 <b>GUANGDONG DONE POWER TECHNOLOGY CO.,LTD</b> <small>Service hotline: 400 0760 585 Website: www.donepower.com.cn</small>	<b>Application</b>	<b>DONE OUTDOOR LED DRIVER</b>		
	<b>Product Line</b>	<b>DL-105W-S/A-MAP</b>	<b>REV.</b>	<b>1.6</b>

Guangdong Done Power Technology Co., Ltd.

SPECIFICATION FOR APPROVAL

<b>CUSTOMER</b>	
<b>MODEL NO.</b>	DL-105W-S/A-MAP
<b>VERSION</b>	V1.6
<b>SAMPLE DATE</b>	

**CUSTOMER**

<b>TEST</b>	<b>CHECK</b>	<b>APPROVE</b>
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**CUSTOMER REMARKS**

Please return to us one copy of "SPECIFICATION FOR APPROVAL" with you approved signature.


**MANUFACTURE**

<b>EDIT</b>	<b>CHECK</b>	<b>APPROVE</b>
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**Guangdong Done Power Technology Co.,Ltd.**

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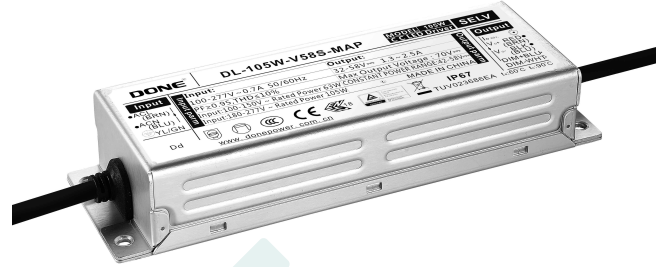
■ VERSION

DATE	CAUSES OF CHANGE	REV.	CHECK
2020.01.15	Initial version.	V1.0	
2020.02.24	P3 Pout: 52.5W±20%.	V1.1	
2020.04.14	Add voltage range on page 4:90-305Vac.	V1.2	
2020.05.16	Change the picture of product (P3) add the ENEC logo (P3) and warning (P13) .	V1.3	
2022.3.11	1.modify dimension drawing: input and output skinning length changed from 5mm to 10mm 2. update the company LOGO and company name.	V1.4	
2022.10.13	1.Change the mechanical drawing on page 12 2.The third page modifies the power range for input voltages below 180Vac	V1.5	
2022.10.29	1.Page 13 Change the packaging information	V1.6	

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## ■ FEATURES

- ◇ Class I structure
- ◇ Input Voltage:100-277V ~ 50/60Hz
- ◇ Efficiency 89%
- ◇ Constant power drive , Constant current output control mode
- ◇ Metal clad construction , level of protection : IP67
- ◇ Lightning protection level : difference mode 6kV ,  
common mode 15kV
- ◇ Long life design , 5 years warranty
- ◇ Output current can be adjusted Externally
- ◇ The dimming function : Three in one dimming  
( Only S series )



## ■ TYPICAL APPLICATIONS

Road lighting、Industrial lighting、The venue lighting  
floodlighting、landscape lighting




## ■ MODEL LIST

Model	AC Input	Output power	Output voltage	Output current	Efficiency	T.H.D	PF
DL-105W-V38S-MAP DL-105W-V38A-MAP	100-277Vac 50/60Hz	105W	20-38Vdc	3A	90.5%	<10%	>0.97
DL-105W-V58S-MAP DL-105W-V58A-MAP	100-277Vac 50/60Hz	105W	32-58Vdc	2.1A	91.6%	<10%	>0.97

NOTE :

1. Default tested at 230Vac,full load with 30 minutes,Ta:25°C.
2. 100-180Vac , Pout:52.5W±20% ; 200-277Vac , Prated 105W.

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	Product Line	DL-105W-S/A-MAP	REV.	1.6

## ■ SPECIFICATION


### ◇ INPUT

Rated Input Voltage	100 - 277Vac
Voltage Range	90-305Vac
Frequency	50/60Hz
Power factor(PF)	PF>0.97 @230Vac full load
Total harmonic distortion(THD)	THD<10% @230Vac full load
Input current	$I_{in}$ <0.7A @180Vac full load
Inrush current (typ.)	Cold start 70A @230Vac

### ◇ OUTPUT

Model	DL-105W-V38S-MAP	DL-105W-V58S-MAP
	DL-105W-V38A-MAP	DL-105W-V58A-MAP
Rated current	2.8A	1.8A
Output current range	1.9-3.5A	1.3-2.5A
Output voltage range	20-38Vdc	32-58Vdc
Rated output power(100-180Vac)	52.5W±20%	52.5W±20%
Rated output power(200-277Vac)	105W	105W
No load voltage	50Vdc Max	70Vdc Max
Efficiency	90.5%.@230Vac full load	91.6%.@230Vac full load
Accuracy off output current	±5%	
Line regulation	±5%	
Load regulation	±5%	
Setup time	<500ms @230Vac full load	

NOTE : the range of output current is limited by in-out voltage , For details, please refer to the I-V working area.

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◇ Others

0-10V Dimming ( Optional )	Safety Dimming Voltage Range	0V - 12V
	Dim Range	0 - 100%
	Rated Dim Range	0V - 10V
PWM Dimming ( Optional )	PWM High	9.5V - 10.5V
	PWM Low	0V - 0.3V
	PWM Frequency	300Hz - 2000Hz
	PWM Duty	0 - 100%
Resistor Dimming	Resistance	0Kohm - 100Kohm
	Dim Range	0 - 100%

NOTE:


1. Output current of dimming port: 100uA (typical value);
2. The maximum withstand voltage of the dimming port is 12V. If the external power supply voltage exceeds 12V or the signal line is reversely connected, the power supply will be damaged.

◇ Protection

Low Voltage protection	When the input voltage is less than 180Vac, the output power is reduced by about half.
Over Load protection	Protection mode: hiccup restart mode, automatic recovery after removal of abnormal load conditions.
Short Circuit Protection	Doze mode, can automatically recover after abnormal conditions are removed.
Over temperature Protection	When the Tc is over 90 °C , the output power is reduced by about half.
Over Voltage protection	Protection mode: hiccuping or clamping in output maximum voltage ,Production undamaged,When troubleshooting,Normal operation of power supply.

NOTE:

1. All specifications are tested at 230Vac (50Hz) , rated load, and Ta:25°C.
2. Including setting error, linear adjustment rate and load adjustment rate.

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## ■ ENVIRONMENT

Working temperature	-40 ~ +60°C (Refer to "Derating Curve")
Working humidity	20 ~ 95% RH, non-condensing
Storage temperature/humidity	-40~+80°C, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
MTBF	230K hrs min. MIL-HDBK-217F (Ta=25°C)

## ■ SAFETY & EMC

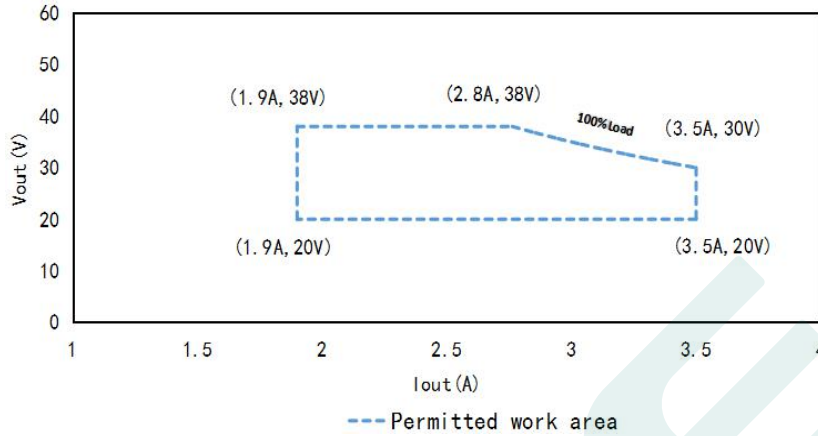
Safety	GB19510.1、GB19510.14、EN61347-1、EN61347-2-13、IEC61347-1、IEC61347-2-13、AS/NZS61347.1、AS61347.2.13 ;
EMC	EN 55015、EN 61000-3-2 、GB/T 17743、GB17625.1、 EN 61000-3-3
Surge level	difference mode L-N ± 6 KV ( 2 ohm ), common mode L , N-PE± 10 KV ( 12 ohm ) Refer to IEC61000-4-5 2014
High-pot test	I/P-O/P:3.75KVAC    I/P-PE :1.5KVAC    O/P-PE : 0.5KVAC    I/P-DIM:1.5KVAC
Insulation resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH
Leakage current	<0.7mA

### NOTE:

The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

## I-V Working Area

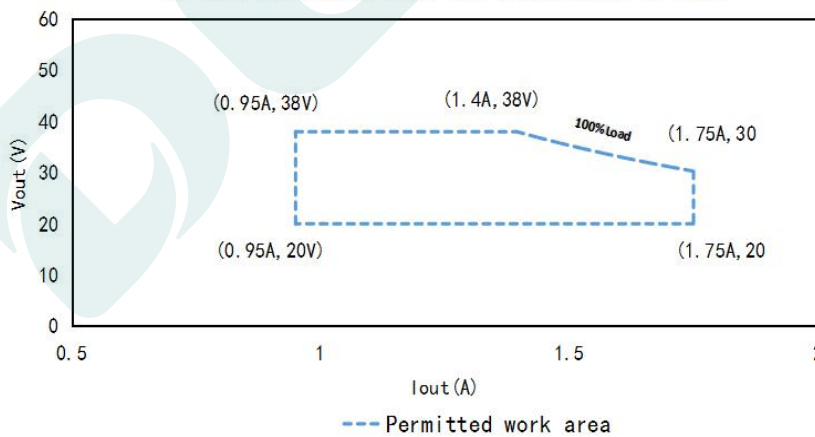
DL-105W-V38S/A-MAP (Vin: 200-277Vac) Iout VS Vout



**DL-105W-V38S/A-MAP(200-277Vac , Rated output current and output power corresponding to different load voltages)**

Load working Voltage	20V	22V	24V	26V	28V	30V	33V	36V	38V
Io_MAX	3.5A	3.5A	3.5A	3.5A	3.5A	3.5A	3.2A	2.9A	2.8A
Po_MAX	70W	77W	84W	91W	98W	105W	105.6W	104.4W	106.4W

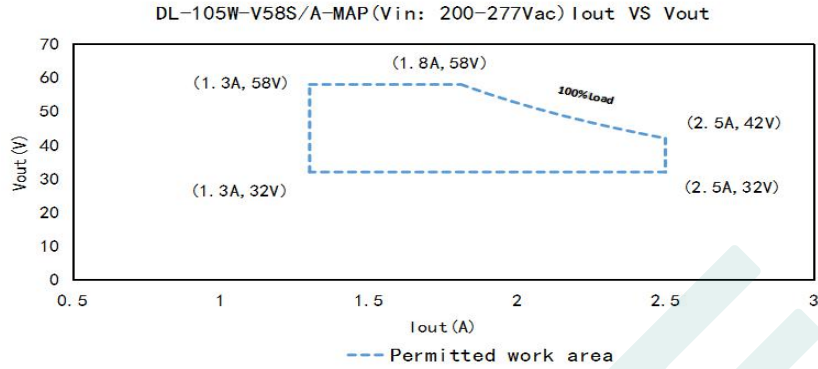
DL-105W-V38S/A-MAP (Vin: 100-180Vac) Iout VS Vout



**DL-105W-V38S/A-MAP(100-180Vac , Rated output current and output power corresponding to different load voltages)**

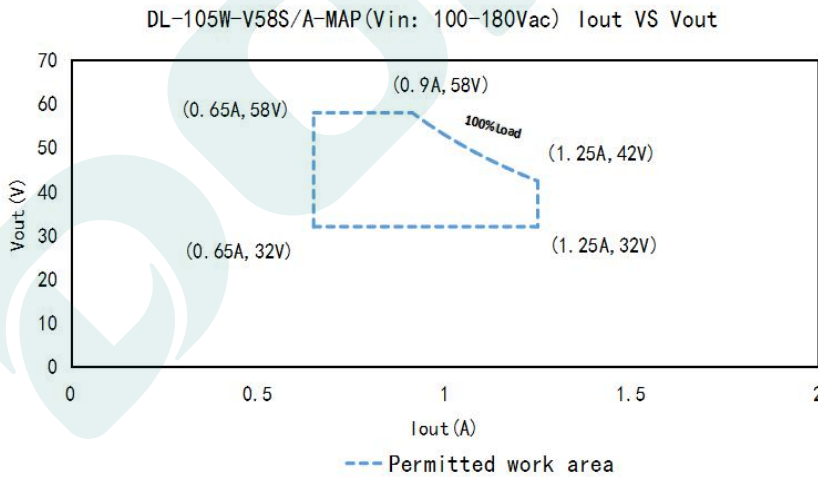
Load working Voltage	20V	22V	24V	26V	28V	30V	33V	36V	38V
Io_MAX	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.6A	1.45A	1.4A
Po_MAX	35W	38.5W	42W	45.5W	49W	52.5W	52.8W	52.2W	53.2W

■ I-V Working Area



**DL-105W-V58S/A-MAP(200-277Vac , Rated output current and output power corresponding to different load voltages)**

Load working Voltage	32V	35V	39V	42V	45V	48V	50V	55V	58V
Io_MAX	2.5A	2.5A	2.5A	2.5A	2.3A	2.2A	2.1A	1.9A	1.8A
Po_MAX	80W	87.5W	97.5W	105W	103.5W	105.6W	105W	104.5W	104.4W

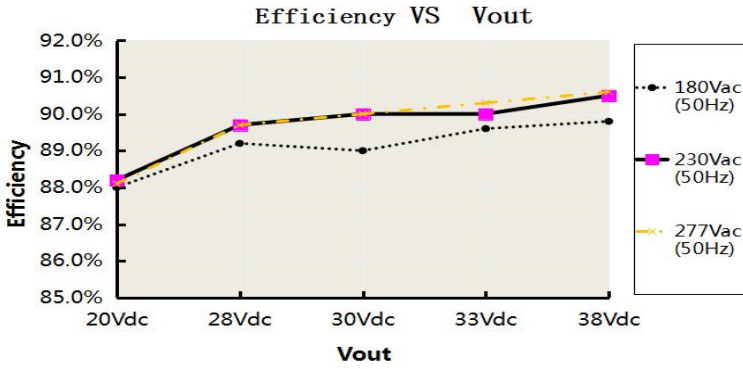


**DL-105W-V58S/A-MAP(100-180Vac , Rated output current and output power corresponding to different load voltages)**

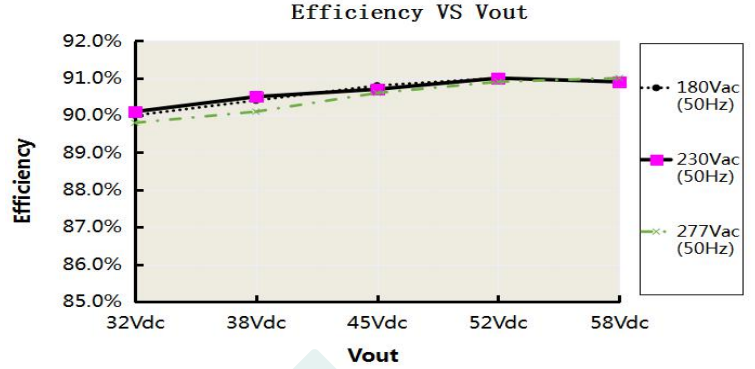
Load working Voltage	32V	35V	39V	42V	45V	48V	50V	55V	58V
Io_MAX	1.25A	1.25A	1.25A	1.25A	1.15A	1.1A	1.05A	0.95A	0.9A
Po_MAX	40W	43.7W	48.7W	52.5W	51.7W	52.8W	52.5W	52.2W	52.2W



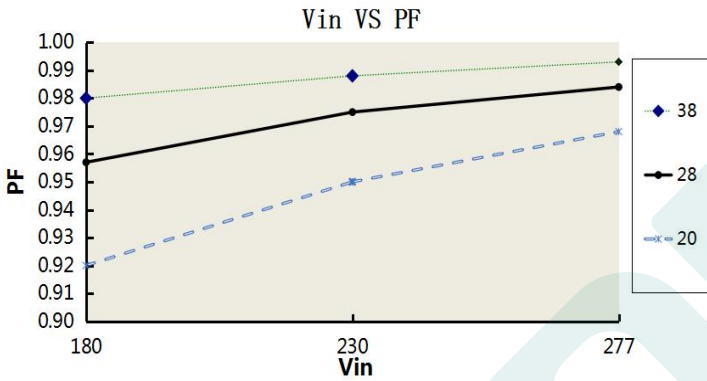
Efficiency VS Vout (DL-105W-V38S-MAP)



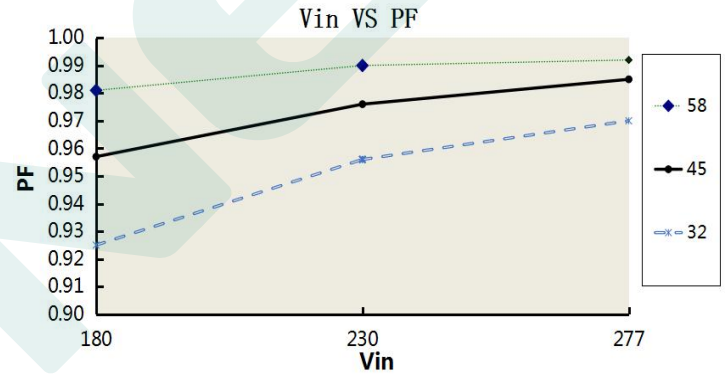
Efficiency VS Vout (DL-105W-V58S-MAP)



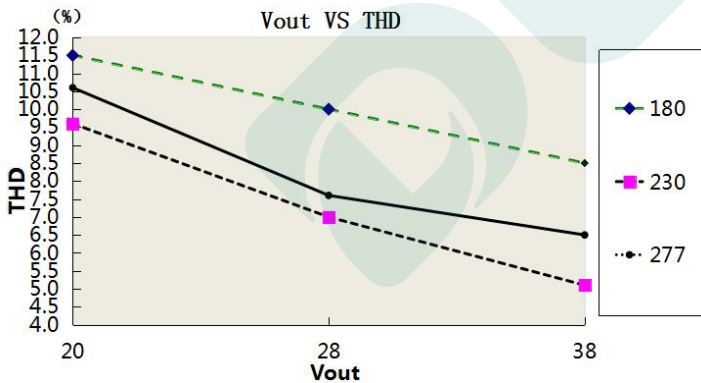
Vin VS PF (DL-105W-V38S-MAP)



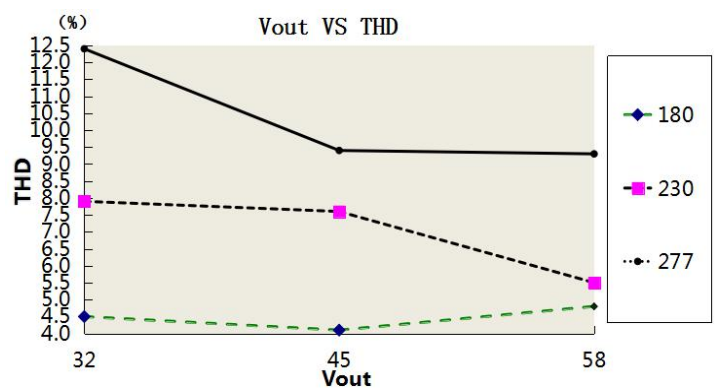
Vin VS PF (DL-105W-V58S-MAP)



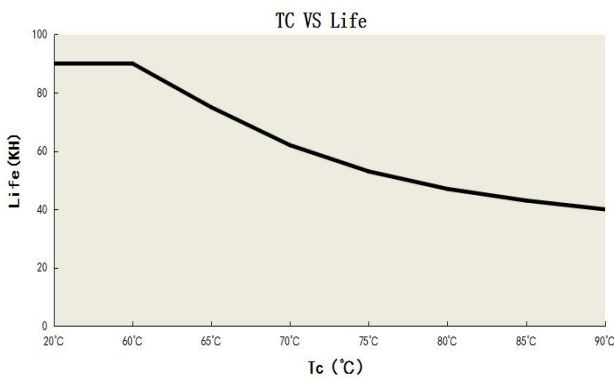
Vout VS THD (DL-105W-V38S-MAP)



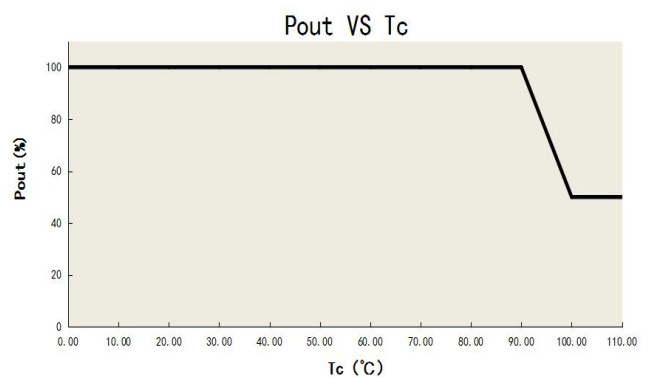
Vout VS THD (DL-105W-V58S-MAP)



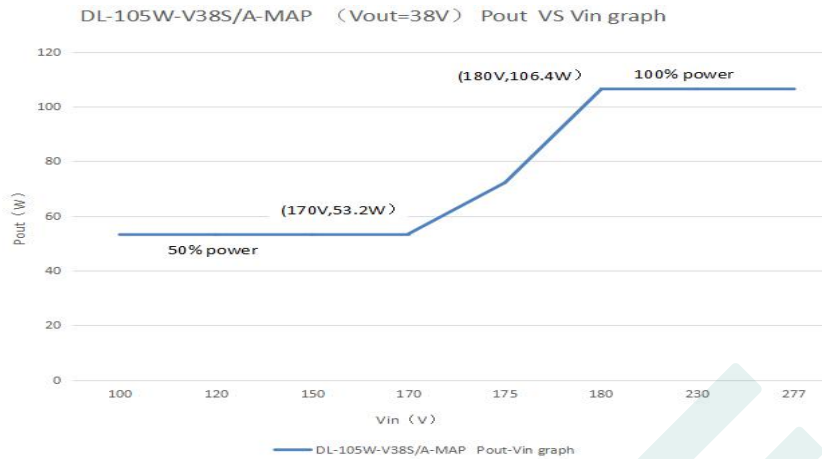
Tc VS Life (DL-105W-S/A-MAP)



Pout VS Tc



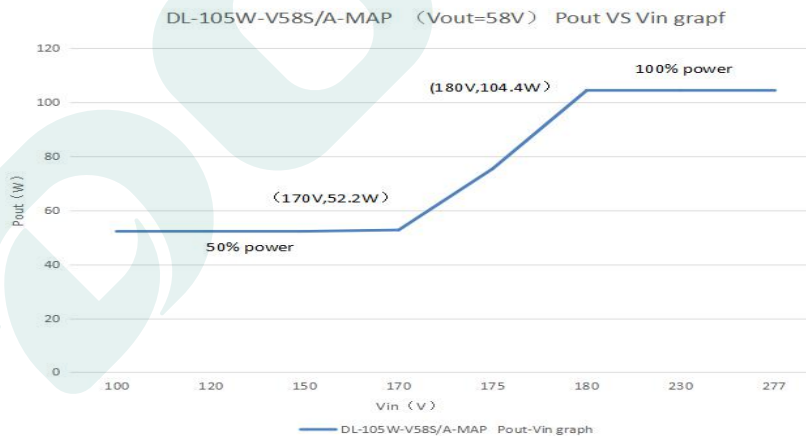
■ Pout VS Vin



**DL-105W-V38S/A-MAP(38Vdc, Rated output current and output power corresponding to different Input voltages)**

Input Voltage	100Vac	120Vac	150Vac	170Vac	175Vac	180Vac	230Vac	277Vac
Io	1.4A	1.4A	1.4A	1.41A	1.9A	2.8A	2.8A	2.8A
Po	53.2W	53.2W	53.2W	53.5W	72.2W	106.4W	106.4W	106.4W

■ Pout VS Vin



**DL-105W-V58S/A-MAP(58Vdc, Rated output current and output power corresponding to different Input voltages)**

Input Voltage	100Vac	120Vac	150Vac	170Vac	175Vac	180Vac	230Vac	277Vac
Io	0.9A	0.9A	0.9A	0.91A	1.3A	1.8A	1.8A	1.8A
Po	52.2W	52.2W	52.2W	52.7W	75.4W	104.4W	104.4W	104.4W

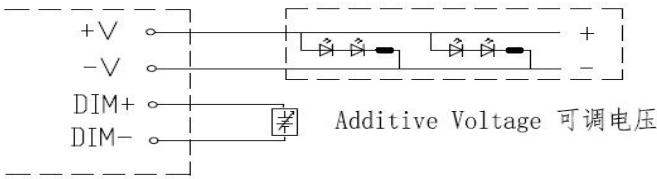
- NOTE:
1. Due to input voltage fluctuations and resistance errors. When the power decreases or increases (that is, Vin = 150V or Vin = 180V), it will move left and right, and the approximate moving range is 150V ± 10%, 180V ± 10%.
  2. When the input voltage is 100-180V, the output power range is 52W ± 20%.

## ■ DIMMING OPERATION

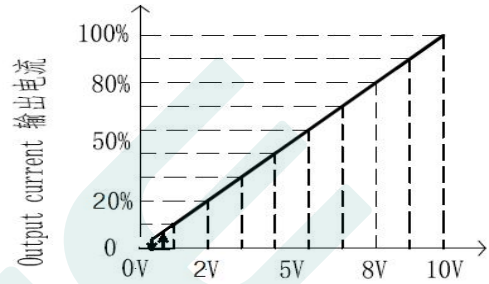
### ※ 3 in 1 dimming (For S Type)

- a. Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 0 ~ 10VDC, or 10V PWM signal or resistance. Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- b. Dimming source current from power supply: 100μA (typ.)

#### ◎ Applying additive 0-10Vdc:

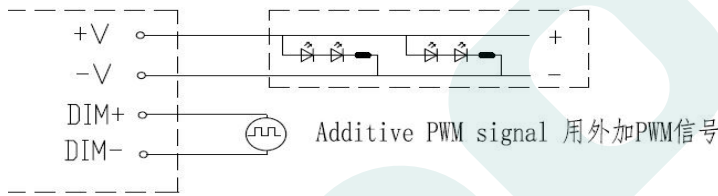


DO NOT connect "DIM- to -V" 请勿将DIM- 与-V相连

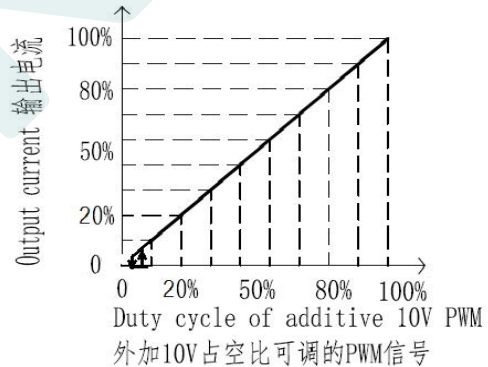


Dimming input: Additive voltage 调光输入: 外加电压

#### ◎ Applying additive 10V PWM signal (Frequency range: 300Hz-2K Hz) :

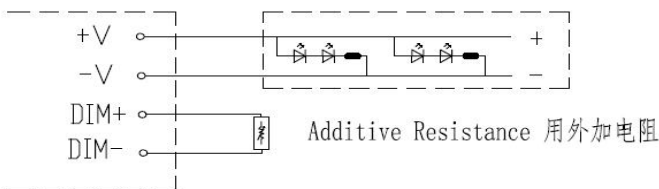


DO NOT connect "DIM- to -V" 请勿将DIM- 与-V相连

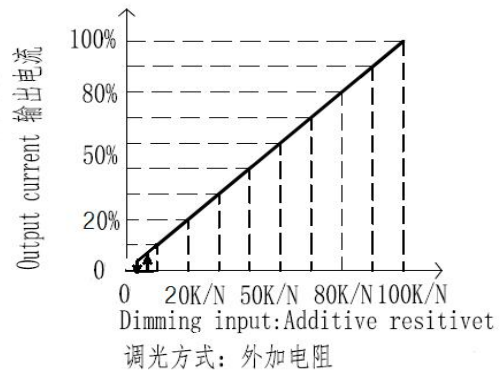


外加10V占空比可调的PWM信号

#### ◎ Applying additive 0-100K resistance:



DO NOT connect "DIM- to -V" 请勿将DIM- 与-V相连



调光方式: 外加电阻

**Note:** N is the number of synchronously dimming actuators; Example: The number of synchronous dimming operation drives is 1, the output current is 20%, then the external resistance is: 20K/1=20K  
 The number of synchronous dimming operation drives is 2, the output current is 20%, then the external resistance is: 20K/2=10K, and so on.

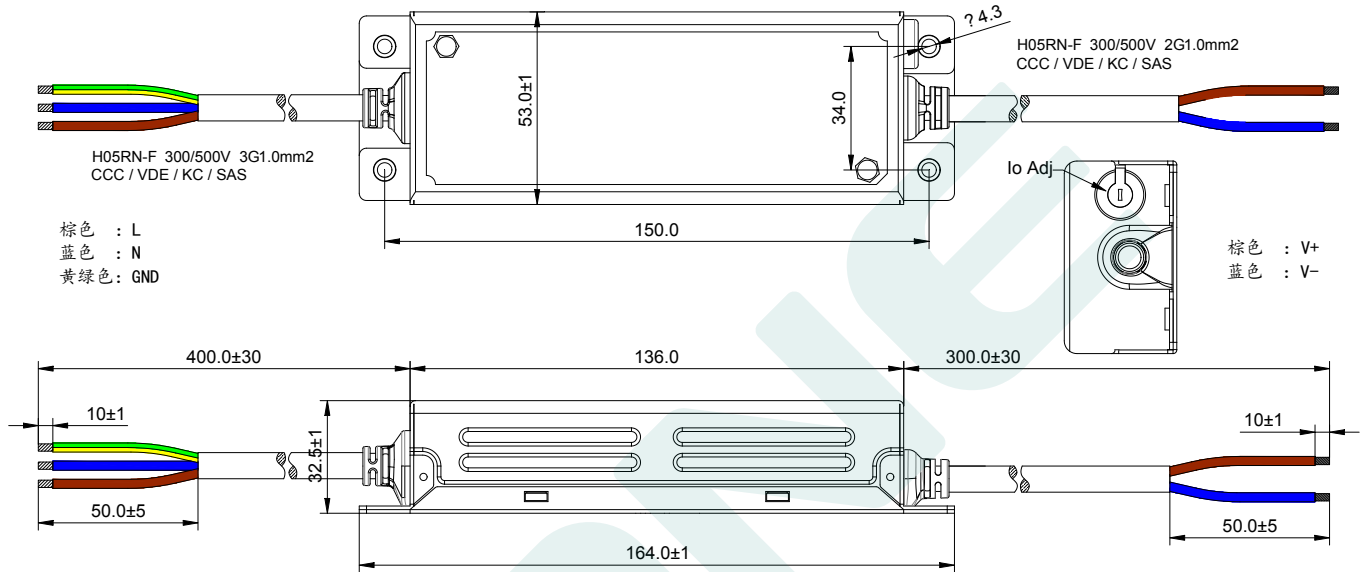
■ MACHINE SIZE MAP:

Size ( mm )	L164mm*W53mm*H32.5mm
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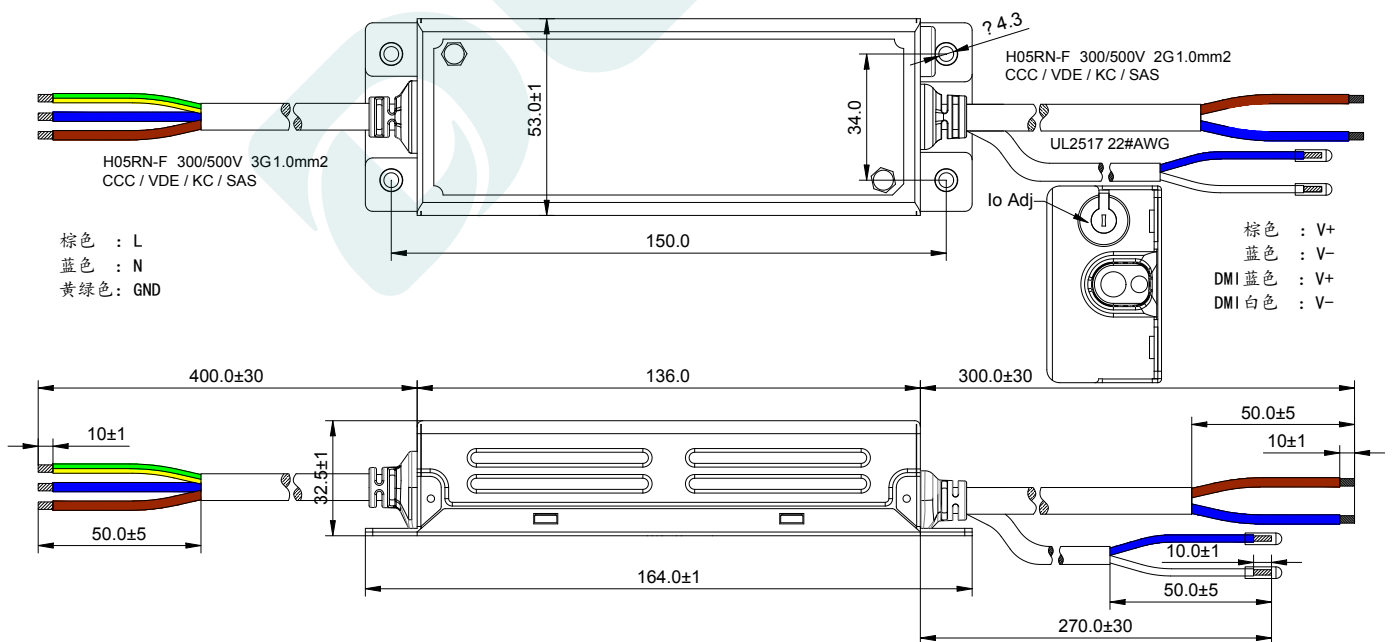
Case model : B70

unit:mm

DL-105W-V38A/58A-MAP



DL-105W-V38S/58S-MAP

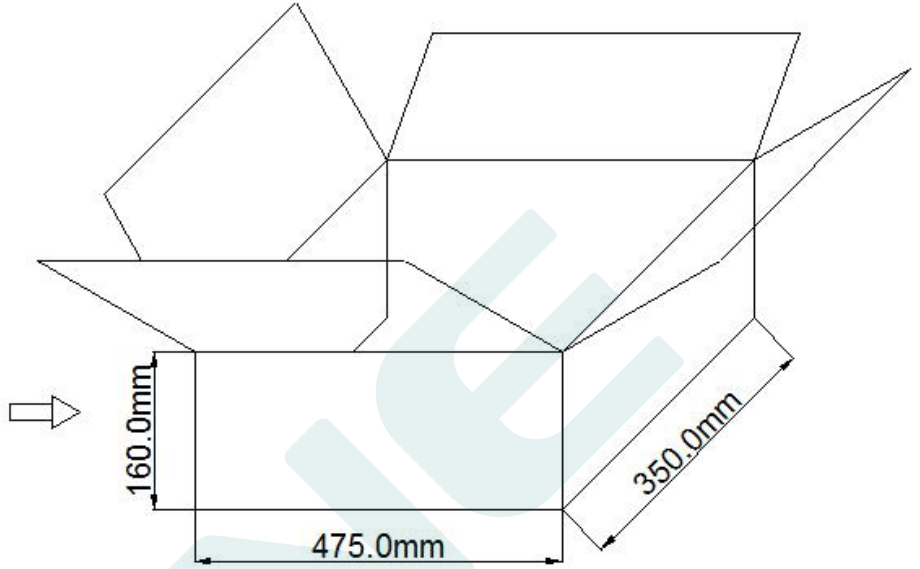
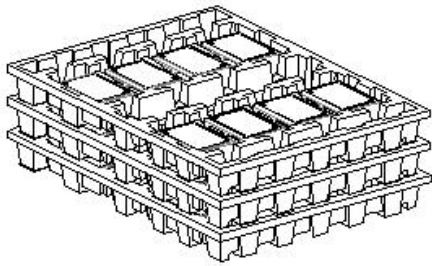


■ WEIGHT

Weight	520g/PCS
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■ PACKAGING

Packaging ( mm )	L475*W350*H160
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**Remark :** 24 drivers in a packing case

**Wanrning:**

1. According to the certificate of power supply The LED driver of English nameplate is suitable for sale to Europe, America and India;

• 2. LED drivers for Chinese nameplates are only available for lamps sold to China.