

Features

- Class I Metal housing structure, protection grade: IP67
- Input voltage: 100-277Vac ~ 50/60Hz
- Constant voltage output of 12/24/36/48 Vdc
- PF≥0.97
- Lightning protection level: differential mode 4KV, common mode 6KV
- Feature selection:
 - Normal: Conventional constant voltage output
 - S version: 3-in-1 dimming function (Optional S version)
 - D version: DALI-2 Communication Protocol (Optional D 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, building lighting

Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff. (Typ.)	T.H.D	PF
DL-250W-V12-RXG	100-277Vac 50/60Hz	250W	12Vdc	0-20.84A	≥91%	< 10%	≥0.97
DL-250W-V24-RXG	100-277Vac 50/60Hz	250W	24Vdc	0-10.42A	≥92%	< 10%	≥0.97
DL-250W-V36-RXG	100-277Vac 50/60Hz	250W	36Vdc	0-6.95A	≥92%	< 10%	≥0.97
DL-250W-V48-RXG	100-277Vac 50/60Hz	250W	48Vdc	0-5.21A	≥92%	< 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.

Optional:

- Normal: Conventional constant voltage output
- D version (e.g. DL-250W-V24D-RXG)
- S version (e.g. DL-250W-V24S-RXG)

Input characteristics

Parameter	Min	Typ.	Max	Note
Rated input voltage	100Vac 140Vdc	230Vac	277Vac 400Vdc	If the input voltage is lower than 108Vac, the output power should be derated to 80%
Input voltage range	90Vac	-	305Vac	NA
Rated frequency	47Hz	50/60Hz	63Hz	NA
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	-	-	2.9A	@100Vac full load
Inrush current	-	-	160A	277Vac, cold start (25°C)
16A Circuit breaker The number of power supplies of the same model can be configured	-	-	-	9pcs (Type B circuit breaker)16pcs (Type C circuit breaker) for 230Vac input

Output characteristics

Parameter	Min	Typ.	Max	Note
Accuracy of output voltage	-	±2%	-	100% load
Line regulation	-	±2%	-	50-100% load@230Vac
Load regulation	-	±2%	-	50-100% load@230Vac
Starting time	-	-	500ms	Full load@230V
Hold time	-	-	-	Load@230V
Output voltage Ripple	-	240mV	-	DL-250W-V12-RXG Models
	-	400mV	-	DL-250W-V24-RXG Models
	-	600mV	-	DL-250W-V36-RXG Models
	-	800mV	-	DL-250W-V48-RXG Models

Dimming characteristic

Dimming function		Min	Typ.	Max	说明
1-10V 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 rang	10%	-	100%	-
PWM dimming (optional) S version	PWM High level	9.5V	-	10.5V	-
	PWM Low 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	10KΩ	-	100KΩ	90K output full power -
	Dimming output range	10%	-	100%	-
DALI 2.0 Dimming (D version)	Dimming range	1‰		100%	Supports a minimum dimming depth of 1‰
PUSH Dimming (D version)	Dimming range	-	-	-	-

Protection

Function	Function instructions
Output overload protection	1.4 to 1.8 times the rated output power;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 type: when the housing temperature is greater than 90°C, the output power off.
Output over-voltage protection	Output voltage > working voltage 1.08-1.2 times turn-off

Environmental

Environmental categories	Environmental categorier
Working temperature	-40 ~ +45°C@100-200Vac -40 ~ +55°C@200-277Vac (refer to "Life Curve ")
Safety regulation shell temperature	-40~90°C
Working humidity	20 ~ 95% RH, non condensing
Storage temperature、humidity	-40~+80°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°C)
Lifetime	70,000 hours @Tcase≤75°C,230Vac, 100% Load, Please refer to "Tcase VS Lifetime" section

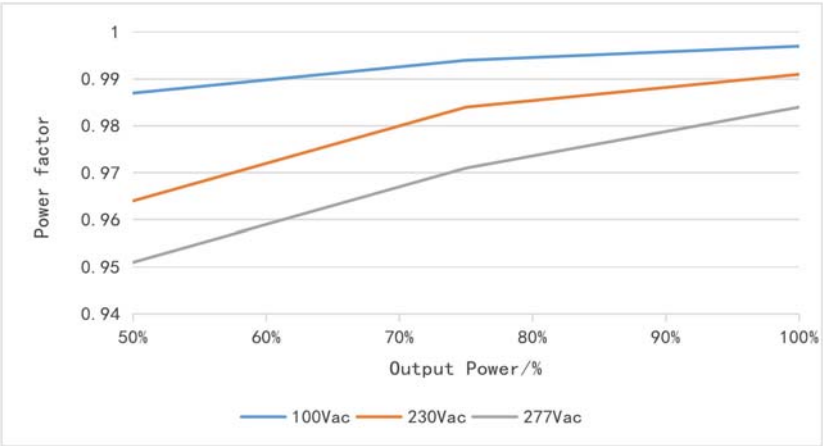
Safety and EMC

Safety categories	Standard
Safety	EN61347-1、EN61347-2-13、IEC61347-1、IEC61347-2-13、EN 62384、EN62493、GB19510.14
EMC	EN 55015、EN 61000-3-2 、EN 61000-3-3、EN 61547、GB/T 17743、GB 17625.1
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°C/ 70% RH
Leakage current	<0.75mA@277Vac

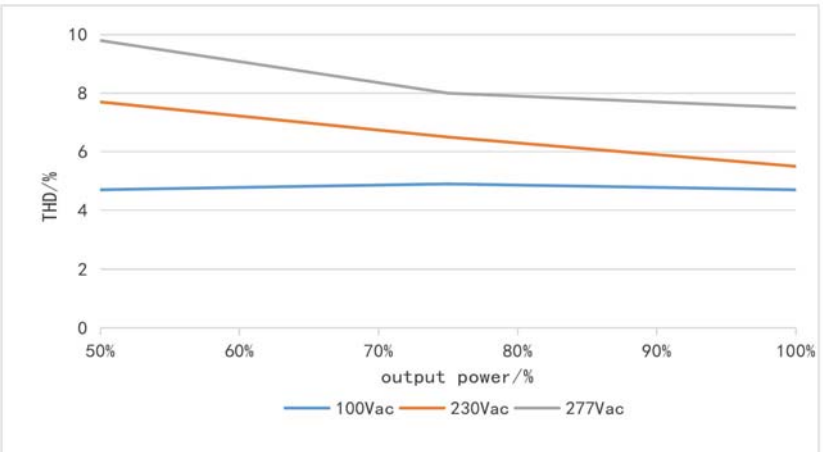
Note: The power supply is used as a component and terminal equipment, and EMC is affected by the whole set of devices, and the end equipment manufacturer needs to re-confirm the EMC of the whole device.

Parametric curves

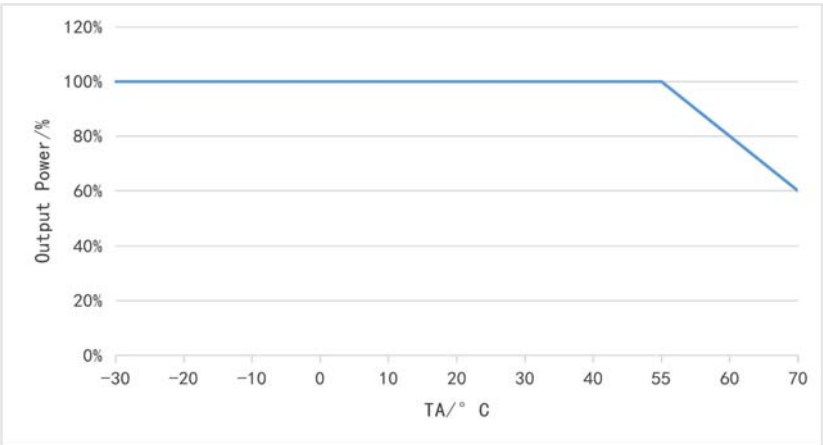
Power factor/Output power



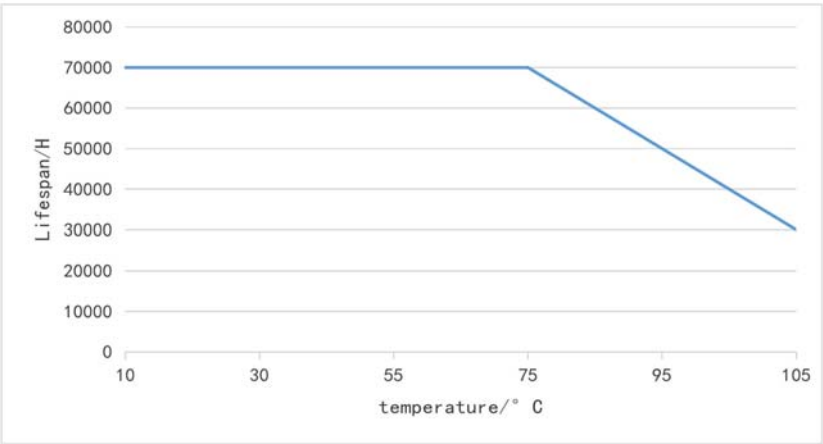
THD/Output power



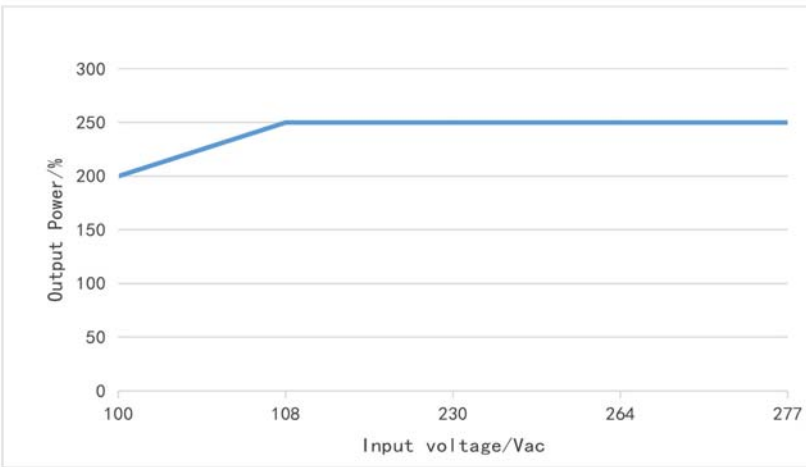
Power/TA



Lifetime/TC



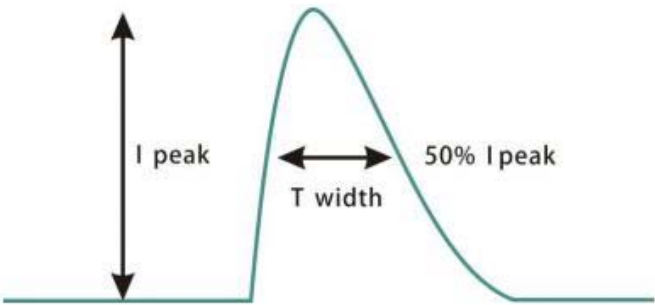
Power/Input Voltage



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

Inrush current

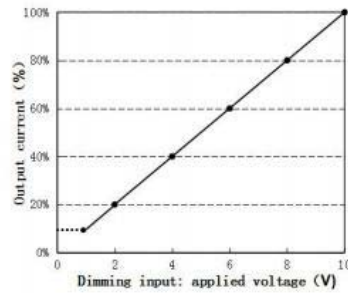
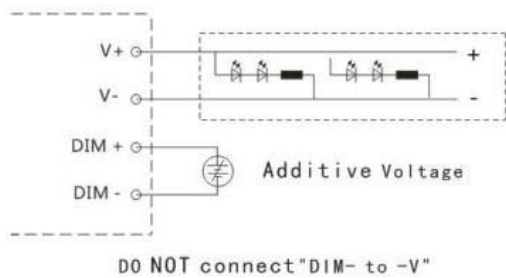
Input voltage	Peak current	T(@50% Peak current)
100Vac	45.33A	105uS
230Vac	108A	134uS
277Vac	128.67A	140.2uS



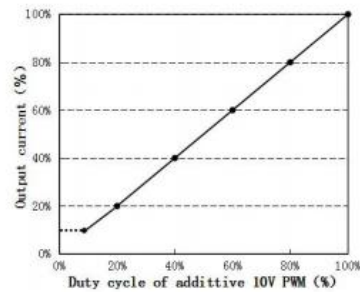
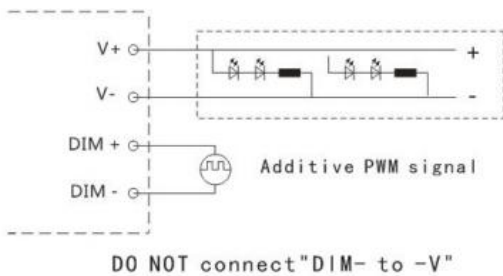
1-10V three-in-one dimming function (S Version)

1. 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-.
2. Dimming port output current: 100uA (typical).

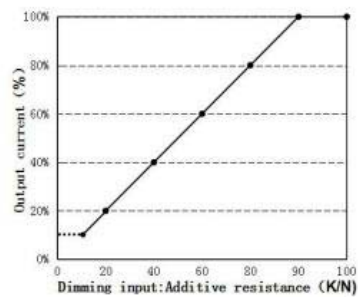
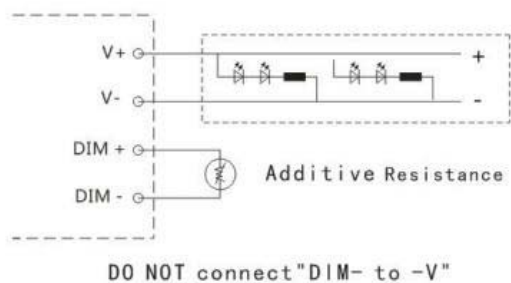
With applied 0-10V voltage:



PWM dimming



Resistive dimming



Remark:

1. 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 $\leq 0.5W$.
2. PWM dimming mode is to apply PWM frequency of 300-2KHz

DALI 2.0 Dimming function (Version D)

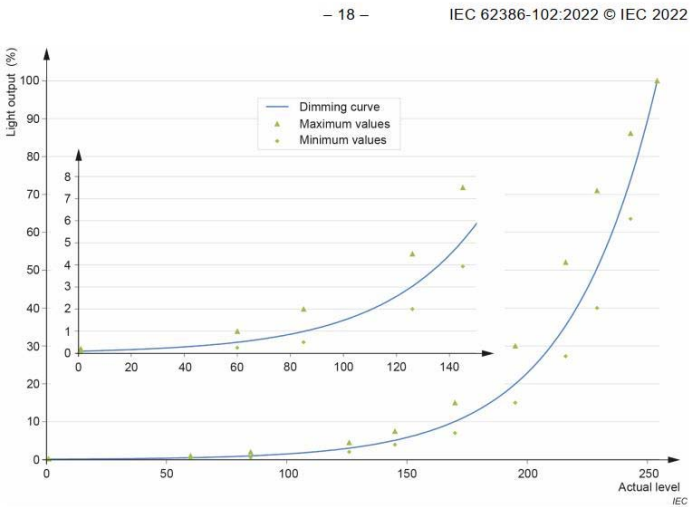
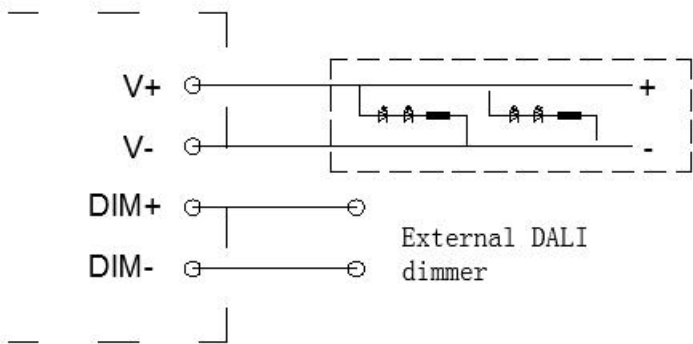


Figure 3 – Dimming curve

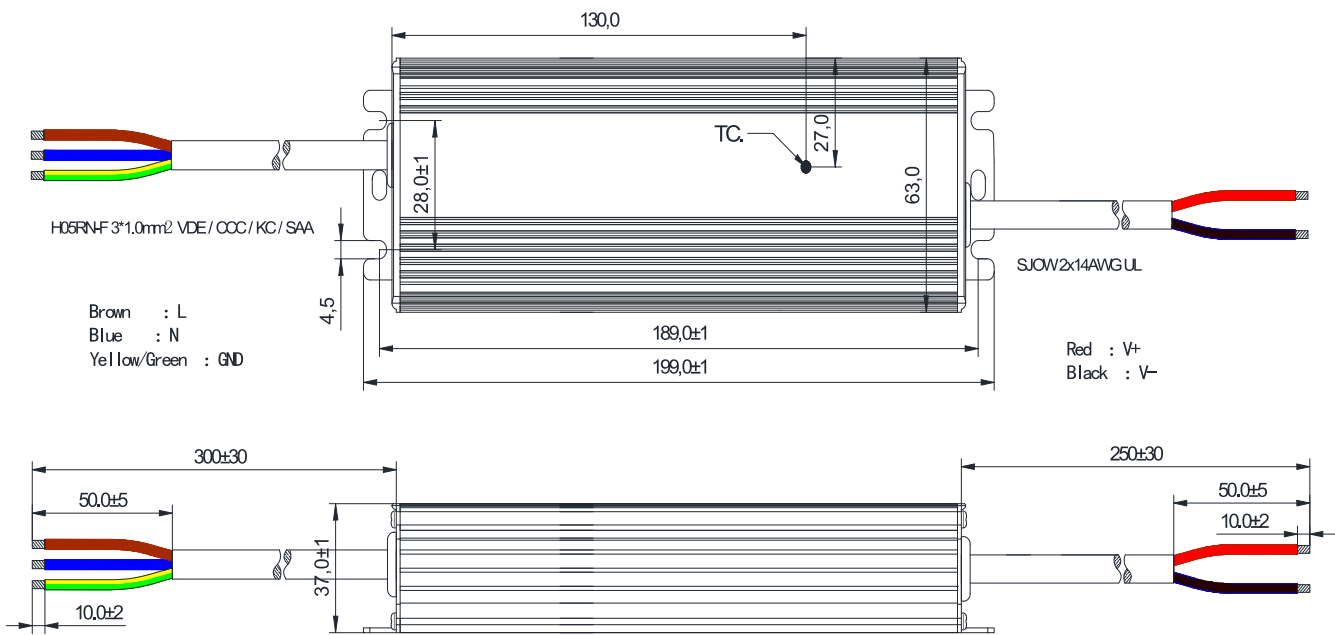
- Note:
- 1. The initial brightness of DALI dimming is 100%
 - 2.Supports a maximum dimming depth of 1‰

Mechanical specification

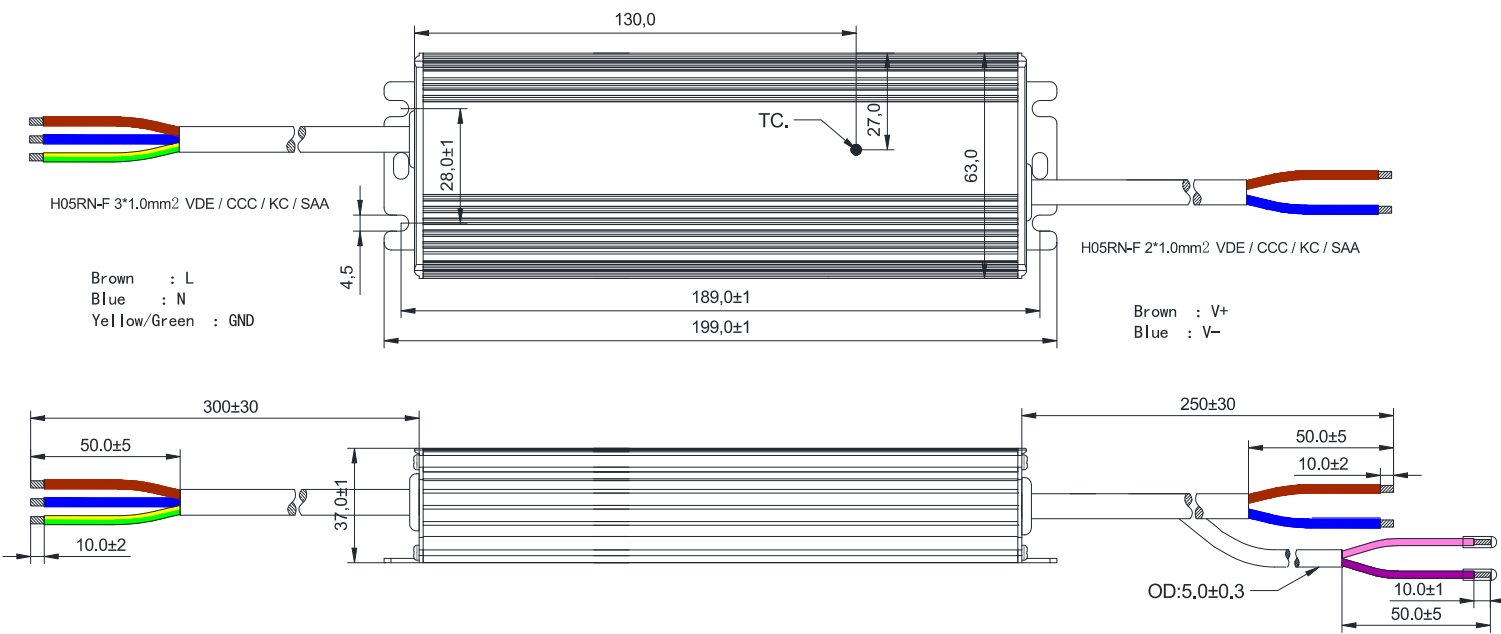
Weight

Weight	0.857KG
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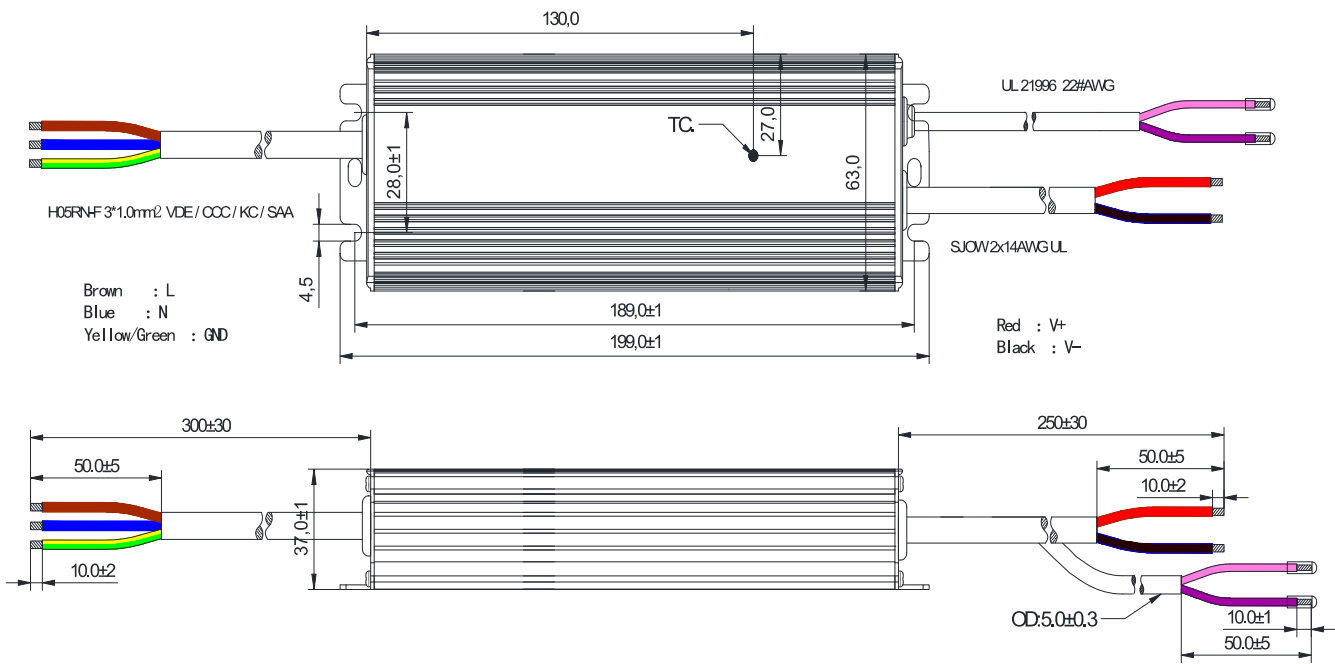
DL-250W-V12-RXG



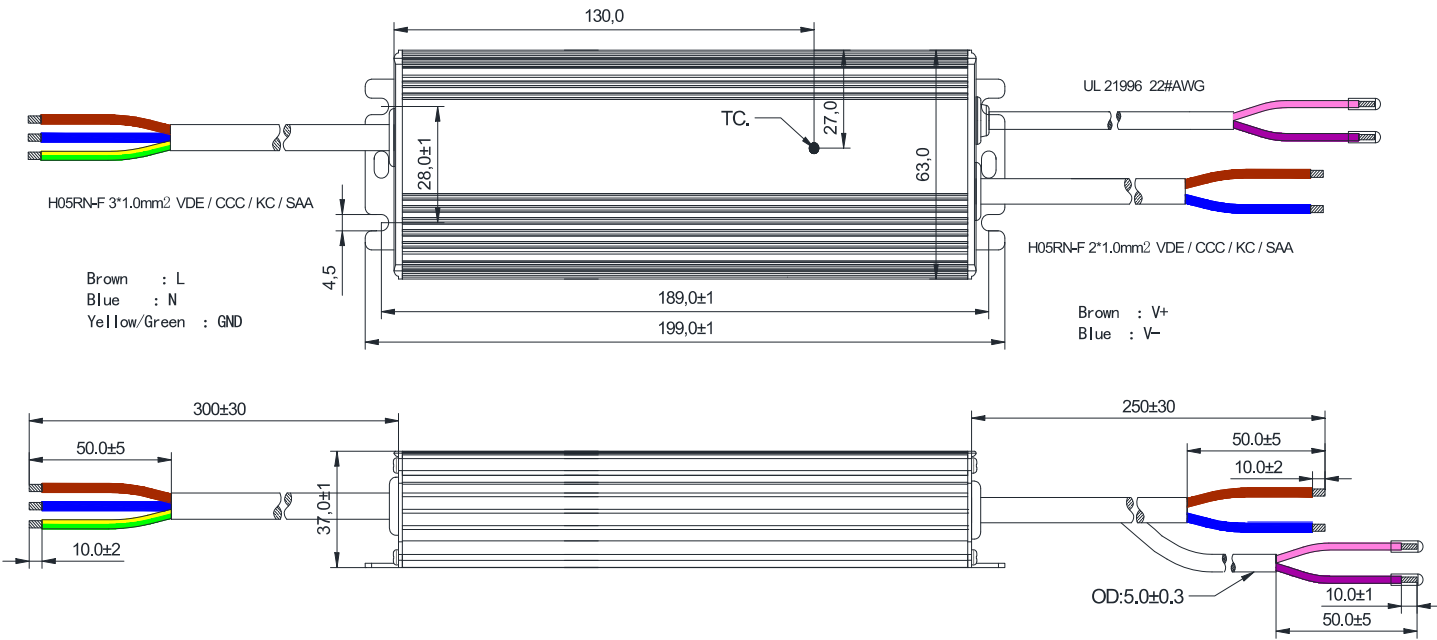
DL-250W-V24/V36/V48-RXG



DL-250W-V12S/D-RXG

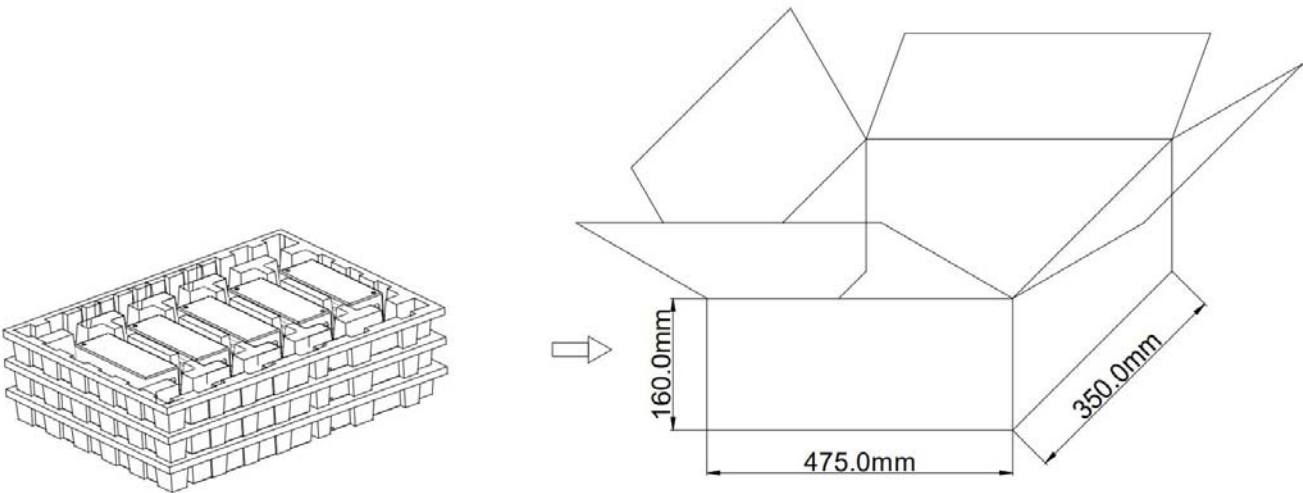


DL-250W-V24/V36/V48S/D-RXG



Packaging

Packaging (mm)	L475*W350*H160mm
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Note:

a.Note: One Carton 3 layers and 5pcs each layer, total 15pcs/carton.

b. According to the certificate obtained by the LED DRIVER, the LED DRIVER with the English label is sold in Europe, America and India.

c. The LED DRIVER with Chinese label is only used for China market.