

RXC SERIES LED DRIVERS

DL-400H-RXC V1.0

Guangdong DONE Electronic Technology Co., Ltd

Features

- Class I structure
- Input voltage: 200-240Vac ~ 50/60Hz
- Efficiency :91%(Typ.)
- Constant power drive and constant voltage output control mode
- Metal housing structure, protection grade: IP67
- Lightning protection level: differential mode 4KV, common mode 6KV
- All-round protection: output temperature, output over-voltage, output over-current, short circuit protection
- 3 years warranty



Product introduction

DONE DL-400H-RXC is a series of constant voltage products with output power of 400W. 400H-RXC operates from 176-264Vac, and offers 12、15、24、36、48Vdc with different mode .The also provide perfect OTP、OVP、OLP、SCP.and the product is designed with IP67 protection. The aluminum housing greatly improves the heat dissipation efficiency of the product and increases the reliability of outdoor applications. Provide reliable power supply solutions for outdoor landscape lighting, architectural lighting, and advertising signage lighting.

Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff. (Typ.)	T.H.D	PF
DL-400H-V12-RXC	200-240V 50/60Hz	360W	12Vdc	0-30A	≥90%	-	-
DL-400H-V15-RXC	200-240V 50/60Hz	400W	12Vdc	0-26.67A	≥90%	-	-
DL-400H-V24-RXC	200-240V 50/60Hz	400W	24Vdc	0-16.67A	≥91%	-	-
DL-400H-V36-RXC	200-240V 50/60Hz	400W	36Vdc	0-11.12A	≥91%	-	-
DL-400H-V48-RXC	200-240V 50/60Hz	400W	48Vdc	0-8.34A	≥91%	-	-

Note:

1. Test conditions of the above parameters: Ta=25℃, 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	200Vac 280Vdc	220Vac	240Vac 340Vdc	N/A
Input voltage range	176Vac	-	264Vac	N/A
Rated frequency	47Hz	50/60Hz	63Hz	N/A
Power factor	-	-	-	N/A
Power factor	-	-	-	N/A
T.H.D.	-	-	-	N/A
T.H.D.	-	-	-	N/A
Input current	-	-	3.5A	@176Vac full load
Inrush current	-	-	129A	230Vac, cold start (25°C)
16A Circuit breaker The number of power supplies of the same model can be configured	3pcs (Type B circuit breaker) 3pcs (Type C circuit breaker) for 230Vac input			

Output characteristics

Parameter	Min	Typ.	Max	Note
Rated current				
DL-400H-V12-RXC		30A		
DL-400H-V15-RXC		26.67A		
DL-400H-V24-RXC	-	16.67A	-	N/A
DL-400H-V36-RXC		11.12A		
DL-400H-V48-RXC		8.34A		
Output current range				
DL-400H-V12-RXC			30A	
DL-400H-V15-RXC			26.67A	
DL-400H-V24-RXC	0A	-	16.67A	N/A
DL-400H-V36-RXC			11.12A	
DL-400H-V48-RXC			8.34A	
Output voltage range				
DL-400H-V12-RXC		12V		
DL-400H-V15-RXC		15V		
DL-400H-V24-RXC	-	24V	-	N/A
DL-400H-V36-RXC		36V		
DL-400H-V48-RXC		48V		
Rated power(200-240Vac)	-	400W	-	DL-400H-V12-RXC Rated 360W
No-load voltage				
DL-400H-V12-RXC			12.5V	
DL-400H-V15-RXC			15.5V	
DL-400H-V24-RXC	-	-	24.5V	N/A
DL-400H-V36-RXC			36.7V	
DL-400H-V48-RXC			48.9V	
Efficiency@230Vac				
DL-400H-V12-RXC	88%	90%		
DL-400H-V15-RXC	88%	90%		
DL-400H-V24-RXC	89%	91%	-	full load @230Vac
DL-400H-V36-RXC	89%	91%		
DL-400H-V48-RXC	90%	91%		

Output characteristics

Parameter	Min	Typ.	Max	Note
Output voltage Ripple	-	<0.5%	-	100% load
Accuracy of output voltage	-3%	-	+3%	100% load
Line regulation	-3%	-	+3%	50-100% load@230Vac
Load regulation	-3%	-	+3%	50-100% load@230Vac
Starting time	-	-	500ms	Full load@230Vac

Protection

Function	Function instructions
Output overload protection	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 105℃, the output power off.
Output over-current protection	Output current >1.1-1.5times turn-off

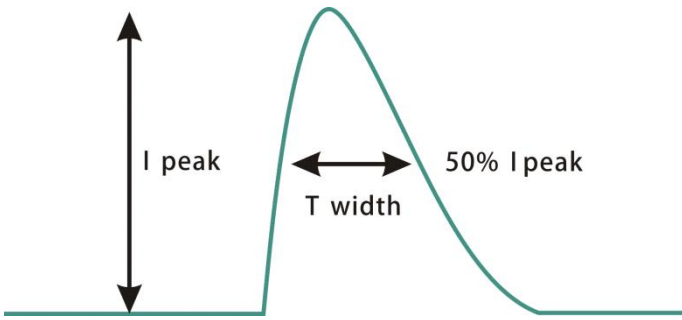
Safety and EMC

Safety categories	Standard
Safety	GB4943.1 , IEC62368-1 , EN62368-1
EMC	CQC12-045670 , GB/T 9254.1 , EN55032/55035
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:2KVac; O/P-PE:0.5KVac
Insulation impedance	I/P-PE:100M Ω / 500Vdc; I/P-O/P:100M Ω / 500VDC / 25℃/ 70% RH
Leakage current	<0.7mA@240Vac

Environmental

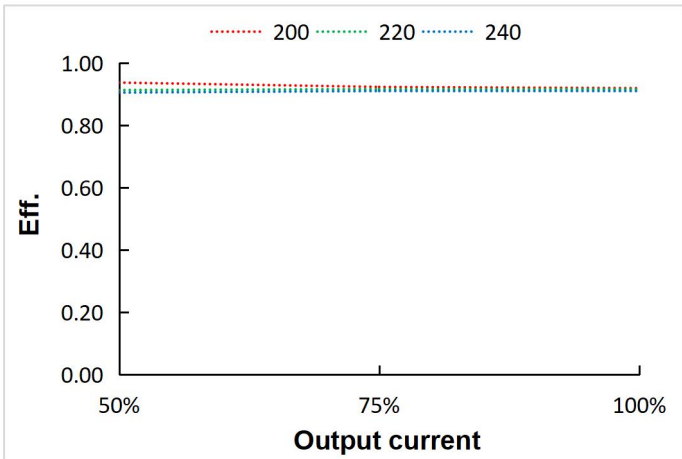
Environmental categories	Parameter
Working temperature	-35 ~ +55℃@200-240Vac
Working humidity	20 ~ 95% RH, non condensing
Storage temperature、 humidity	-30 ~ +80℃, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25℃)
Lifetime	50,000 hours @Tcase \leq 75℃,220Vac, 100% Load, Please refer to "Tcase VS Lifetime" section

Inrush current

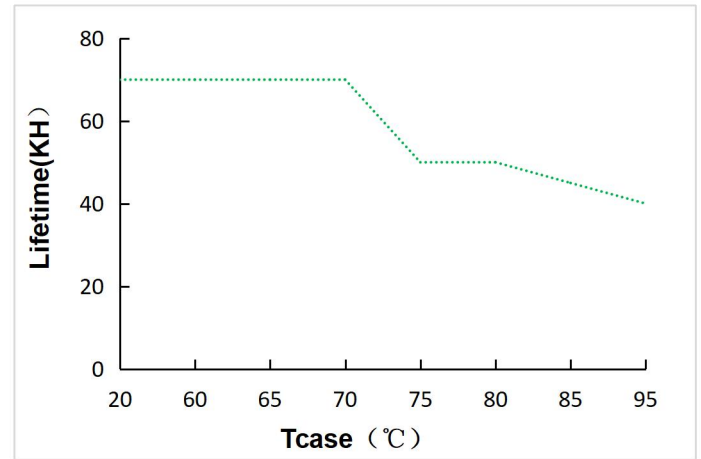


Input voltage	Peak current	T(@50% Peak current)
200Vac	96A	116us
230Vac	110A	191us
240Vac	129A	200us

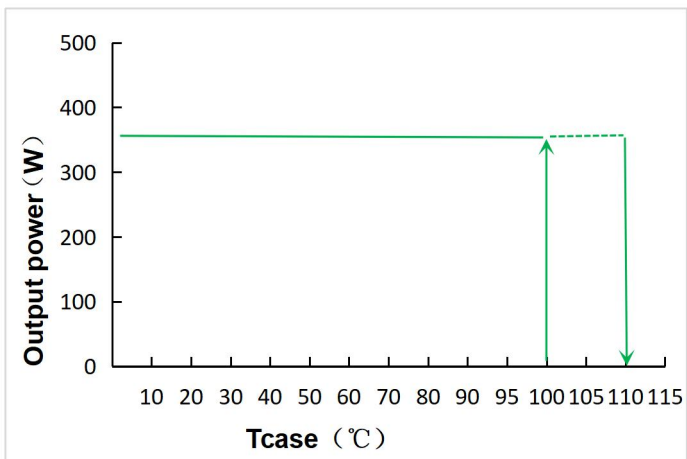
DL-400H-RXC Parametric curves



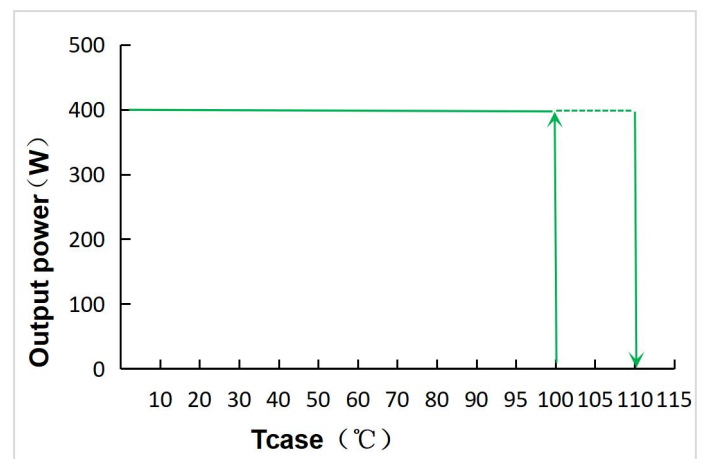
Eff. VS Output current



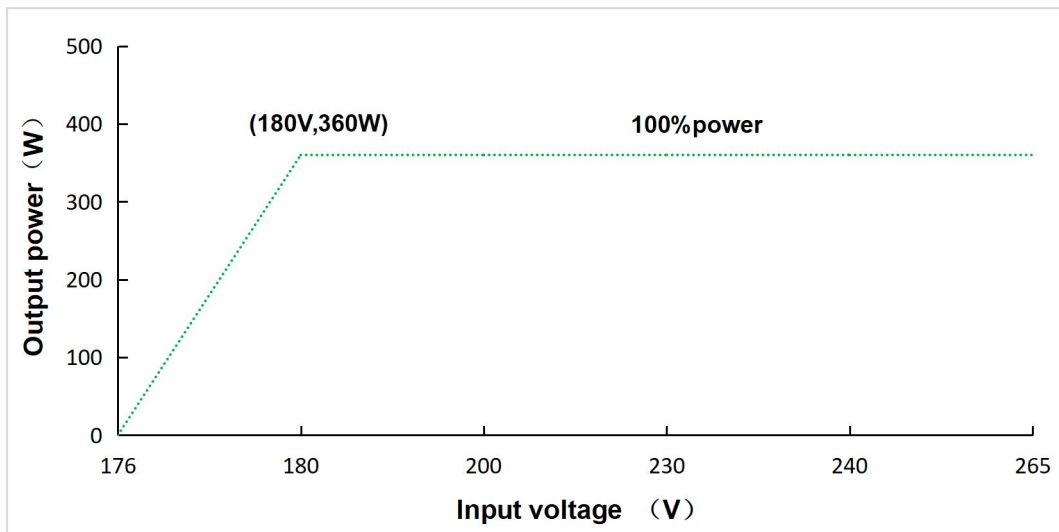
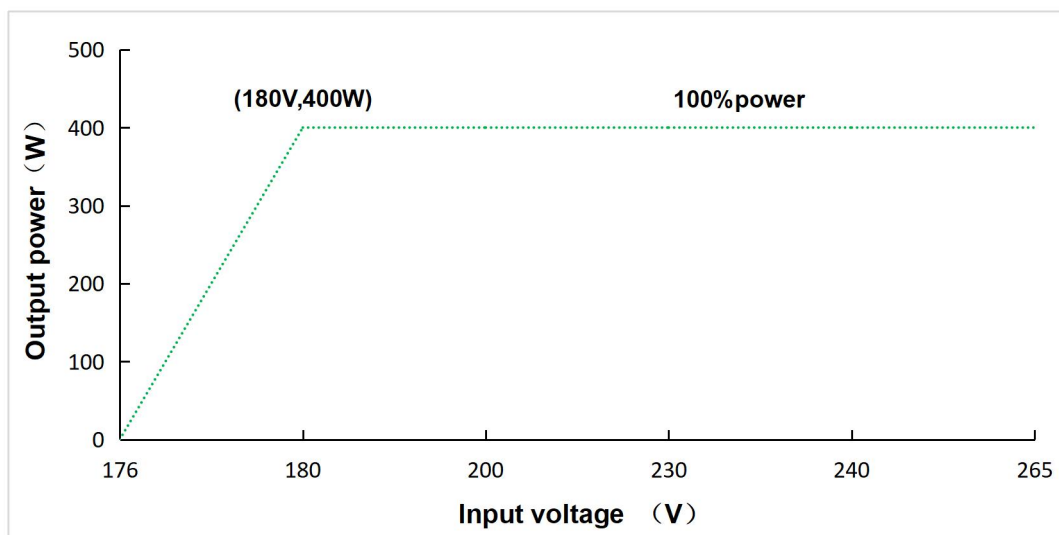
Lifetime VS Tcase



Output power VS Tcase(V12)



Output power VS Tcase(V15 V24 V36 V48)

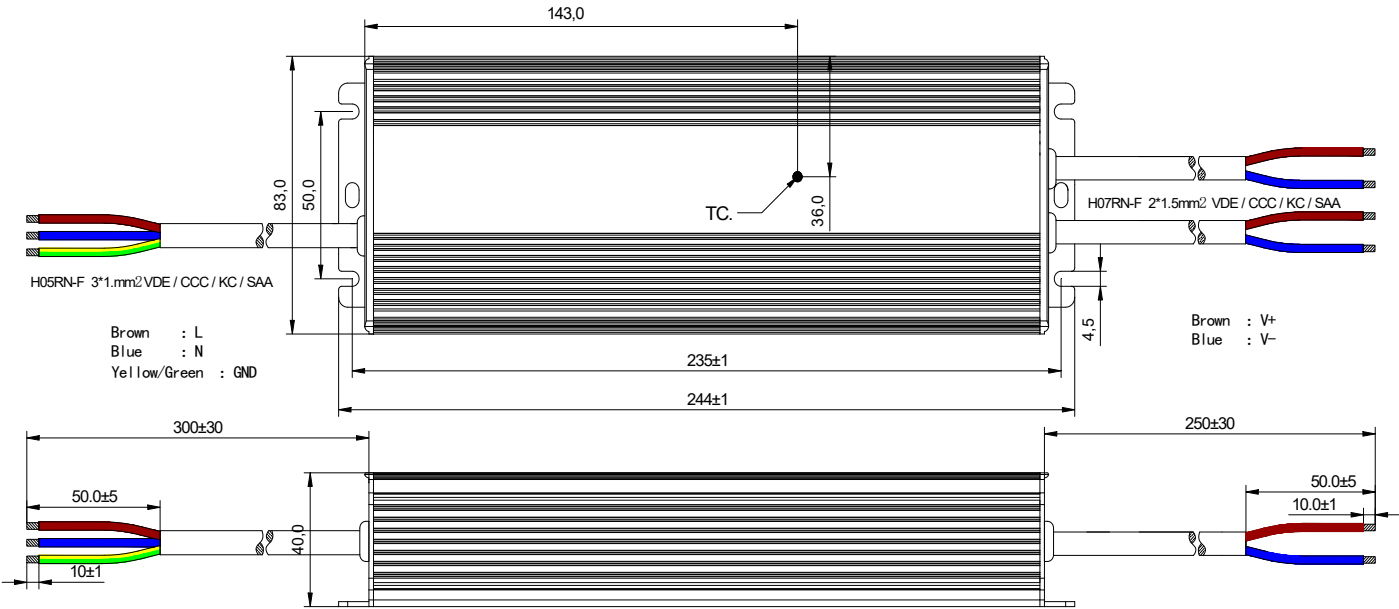
DL-400H-RXC Parametric curves**Output power VS Input voltage(V12)****Output power VS Input voltage(V15 V24 V36 V48)**

Note: If the input voltage is lower than 176Vac, output off.

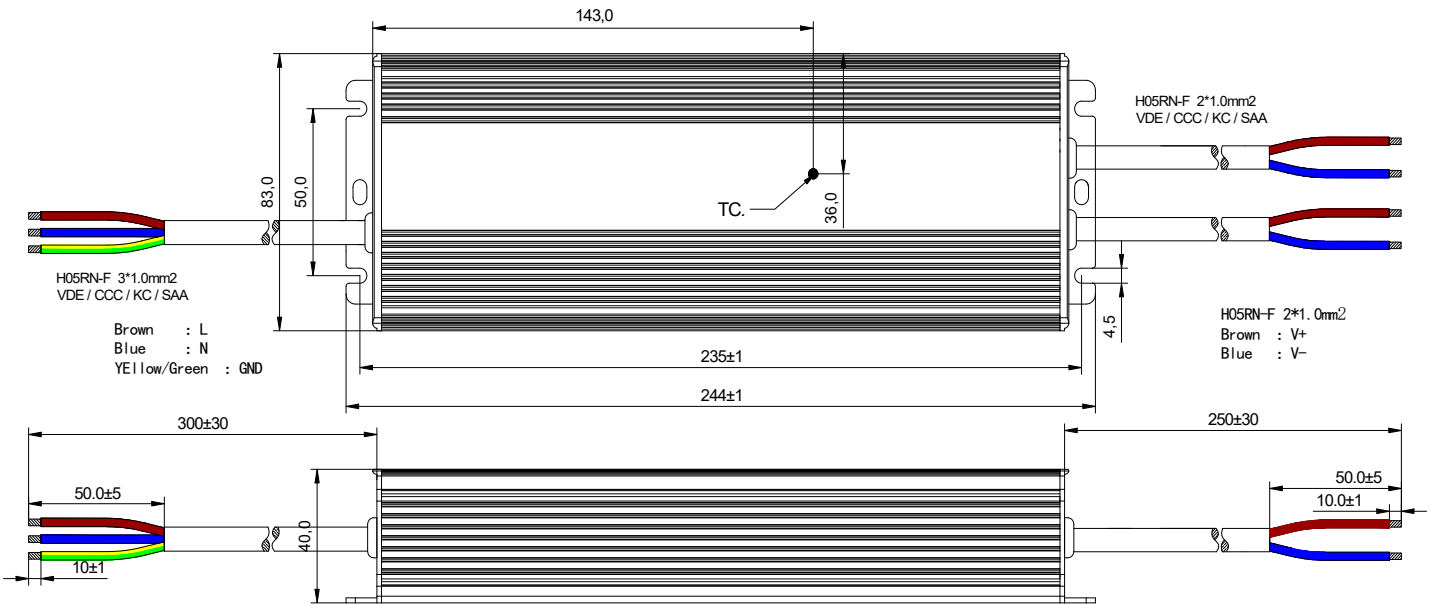
Mechanical specification

Size (mm)	L244mm*W83mm*H40mm	1.539KG
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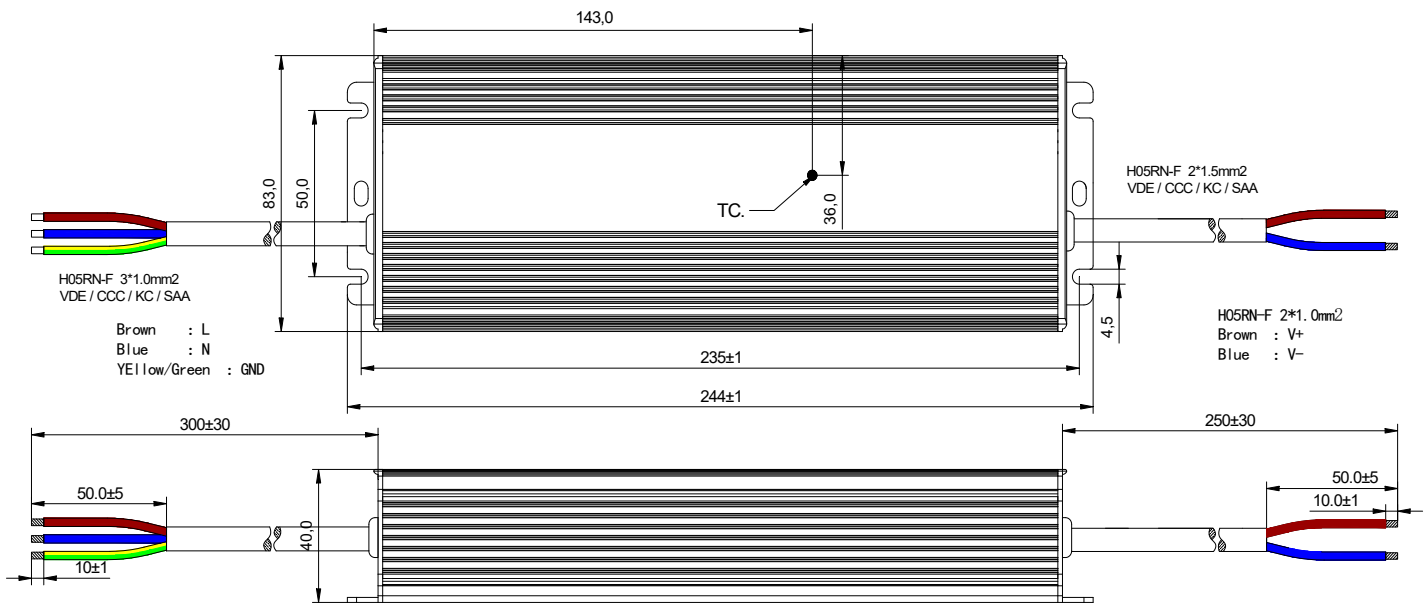
DL-400H-V12/V15-RXC



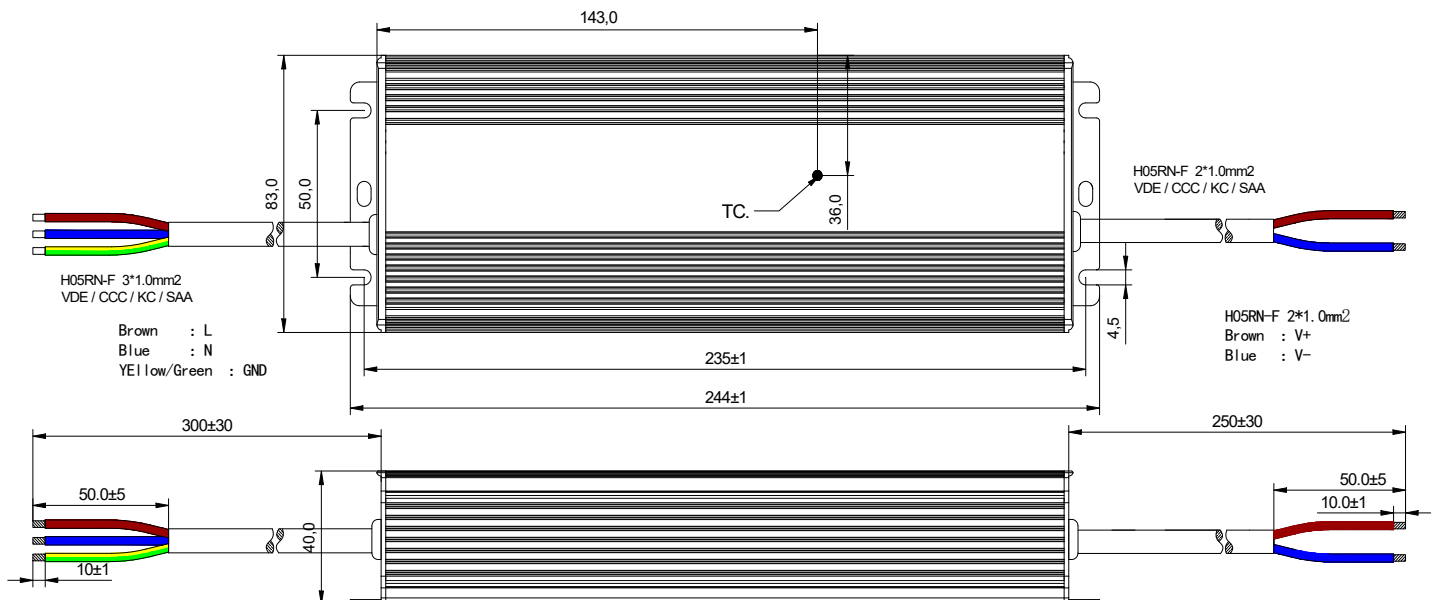
DL-400H-V24-RXC



DL-400H-V36-RXC

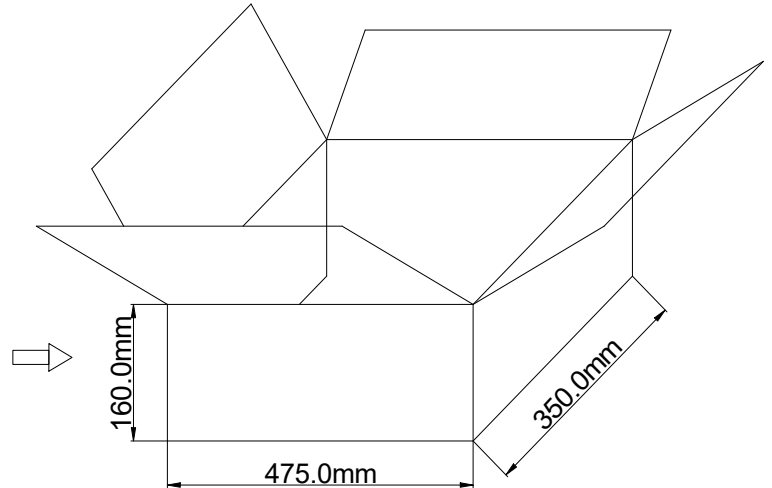
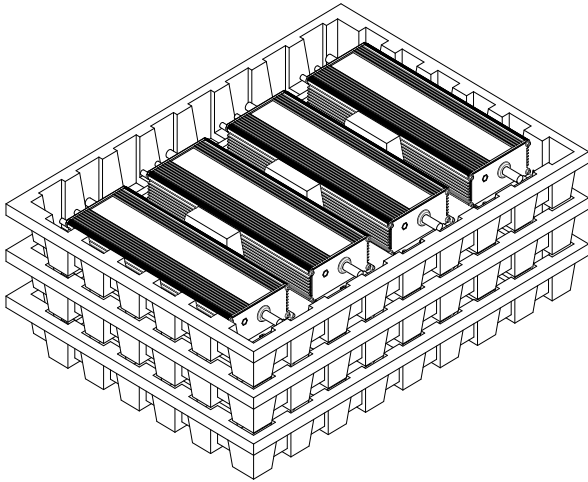


DL-400H-V48-RXC



Packaging

Packaging (mm) L475*W350*H165



Note: One Carton 3 layers and 4pcs each layer, total 12pcs/carton

Note:

1. According to the certificate obtained by the LED DRIVER, the LED DRIVER with the English label is sold in Europe, America and India.
2. The LED DRIVER with Chinese label is only used for China market.

Version

DATE	DESCRIPTION	REV.	CHECK
2024.05.14	Initial version.	V1.0	

MANUFACTURER		
EDIT	CHECK	APPROVE