

EULP96A-1W24VN-PA

Product Features

- Single-channel constant voltage output
- Supports switching between PWM and AM dimming(VR)
- Protection: Overload, overcurrent, short circuit protection
- UL Class P, Class 2 output
- Complies with UL 8750 & UL 1310 safety standards
- NFC programmability: Enables configuration of output Voltage for an optimized dimming range, 0-10V dimming curve, dimming mode, dimming depth, and dim-to-off function.



Application



LED Strip Light

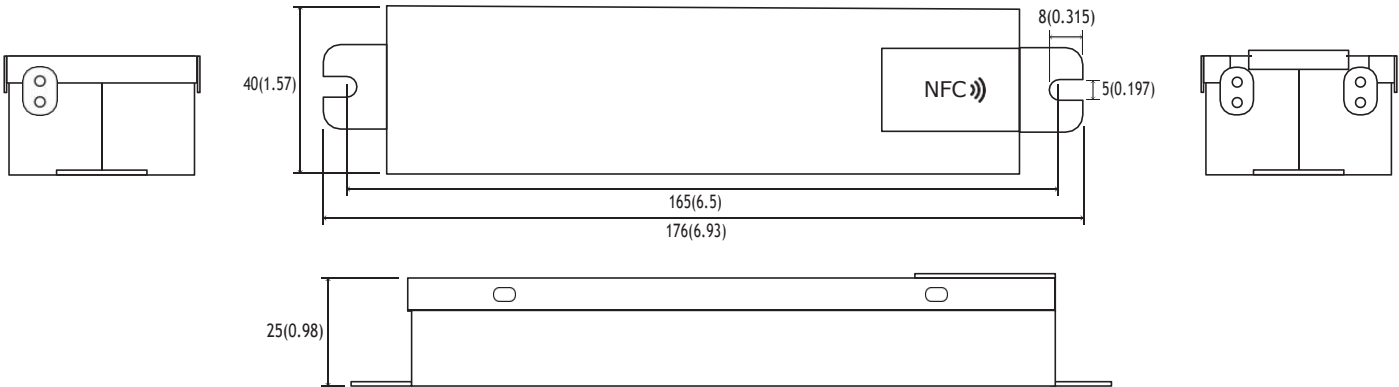


Technical Parameters

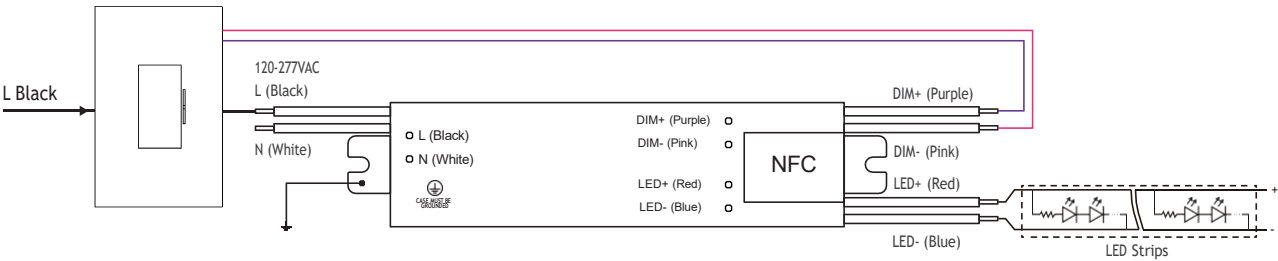
Model	EULP96A-1W24VN-PA	
Input	Rated Voltage	120-277VAC
	voltage range	108-305VAC
	voltage range (DC)	108-280VDC
	Current	1Amax @ 120VAC, 0.52Amax @ 230VAC, 0.43max @ 277VAC
	Frequency range	50/60Hz
	Inrush Current	Cold start, 20A@120VAC 200us, 42A@230VAC 200us, 52A@277VAC 200us
	Efficiency	>90%@120VAC, >92%@230VAC, >93%@277VAC, Full load
	THD	<10%@120VAC, <10%@230VAC, <10%@277VAC, Full load
	Power factor	>0.95@120VAC, >0.95@230VAC, >0.95@277VAC, Full load
	Standby power	<1.5W@120VAC
	No load power	<1.5W@120VAC
	Turn on time	<0.5s, @120Vac (time-to-first-light)
Output	Current	0-4A
	Voltage	24V (NFC programming Range: 23-26VDC)
	Voltage Accuracy	±3%
	Power	96W
	Output Channel	1
	Load Regulation	±2%
	Line Regulation	±1%
	Current Overshoot	5%
	No load output voltage	25.2VDCmax@24VDC (105% of NFC programming output voltage)
Protection	Short-circuit	Shut down output, Auto-recovery after Fault Clearance
	Over Current	Hiccup Protection, Auto-recovery after Fault Clearance
	Overload	Triggers when load power ≥100W, output current reduces, auto-recovery after fault cleared
Function	Dimming Type	0/1-10V
	Dimming Range	0.1%-100% (NFC programmable)
	Dimming Curve	Linear/Logarithmic (NFC programmable)
	Flicker	Flicker free
	Dimming Type	PWM/AM(VR) (NF programming)
Safety& EMC	Surge	L-N: 2.5KV, L-N-PE: 2.5KV, (Ring wave & Combination Wave)
	Withstand Voltage	I/P-O/P:3000Vac/1min/<5mA, I/P-PG:1500Vac/1min/<5mA, O/P-PG:500Vac/1min/<5mA, O/P-DIM(Signal port):1500Vac/1min/<5mA
	Safety Standards	UL8750:2015 Ed.2+R:07Dec2022, UL1310, CSA-C22.2 No. 250.13:2022 Ed.5
	EMC	FCC 47 Part 15 ClassB

Others	RoHS	RoHS Directive 2011/65/EU, directives (EU)2015/863
	Working Temp.	-10℃(14℉)-40℃(104℉)
	Storage Temp. Humidity	-40℃(-40℉)-85℃(185℉), 20-90%RH
	tc	85℃ (185℉)for safety & for life
	Lifetime	50,000h@tc:85℃(185℉)
	Warranty Condition	5 years
	Switch Cycle	>25,000 times
	IP Rating	IP20
	Material	Metal
	Dimension	176*40*25mm (6.93*1.57*0.98 Inch) (L*W*H)
	Packing(weight)	Net weight: 295g(0.65lb)±5%/PCS; 40PCS/Carton; 12.3kg(27.11lb)±5%/Carton; Carton Size: 389*269*187mm(15.32*10.59*7.36Inch)(L*W*H)

Dimension mm (Inch)



0-10V Wiring



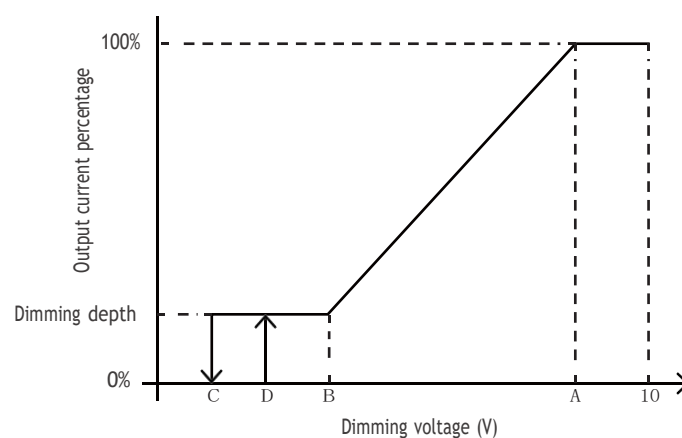
Max. quantity of drivers per miniature circuit breaker

Specification item	Value	Value	Value	Condition
Inrush current I _{peak}	20A (120V)	42A (230V)	52A (277V)	Input Voltage120V/230V/277V
Inrush current T _{width}	200us (120V)	200us (230V)	200us (277V)	Input Voltage120V/230V/277V, measured at 50% I _{peak}

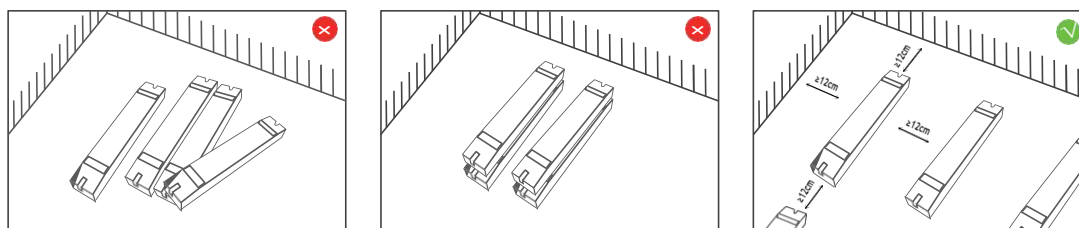
MCB	Input Voltage 120V Drivers	Input Voltage 230V Drivers	Input Voltage 277V Drivers	MCB	Input Voltage 120V Drivers	Input Voltage 230V Drivers	Input Voltage 277V Drivers
B10	10pcs	9pcs	7pcs	C10	10pcs	16pcs	13pcs
B13	13pcs	12pcs	10pcs	C13	13pcs	21pcs	17pcs
B16	16pcs	15pcs	12pcs	C16	16pcs	25pcs	20pcs
B20	20pcs	19pcs	15pcs	C20	20pcs	32pcs	26pcs
				D16	16pcs	30pcs	37pcs

NFC programming

Function	Factory default	NFC programming	
Dimming Method	AM	AM	PWM
Dimming Curve	Linear	Linear	Linear/Logarithmic
V on (D)	0.9V(± 0.1 V)	0.3-1V	0.3-1V
V off (C)	0.8	V on (-0.1V)	V on (-0.1V)
Dimming Depth	/	/	0.1-10%
Low Level Voltage (B)	1.2V	1.2-2V	1.2-2V
High Level Voltage(A)	8.7V	8-9.5V	8-9.5V
Dim to Off	Yes	Yes/No	Yes/No
Maximum Output Voltage	24V	23-26V	23-26V
Minimum Output Voltage	15.5V	14.5-15.5	/

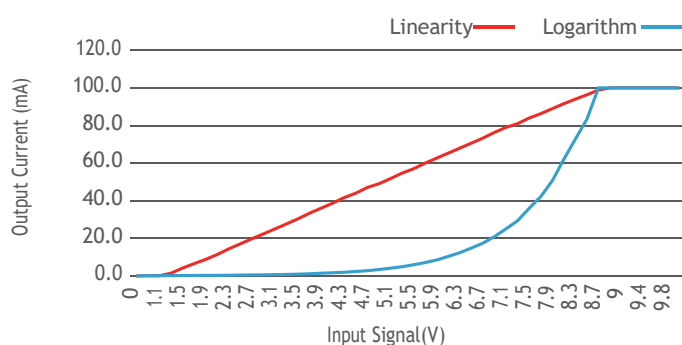


Installation Precautions

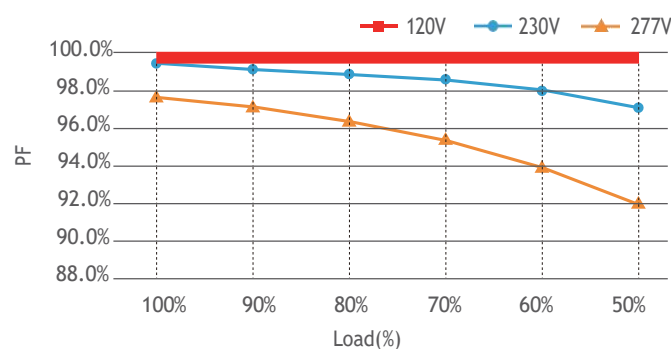


Please do not stack the products. The distance between two products should be $>12\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.

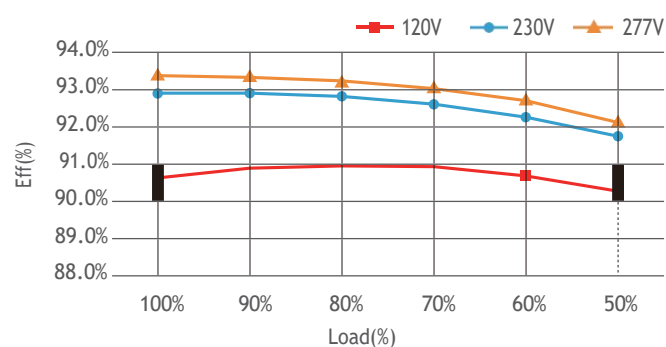
Dimming curve



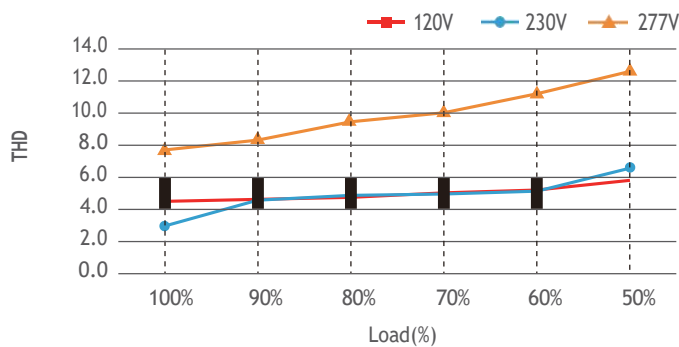
PF vs Load Curve



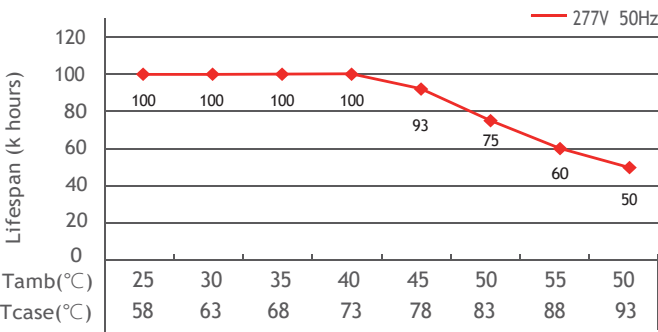
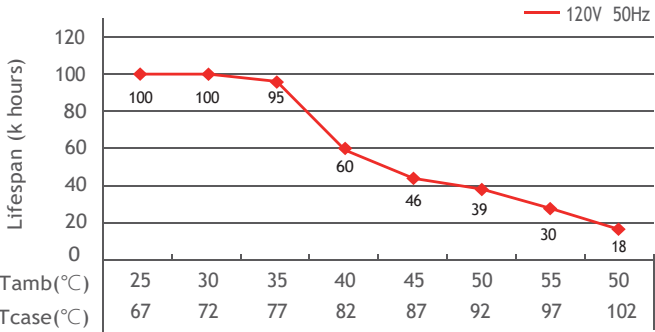
Efficiency vs Load Curve



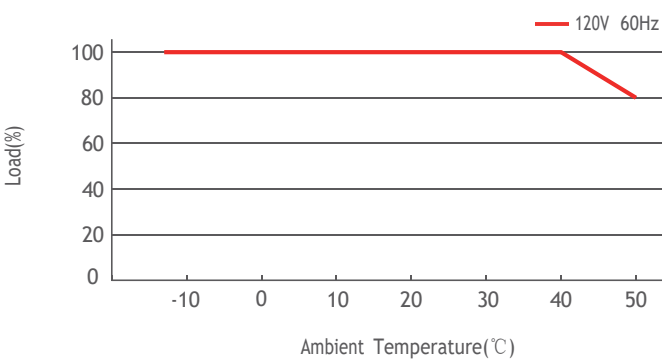
THD vs Load Curve



Life curve



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 mm², (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.