

Features

- Rated input voltage: 100-277Vac
- Can withstand 305vac input 5s
- Active PFC function
- Compliant with EMC EN55035/55032 Class B
- The maximum operating temperature can reach 75°C
- No Fan natural air cooling design
- Over voltage level III
- Short circuit, over voltage, over load, over temperature protection
- 5-year warranty

Application



Industrial control, Industrial equipment, Power systems, Rail transit.

Model List

Model No.	Rated input voltage	Max output power	Output voltage	Output current max.	Efficiency typ.	Ripple current	Adjustable voltage
DL-500W-V12-EXS	100-277Vac	500W	12Vdc	41.67A	92.5%	150mV	±10%
DL-500W-V15-EXS	100-277Vac	500W	15Vdc	33.34A	92.5%	150mV	±10%
DL-500W-V24-EXS	100-277Vac	500W	24Vdc	20.84A	94.0%	240mV	±10%
DL-500W-V36-EXS	100-277Vac	500W	36Vdc	13.89A	94.5%	240mV	±10%
DL-500W-V48-EXS	100-277Vac	500W	48Vdc	10.42A	94.5%	240mV	±10%
DL-500W-V12R-EXS	100-277Vac	500W	12Vdc	41.67A	92.5%	150mV	±10%
DL-500W-V15R-EXS	100-277Vac	500W	15Vdc	33.34A	92.5%	150mV	±10%
DL-500W-V24R-EXS	100-277Vac	500W	24Vdc	20.84A	94.0%	240mV	±10%
DL-500W-V36R-EXS	100-277Vac	500W	36Vdc	13.89A	94.5%	240mV	±10%
DL-500W-V48R-EXS	100-277Vac	500W	48Vdc	10.42A	94.5%	240mV	±10%

NOTE:

- 1、The above parameter test conditions are as follows: Ta=25°C, 230Vac input, and the test results are obtained after full-load operation for 30 minutes.
- 2、Ripple and noise measurement method: Use a 12" twisted-pair cable, with 0.1μF and 47μF capacitors connected in parallel at the terminal, and conduct measurements under a 20MHz bandwidth
- 3、Version selection: R version with redundancy (e.g.: DL-500W-V12R-EXS)

Input Characteristics

Parameter	MIN	TYP	MAX	NOTE
Rated input voltage	100Vac	230Vac	277Vac	-
Input voltage range	90Vac/120Vdc	/	305Vac/420Vdc	Reference input voltage vs output power curve
Input frequency	47Hz	50/60Hz	63Hz	-
Power factor	-	≥0.97	-	-
Total harmonic distortion	-	<10%	-	-
Input current/100Vac	-	6A	-	100% load, 100Vac input
Input surge current/277Vac	-	-	50A	277Vac input, cold start (25°C)
Leakage current	-	-	0.75mA	277Vac input,RMS Max.

Output Characteristics

Parameter	MIN	TYP	MAX	NOTE
Output accuracy	-	±1%	-	0-100% load
Linear adjustment rate	-	±1%	-	0-100% load
Load regulation rate	-	±1%	-	Rated Input voltage: 230Vac
Start-up time	-	500ms/30ms	-	Rated Input voltage: 230Vac
Hold time	16ms	-	-	0-100% load

Protection

Included functions	Function Description
Output overload protection	When the rated power is 1.4 to 1.8 times, it enters hiccup protection and can automatically recover after the abnormal load conditions are removed.
Output short-circuit protection	Yes; Hiccup mode, which can automatically recover after abnormal conditions are removed.
Over-temperature protection	Yes; When TC exceeds 110°C, it enters protection mode and automatically restarts after the anomaly is removed
Output over voltage protection	It turns off when the output voltage exceeds >1.08-1.2 times and resumes after a restart

Function

functions	Function Description
DC OK	The power supply is operating abnormally with the DCOK signal voltage ranging from -0.1V to -0.5V. When the power supply is operating normally, the DCOK signal voltage ranges from 4.5V to 6V (60mA).
Remote switch	When the DC voltage of the signal source is ≤ 0.8V, the power supply is turned on; when it is ≥4-30V, the power supply is turned off. The maximum signal source must not exceed 30V 1A.
Redundant function	When the DC voltage of the signal source is ≤ 0.8V, the power supply is turned on; when it is ≥4-30V, the power supply is turned off. The maximum signal source must not exceed 30V 1A

Environmental Reliability

Environmental category	Parameter
Maximum operating temperature range	-40 ~ +75°C @100-277Vac reference temperature curve
Working humidity	20-90% RH, no condensation
Storage temperature and humidity	-40~+80°C, 10 ~ 90% RH
Vibration-resistant	10 to 500Hz, 5G 12 minutes per cycle, 72 minutes for each of the X, Y, and Z axes
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25°C)
Lifespan	70,000 hours @230Vac, TC ≤ 75°C . For details, please refer to the life curve

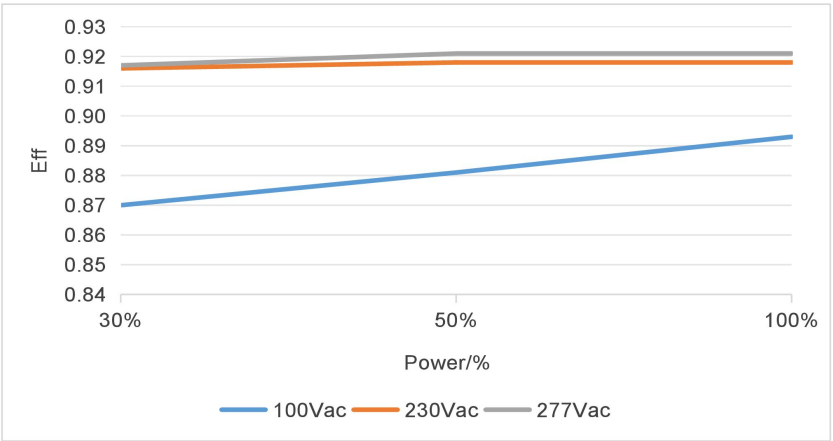
Safety and Electromagnetic Compatibility

Safety regulations category	Standard
Safety	UL62368-1, TUV BS EN/EN62368-1, BS EN/EN60335-1, BS EN/EN61558-1/-2-16, GB 4943.1
EMC Electromagnetic compatibility	EMI BS EN/EN55032、EN55035、Class B
	Harmonic Current BS EN/EN 61000-3-2 Class B
	ESD BS EN/EN 61000-4-2
	EFT/Burst BS EN/EN 61000-4-4
Lightning protection grade	Differential mode L-N ± 2 KV (2Ω), Common mode L, N-PE ± 4 KV (12Ω) Refer to IEC61000-4-5 2014
Pressure resistance	I/P-O/P:4KVac I/P-PE :2KVac O/P-PE : 1.25KVac
Insulation impedance	I/P-PE:100MΩ / 500VDC; I/P-O/P:100MΩ / 500VDC / 25°C/ 70% RH

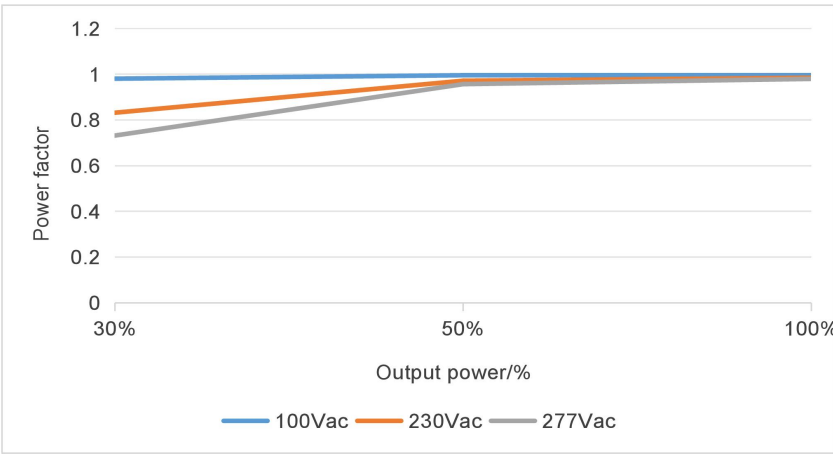
Note: As a component used in conjunction with terminal equipment, the power supply's EMC is affected by the entire set of devices. Terminal equipment manufacturers need to reconfirm the EMC of the entire set of devices.

Parametric curves

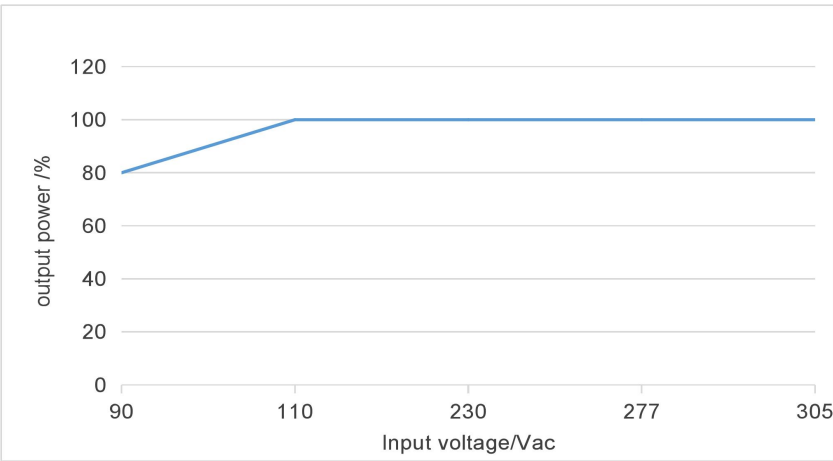
Eff/Power



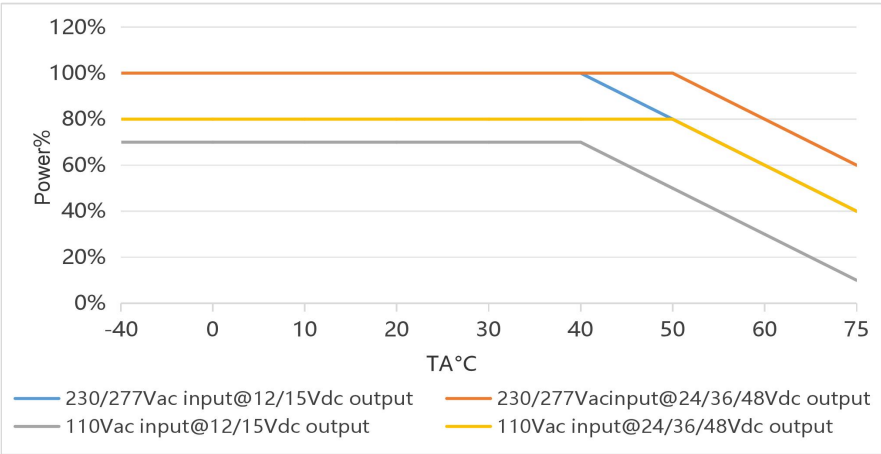
Power factor/Output power



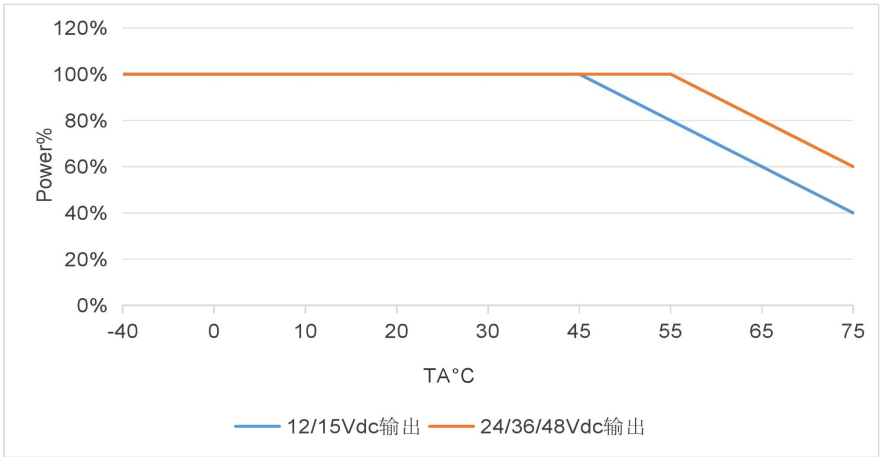
Output power /Input voltage (static curve)



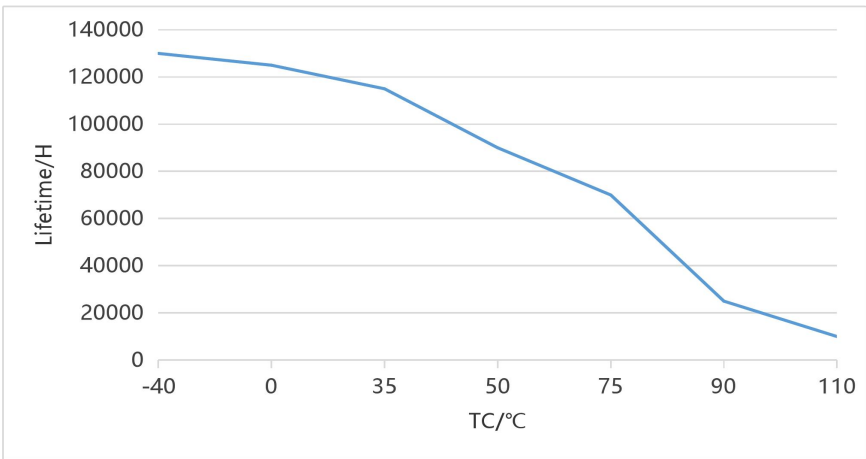
Power/TA (without aluminum plate)



Power/TA (with aluminum plate)

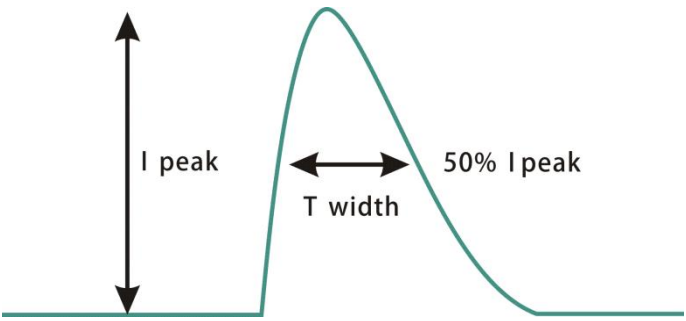


Lifetime/TC



Inrush Current

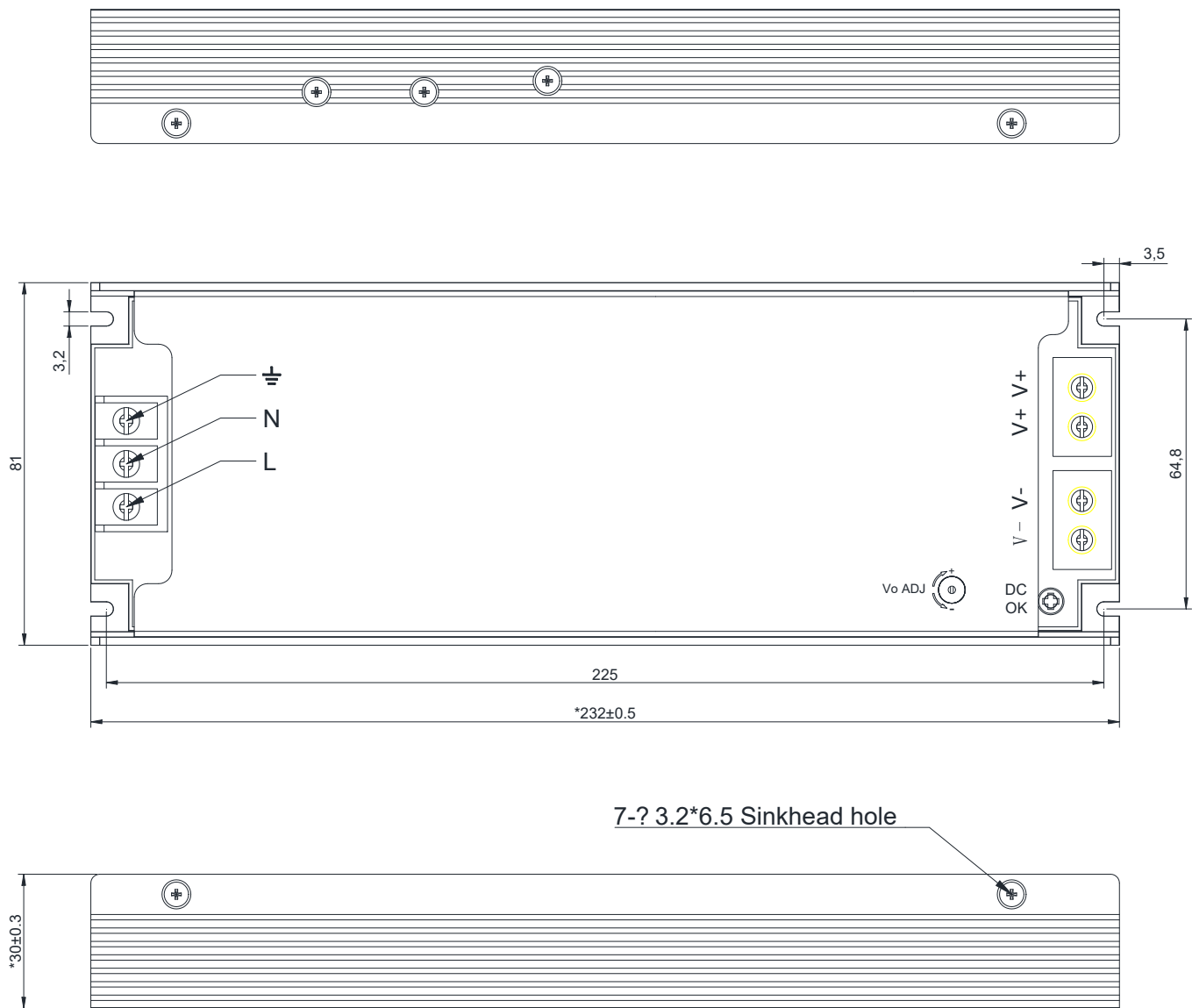
Input voltage	Peak current	T (@50% peak current)
100Vac	22.5A	1.9ms
230Vac	25.1A	3.6ms
277Vac	26.3A	4.2ms



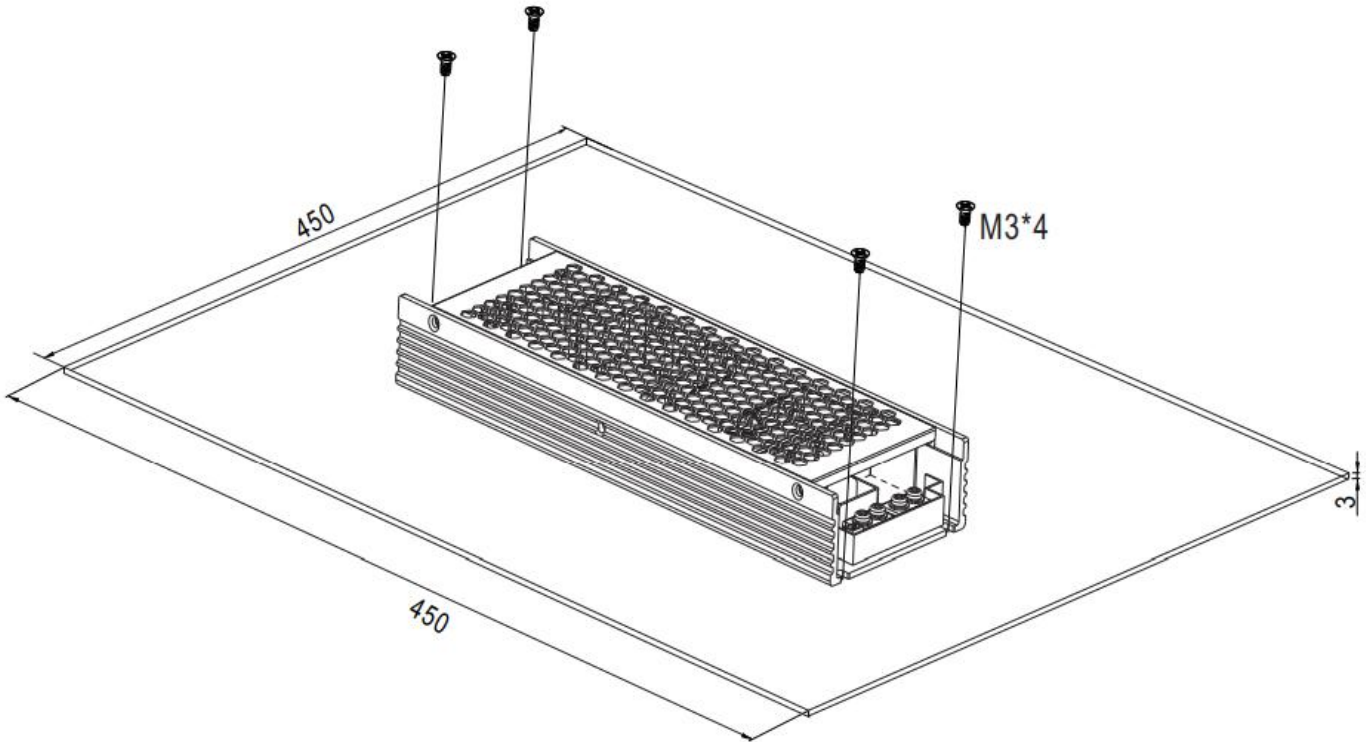
Size & Packaging

Weight

Size	L232mm*W81mm*H30mm
Weight	1336g

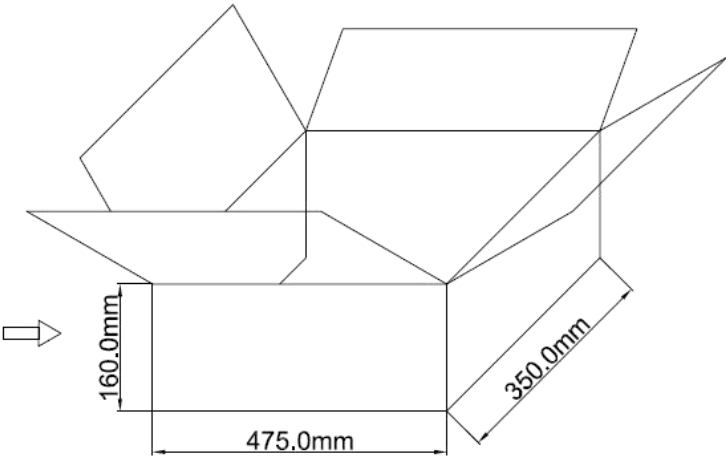
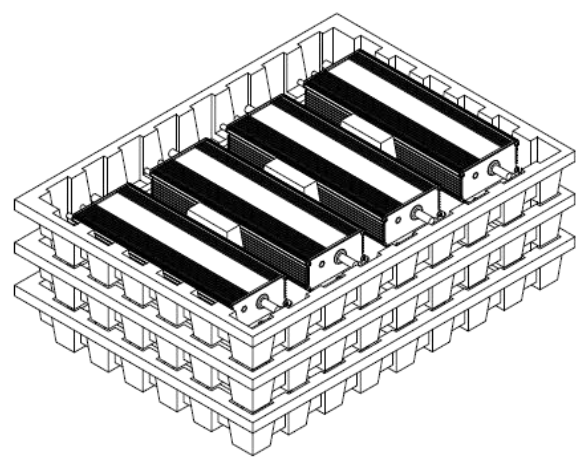


Installation instructions for aluminum plate: This product is a self-cooling type. It is recommended to install it on a heat dissipation aluminum plate for use. The recommended aluminum plate is as shown in the following figure. At the same time, to optimize the heat dissipation performance, it is recommended to apply heat dissipation paste on the surface of the aluminum plate or keep the installation surface of the aluminum plate smooth.



Packaging

Packaging (mm)	L475mm*W350mm*H160mm
----------------	----------------------



NOTE:

- 1. Each box has 3 layers, with 4 pieces on each layer, totaling 12 pieces per box.
- 2. According to the certificates obtained by LED DRIVER, LED DRIVER with English labels are sold in Europe, America and India.
- 3. LED driver power supplies with Chinese labels are only for the Chinese market.