

RAB SERIES LED DRIVERS

DL-350H-RAB_V1.0

Guangdong DONE Electronic Technology Co., Ltd

Features

- Input voltage: 200-240V ~ 50/60Hz
- Efficiency :90%(Typ.)
- Constant power drive and constant voltage output control mode
- Metal shell structure
- Lightning protection level: differential mode 4KV, common mode 4KV
- All-round protection: output temperature, output over-voltage, output over-current, short circuit protection
- 3 years warranty



Product introduction

DONE DL-350H-RAB is a series of constant voltage products with output power of 350W. DL-350H-RAB operates from 176-265Vac, and offers 12、24、36、48Vdc with different mode. The also provide perfect OTP、OVP、OLP、SCP ,Product design metal rain proof structure.The aluminum shell greatly improves increases the reliability of outdoor applications. Provide reliable power supply solutions for outdoor landscape lighting, architectural lighting, and advertising sign lighting.

Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff. (Typ.)	T.H.D	PF
DL-350H-V12-RAB	200-240V 50/60Hz	350W	12Vdc	0-29.17A	≥89%	-	-
DL-350H-V24-RAB	200-240V 50/60Hz	350W	24Vdc	0-14.58A	≥90%	-	-
DL-350H-V36-RAB	200-240V 50/60Hz	350W	36Vdc	0-9.72A	≥91%	-	-
DL-350H-V48-RAB	200-240V 50/60Hz	350W	48Vdc	0-7.29A	≥91%	-	-

Note :

1. Test conditions of the above parameters: Ta=25℃, 220Vac input, full load operation for 30 minutes;
2. Including setting error, linear adjustment rate and load adjustment rate;

Input characteristics

Parameter	Min	Typ.	Max	Note
Rated input voltage	200Vac 250Vdc	220Vac	240Vac 330Vdc	N/A
Input voltage range	176Vac	-	265Vac	N/A
Rated frequency	47Hz	50/60Hz	63Hz	N/A
Input current	-	-	2.8A	@180Vac full load
Inrush current	-	-	100A	220Vac, 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 220Vac input			

Output characteristic

Parameter	Min	Typ.	Max	Note
Rated current				
DL-350W-V12-RAB		29.17A		
DL-350W-V24-RAB	-	14.58A	-	N/A
DL-350W-V36-RAB		9.72A		
DL-350W-V48-RAB		7.29A		
Voltage regulation range				
DL-350W-V12-RAB	10V		14V	
DL-350W-V24-RAB	21V	-	27V	N/A
DL-350W-V36-RAB	33V		39V	
DL-350W-V48-RAB	43V		53V	
Output voltage range				
DL-350W-V12-RAB		12V		
DL-350W-V24-RAB	-	24V	-	N/A
DL-350W-V36-RAB		36V		
DL-350W-V48-RAB		48V		
Rated power(200-240Vac)	-	350W	-	N/A
No-load voltage				
DL-350W-V12-RAB			12.5V	
DL-350W-V24-RAB	-	-	24.5V	N/A
DL-350W-V36-RAB			36.7V	
DL-350W-V48-RAB			48.9V	
Efficiency@220Vac				
DL-350W-V12-RAB	87%	89%		
DL-350W-V24-RAB	88%	90%	-	full load @220Vac
DL-350W-V36-RAB	89%	91%		
DL-350W-V48-RAB	89%	91%		

Output characteristic

Parameter	Min	Typ.	Max	Note
Output voltage Ripple	-	<3%	-	100% load
Accuracy of output voltage	-2%	-	+2%	100% load
Line regulation	-2%	-	+2%	50-100% load@220Vac
Load regulation	-2%	-	+2%	50-100% load@220Vac
Starting time	-	-	460ms	Full load@220Vac

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 type: when the housing temperature is greater than 40℃, the output power off.
Output over-voltage protection	output voltage > works voltage 1.08-1.2 times turn-off
Output over-current protection	Output current >1.1-1.5 times turn-off

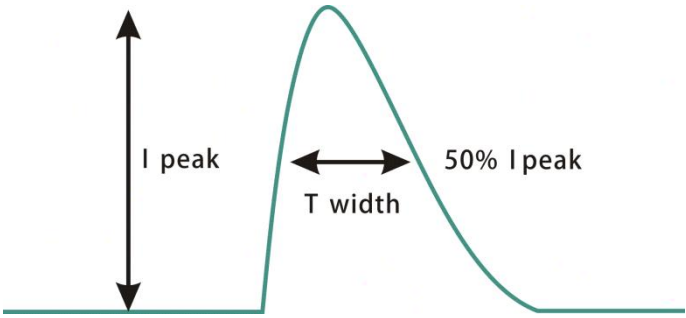
Safety and EMC

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 $\pm 4\text{KV}$ (12 ohm); Refer to IEC61000-4-5 2014
High-pot test	I/P-O/P:2.5KVac I/P-PE :1.5KVac 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	<5mA@240Vac

Environmental

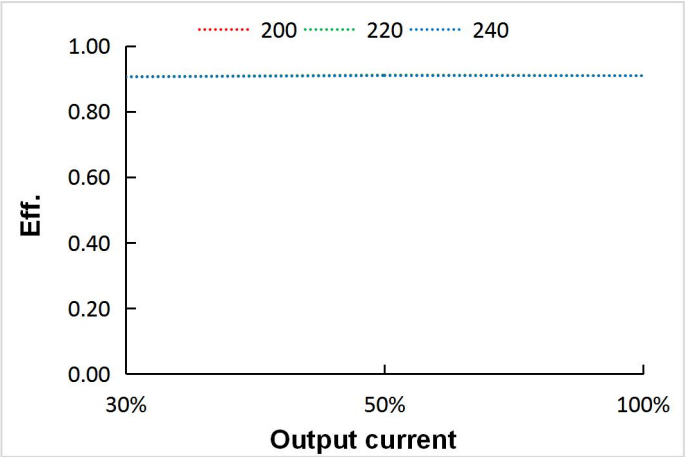
Environmental categories	Parameter
Working temperature	-30 ~ +40℃@200-240Vac , (refer to "Life Curve ")
Working humidity	20 ~ 95% RH, non condensing
Storage temperature、 humidity	--30~+80℃, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25℃)
Lifetime	50,000 hours @Ta \leq 40℃,230Vac, 100% Load, Please refer to "Tcase VS Lifetime" section

Inrush current

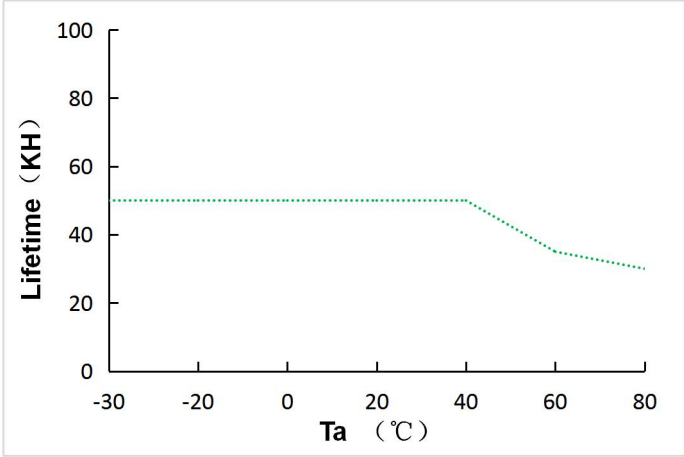


Input voltage	Peak current	T(@50% Peak current)
200Vac	99.4A	260us
220Vac	100A	295us
240Vac	106A	310us

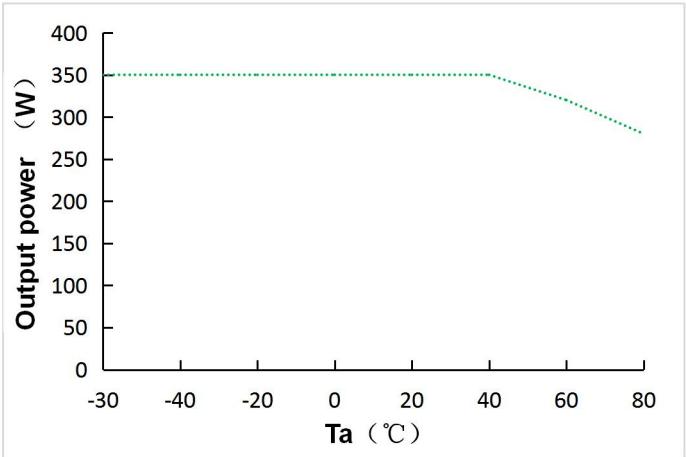
DL-350H-RAB Parametric curves



Eff. VS Output current

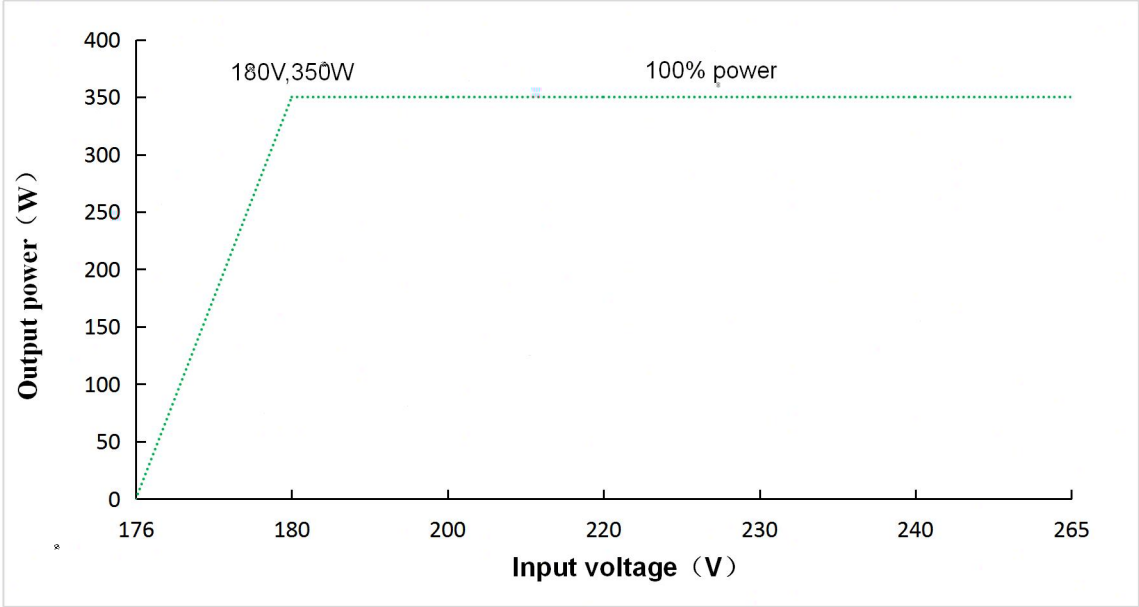


Lifetime VS Ta



Output power VS Ta

DL-350H-RAB Parametric curves



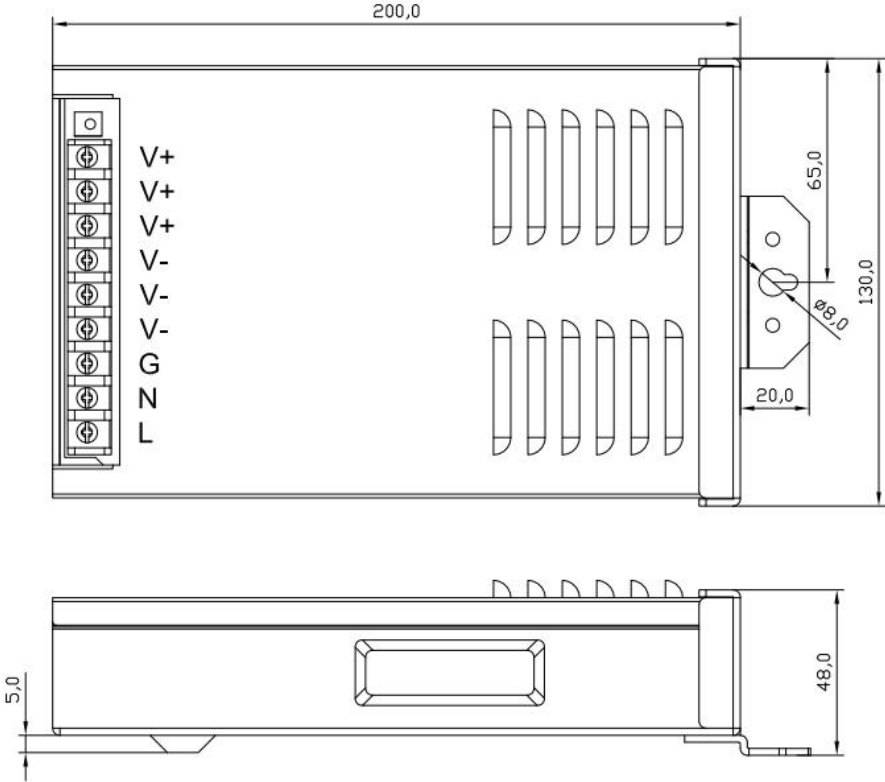
Output power VS Input voltage

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

Mechanical specification

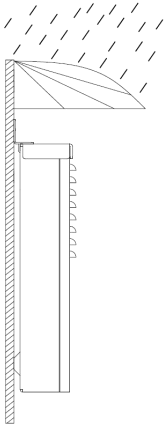
Size (mm)	L220mm*W130mm*H48mm	1.05KG
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DL-350H-RAB

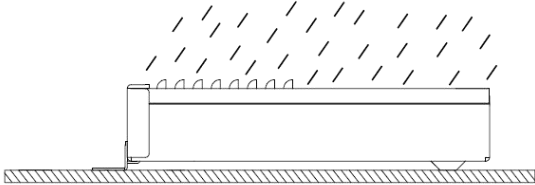


Installation drawing

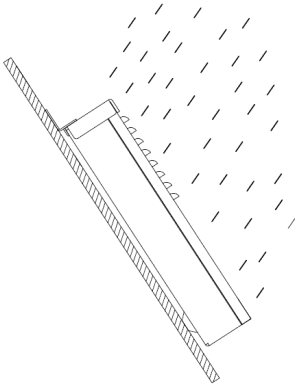
- 1. DL-350H-RAB is an outdoor design, please install in a sheltered area
- 2. The DL-350H-RAB is suitable for vertical wall-mounted mounting. Leaning forward, recline or horizontal is not allowed



Proper installation

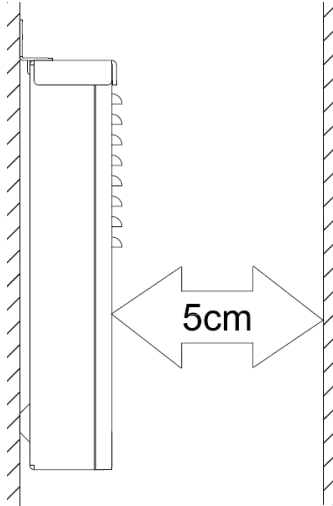
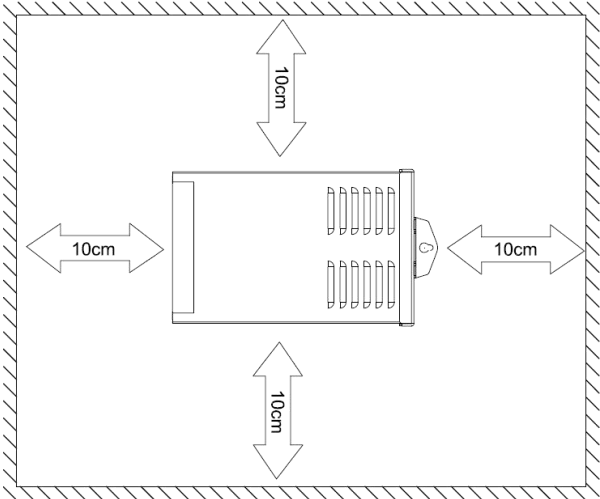


Incorrect installation



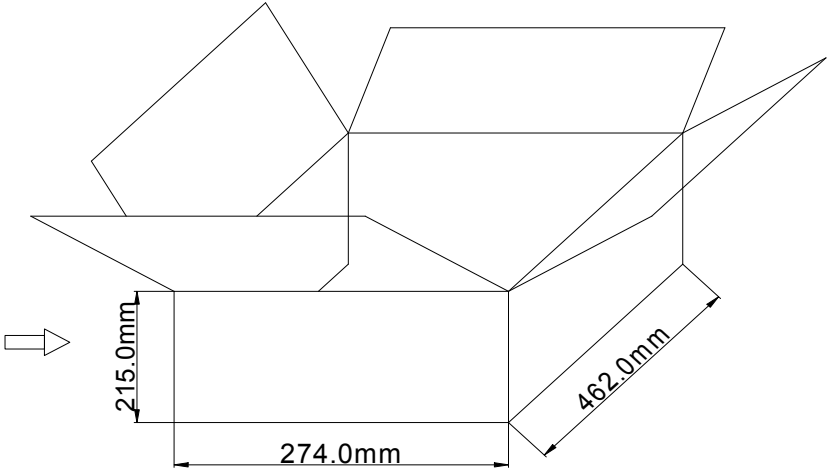
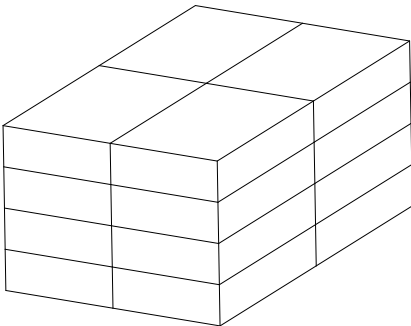
Incorrect installation

- 3. To ensure good heat dissipation, reserve enough space when selecting the installation location. The recommended installation diagram is as follows:



Packaging

Packaging (mm) L462*W274*H215



Note: One Carton 4 layers and 4pcs each layer, total 16pcs/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
2023.12.08	Initial version.	V1.0	

MANUFACTURER

EDIT	CHECK	APPROVT