



Product Features:

- Universal input voltage / Full range: 110~305Vac;
- 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;
- 7 years warranty.

Application:

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

DESCRIPTION

The X6-150 series is 150W outdoor offline programmable LED driver that operates in constant current with high PF value and universal input voltage range 110~305Vac 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. X6-150 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 lightening surge, input over voltage, input under voltage , output over voltage, short circuit, and over temperature, to ensure low failure rate.

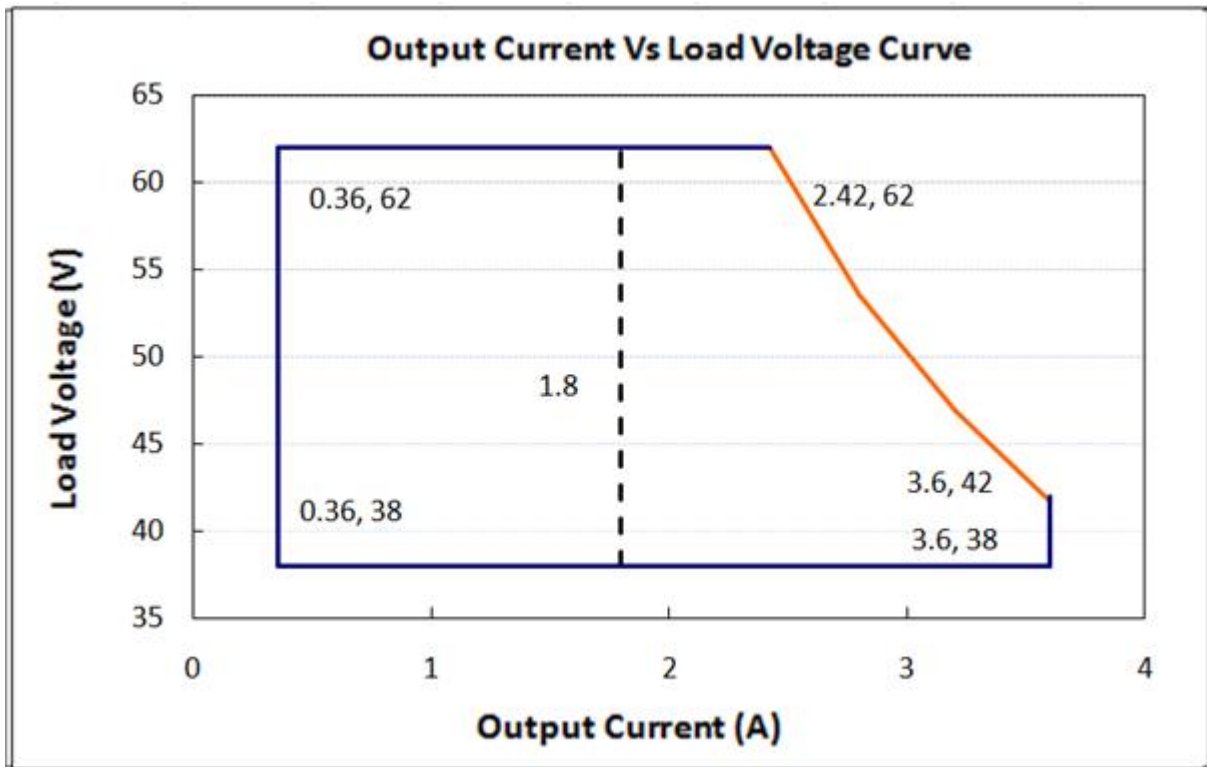
MODELS

Model Number [1]	Max Output Power (W)	Output Voltage Range (Vdc)	Full Power Output Voltage Range (Vdc)	Full Power Current Adjustable Range (A) [2]	Default Output Current Setting(A)	Typical Efficiency [3]	PF
X6-150X062-I	150	38-62	42-62	2.42-3.60	3.15	91%	0.96

Notes:

- [1]. V means 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 240Vac, and the typical value tested by full load, if no specific note.

OPERATING AREA



Notes: V is suitable for the right area of the dotted line.

INPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	110Vac	120-277Vac	305Vac	Rated Input Voltage is 240Vac
Input Frequency	47Hz	50/60	63Hz	
Leakage Current	-	-	0.70mA	277Vac/60Hz
Input AC Current	-	-	2A	120-277Vac & full load
Inrush Current	-	-	75A	240Vac & full load
Standby Power Consumption			2W	240Vac/50Hz
Power Factor	0.97	0.99	-	120Vac, 50-60Hz, full load
	0.95	0.97		240Vac, 50-60Hz, full load
	0.92	0.95		277Vac, 50-60Hz, full load
THD	-	5%	10%	120-240Vac, 50-60Hz, 70%-100% load
	-	-	15%	277Vac, 50-60Hz, 70%-100% load

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%Iset	-	5%Iset	
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%	120~277Vac &100% Load, load is LED
No Load Output Voltage(V)	-	-	70	
Line Regulation	-1%	-	1%	25°C±10°C ambient temperature, input voltage changes from 100Vac to277Vac.
Load Regulation	-3%	-	3%	25°C±10°C ambient temperature, Input Voltage 240Vac, load changes from 60% to 100%.
Turn-on Delay Time	-	1S	2S	120Vac,100% load
	-	-	0.5S	240Vac,100% load

GENERAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Efficiency @120Vac I _o =2.42 I _o =3.60	87% 86%	89% 88%		Measured at full load and 25°C ambient temperature
Efficiency @240Vac I _o =2.42 I _o =3.60	89% 88%	91% 90%	-	Measured at full load and 25°C ambient temperature
Efficiency @277Vac I _o =2.42 I _o =3.60	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, 240Vac,80% load (MIL-HDBK-217F)
Lifetime	-	50000Hrs	-	240Vac&100% load, 75°C case temperature, refer to lifetime curve for details
Ambient Temperature	-40°C		+60°C	240Vac&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	7 years warranty case temperature Humidity: 10% to 95% RH



X6 Series-150W (Input 440V over voltage) Off-line Outdoor Programmable

Storage Temperature	-40°C	-	+85°C	Humidity: 5% to 100% RH
Dimensions (L*W*H)mm	L173*W68*H37			
Net Weight	810±50g/PCS			
Package	L500mm*W370mm*H160mm; 10PCS/Ctn			

SAFETY STANDARDS

Safety Category	Country / Territory	Standards	Approved
CCC	China	GB19510.1, GB19510.14	√
CE	Europe	EN61347-1, EN61347-2-13	√
		EN62493	√
ENEC		EN62384	√
CB	CB Countries	IEC61347-1, IEC61347-2-13	√
BIS	India	IS 15885(PART 2/SEC 13)	√

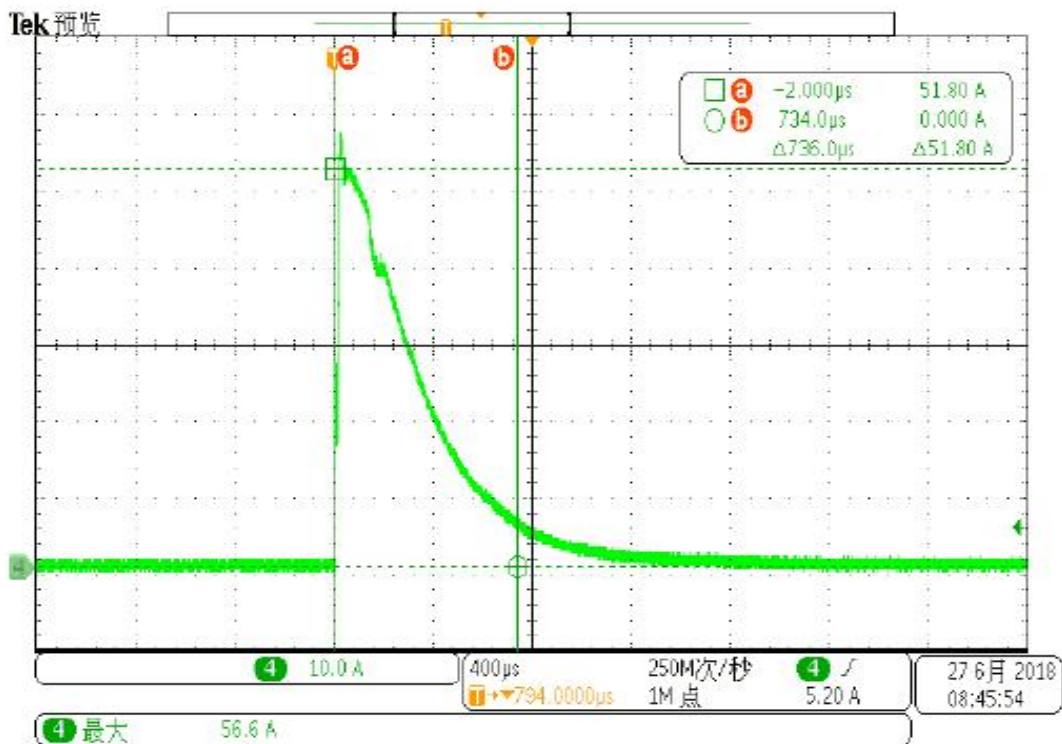
EMC COMPLIANCE

EMC Category	Country / Territory	Standards	Approved
CCC	China	GB/T 17743, GB 17625.1	√
CE	Europe	EN 55015	√
		EN 61000-3-2, EN 61000-3-3	√
		EN61000-4-2,3,4,5,6,11	√
		EN 61547	√

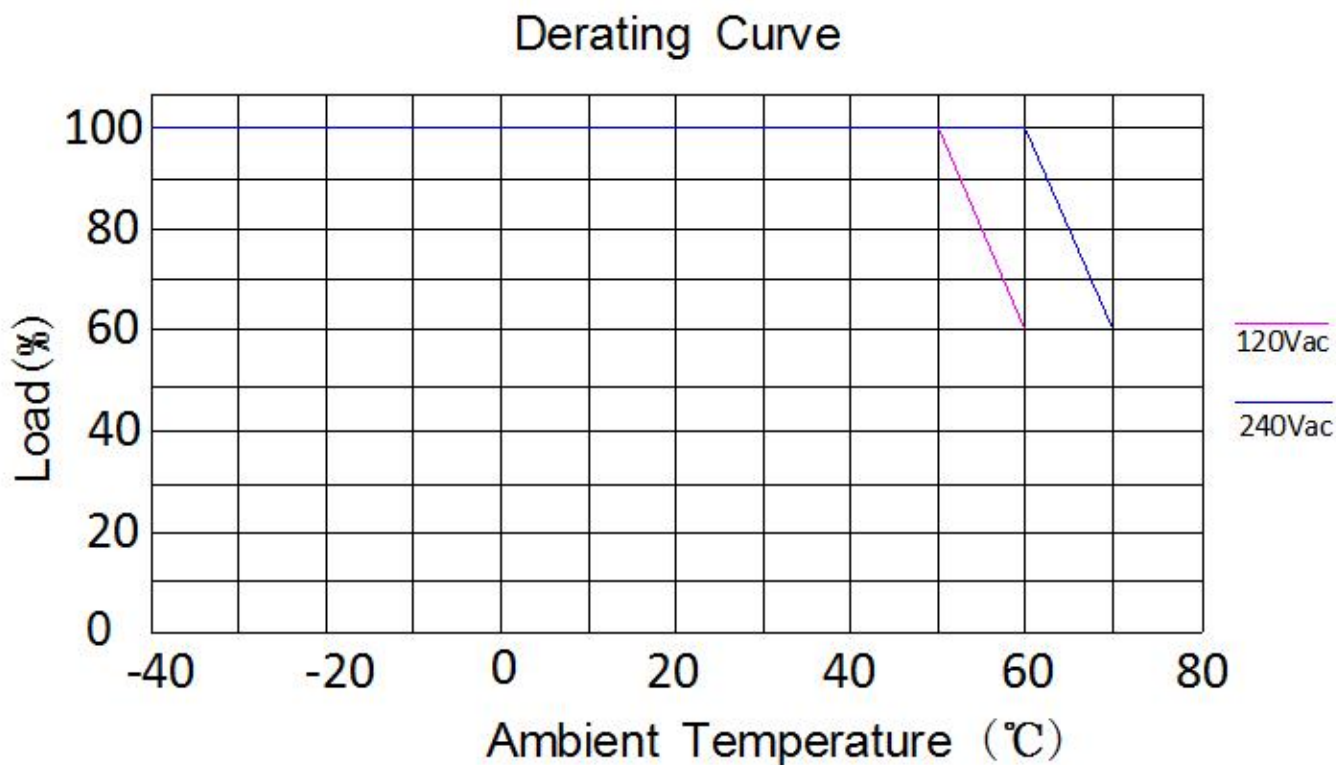
NOTE:

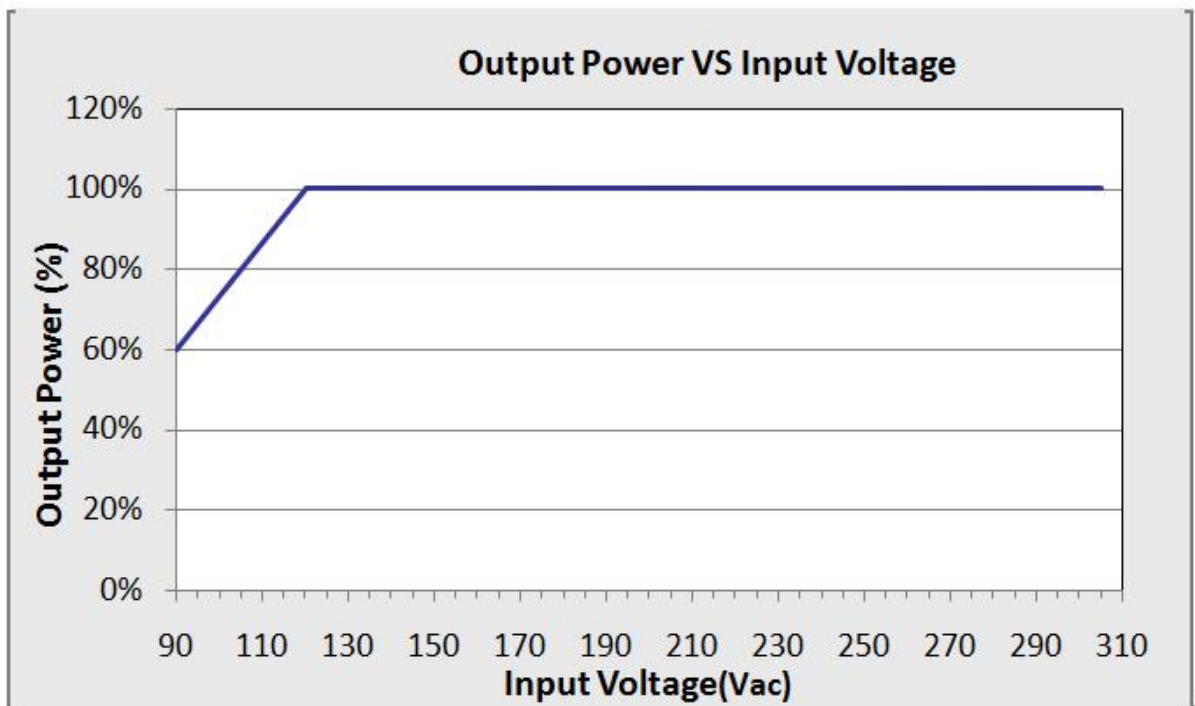
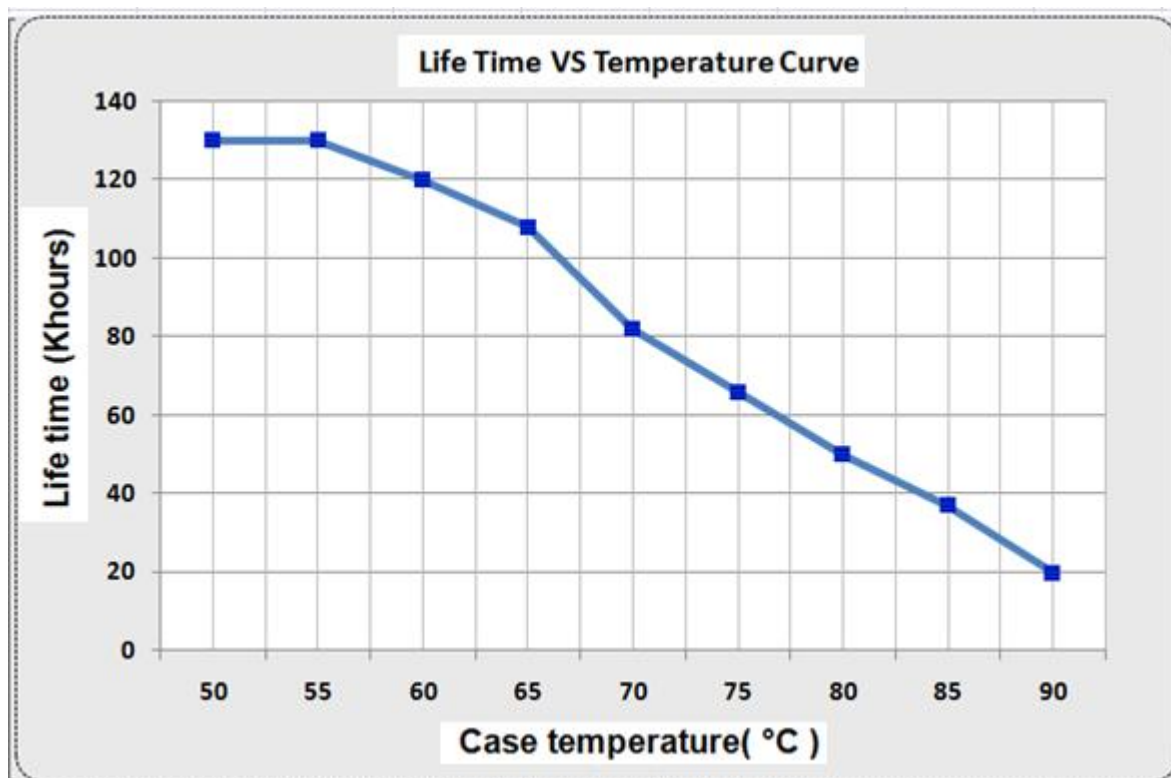
This LED driver meets the EMI specifications above, but as a component of a luminaire, end customer need to identify the EMI performance of a luminaire including LED driver, other devices connected to the driver and on the luminaire itself.

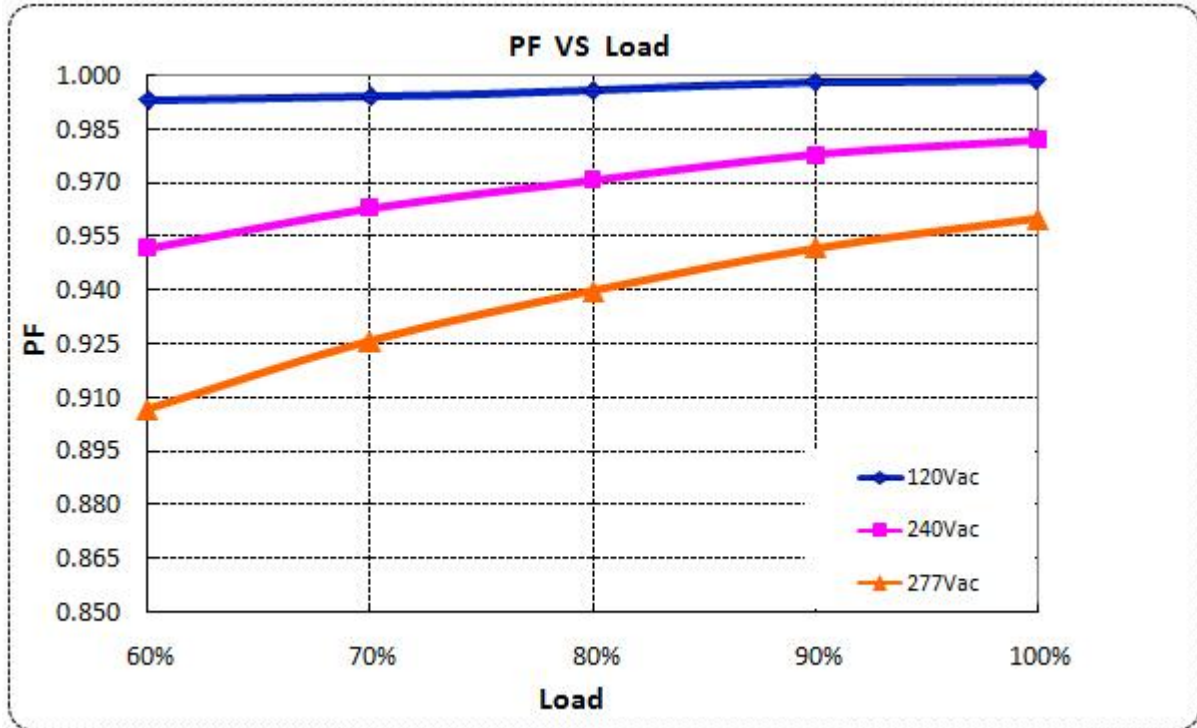
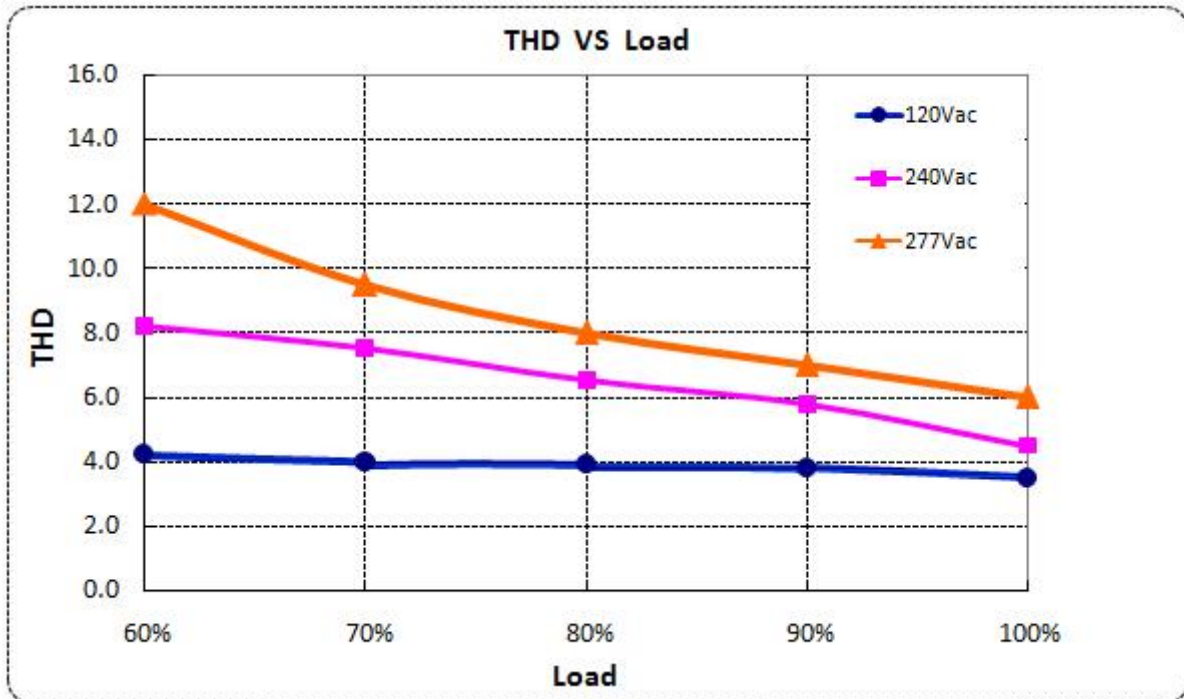
INRUSH CURRENT WAVEFORM



DERATING CURVE

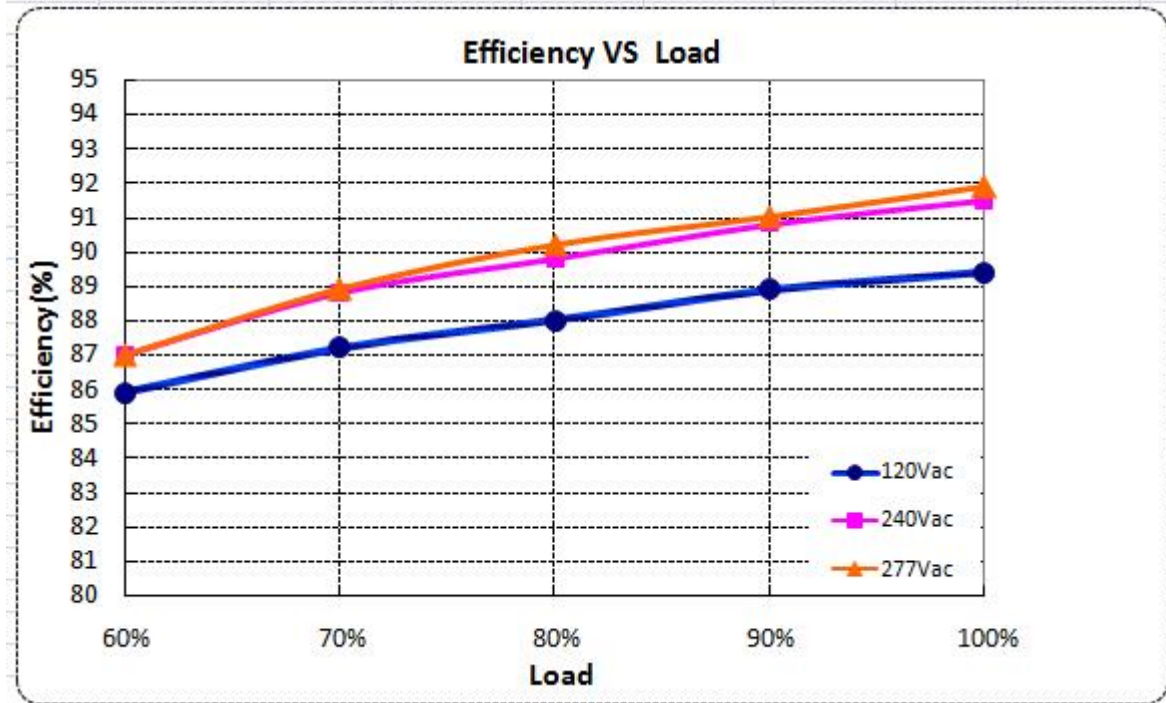


OUTPUT POWER VS INPUT VOLTAGE**LIFETIME VS CASE TEMPERATURE**

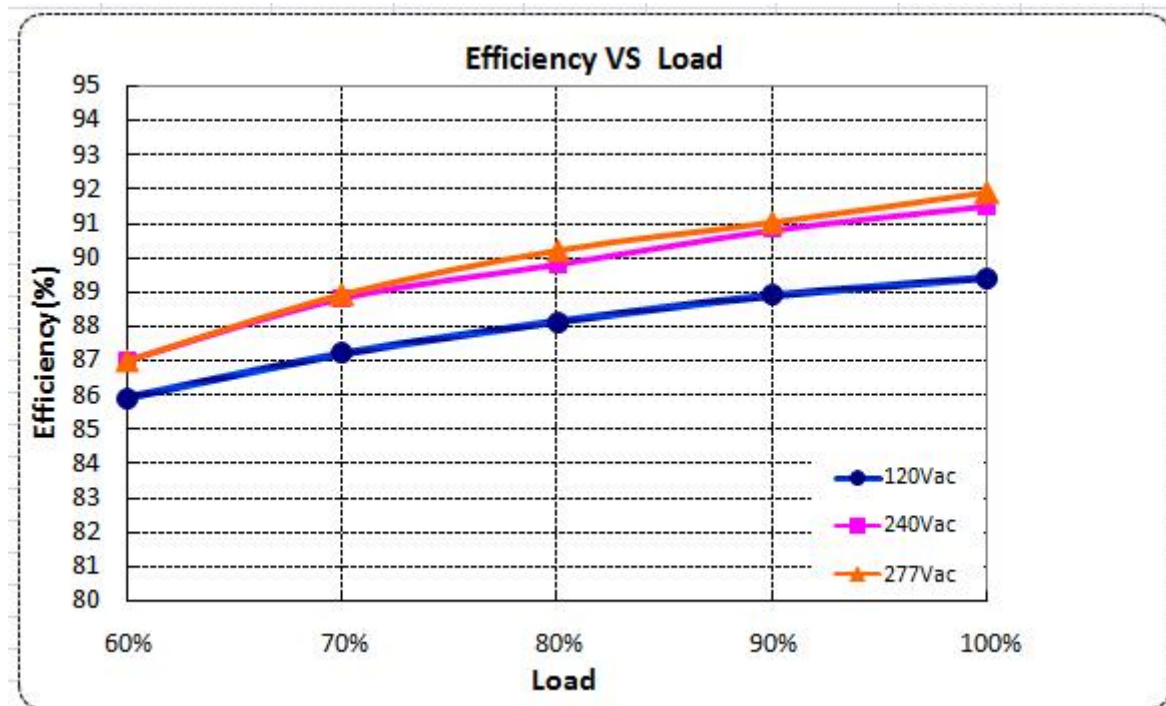
POWER FACTOR VS LOAD**TOTAL HARMONIC DISTORTION**

EFFICIENCY VS LOAD

Io=2.42A



Io=3.6A



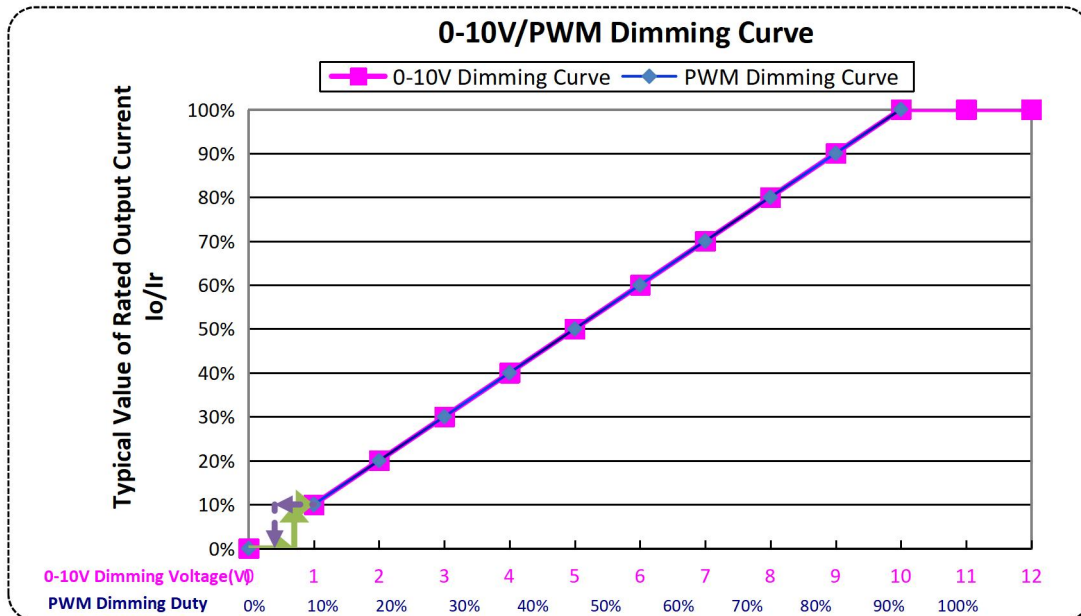
PROTECTIONS

Parameter		Min.	Typ.	Max.	Notes
Input Over Voltage Protection	Input Protection Voltage	315Vac	325Vac	335Vac	Turn off the output when the input voltage exceeds protection voltage.
	Recovery Voltage	300Vac	-	315Vac	Auto Recovery. The driver will restart when the input voltage falls below recovery voltage.
	Max. of Input Over Voltage	-	-	440Vac	The driver can survive for 48 hours with input over-voltage of 440Vac.
Input Under Voltage Protection		90Vac	100Vac	110Vac	
Over Temperature Protection		Decreases output current, returning to normal after over temperature is removed.			
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.			
Output Over Voltage Protection		Limits output voltage at no load and in case the normal voltage limit fail			

Notes:

All specifications are measured at 25°C ambient temperature, the typical value tested by full load, if no specific note.

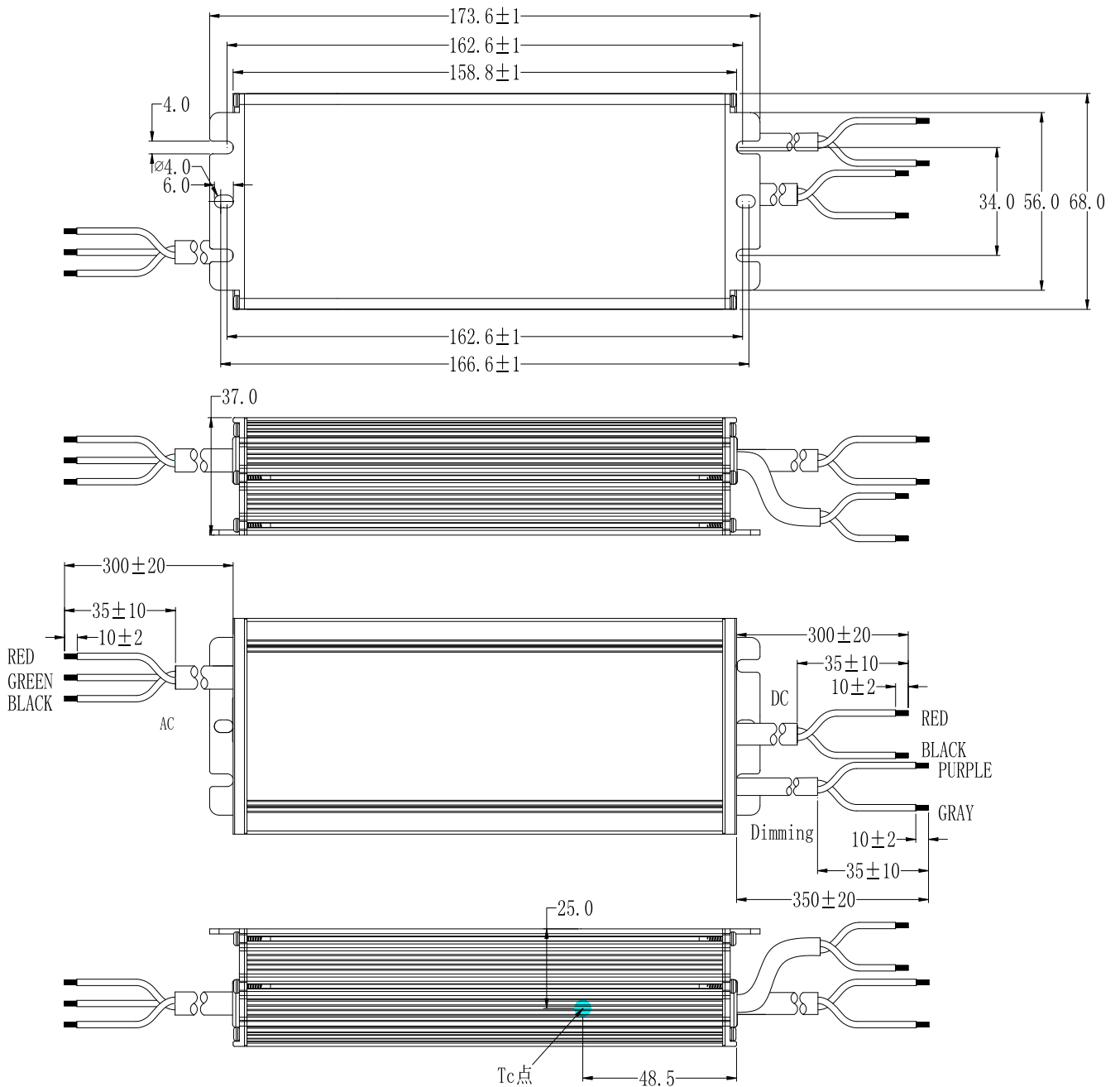
0-10V/PWM DIMMING



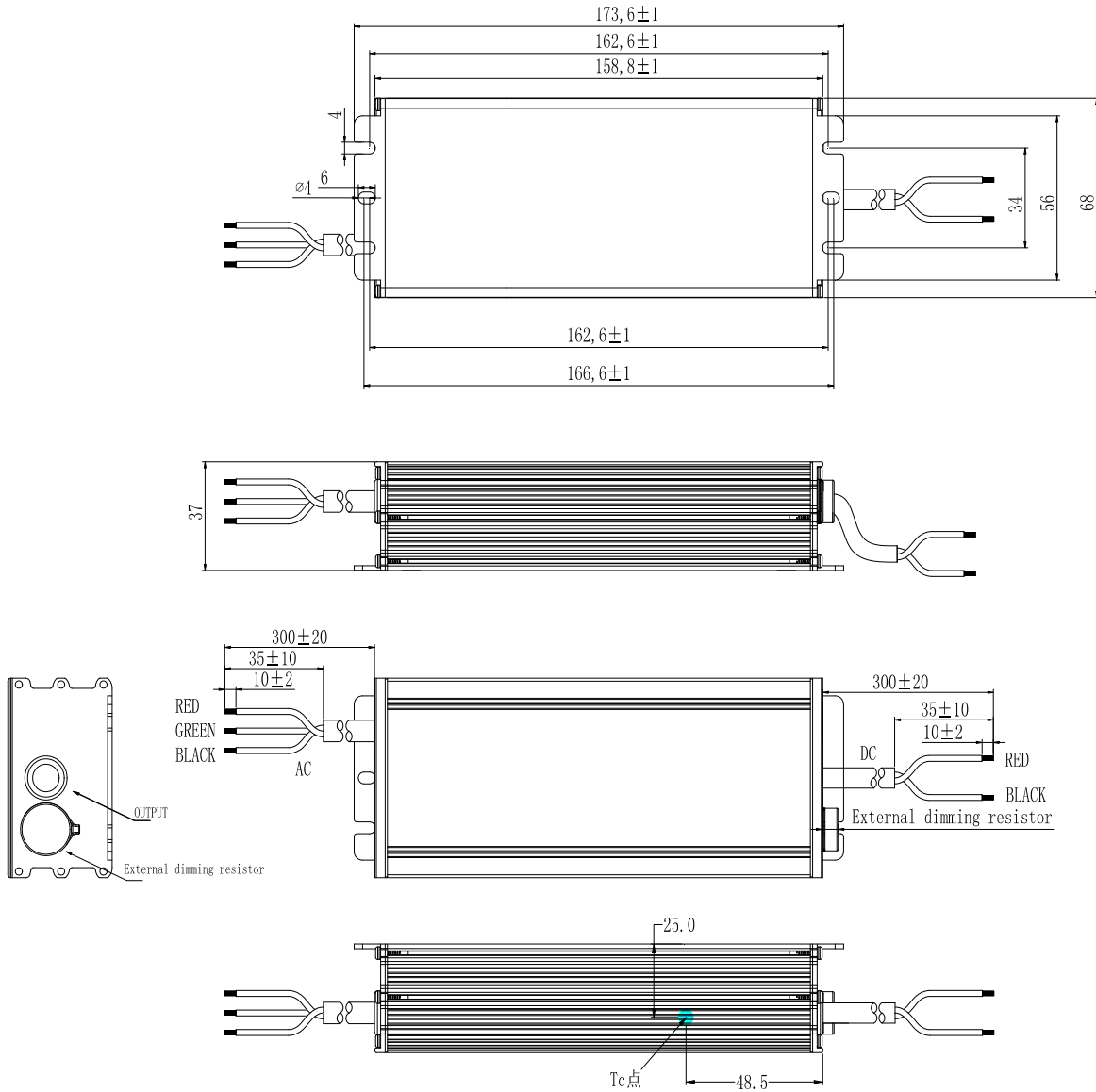
Note: Dim to off model is realized by decreasing the output voltage, the power supply still has residual voltage when dim to off, so the start up voltage of the lamp should be higher than residual voltage.

MECHANICAL OUTLINE

X6-150M062 type



X6-150V062 types



Wire	Specification	Note
Input	BIS-9968 3*1.0mm ² L=300±20mm	For BIS
Output	BIS-9968 2*1.0mm ² L=300±20mm	For BIS
Dimming	UL2733 22AWG*2C L=350±20mm	Y=M

LABEL

149.00 mm

45.50 mm

INPUT **MOSO[®]** X6-150M062 LED DRIVER

INPUT	100-240V~ 50/60Hz, 2.0A Max.PF:0.95
OUTPUT	38-62V --- 0.36-3.60A Max: 70V --- Max.Power:150W
t _c : 90°C	t _a : 50°C Input:100-200V~ t _a : 60°C Input:200-240V~

L RED

G GREEN

N BLACK

MADE IN CHINA SHENZHEN MOSO ELECTRONICS TECHNOLOGY CO., LTD
For LED module only No.1061, Songbai Road, Xili Town, Nanshan District, Shenzhen, CHINA

IS15885(Part2/Sec13)

R-41077186
www.bis.gov.in

IP67

SELV

OUTPUT

RED Vo +

BLACK Vo -

PURPLE DIM +

GRAY DIM -

149.00 mm

45.50 mm

INPUT **MOSO[®]** X6-150V062 LED DRIVER

INPUT	100-240V~ 50/60Hz, 2.0A Max.PF:0.95
OUTPUT	38-62V --- 1.80-3.60A Max: 70V --- Max.Power:150W
t _c : 90°C	t _a : 50°C Input:100-200V~ t _a : 60°C Input:200-240V~

L RED

G GREEN

N BLACK

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IP67

SELV

OUTPUT

RED Vo +

BLACK Vo -

Io ADJ



Specification for Approval

Product Name: 150W Outdoor Off-line Programmable Driver
Product Model: X6-150M062-I BIS
X6-150V062-I BIS
Rev. B.3

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

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TEL: 0755-27657000 FAX: 0755-27657908
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Prepared By	Checked By	Approved By



Product Specification

Product Name: 150W Outdoor Off-line Programmable Driver
Product Model: X6-150M062-I BIS
X6-150V062-I BIS
Rev. B.3

XiLi Songbai Road 1061, Nanshan
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Prepared By	Checked By	Approved By