 GUANGDONG DONE POWER TECHNOLOGY CO.,LTD <small>Service hotline: 400 0760 585 Website: www.donepower.com.cn</small>	Application	DONE OUTDOOR LED DRIVER		
	Product Line	DL-150W-S/A-MAP	REV.	1.5

Guangdong Done Power Technology Co., Ltd.

SPECIFICATION FOR APPROVAL

CUSTOMER	
MODEL NO.	DL-150W-S/A-MAP
VERSION	V1.5

CUSTOMER

TEST	CHECK	APPROVE
CUSTOMER REMARKS		


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

MANUFACTURE

EDIT	CHECK	APPROVE


Guangdong Done Power Technology Co.,Ltd.

No. 3-1&3-2, Kanglong 3rd Road, XinMao Industry Zone, Henglan Town,
 Zhongshan City, Guangdong Province, P. R. China Post code:528478
 TEL:0760-89838399 89838379 FAX:0760-89831157 89838396

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■ VERSION

DATE	CAUSES OF CHANGE	REV.	CHECK
2020.03.18	Initial version.	V1.0	
2020.4.14	Add voltage range on page 4:90-305Vac.	V1.1	
2020.6.29	①Page 3 Change product picture and add ENEC logo. ②Differential model Surge suppression level upgraded from 4KV to 6KV, common model Surge suppression level upgraded from 10KV to 15KV. ③Add a warning on page 13.	V1.2	
2020.12.2	Page 7 Changes the V-I curve power description. Page 3 and Page 4 change the total harmonic distortion rate from less than 7% to less than 10%.Change the power factor from 0.97 to 0.95.	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	
2022.10.29	1.Page 13 Change the packaging information	V1.5	

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FEATURES

- ◇ Class I structure
- ◇ Input Voltage:100-277V ~ 50/60Hz
- ◇ Efficiency 91.5%
- ◇ Constant power drive , Constant current output control mode
- ◇ Metal clad construction , level of protection : IP67
- ◇ Surge suppression level : difference mode 6 kV , common mode 15 kV
- ◇ 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、Square lighting
Flood lighting、Landscape lighting




MODEL LIST

Model	AC Input	Output power	Output voltage	Output current	Efficiency (Typ.)	THD	PF
DL-150W-V38S-MAP DL-150W-V38A-MAP	100-277V 50/60Hz	150W	20-38Vdc	4.2A	90.5%	<10%	>0.95
DL-150W-V58S-MAP DL-150W-V58A-MAP	100-277V 50/60Hz	150W	32-58Vdc	3.3A	91.5%	<10%	>0.95

Remark :

- 1、 Default tested at 230Vac,full load with 30 minutes,Ta:25°C.
- 2、 When the input voltage is lower than 180Vac±5%, the output power gradually decreases ;200-277Vac ,P rated 150W ;Please refer to the input voltage VS output power curve for details.

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■ SPECIFICATION


◇ INPUT

Rated Input Voltage	100 - 277Vac
Voltage Range	90-305Vac
Frequency	50/60Hz
Power Factor	230Vac , full load,PF>0.95
THD	230Vac , full load,THD<10%
Input Current	180Vac, full load, I_{in} <1.0A
In-rush Current(peak/duration)	230Vac , Cold start (25°C) 70A

◇ OUTPUT

Model	DL-150W-V38S-MAP DL-150W-V38A-MAP	DL-150W-V58S-MAP DL-150W-V58A-MAP
Rated Current	3.95A	2.6A
Current Adjustable Range(AOC)	2.8-5.0A	1.8-3.6A
Output Voltage Range	20-38Vdc	32-58Vdc
Rated Power(100-180Vac)	75W±20%	75W±20%
Rated Power(200-277Vac)	150W	150W
No Load Voltage	50Vdc Max	70Vdc Max
Efficiency(Typ.)	90.5%@230Vac full load	91.5%@230Vac full load
Current Tolerance	±5%	
Line Regulation	±5%	
Load Regulation	±5%	
Time to light	<500ms @230Vac full load	

Remarks : 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%

Remarks:


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 decreases gradually.
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 Tcase 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.

Remarks:

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	210K hrs min. MIL-HDBK-217F (Ta=25°C)

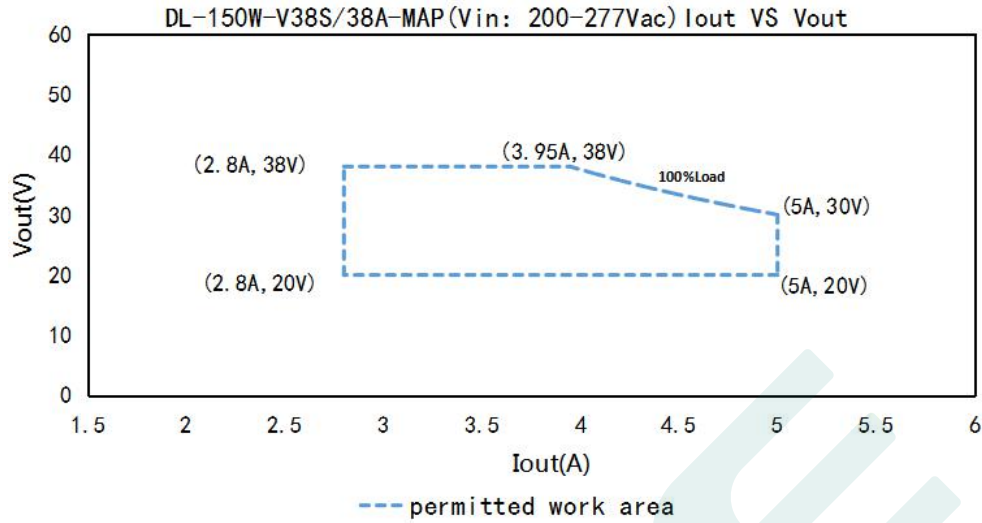
■ SAFETY & EMC

Safety	GB19510.1、GB19510.14、EN61347-1、EN61347-2-13、IEC61347-1、IEC61347-2-13、AS/NZS61347.1、AS61347.2.13
EMC	EN 55015、EN61547、EN 61000-3-2、GB/T 17743、GB17625.1、EN 61000-3-3
Surge level	difference mode L-N \pm 6 KV (2 ohm), common mode L , N-PE \pm 15 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

Remarks:

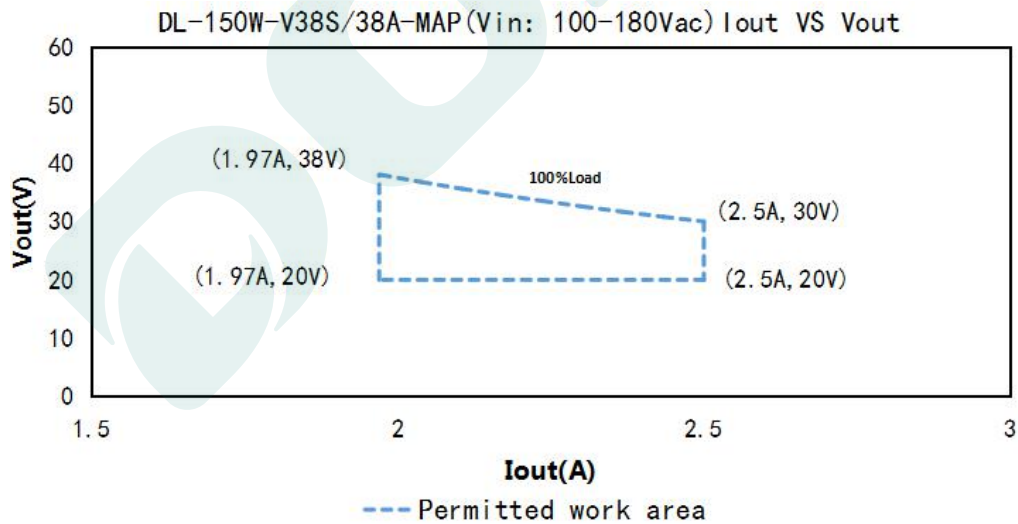
The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

I-V Working Area



DL-150W-V38S/A-MAP(200-277Vac , Rated output current and output power corresponding to different load voltages)

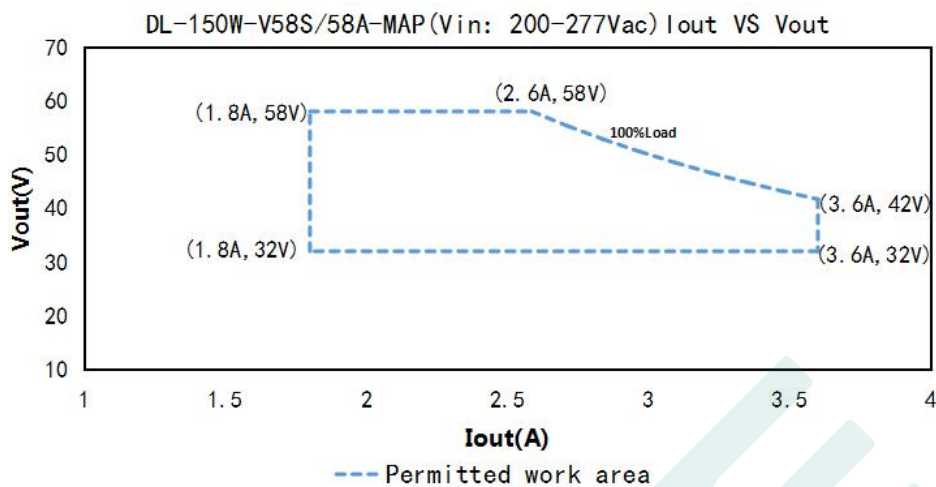
Load working Voltage	20V	22V	24V	26V	28V	30V	33V	36V	38V
Io_MAX	5A	5A	5A	5A	5A	5A	4.54A	4.16A	3.95A
Po_MAX	100W	110W	120W	130W	140W	150W	150W	150W	150W



DL-150W-V38S/A-MAP(100-180Vac , Rated output current and output power corresponding to different load voltages)

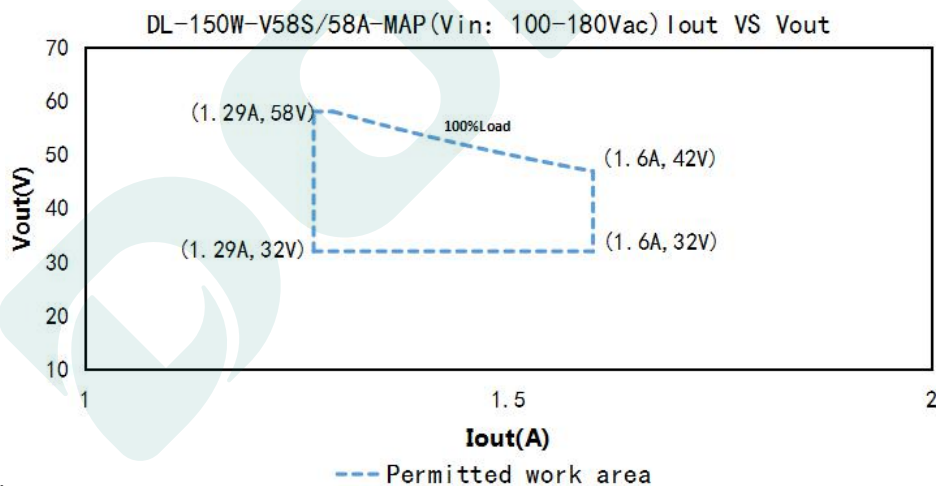
Load working Voltage	20V	22V	24V	26V	28V	30V	33V	36V	38V
Io_MAX	2.5A	2.5A	2.5A	2.5A	2.5A	2.5A	2.27A	2.08A	1.97A
Po_MAX	50W	55W	60W	65W	70W	75W	75W	75W	75W

I-V Working Area



DL-150W-V58S/A-MAP(200-277Vac , Rated output current and output power corresponding to different load voltages)

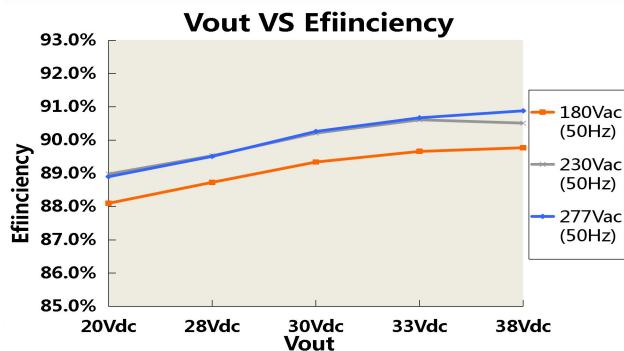
Load working Voltage	32V	35V	39V	42V	45V	48V	50V	55V	58V
Io_MAX	3.6A	3.6A	3.6A	3.6A	3.33A	3.12A	3A	2.72A	2.58A
Po_MAX	115.2W	126W	140W	151.2W	150W	150W	150W	150W	150W



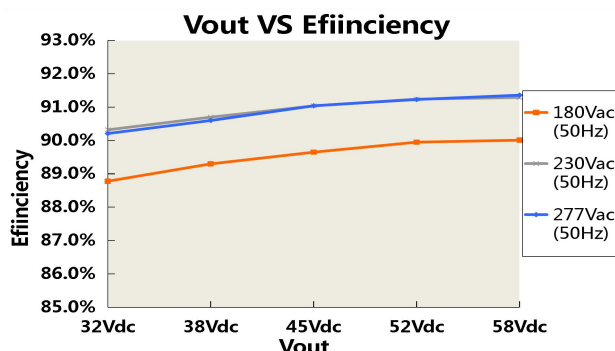
DL-150W-V58S/A-MAP(100-180Vac , Rated output current and output power corresponding to different load voltages)

Load working Voltage	32V	35V	39V	42V	45V	48V	50V	55V	58V
Io_MAX	1.6A	1.6A	1.6A	1.6A	1.66A	1.56A	1.5A	1.36A	1.3A
Po_MAX	51.2W	56W	62.4W	67.2W	75W	75W	75W	75W	75W

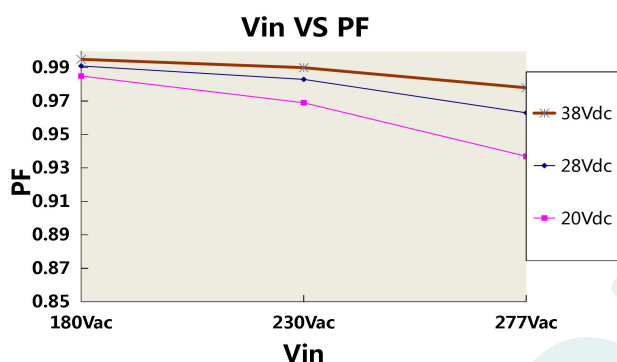
■ Vout VS Efficiency (DL-150W-V38S-MAP)



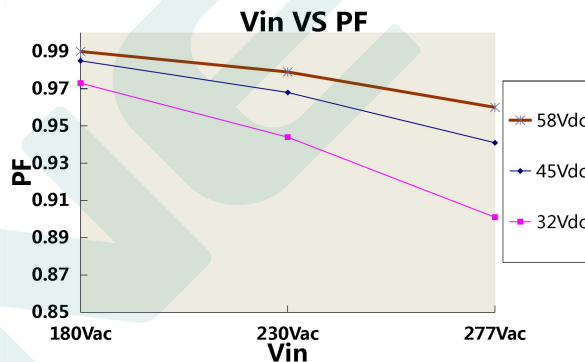
■ Vout VS Efficiency (DL-150W-V58S-MAP)



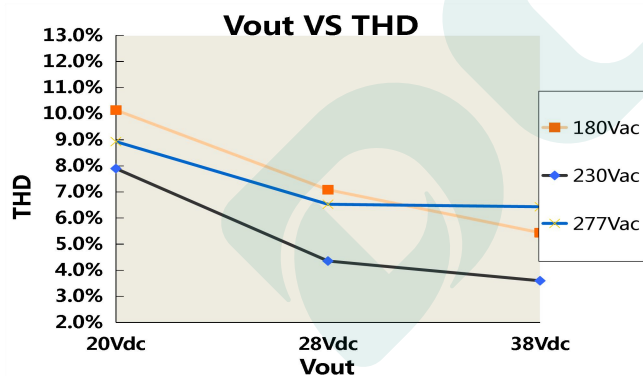
■ Vin VS PF (DL-150W-V38S-MAP)



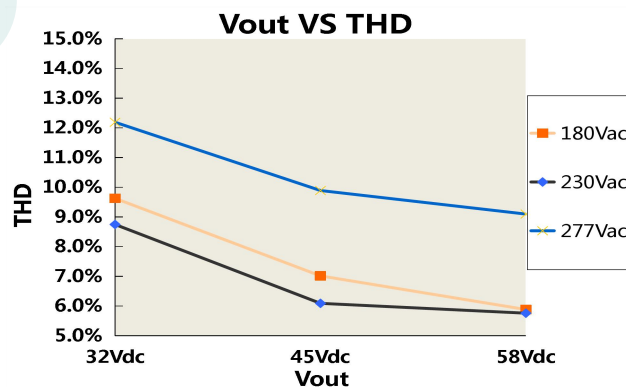
■ Vin VS PF (DL-150W-V58S-MAP)



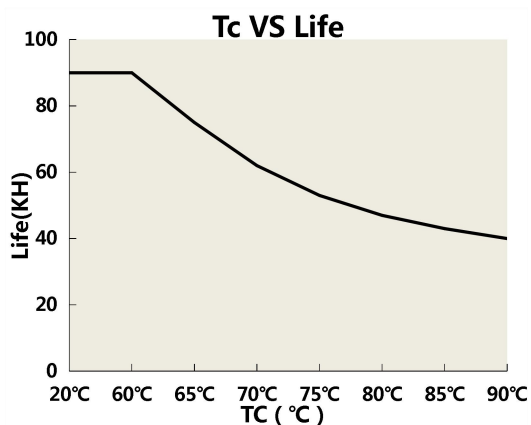
■ Vout VS THD (DL-150W-V38S-MAP)



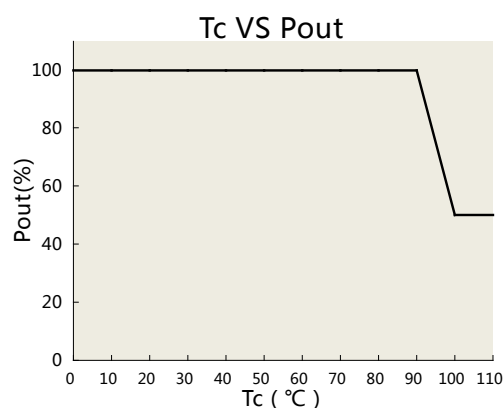
■ Vout VS THD (DL-150W-V58S-MAP)




■ Tc VS Life (DL-150W-S/A-MAP)

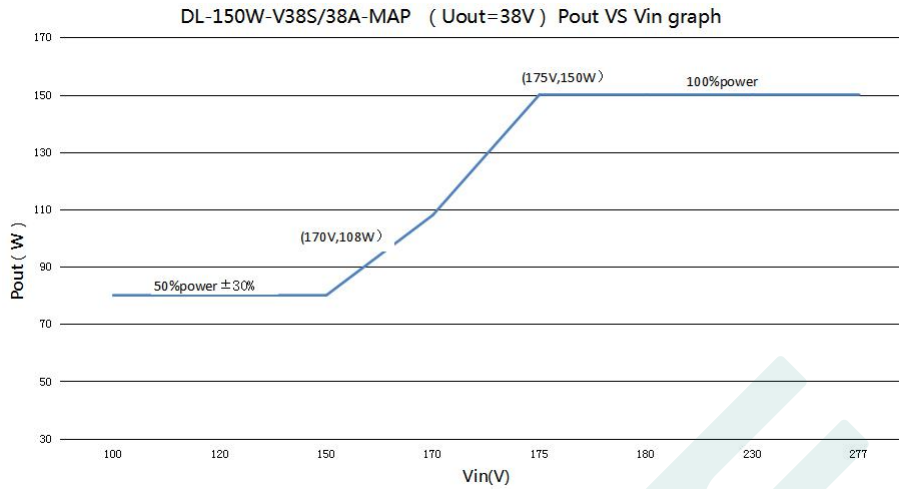


■ Tc VS Pout



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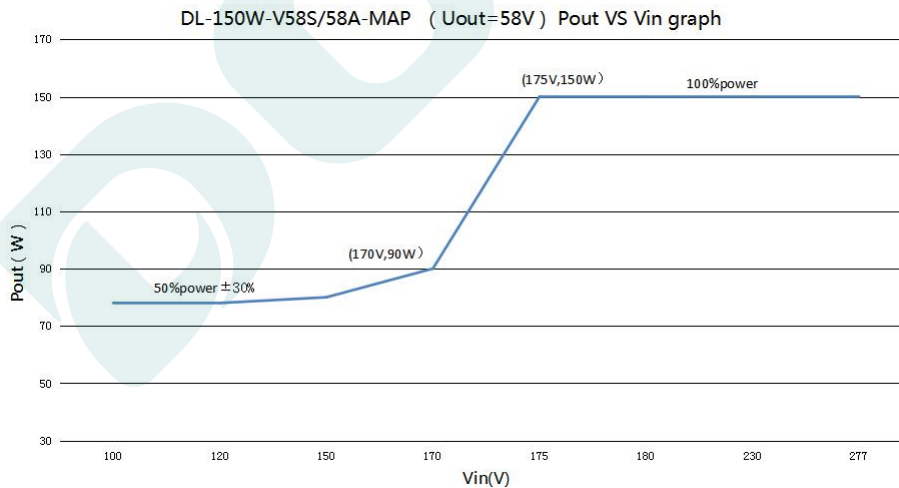
■ Pout VS Vin



DL-150W-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	2.11A	2.11A	2.11A	2.84A	3.95A	3.95A	3.95A	3.95A
Po	80W	80W	80W	108W	150W	150W	150W	150W


■ Pout VS Vin



DL-150W-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	1.34A	1.34A	1.34A	1.55A	2.59A	2.59A	2.59A	2.59A
Po	78W	78W	80W	90W	150W	150W	150W	150W

Note: When the input voltage is lower than 180Vac±5Vac, the output power decreases gradually. When the input voltage is 100Vac, the output power decreases to 75W± 20%.

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■ DIMMING OPERATION

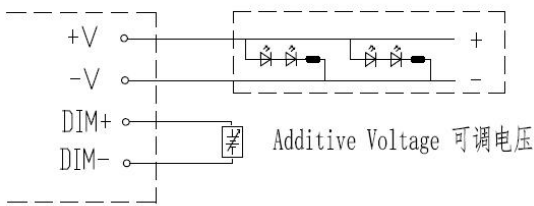
※ 3 in 1 dimming (For S Type)

1. 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.

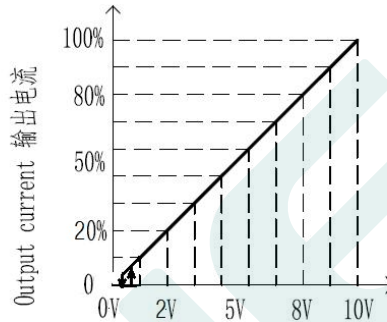
Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.

Dimming source current from power supply: 100μA (typ.)

◎ Applying additive 0-10Vdc:

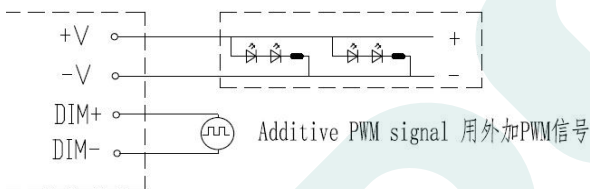


DO NOT connect "DIM- to -V" 请勿将DIM- 与-V相连

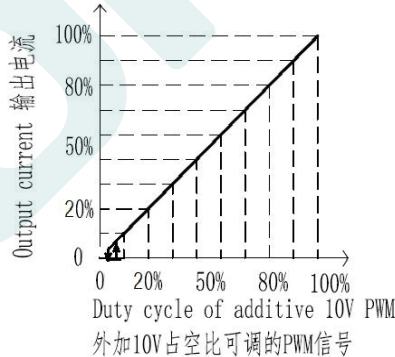


Dimming input: Additive voltage 调光输入: 外加电压

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

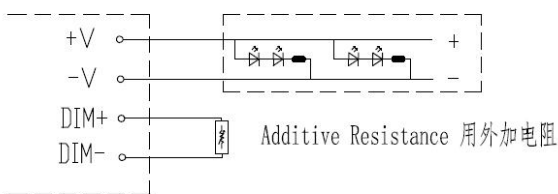


DO NOT connect "DIM- to -V" 请勿将DIM- 与-V相连

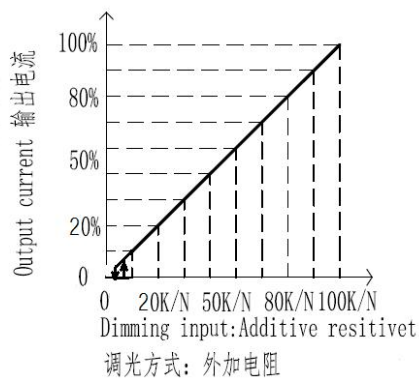


外加10V占空比可调的PWM信号

◎ 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 synchronous dimming operation drivers; 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.

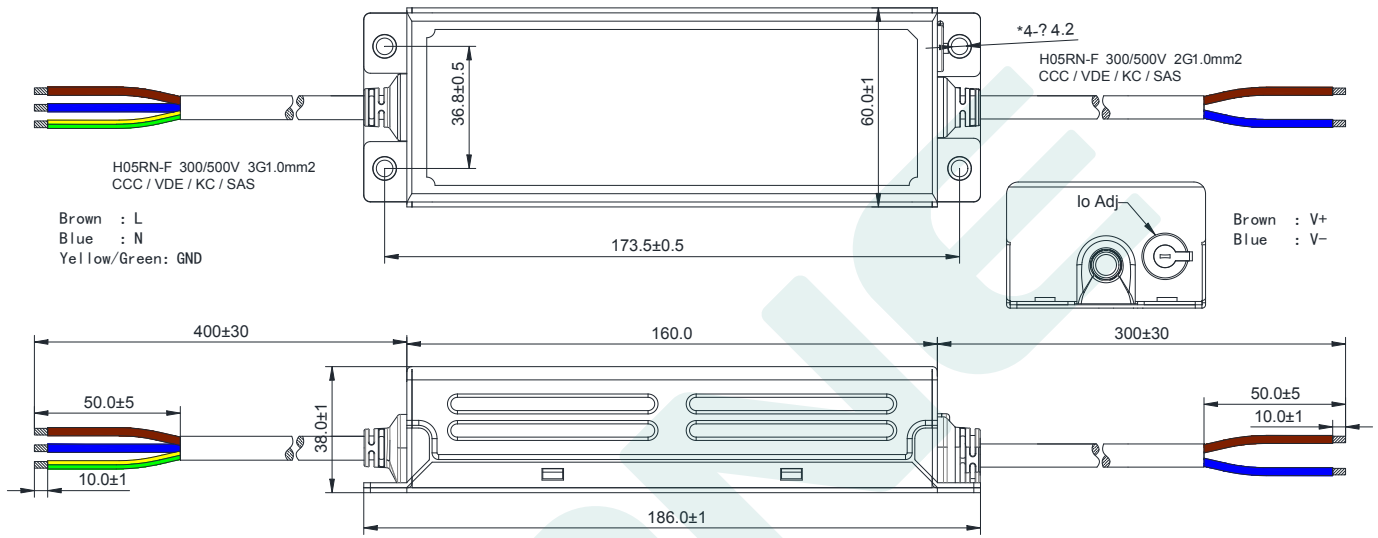
■ MACHINE SIZE MAP

Size (mm)	L186mm*W60mm*H38mm
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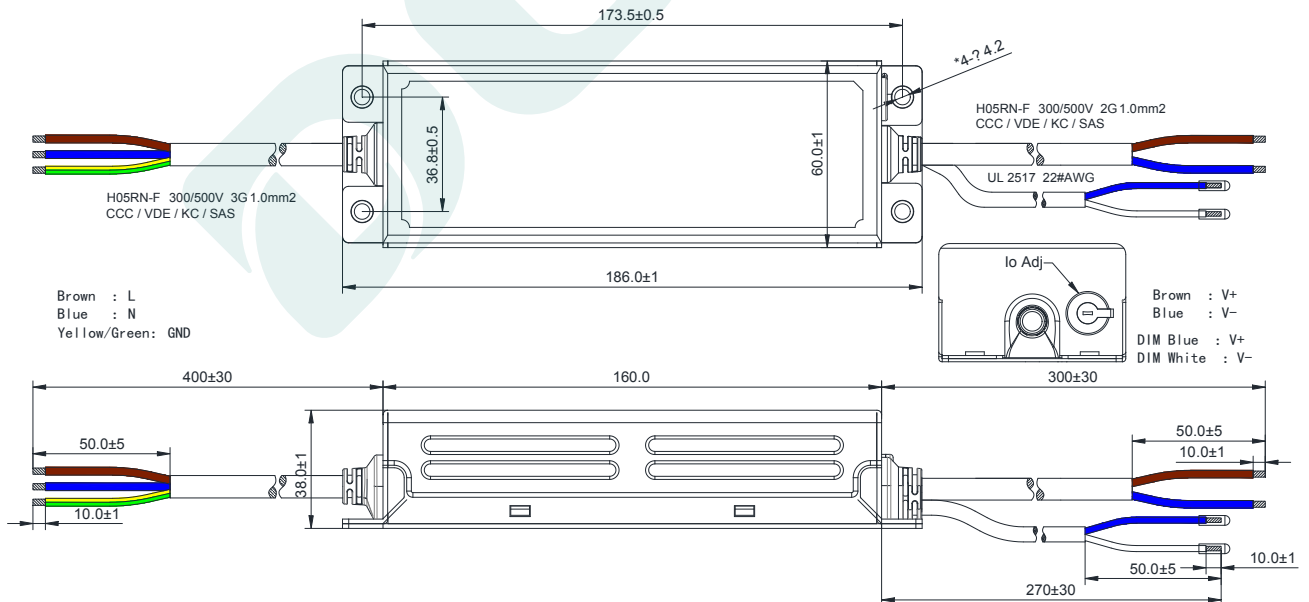
Case model : B120-006-DB

unit:mm

DL-150W-V38A/58A-MAP




DL-150W-V38S/58S-MAP



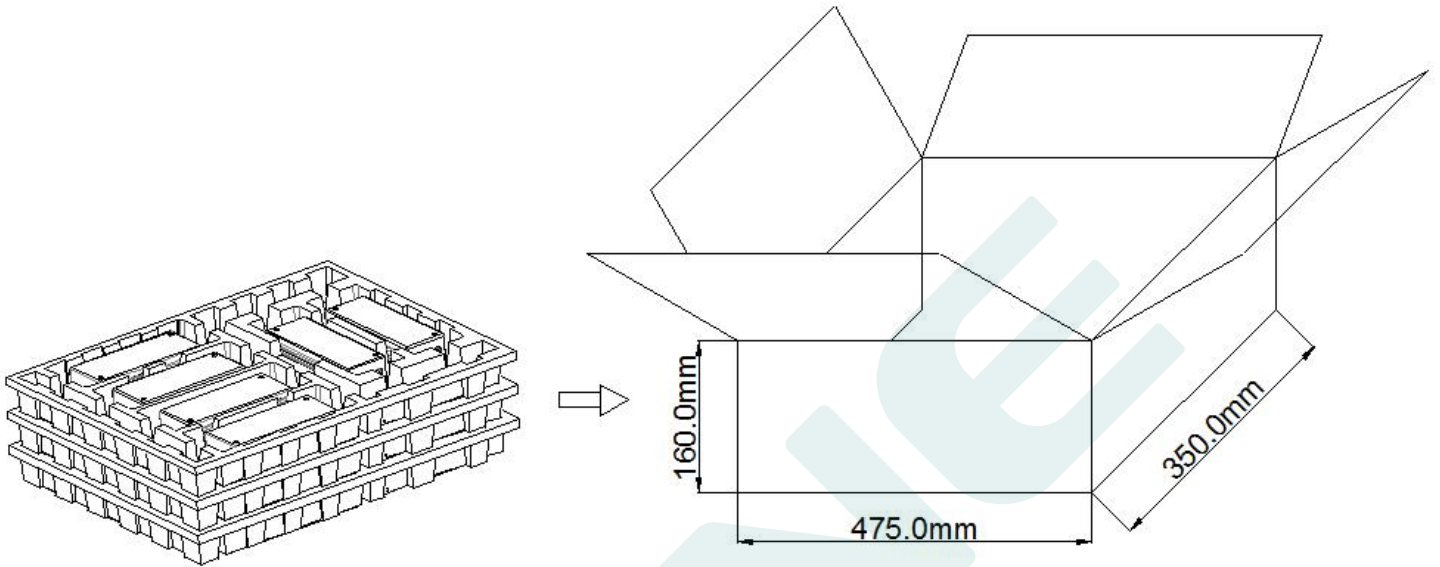
■ WEIGHT

Weight	780g
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■ PACKAGING

Packaging (mm)	L475*W350*H160mm
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Warning:

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