

Features

- Class I Metal housing structure, protection grade: IP67
- Input voltage: 100-277Vac ~ 50/60Hz
- Constant voltage output of 24/36/48Vdc
- PF > 0.97
- Lightning protection level: differential mode 4KV, common mode 6K
- Functional characteristics:
 - DALI-2 Communication Protocol (Optional D version)
 - 3-in-1 dimming function (Optional S version)
- All-round protection: output temperature, output over-voltage, output over-current, short circuit protection
- 5 years warranty



Product introduction

Road lighting, industrial lighting, venue lighting, flood lighting, landscape lighting, and building lighting.

Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff. (Typ.)	THD	PF
DL-500W-V24-RXG	100-277Vac 50/60Hz	500W	24Vdc	0-20.83A	≥94%	< 10%	0.97
DL-500W-V36-RXG	100-277Vac 50/60Hz	500W	36Vdc	0-13.89A	≥94%	< 10%	0.97
DL-500W-V48-RXG	100-277Vac 50/60Hz	500W	48Vdc	0-10.42A	≥94%	< 10%	0.97

Note:

1. Test conditions of the above parameters: Ta=25°C, 230Vac input, full load operation for 30 minutes;
2. Including setting error, linear adjustment rate and load adjustment rate;
3. Power supply is used as a component with terminal equipment, EMC is affected by the whole set of devices. Terminal equipment manufacturers need to re-confirm the EMC for the whole set of devices.

Input characteristics

Parameter	Min	Typ.	Max	Note
Rated input voltage	100Vac 140Vdc	230Vac	277Vac 400Vdc	If the input voltage is lower than 108VAC that the output power should be derated to 80% load
Input voltage range	90Vac	-	305Vac	N/A
Rated frequency	47Hz	50/60Hz	63Hz	N/A
Power factor	-	0.97	-	100% load, 230Vac input
	-	0.90	-	75% load, 230Vac input
T.H.D.	-	-	< 10%	100% load, 230Vac input
	-	-	20%	75% load, 230Vac input
Input current	-	-	5.7A	@100Vac full load
Inrush current	-	-	117A	230Vac, cold start (25°C)
16A Circuit breaker The number of power supplies of the same model can be configured	-	-	-	2pcs (Type B circuit breaker) 4pcs (Type C circuit breaker) for 230Vac input

Output characteristics

Parameter	Min	Typ.	Max	Note
Accuracy of output voltage	-	±1%	-	100% load
Line regulation	-	±1%	-	50-100% load@230Vac
Load regulation	-	±1%	-	50-100% load@230Vac
Starting time	-	-	500ms	Full load@230Vac
Output voltage Ripple	-	360mV	-	DL-500W-V24-RXG
	-	480mV	-	DL-500W-V36-RXG
	-	960mV	-	DL-500W-V48-RXG
	-			
Output voltage regulation range	22V	24V	26V	The external adjustable resistor can finely adjust the output voltage.
	33V	36V	39V	
	44V	48V	52V	

Dimming characteristic

Dimming function		Min	Typ	Max	Instructions
0-10V dimming (optional) S version	Safe applied voltage range	1V	-	12V	When the external voltage is greater than or equal to 12V, the dimming will be damaged
	Dimming output range	10%	-	100%	-
PWM dimming (optional) S version	PWM High level	9.5V	-	10.5V	-
	PWM High level	0	-	0.3V	-
	PWM Frequency band	300Hz	-	2000Hz	-
	PWM Duty cycle	10%	-	99%	Full power output at 99% duty cycle-
Resistance dimming (optional) S version	Resistance of the external resistor	10K Ω	-	100K Ω	
	Dimming output range	10%	-	100%	-

Protection

Function	Function instructions
Output overload protection	1.4-1.8 Protection mode:hiccup mode,recovers automatically after fault condition is removed.
Output short circuit protection	Hiccup mode:recovers automatically after fault condition is removed
Over temperature protection	Self-recovery mode: when the housing temperature is greater than 90 $^{\circ}$ C, the output power off.
Output over-voltage protection	Output voltage > working voltage 1.08-1.2 times turn-off

Environmental

Environmental categories	Parameter
Working temperature	-40 ~ +45 $^{\circ}$ C @ 100-200 V AC; -40 ~ +55 $^{\circ}$ C @ 200-277 V AC (Refer to the "Service Life Curve")
Working humidity	20 ~ 95% RH, non condensing
Storage temperature、humidity	-40 ~ +80 $^{\circ}$ C, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25 $^{\circ}$ C)
Lifetime	70,000 hours @Tcase \leq 75 $^{\circ}$ C,230Vac, 100% Load, Please refer to "Tcase VS Lifetime" section
Working humidity	20 ~ 95% RH, non condensing

Safety and EMC

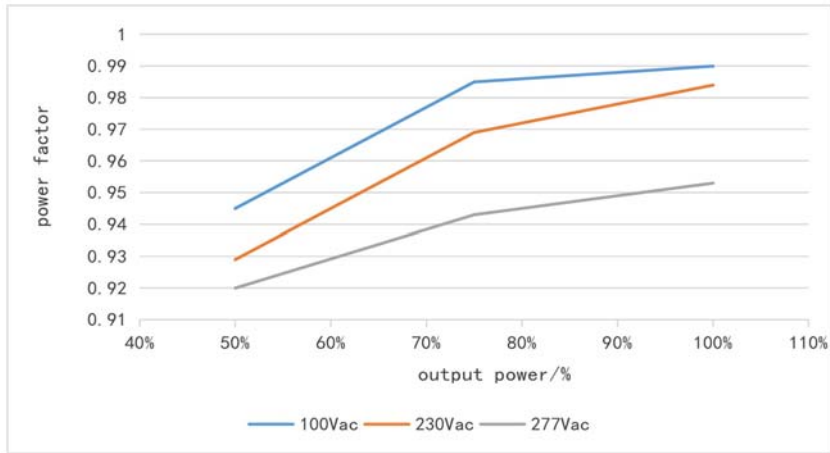
Safety categories	Standard
Safety	EN61347-1、 EN61347-2-13、 IEC61347-1、 IEC61347-2-13、 EN 62384、 EN 62493、 GB19510.14
EMC	EN 55015、 EN 61000-3-2 、 EN 61000-3-3、 EN 61547、 GB/T 17743、 GB 17625.1
DALI-2 protocol standard	IEC62386-101/102/207 (D version)
Surge protection	Differential mode L-N $\pm 4\text{KV}$ (2 ohm) ,common mode L, N-PE $\pm 6\text{KV}$ (12 ohm); Refer to IEC61000-4-5 2014
High-pot test	I/P-O/P:3.75KVac I/P-PE :1.5KVac O/P-PE : 0.5KVac I/P-DIM:1.5KVac O/P-DIM:1.5KVac
Insulation impedance	I/P-PE:100M Ω / 500VDC; I/P-O/P:100M Ω / 500VDC / 25 $^{\circ}\text{C}$ / 70% RH
Leakage Current	<0.75mA@277Vac

Note: The power supply is used as a component in conjunction with the end - device. EMC is affected by the entire equipment set, so the manufacturer

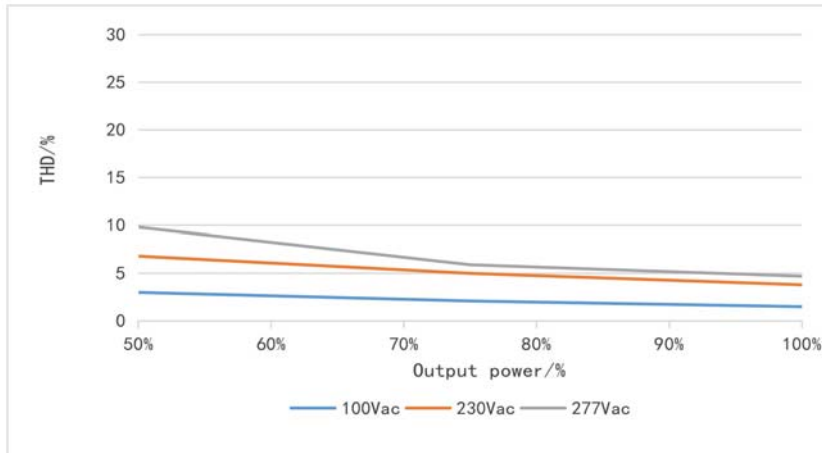
of the end - device needs to re - verify the EMC of the entire equipment set.

Parametric curves

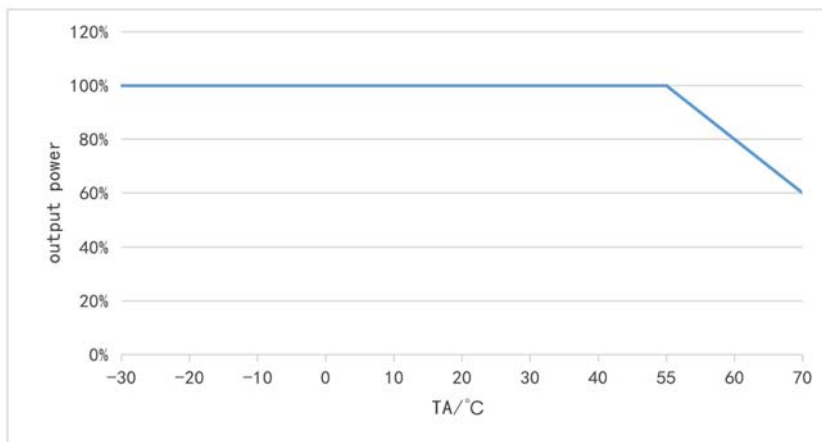
Power factor/output power



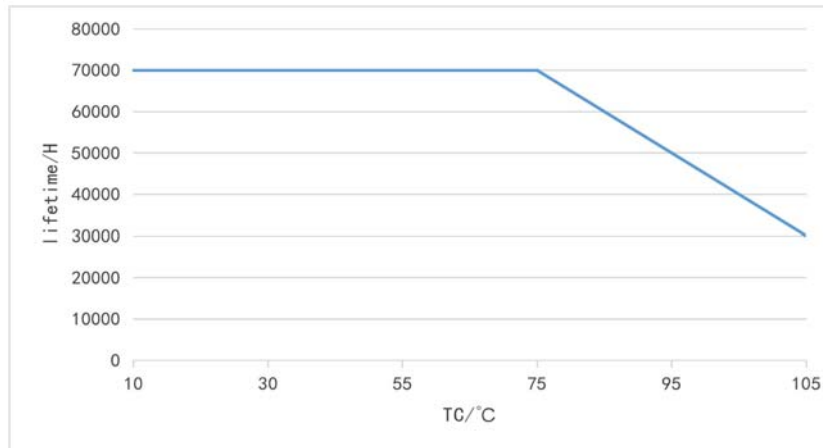
THD/Output power



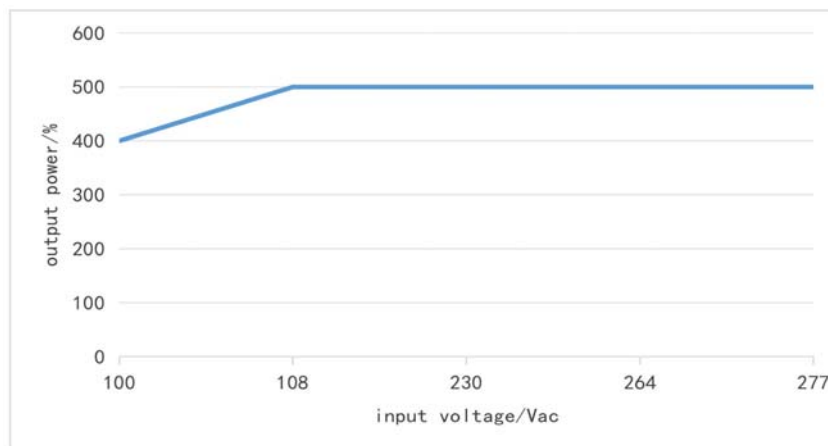
Power/TA



Lifetime/TC



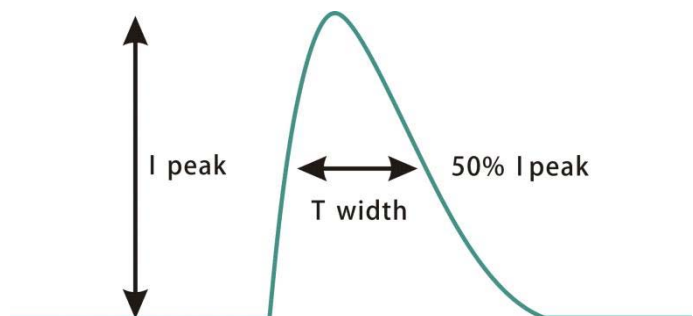
Power/Input voltage



If the input voltage is lower than 108VAC that the output power should be derated to 80% load

Inrush current

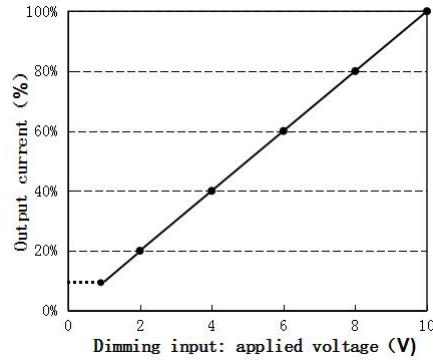
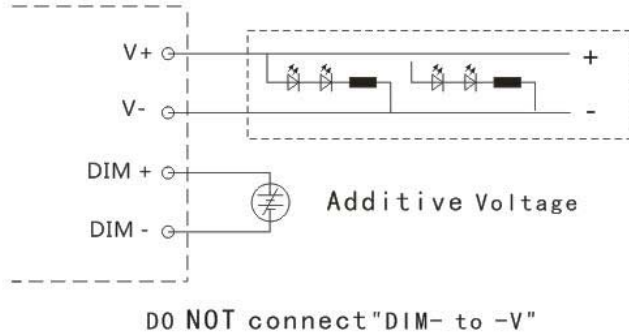
Input voltage	Peak current	T(@50% Peak current)
100Vac	88A	544us
230Vac	117A	568us
277Vac	140A	668us



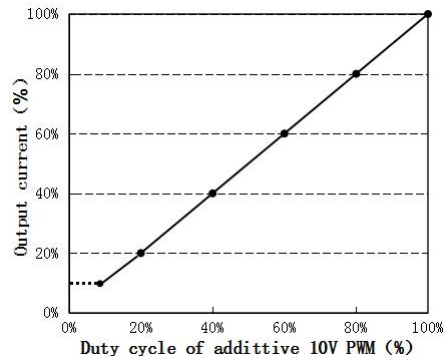
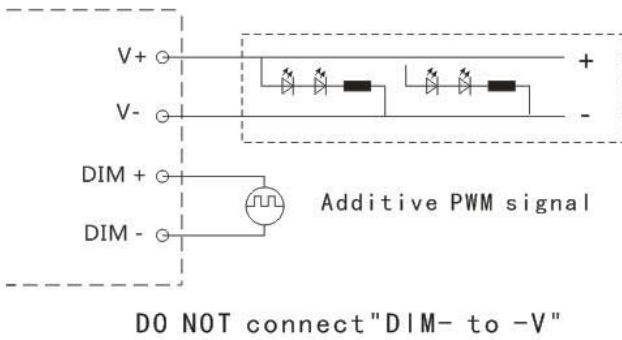
1-10V three-in-one dimming function (S Version)

- a. The output current can be adjusted by connecting a resistor 10-100K or 1-10V DC voltage or 10V PWM signal between DIM+ and DIM-.
- b. Dimmer port output current: 100uA (typical value).

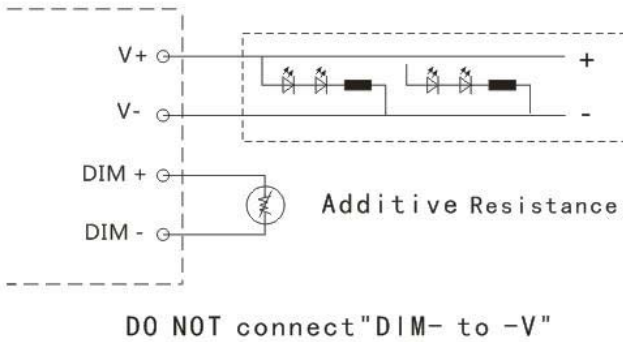
With applied 0-10V voltage:



With an external 10V PWM signal (frequency range: 300Hz-2K Hz) :



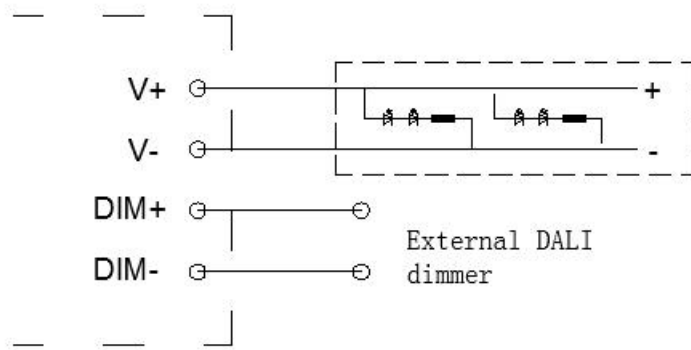
With an external 0-100K resistor:



Note:

- a. For the 1.1 - 10 series three - in - one dimmable and turn - off lamps, although they support dimming and turn - off functions, they cannot meet the requirement of standby power consumption $\leq 0.5W$
- b. In the PWM dimming mode, the applied PWM frequency ranges from 300Hz to 2KHz.

DALI 2.0 Dimming function (Version D)



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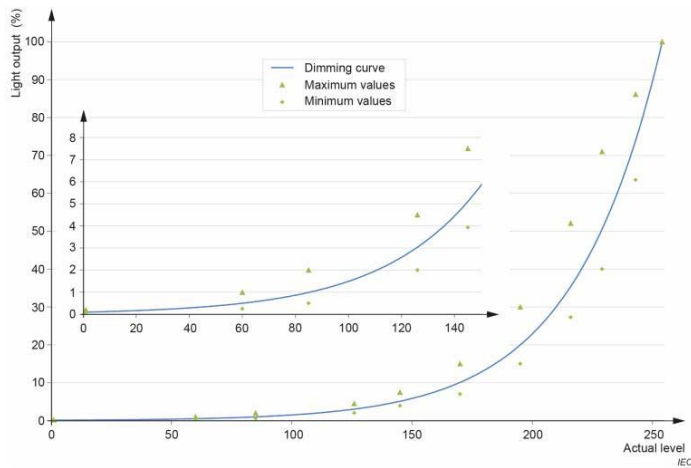


Figure 3 – Dimming curve

Note:

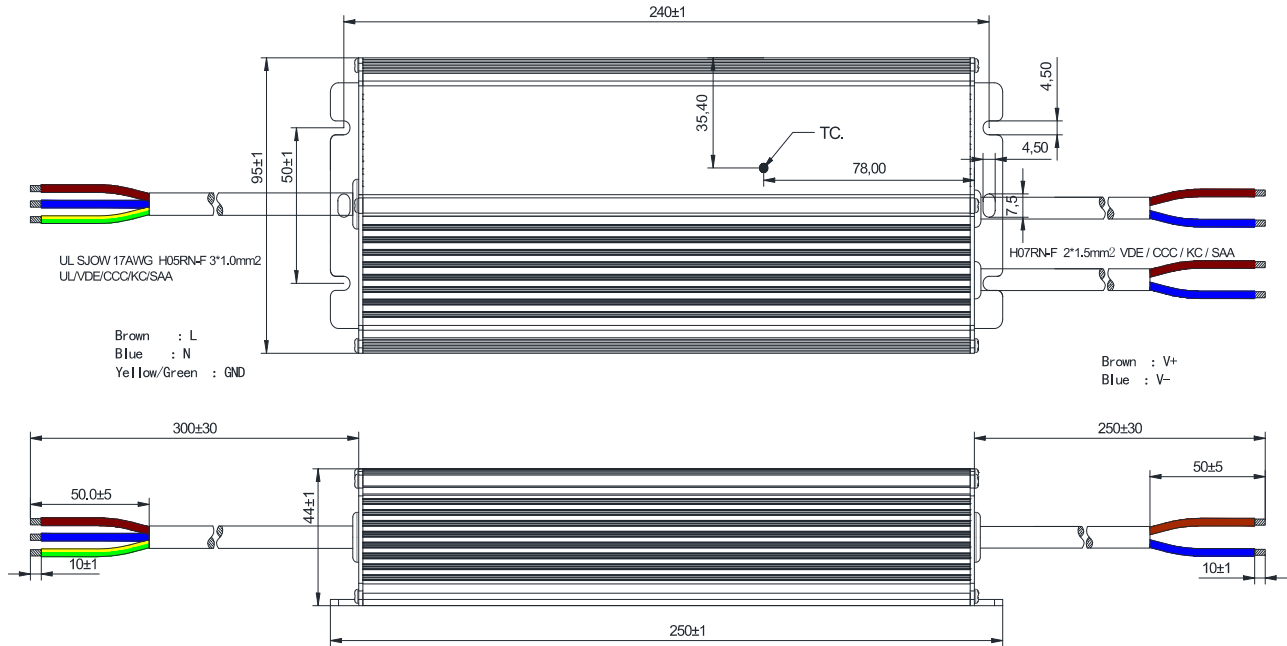
1. The initial brightness of DALI dimming is 100%
2. Supports a maximum dimming depth of 1%

Mechanical specification

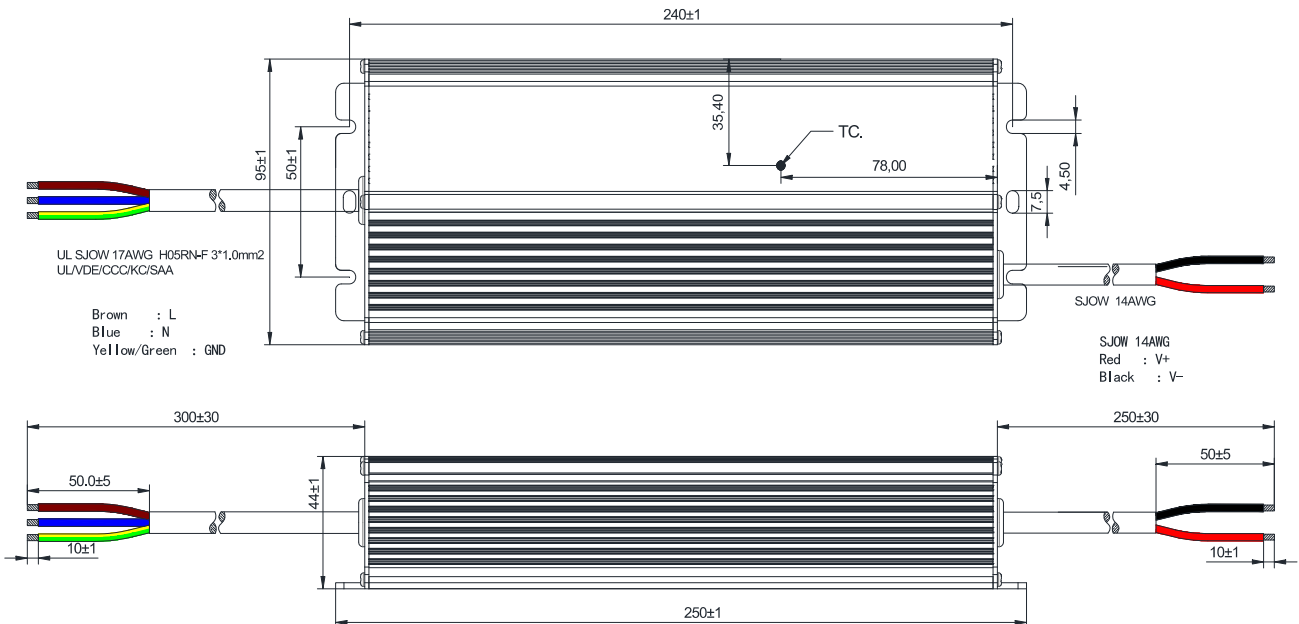
Weight

weight	2.05KG
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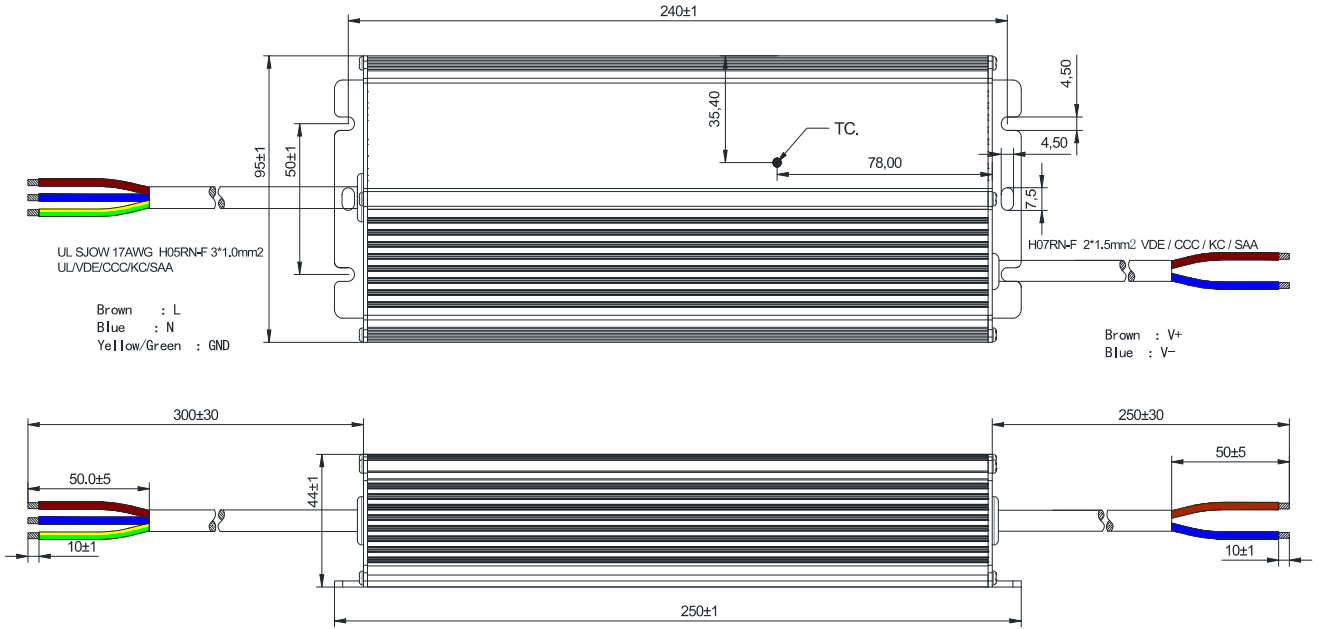
DL-500W-V24-RXG



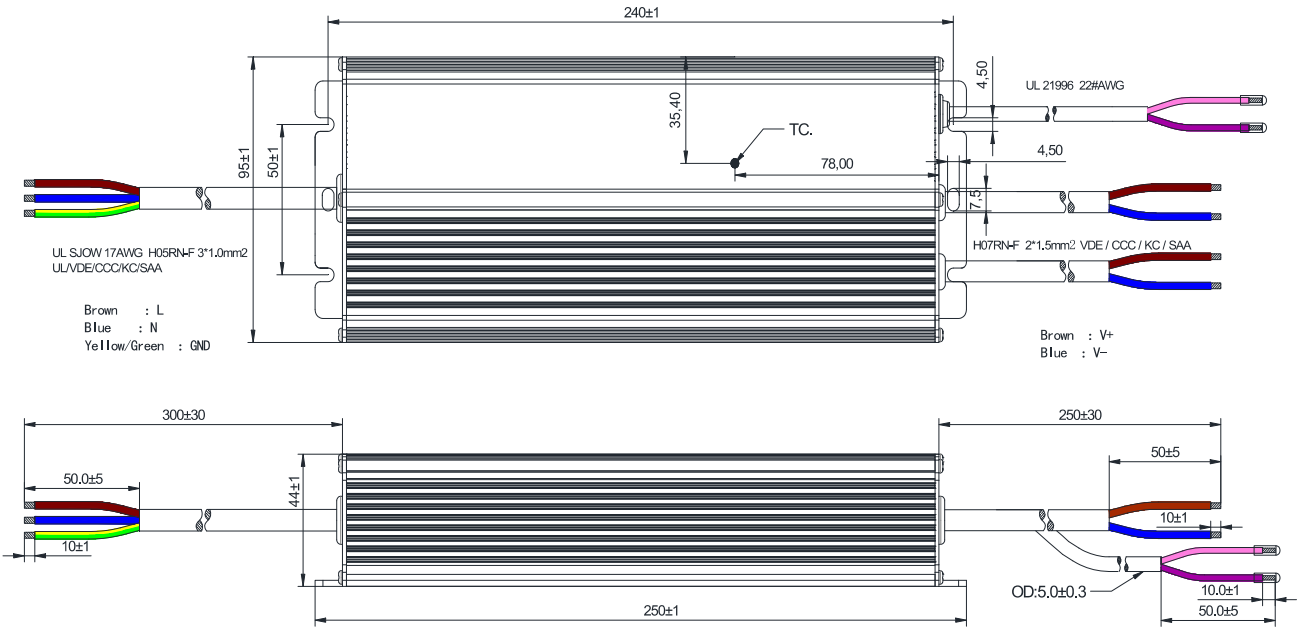
DL-500W-V36-RXG



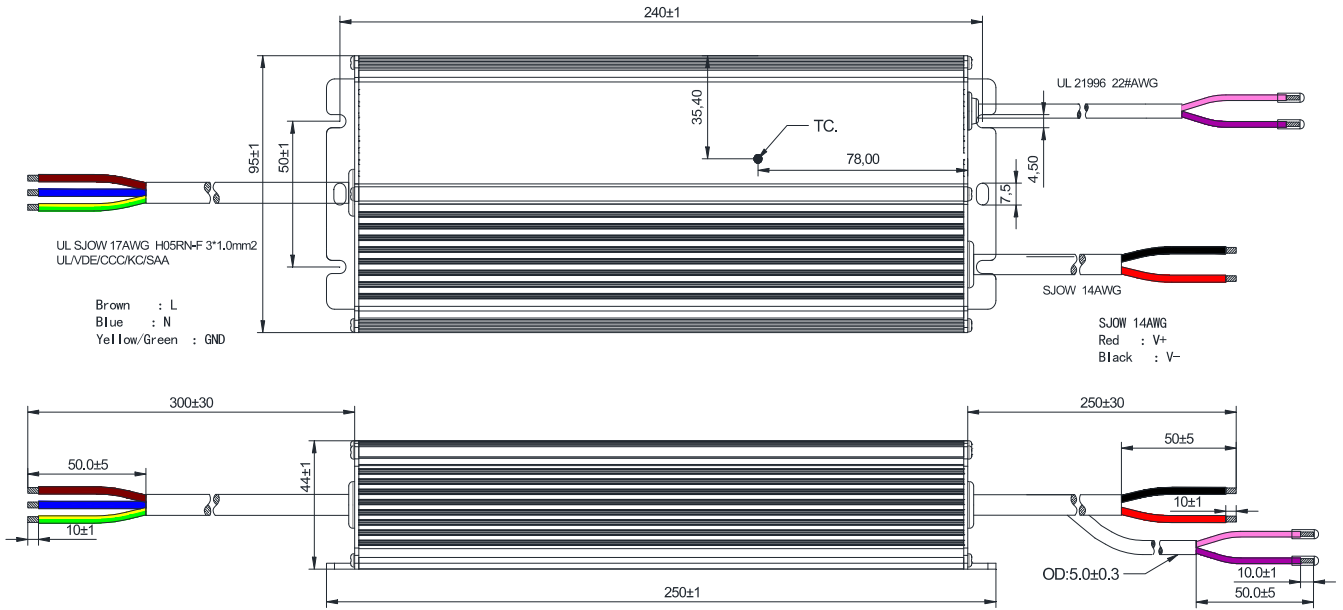
DL-500W-V48-RXG



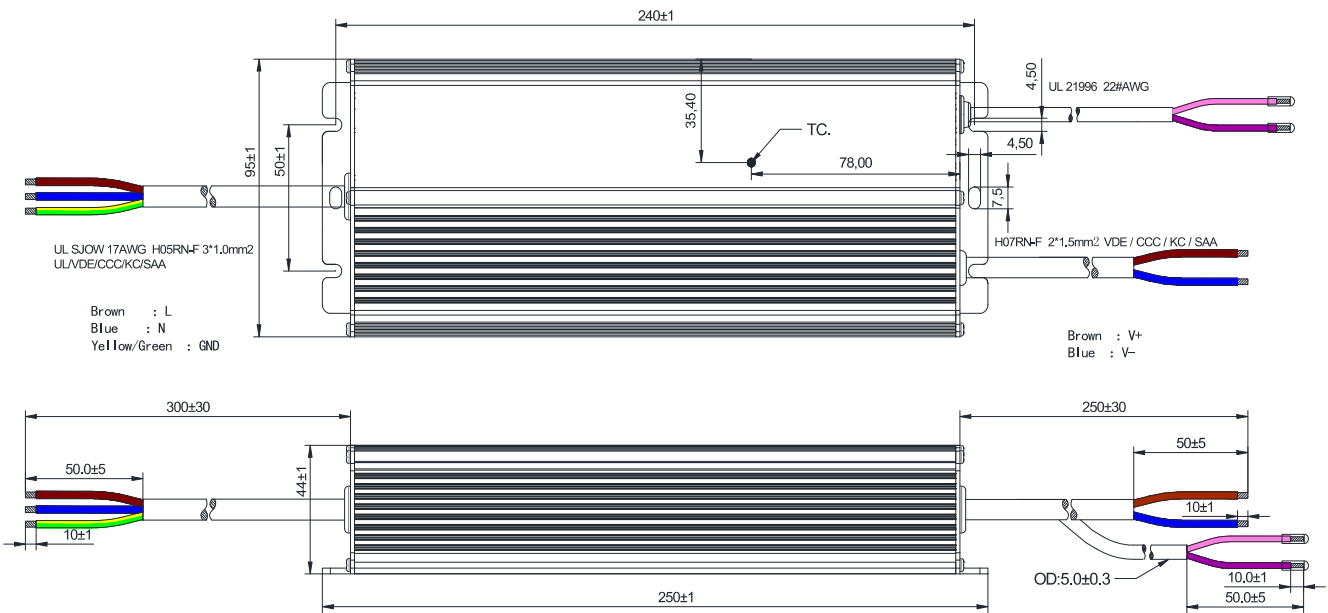
DL-500W-V24S/D-RXG



DL-500W-V36S/D-RXG



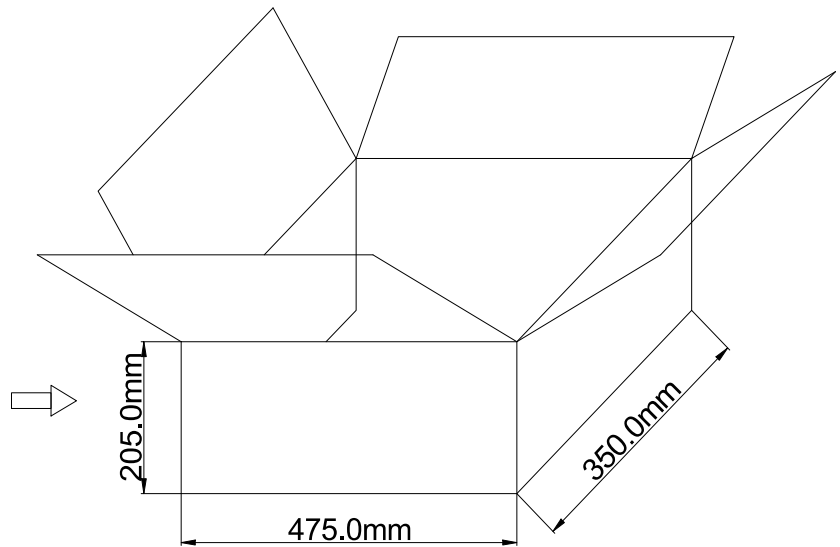
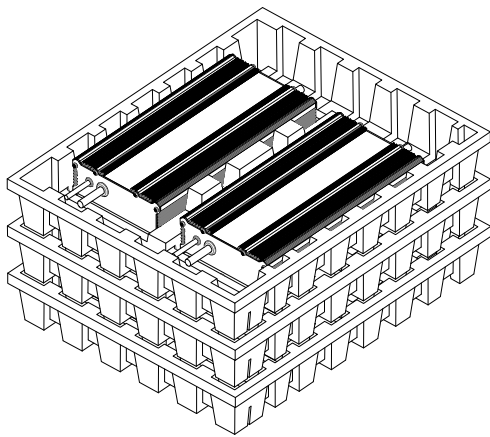
DL-500W-V48S/D-RXG



Packaging

Packaging (mm)

L475*W350*H205



Note:

- Note: One Carton 3 layers and 2pcs each layer, total 12pcs/carton.
- According to the certificate obtained by the LED DRIVER, the LED DRIVER with the English label is sold in Europe, America and India.
- The LED DRIVER with Chinese label is only used for China market.