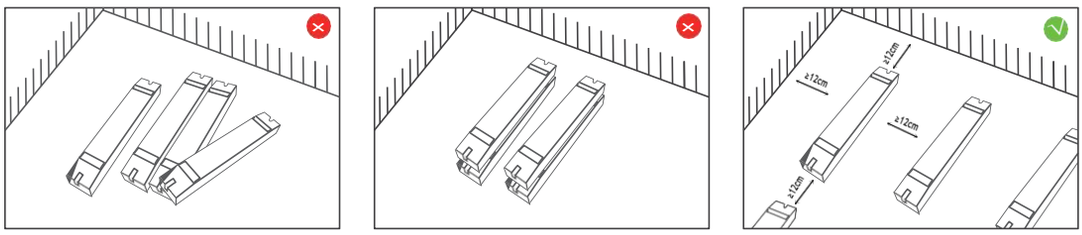
The life-time of the led driver is shown in the figure above
(calculated based on the 90% survival rate).
The relation of tc ta temperature depends also on the luminaire design.

Max. quantity of drivers per miniature circuit breaker

Specification item	Value	Value	Condition
Inrush current I_{peak}	3A (120V)	6A (277V)	Input Voltage120V/277V
Inrush current T_{width}	60us (120V)	30us (277V)	Input Voltage120V/277V, measured ta 50% I_{peak}

MCB	Input Voltage 120V Drivers	Input Voltage 277V Drivers	MCB	Input Voltage 120V Drivers	Input Voltage 277V Drivers
B10	50pcs	50pcs	C10	50pcs	100pcs
B13	65pcs	130pcs	C13	65pcs	130pcs
B16	80pcs	160pcs	C16	80pcs	160pcs
B20	100pcs	200pcs	C20	100pcs	200pcs
			D16	80pcs	160pcs

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. Wear or aging that occurs during normal use of the product.
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.

※Remedial measures: Repair or replacement is the only remedy provided by Oches to the customer, and Oches 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.