



Product Features

- Universal input voltage / Full range: 90~305Vac;
- Constant power design, output current programming adjustable;
- (M types) offline programmable, (V types) output current adjustable by built-in potentiometer;
- 3-in-1 dimmable: 0~10Vdc / PWM/ Timer dimming, Dim-to-off;
- (M types) Constant lumen output;
- Output and Dimming Signal Isolating;
- Surge protection: 5KV line-line, 10KV line-earth;
- Protections: SCP / OVP / OTP;
- IP67 design for indoor and outdoor applications;
- Suitable for dry / damp / wet locations;
- 5 years warranty.

Application

- Suitable for LED roadway lighting, plant lighting, industrial lighting, landscape lighting, etc.

DESCRIPTION

The X6-150W series is 150W outdoor offline programmable LED driver that operates in constant current with high PF value and universal input voltage range 90~305Vac model. Offline Monitored by dimming cable connected with an USB kit programming device, the fully programmed drivers offer all dimming, dim-to-off, constant lumen output options and a wide range of output current in a single driver, which deliver maximum flexibility with customized operating settings and intelligent control options for lighting manufacturers, as one driver can be programmed for many different luminaire designs. X6 provides built-in timer dimming schedules further increasing the energy savings and CO₂ reductions achieved with LED lighting. It also helps clients to improve the management of logistics and stock. The compact metal case and high efficiency enables the driver to operating with high reliability, and extending product lifetime. Overall protection is provided against lightning surge, output over voltage, short circuit, and over temperature, to ensure low failure rate.

MODELS

Model Number [1]	Max Output Power (W)	Output Voltage Range (Vdc)	Output Current Adjustable Range (A)	Full Power Current Adjustable Range (A) [2]	Default Output Current Setting(A)	Typical Efficiency [3]	Power Factor
							230Vac
X6-150Y062P	150	32-62	42-62	2.42-3.60	3.15	91%	0.96

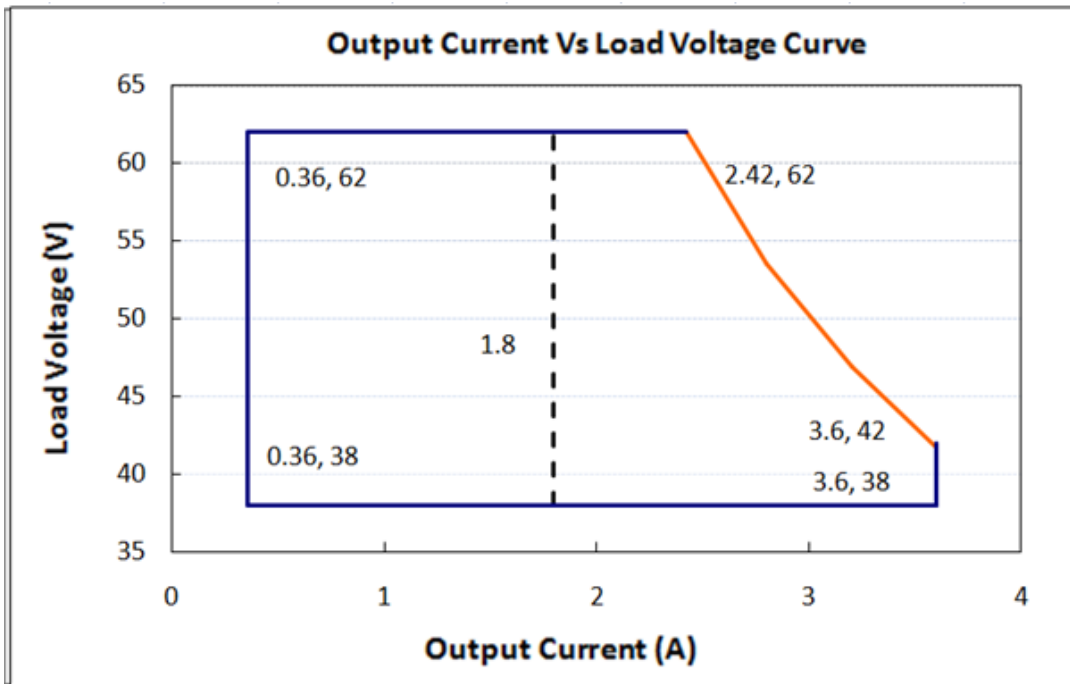
Notes:

[1]. Y can be M or V, Y=M means dimmable and offline programmable. The adjustable lout range: 10%-100% I_{max}, Y=V means non-dimmable and output current adjusted by built-in potentiometer.

[2]. Output current adjustable range with constant power at max output power.

[3]. All specifications are measured at 25°C ambient temperature, input voltage 230Vac, and the typical value tested by full load, if no specific note.

OPERATING AREA I-V



Notes:

The drivers are not allowed to work in over-load condition, otherwise warranty will expire.
 Y=V is suitable for the right area of the dotted line; Y=M is suitable for the solid line contain area.

INPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes			
Input Voltage	90Vac	100-277Vac	305Vac				
Input Frequency	47Hz	50/60	63Hz				
Leakage Current	-	-	0.70mA	277Vac/60Hz			
Input AC Current	-	-	2.0A	100-277Vac & full load			
Inrush Current	-	-	75A	230Vac & full load			
Standby Power Consumption			2W				
Power Factor	0.97	0.99	-	115Vac, 50-60Hz, full load			
	0.95	0.97		230Vac, 50-60Hz, full load			
	0.92	0.95		277Vac, 50-60Hz, full load			
THD	-	5%	10%	100-240Vac, 50-60Hz, 50%-100% load			
	-	-	15%	277Vac, 50-60Hz, 70%-100% load			
Max. NO. of PSUs on CIRCUIT BREAKER	B10	2	B16	4	B25	6	230V
	C10	4	C16	6	C25	10	

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%	-	+5%	
Output Current Setting Range (A)	0.36	-	3.60	The 'M type' adjustable lout range: 10%-100% I _{max}
Output Current Setting Range with Constant Power	2.42	-	3.60	
Total Output Current Ripple(pk-pk)	-	5%	10%	20MHz BW, full load& LED load, the ripple would be tiny different under different LED load.
Startup Overshoot Current	-	-	10%	100~277Vac & 100% Load, load is LED
No Load Output Voltage	-	-	70V	
Line Regulation	-1%	-	+1%	25°C±10°C ambient temperature, input voltage changes from 100Vac to 277Vac.
Load Regulation	-3%	-	+3%	25°C±10°C ambient temperature, Input Voltage 230Vac, load changes from 60% to 100%.
Turn-on Delay Time	-	1S	2S	115Vac, 100% load
	-	-	0.5S	230Vac, 100% load

GENERAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes	
Efficiency @115Vac I _o =1.69 I _o =2.50	87% 86%	89% 88%	- -	Measured at full load and 25°C ambient temperature	
Efficiency @230Vac I _o =1.69 I _o =2.50	89% 88%	91% 90%	- -	Measured at full load and 25°C ambient temperature	
Efficiency @277Vac I _o =1.69 I _o =2.50	89% 88%	91% 90%	- -	Measured at full load and 25°C ambient temperature	
Dielectric Strength	Input-Output	-	3750Vac	-	Max 5mA/60S
	Input-PE	-	1600Vac	-	
	Output-PE	-	1600Vac	-	
Grounding Resistance	-	-	0.1Ω	25A/60S, under 25°C±10°C ambient temperature	
Insulation Resistance	10MΩ	-	-	Input-Output, Input-PE, Output-PE, 500Vdc/60S/25°C/70%RH	
MTBF	-	200000Hrs	-	25°C±10°C ambient temperature, 230Vac, 80% load (MIL-HDBK-217F)	
Lifetime	-	50000Hrs	-	230Vac&100% load, 75°C T _c , refer to lifetime curve for details	
Ambient Temperature	-40°C		+60°C	230Vac&100% load	
Operating Case Temperature for Safety T _{c_s}	-40°C	-	+90°C		
Operating Case Temperature for Warranty T _{c_s}	-40°C	-	+75°C	5 years warranty case temperature Humidity: 10% to 95% RH	
Storage Temperature	-40°C	-	+85°C	Humidity: 5% to 100% RH	
Dimensions (LxWxH)mm	L173*W68*H37				
Net Weight	810±50g/PCS				

Package	L500mm*W310mm*H160mm; 15PCS/Ctn, Gross Weight:13.62KG	
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DIMMING

Parameter	Min.	Typ.	Max.	Notes
0~10V Absolute Maximum Voltage on the Vdim (+) Pin	-	10V	-	
0~10V Source Current on Vdim(+)Pin	-	200uA	400uA	
Dimming Output Range	10%Imax	-	100%Imax	Imax=3.60A
	0.36	-	3.60	
Recommended Dimming Range for 0-10V	0V	-	10V	Default 0-10V/ PWM Dimming(0-10V,0-9V,0-5V,0-3.3V Positive and Reverse Logic can be customized as request)
PWM_in High Level	9.7V	-	10.3V	
PWM_in Low Level	0V	-	0.3V	
PWM_in Frequency Range	300Hz		2KHz	
PWM_in Duty Cycle	1%	-	99%	

SAFETY STANDARDS

Safety Category	Country / Territory	Standards	Approved
UL	USA	UL 8750	√
CUL	Canada	CSA C22.2 No.250.13	√

EMC COMPLIANCE

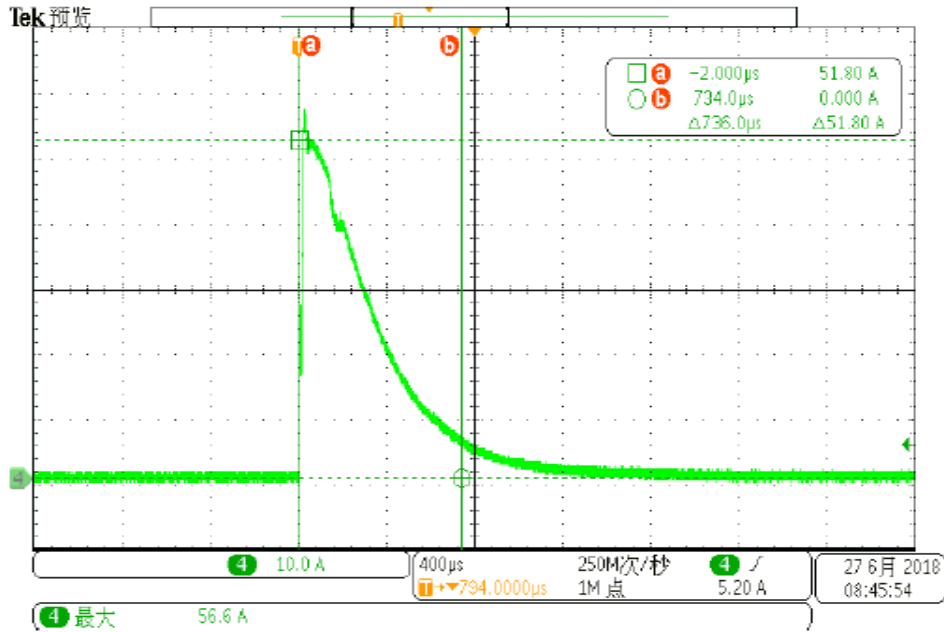
EMC Category	Country / Territory	Standards	Approved
FCC	USA	FCC part 15	√

NOTE: This LED driver meets the EMI specifications above, but as a component of a luminaire, end customer need to identify the EMI performance of a luminaire including LED driver, other devices connected to the driver and on the luminaire itself.

INSULATION

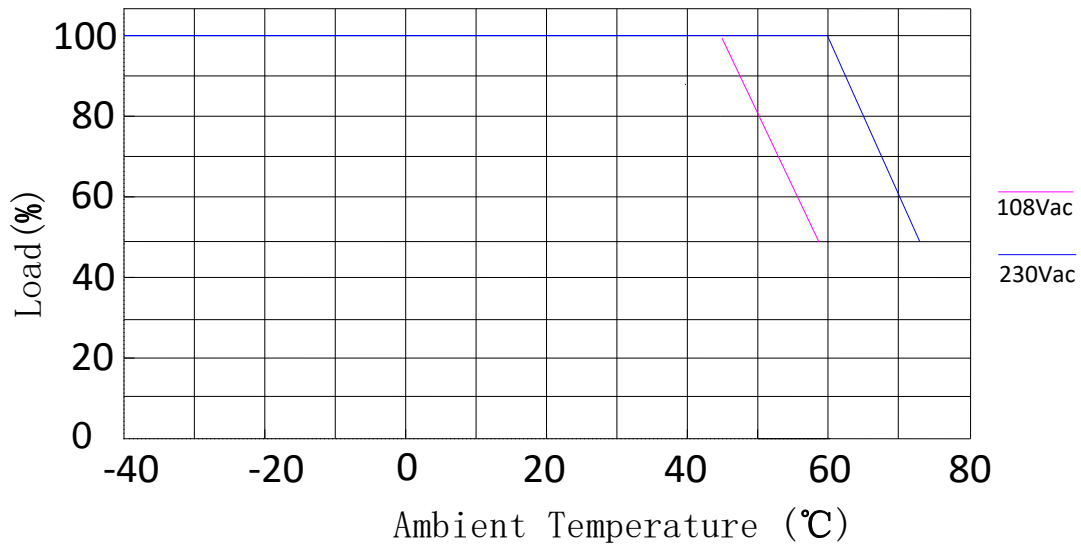
Insulation	Input/Mains	Dimming	LED Output	Case
Input/Mains	/	Double	Double	Basic
Dimming	Double	/	Basic	Basic
LED Output	Double	Basic	/	Basic
Case	Basic	Basic	Basic	/

INRUSH CURRENT WAVEFORM

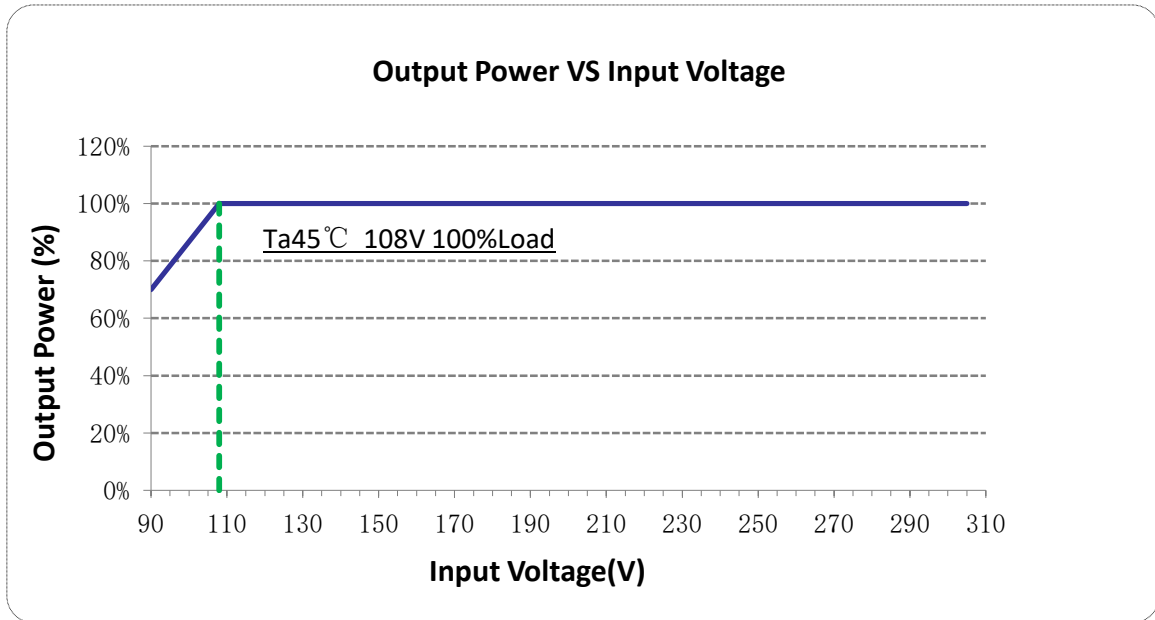


DERATING CURVE

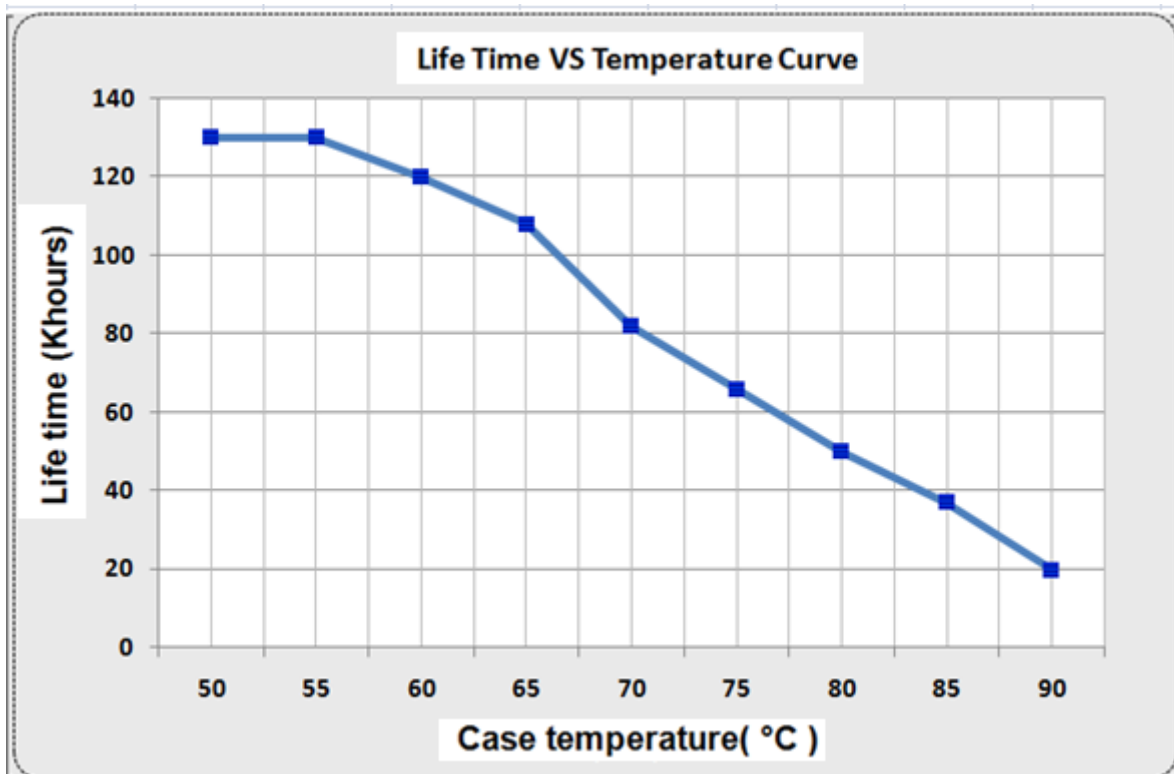
Derating curve



OUTPUT POWER VS INPUT VOLTAGE

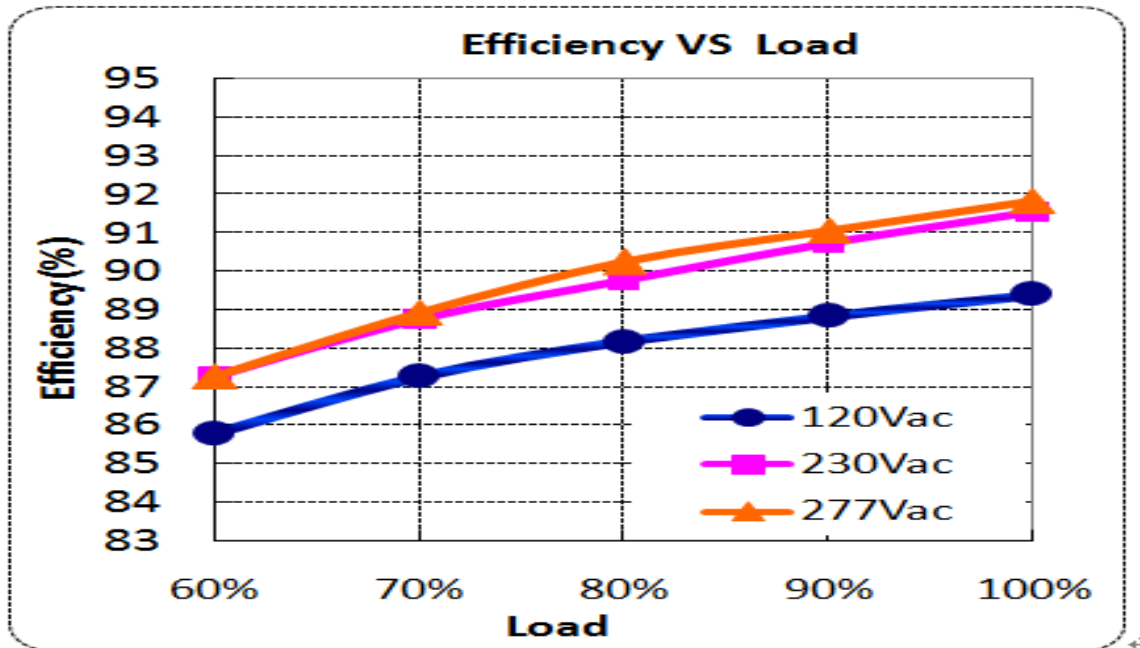


LIFETIME VS CASE TEMPERATURE

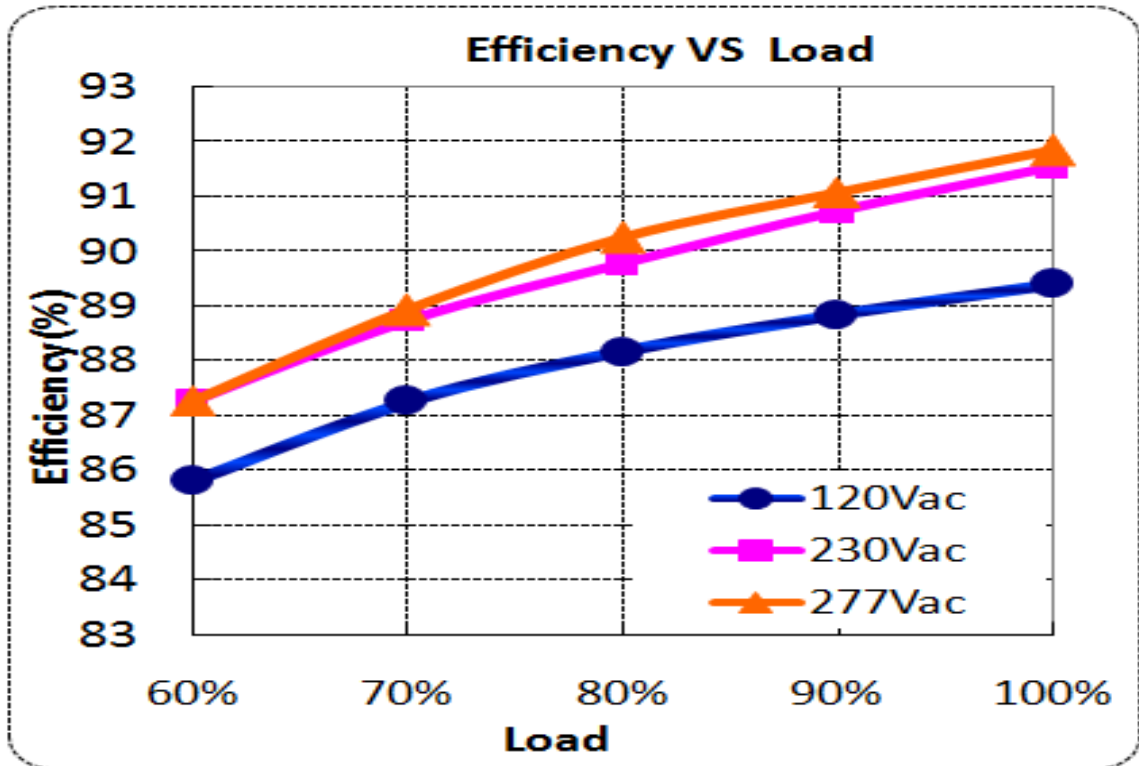


EFFICIENCY VS LOAD

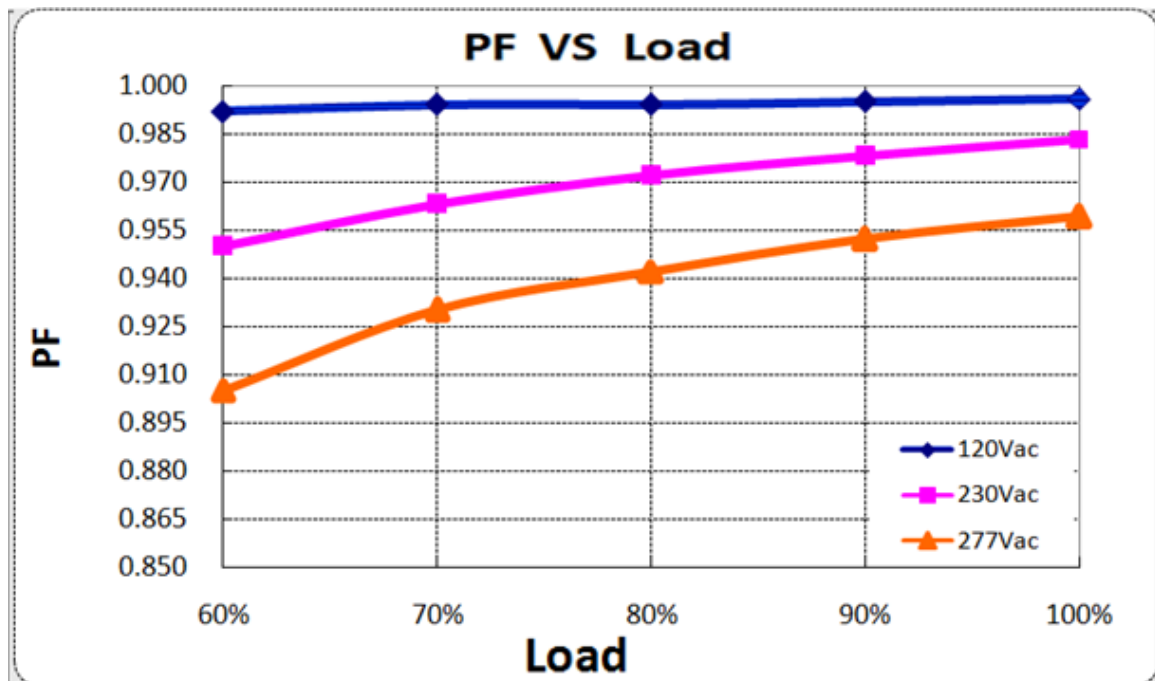
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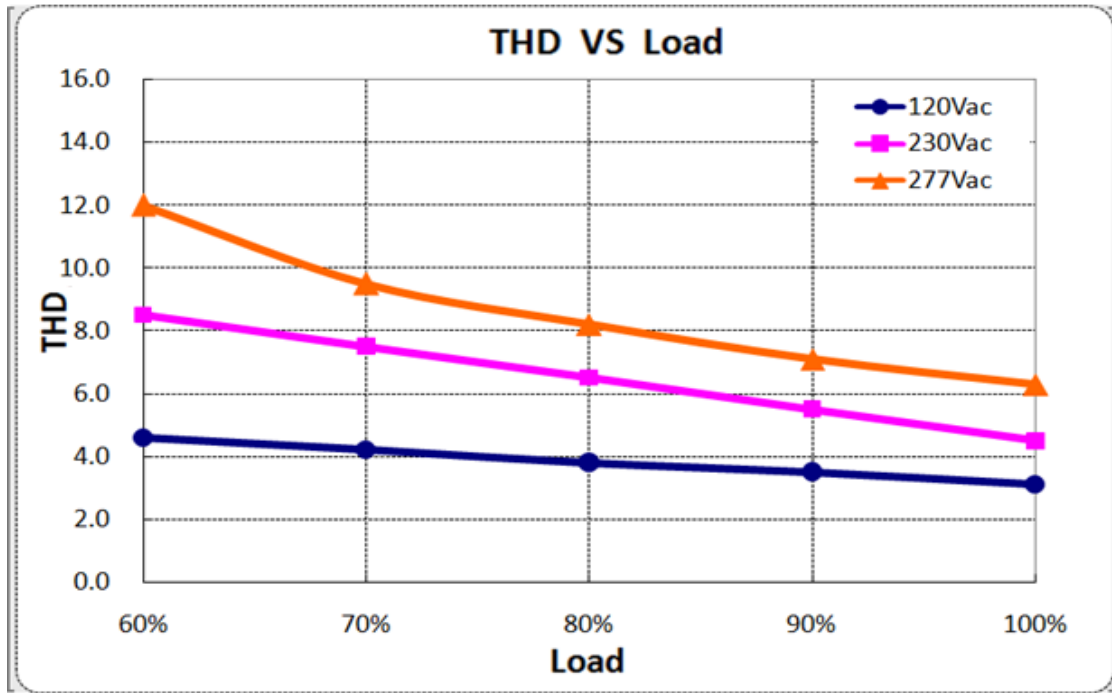
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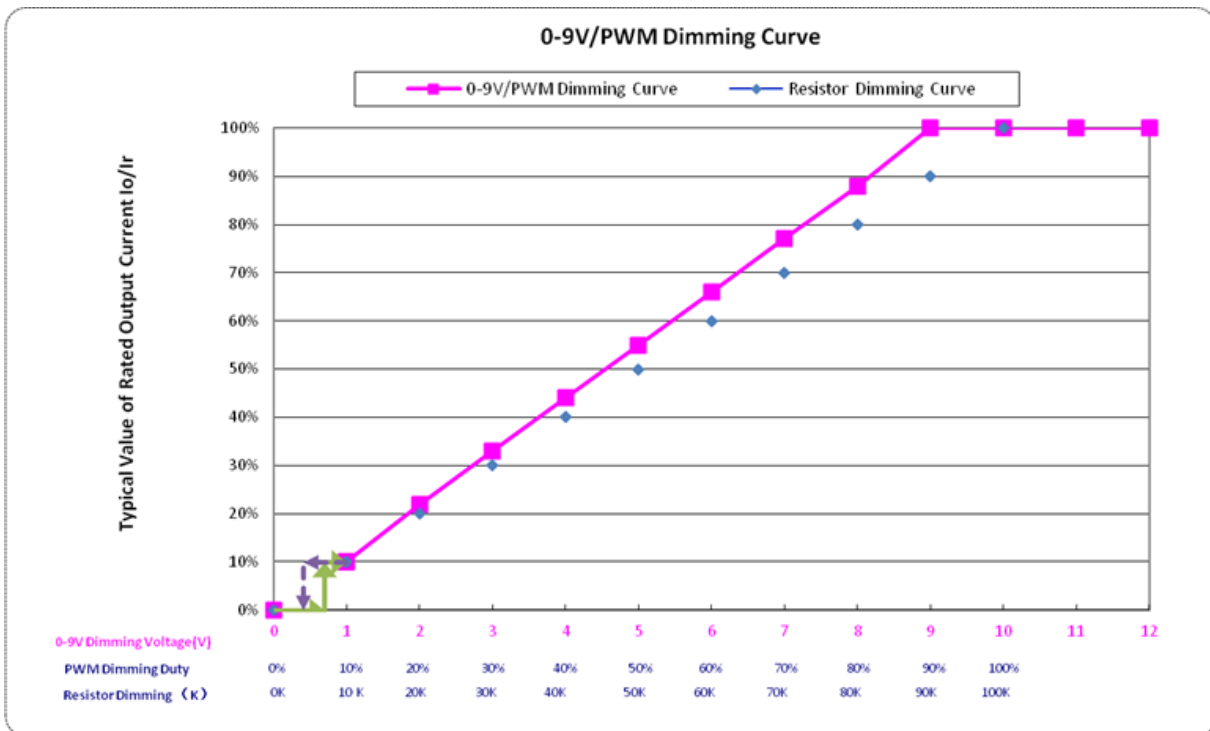
POWER FACTOR VS LOAD



TOTAL HARMONIC DISTORTION



0-9V/PWM DIMMING



Note:

1. Dim to off model is realized by decreasing the output voltage, the power supply still has residual voltage when dim to

off, so the start up voltage of the lamp should be higher than residual voltage.

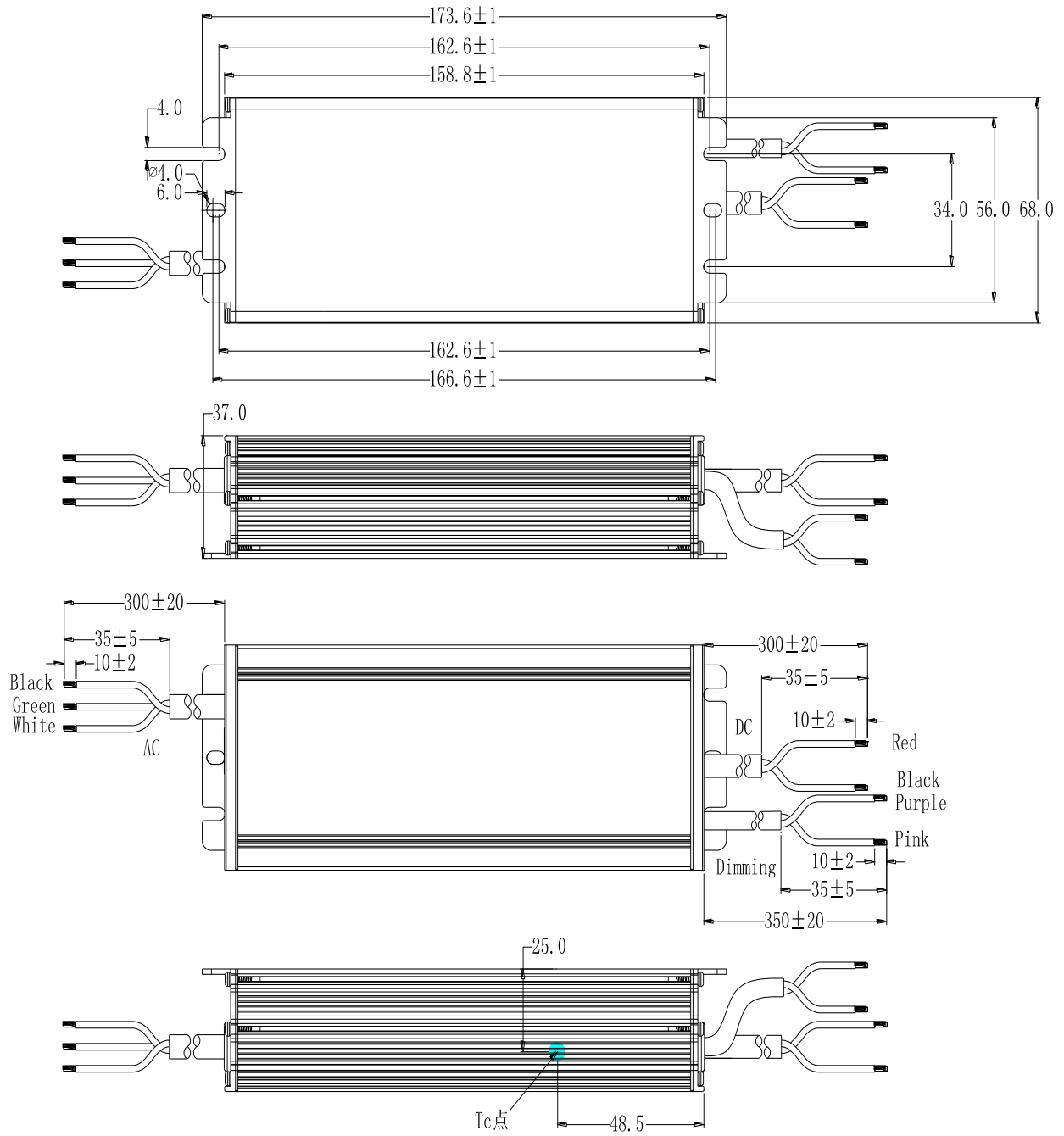
2. 0-9V dimming

PROTECTIONS

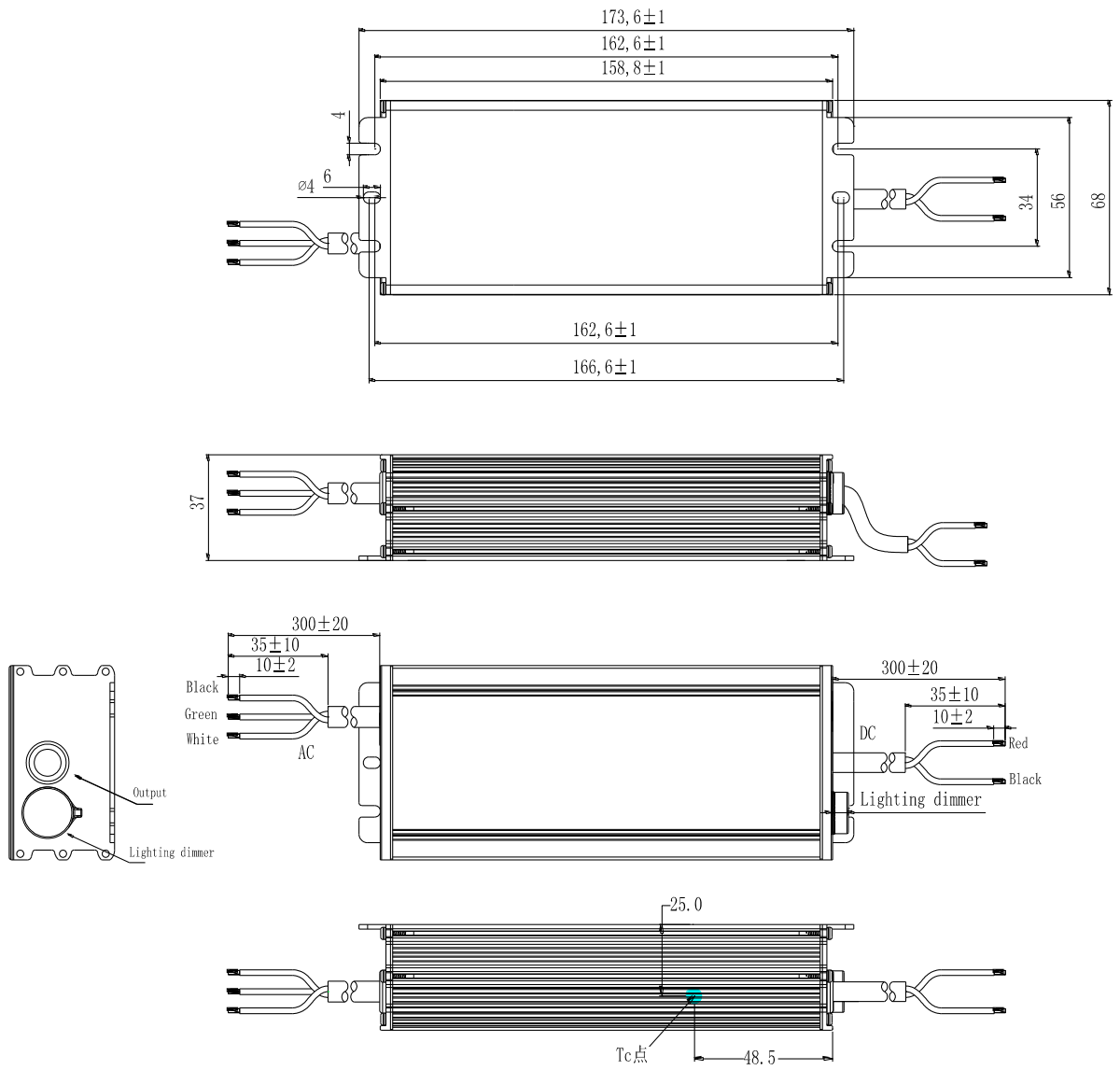
Parameter	Notes
Over Temperature Protection	Decreases output current, returning to normal after over temperature is removed. The max derating could be 30% (typ.).
Short Circuit Protection	Hiccup mode and auto recovery. No damage will occur when any output is short circuited. The output shall return to normal when the fault condition is removed.
Over Voltage Protection	Run into protection model when output voltage exceeds limit, and return to normal when the fault condition is removed.

MECHANICAL OUTLINE

X6-150M062P Types

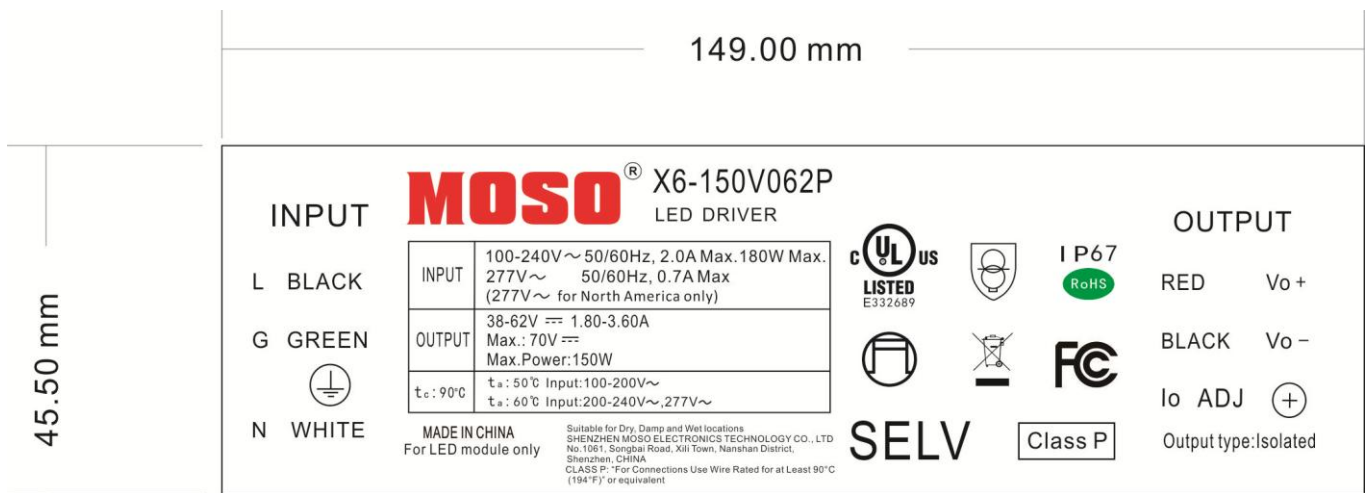


X6-150V062P Types

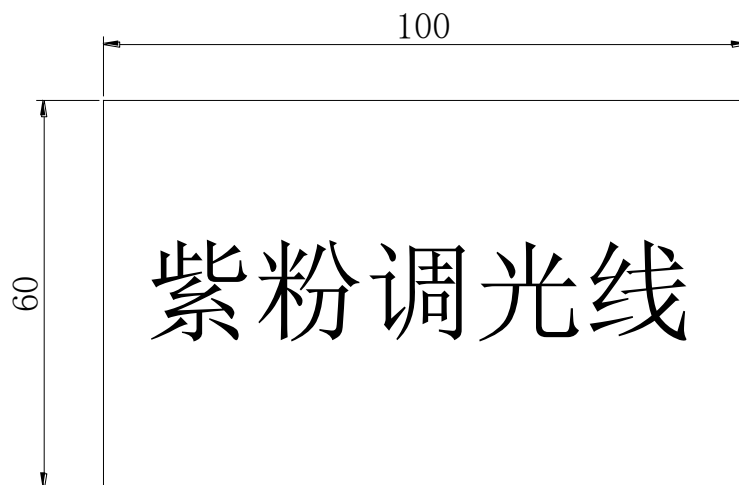


Wire	Specification	Note
Input	18AWG*3C UL SJOW external diameter: 7.8mm L=300±20mm, peel length 35mm, Tin-dip length 10mm	
Output	18AWG*2C UL SJOW external diameter: 7.3mm L=300±20mm, peel length 35mm, Tin-dip length 10mm	
Dimming	UL2733 22AWG*2C external diameter: 5.45mm L=350±20mm, peel length 35mm, Tin-dip 10mm	Y = M

LABEL



carton label



注：颜色黑色，字号为 72 号黑体。

Specification for Approval

Product Name: 150W outdoor off-line programmable driver

Product Model: X6-150M062P
X6-150V062P

Rev. A.1

Sample Date: -

CUSTOMER AUTHORIZED SIGNATURE		
Tested By	Checked By	Approved By
(Company seal)Return one copy to MOSO with approved signature and company seal.		

XiLi Songbai Road 1061, Nanshan
Address: District, Shenzhen City, Guangdong Province, P.R.China Post Code: 518108
TEL: 0755-27657000 FAX: 0755-27657908
E-mail: info@mosopower.com Web site: http://www.mosopower.com

Prepared By	Checked By	Approved By

Specification subject to change without notice

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Product Model: X6-150M062P
X6-150V062P

Rev. A.1

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