



Product Features:

- Universal input voltage / Full range: 90~305Vac;
- Constant power design, output current programming adjustable;
- (M types) offline programmable, (N types) output current adjustable by built-in potentiometer;
- 3-in-1 dimmable: 0~10Vdc, PWM, Positive and negative logic, Timer dimming, Dim-to-off;
- (M types)Constant lumen output; daily log
- 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 240W 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.

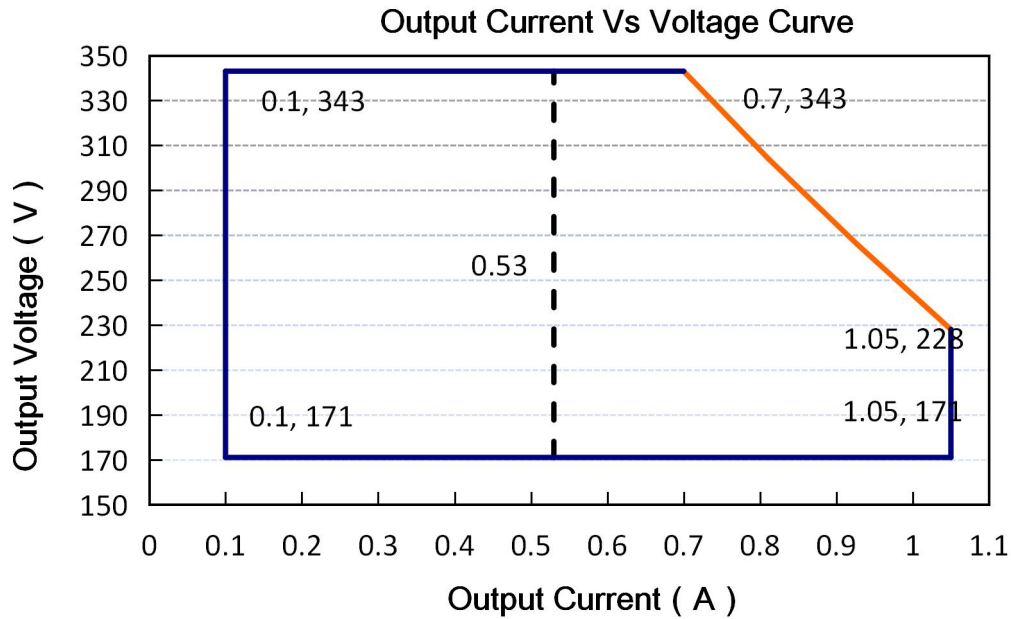
MODELS

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
X6-240Y343	240	171-343	228-343	0.70-1.05	0.7	93.5%	0.97

Notes:

- [1]. Y can be M or N. Y=M means dimmable and offline programmable, The adjustable I_{out} 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	-	-	3.3A	100-277Vac & full load			
Inrush Current	-	-	75A	230Vac & full load			
Standby Power Consumption			2W	Dim to off			
Power Factor	0.97	0.99	-	120Vac, 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	1	B16	2	B25	2	230Vac
	C10	2	C16	3	C25	4	

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%	-	5%	
Output Current Setting Range (A) X6-240Y343	0.53	-	1.05	The 'M type' adjustable lout range: 10%-100% I _{max} ,
Output Current Setting Range with Constant Power X6-240Y343	0.70	-	1.05	
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 X6-240Y343	-	-	360	
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 230Vac, load changes from 60% to 100%.
Turn-on Delay Time	-	0.5S	2S	120Vac,100% load
	-	-	0.5S	230Vac,100% load

GENERAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Efficiency @120Vac I _o =0.70 I _o =1.05	89% 89%	91% 91%	-	Measured at full load and 25°C ambient temperature
Efficiency @230Vac I _o =0.70 I _o =1.05	91.5% 91.5%	93.5% 93.5%	-	Measured at full load and 25°C ambient temperature
Efficiency @277Vac I _o =0.70 I _o =1.05	92% 92%	94% 94%	-	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 case temperature, refer to lifetime curve for details
Ambient Temperature	-40°C		+60°C	Reference derating curve
Operating Case Temperature for Safety T _{c_s}	-40°C	-	+90°C	

Operating Case Temperature for Warranty Tc_s	-40℃	-	+75℃	5 years warranty case temperature Humidity: 10% to 95% RH
Storage Temperature	-40℃	-	+85℃	Humidity: 5% to 100% RH
Dimensions (L*W*H)mm	L208.6W*68*H39			
Net Weight	1050±100g/PCS			
Package	L502xW372xH222mm; 15PCS/Ctn Gross weight: 16.2 KG			

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	X6-240M343	10% I _{max}	-	100% I _{max}	I _{max} =1.05A
	X6-240M343	0.10	-	1.05	
Recommended Dimming Range for 0-10V	0V	-	10V	Default 0-10V/ PWM Dimming(0-10V,0-9V,0-5V,0-3.3V and Forward and reverse dimming 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
CCC	China	GB19510.1, GB19510.14	√
CE	Europe	EN61347-1, EN61347-2-13	√
		EN62493	√
		EN62384	√
ENEC	CB Countries	IEC61347-1, IEC61347-2-13	√
CB	India	IS 15885(PART 2/SEC 13)	√
BIS	USA	UL 8750	√
UL	Canada	CSA C22.2 No.250.13	√
CUL	South Korea	K61347-1, K61347-2-13	
KC	Japan	J61347-1, J61347-2-13	
PSE	Australia	AS/NZS IEC 61347.2.13	√
SAA		AS/NZS 61347.1	√
EAC	Russia	ГОСТ Р МЭК 61347-1-2011 ГОСТ IEC 61347-2-13-2013 ГОСТ IEC 62493-2014 СТБ EH 55015-2006 ГОСТ IEC 61547-2013 ГОСТ 30804.3.2-2013 (IEC 61000-3-2:2009) ГОСТ 30804.3.3-2013 (IEC 61000-3-3:2008)	√

Isolation conditions

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	/

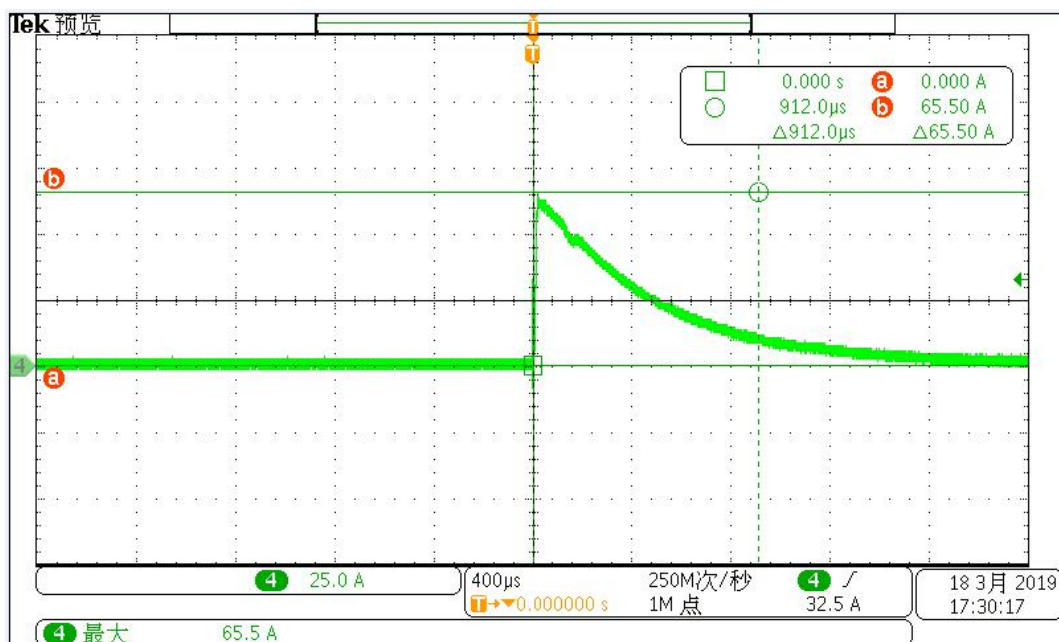
EMC COMPLIANCE

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	√
KC	South Korea	K61547	
		K00015	
PSE	Japan	J55015	
FCC	USA	FCC part 15	√

NOTE:

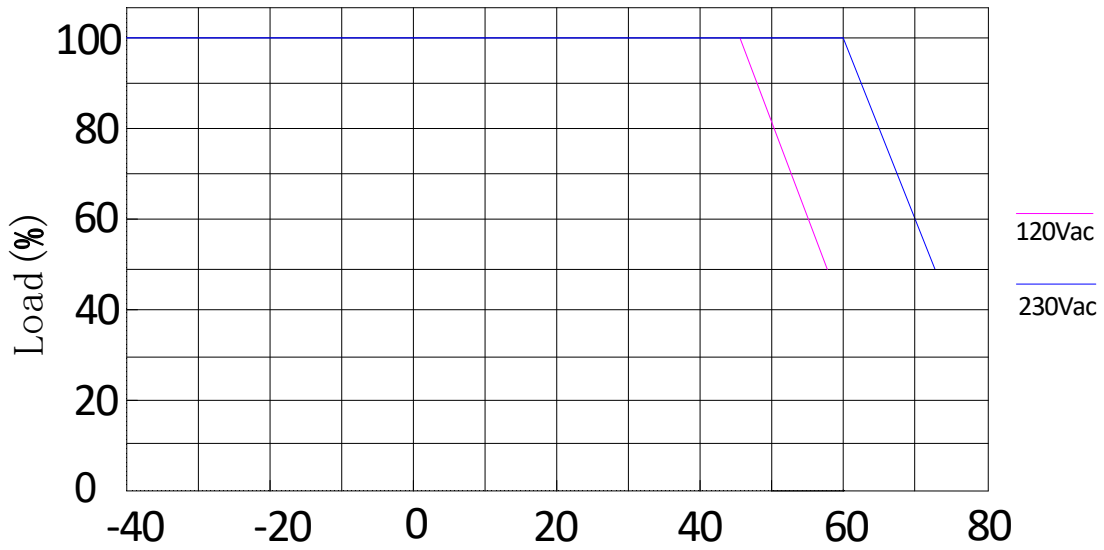
This LED driver meets the EMI specifications above, but as a component of a luminaire, end customer need to identify the EMI performance of a luminaire including LED driver, other devices connected to the driver and on the luminaire itself.

INRUSH CURRENT WAVEFORM

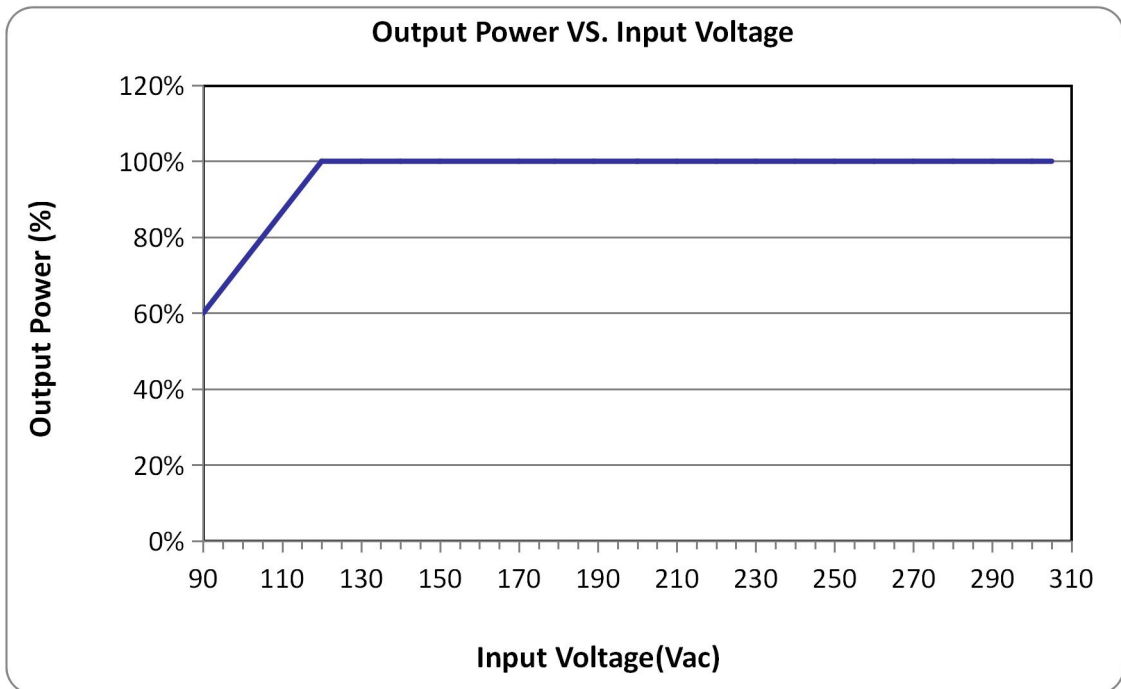


DERATING CURVE

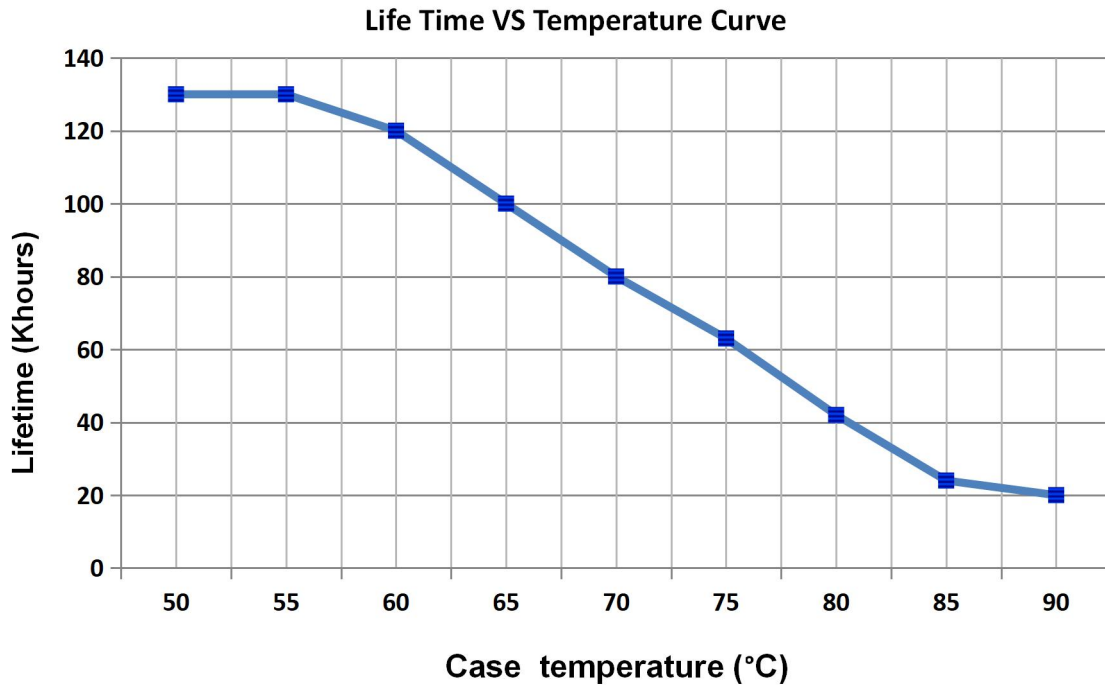
Derating Curve



OUTPUT POWER VS INPUT VOLTAGE

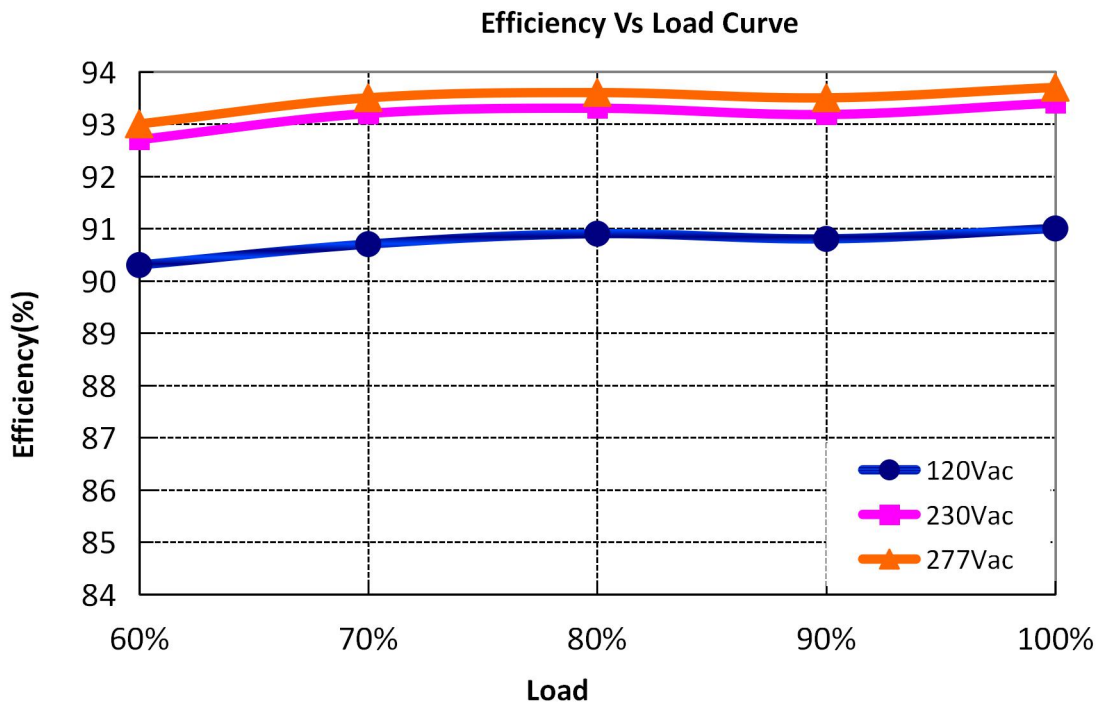


LIFETIME VS CASE TEMPERATURE

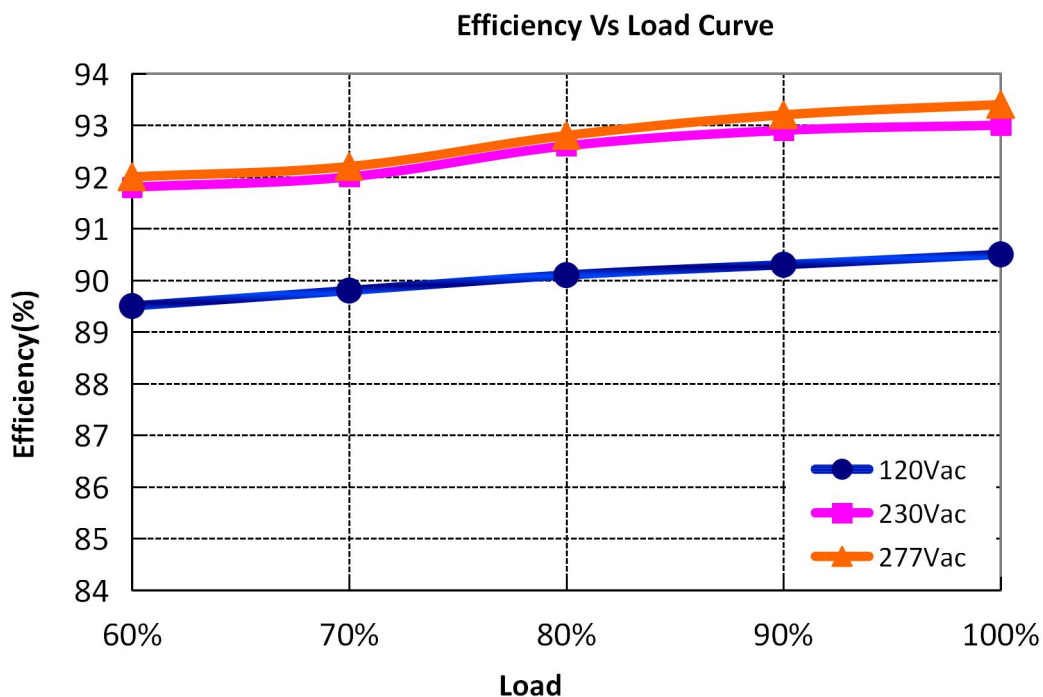


EFFICIENCY VS LOAD

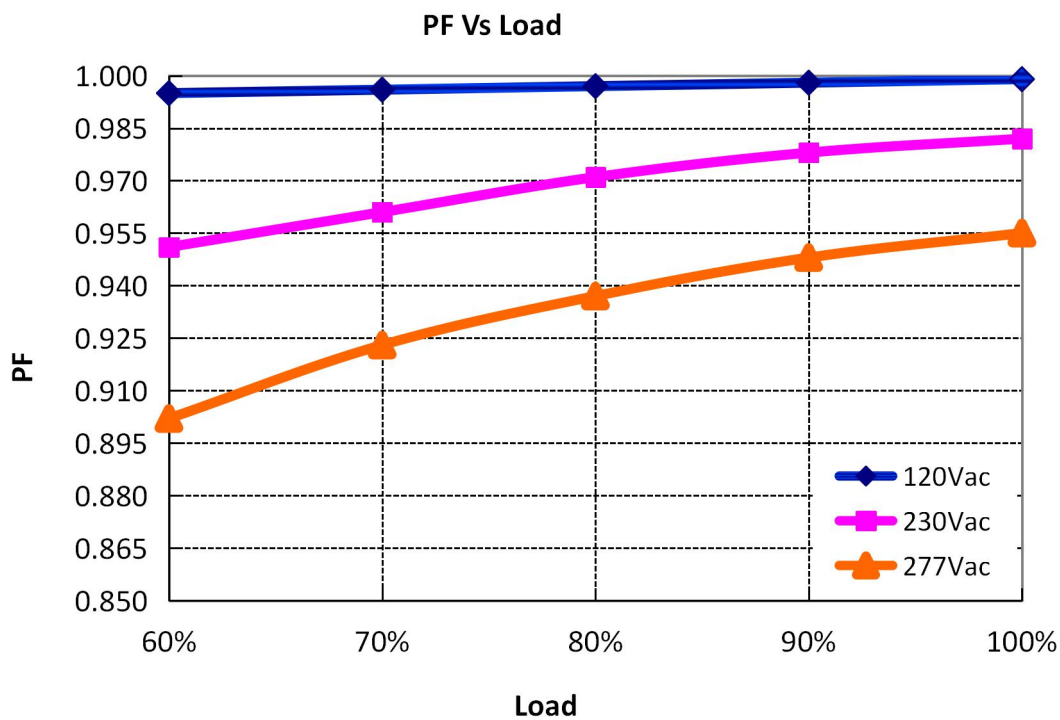
Io=0.7



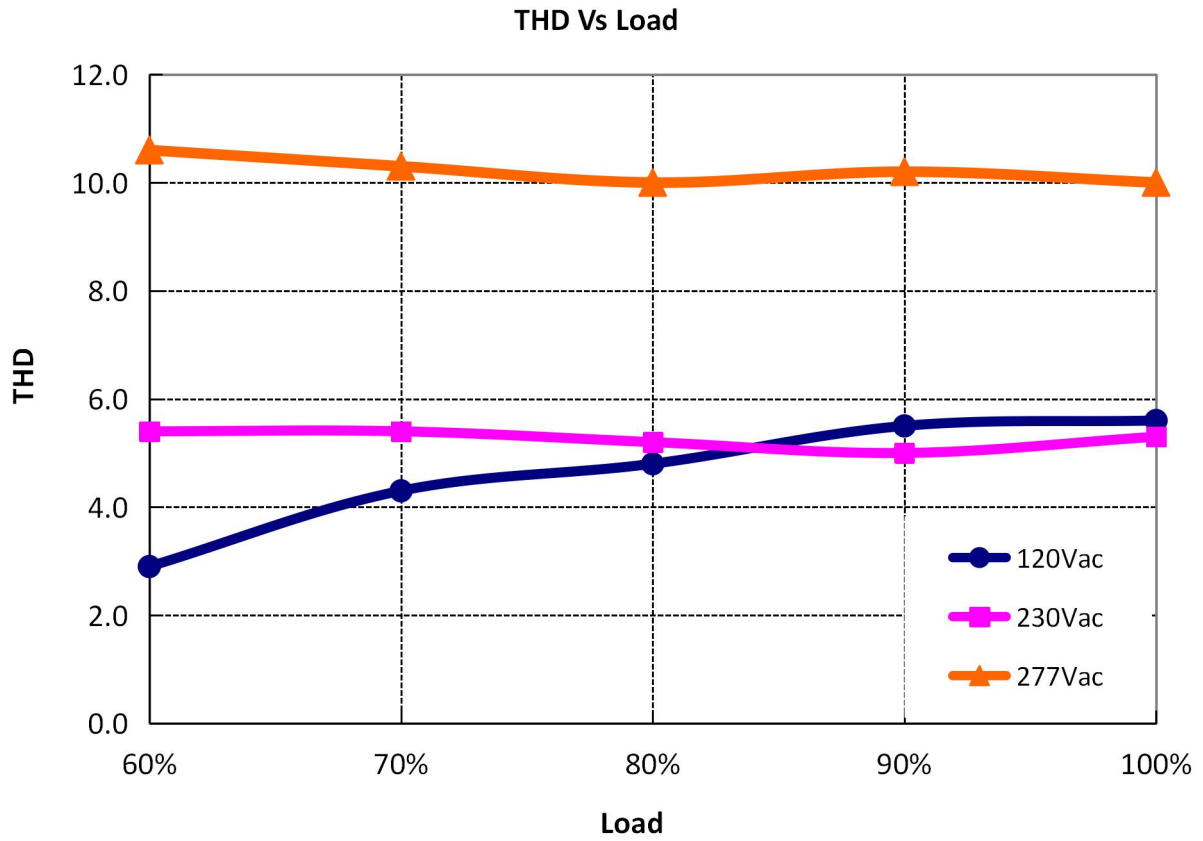
Io=1.05A



POWER FACTOR VS LOAD



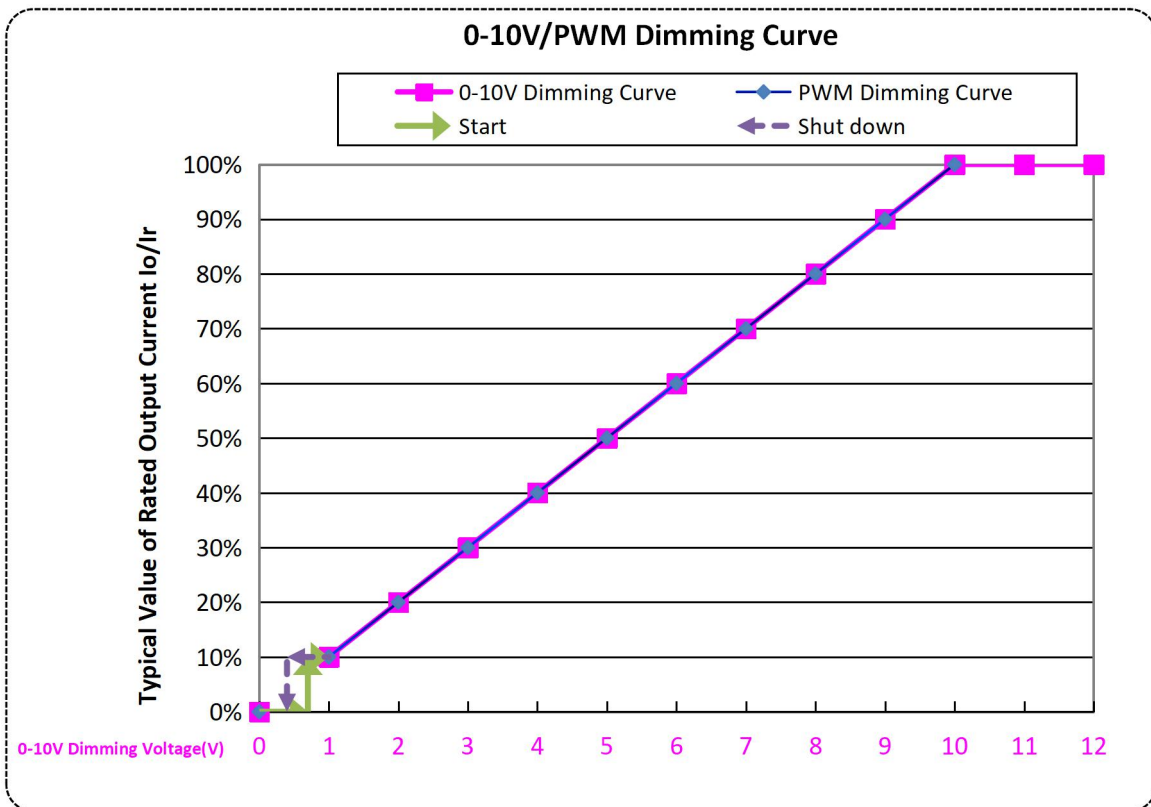
TOTAL HARMONIC DISTORTION



PROTECTIONS

Parameter	Notes
Over Temperature Protection	Decreases output current, returning to normal after over temperature is removed.
Short Circuit Protection	Constant current 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	Run into protection model when output voltage exceeds limit, and return to normal when the fault.

0-10V/PWM DIMMING

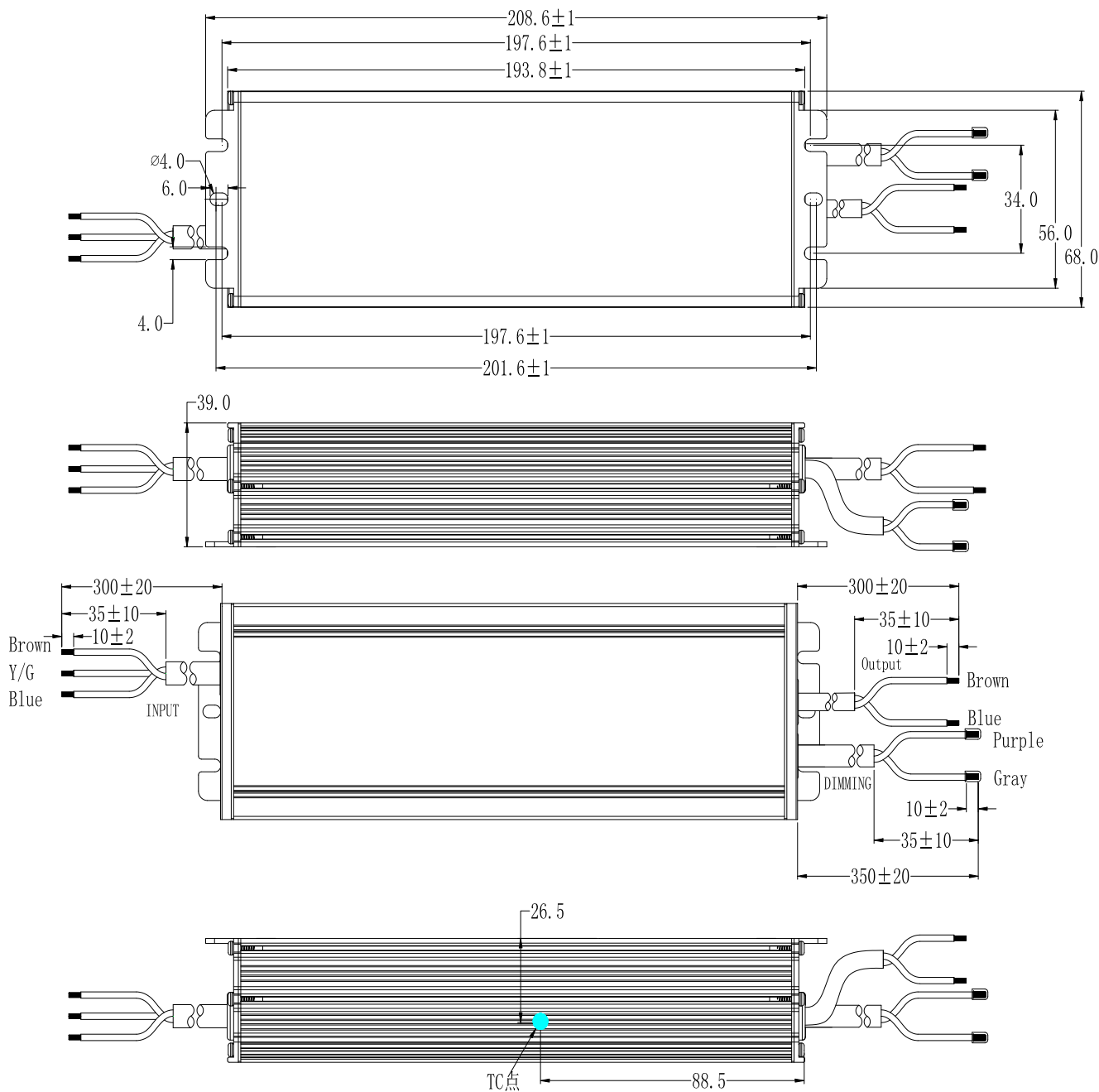


Note:

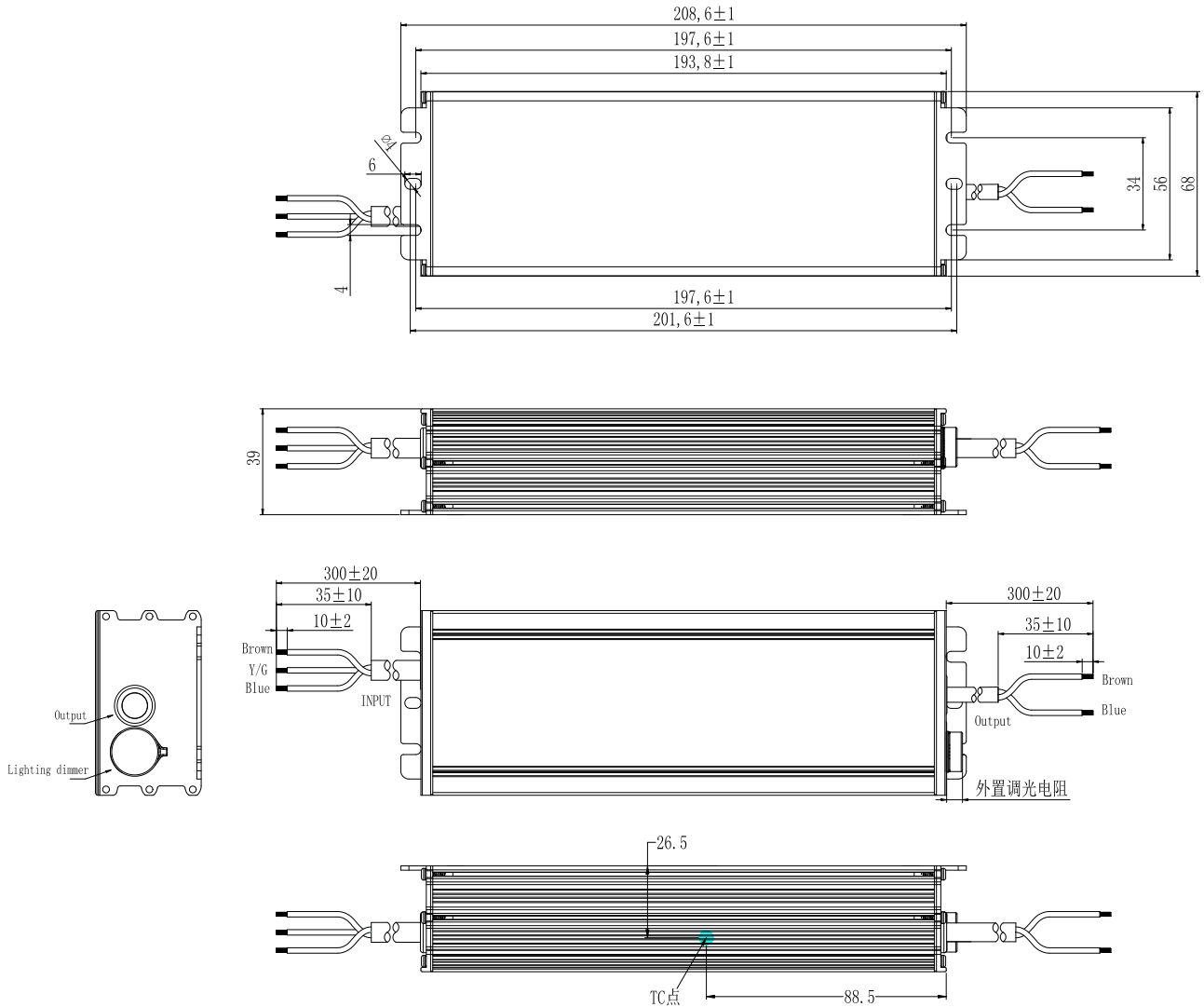
Dim to off model is realized by decreasing the output voltage, the power supply still has residual voltage when dim to off, so the start up voltage of the lamp should be higher than residual voltage.

MECHANICAL OUTLINE

X6-240M343 Types



X6-240V343 Types



Wire	Specification	Note
Input	SJOW 17AWG*3C external diameter: 8.3mm L=300±20mm; peel length 35mm, Tin-dip length 10mm	for CCC/CE/UL
Output	SJOW 17AWG*2C external diameter: 7.7mm L=300±20mm; peel length 35mm, Tin-dip length 10mm	for CCC/CE/UL
Dimming	UL2733 22AWG*2C external diameter: 5.45mm L=350±20mm; peel length 35mm, Tin-dip length 10mm	Y=M

铭牌

183.00 mm

45.50 mm

INPUT	MOSO[®] X6-240M343 LED DRIVER LED 控制装置(恒流型)				OUTPUT							
L (BROWN 棕)	<table border="1" style="font-size: 8px; border-collapse: collapse; width: 100%;"> <tr><td style="width: 15%;">INPUT (输入)</td><td>100-240V~50/60Hz, 3.3A Max.PF:0.95 277V~ 50/60Hz, 1.0A Max (277V~ for North America only)</td></tr> <tr><td>OUTPUT (输出)</td><td>171-343V --- 0.10-1.05A Max.(最大电压): 360V --- Max.Power(最大功率):240W</td></tr> <tr><td>t_c: 90°C</td><td>t_a: 50°C Input:100-200V~ t_a: 60°C Input:200-240V~,277V~</td></tr> </table>	INPUT (输入)	100-240V~50/60Hz, 3.3A Max.PF:0.95 277V~ 50/60Hz, 1.0A Max (277V~ for North America only)	OUTPUT (输出)	171-343V --- 0.10-1.05A Max.(最大电压): 360V --- Max.Power(最大功率):240W	t _c : 90°C	t _a : 50°C Input:100-200V~ t _a : 60°C Input:200-240V~,277V~					(BROWN 棕) Vo +
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t _c : 90°C	t _a : 50°C Input:100-200V~ t _a : 60°C Input:200-240V~,277V~											
G (Y/G 黄/绿)						(BLUE 蓝) Vo -						
						(PURPLE 紫) DIM +						
N (BLUE 蓝)						(GRAY 灰) DIM -						

MADE IN CHINA
 For LED module only
 Suitable for Dry, Damp and Wet locations
 SHENZHEN MOSO ELECTRONICS TECHNOLOGY CO., LTD
 No.1061, Songbai Road, Xili Town, Nanshan District,
 Shenzhen, CHINA

183.00 mm

45.50 mm

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						I _o ADJ (+)						
N (BLUE 蓝)												

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