



### Product Features

- Universal input voltage / Full range: 110~305Vac;
- 440V Input over voltage protection >48Hours;
- 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;
- Constant lumen output
- Output and Dimming Signal Isolating
- Surge protection: 5KV line-line , 10KV line-earth;
- Protections: Input OVP/Input UVP/SCP/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 series IOVP version 75W is outdoor offline programmable LED driver that operates in constant current with high PF value and universal input voltage range 110~305Vac model. A wide range of output current in a single driver, which delivers maximum flexibility with customized operating settings and intelligent control options for lighting manufacturers, as one driver can be adjusted for many different luminaire designs. X6 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, 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
							240Vac
X6-075Y108 IOVP	75	54-108	71-108	0.70-1.05	0.7	90%	0.96

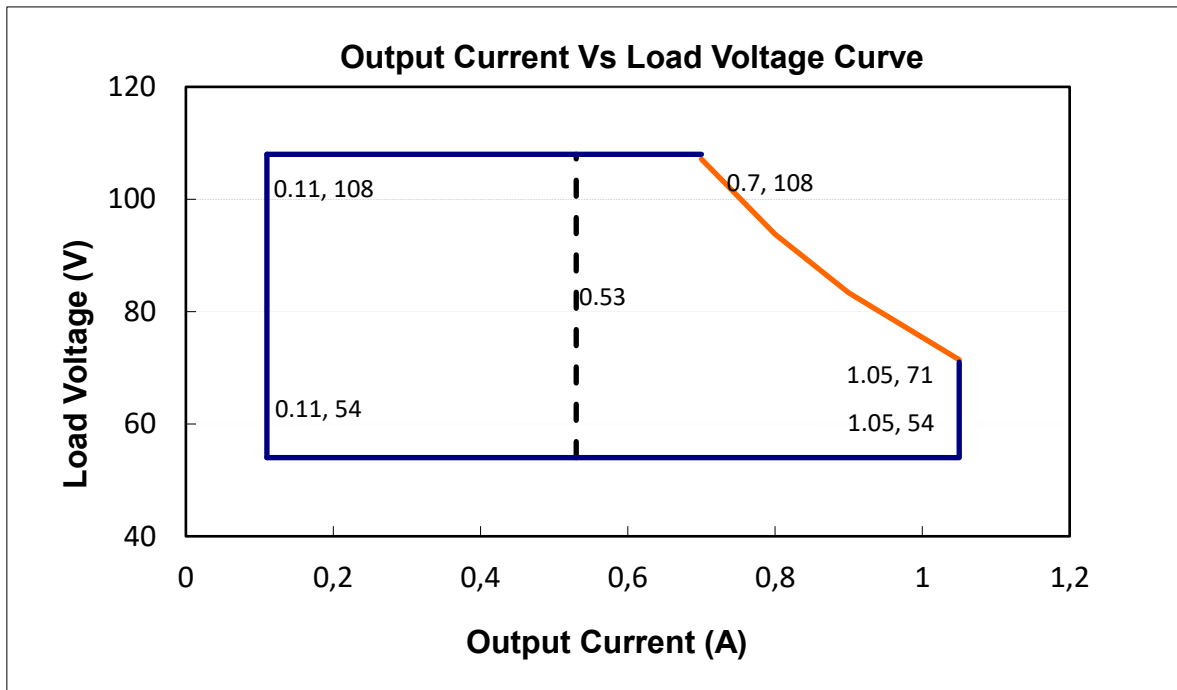
#### Notes:

[1]. Y can be M or V. Y=M means dimmable and offline programmable, the adjustable lout range: 10%-100% I<sub>max</sub>; Y=V means non-dimmable and output current adjusted by built-in potentiometer, lout range 50%-100% I<sub>max</sub>.

[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 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	110Vac	120-277Vac	305Vac	Rated Input Voltage is 240Vac			
Input Frequency	47Hz	50/60	63Hz				
Leakage Current	-	-	0.7mA	277Vac/60Hz			
Input AC Current	-	-	1.1A	100-277Vac & 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	0.96		240Vac, 50-60Hz, full load			
	0.9	0.92		277Vac, 50-60Hz, full load			
THD	-	8%	15%	100-240Vac, 50-60Hz, 70%-100% load			
	-	-	20%	277Vac, 50-60Hz, 70%-100% load			
Max. NO. of PSUs on CIRCUIT BREAKER	B10	3	B16	4	B25	7	230Vac
	C10	5	C16	7	C25	11	

**OUTPUT SPECIFICATIONS**

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%Iset	-	5%Iset	
Output Current Setting Range (A) X6-075M108 IOVP	0.1A	-	1.05A	The 'M type' adjustable lout range: 10%-100% I <sub>max</sub> ,
Output Current Setting Range (A) X6-075V108 IOVP	0.53A	-	1.05A	The 'V type' adjustable lout range: 50%-100% I <sub>max</sub> .
Output Current Setting Range with Constant Power X6-075M108 IOVP	0.7A	-	1.05A	
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 X6-075Y108 IOVP	-	-	120	
Line Regulation	-1%	-	+1%	25°C±10°C ambient temperature, input voltage changes from 100Vac to 270Vac.
Load Regulation	-3%	-	+3%	25°C±10°C ambient temperature, Input Voltage 240Vac, load changes from 60% to 100%.
Turn-on Delay Time	-	1S	3S	120Vac, 100% load
	-	0.5S	1S	240Vac, 100% load

**GENERAL SPECIFICATIONS**

Parameter	Min.	Typ.	Max.	Notes
Efficiency @120Vac X6-075Y108 IOVP I <sub>o</sub> =0.7 I <sub>o</sub> =1.05	86% 86%	88% 88%		Measured at full load and 25°C ambient temperature
Efficiency @240Vac X6-075Y108 IOVP I <sub>o</sub> =0.7 I <sub>o</sub> =1.05	88% 88%	90% 90%	-	Measured at full load and 25°C ambient temperature
Efficiency @277Vac X6-075Y108 IOVP I <sub>o</sub> =0.7 I <sub>o</sub> =1.05	88% 88%	90% 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	-10°C		+60°C	240Vac&100% load
Operating Case Temperature for Safety Tc <sub>s</sub>	-10°C	-	+90°C	
Operating Case Temperature for Warranty Tc <sub>w</sub>	-10°C	-	+75°C	5 years warranty case temperature Humidity: 10% to 95% RH
Storage Temperature	-10°C	-	+85°C	Humidity: 5% to 100% RH
Dimensions (LxWxH)mm	L128.6*W68*H37			
Net Weight	570±100g/PCS			
Package	L488mm*W298mm*H200mm; 15PCS/Ctn, Gross Weight:9.8Kg			

**DIMMING**

Parameter		Min.	Typ.	Max.	Notes
0~10V Absolute Maximum Voltage on the V <sub>dim</sub> (+) Pin		-	10V	-	
0~10V Source Current on V <sub>dim</sub> (+)Pin		-	200uA	400uA	
Dimming Output Range	X6-075M108 IOVP	10%I <sub>max</sub>	-	100%I <sub>max</sub>	I <sub>max</sub> =1.05A
	X6-075M108 IOVP	0.11	-	1.05	
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 <sub>in</sub> High Level		9.7V	-	10.3V	
PWM <sub>in</sub> Low Level		0V	-	0.3V	
PWM <sub>in</sub> Frequency Range		300Hz	-	2KHz	
PWM <sub>in</sub> Duty Cycle		1%	-	99%	

**SAFETY STANDARDS**

Safety Category	Country / Territory	Standards	Approved
CCC	China	GB/T 19510.213, GB/T 19510.1	
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)	
UL	USA	UL 8750	
CUL	Canada	CSA C22.2 No.250.13	
KC	South Korea	K61347-1, K61347-2-13	
PSE	Japan	J61347-1, J61347-2-13	
SAA	Australia	AS/NZS IEC 61347.2.13	
		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	√

		ГOCT IEC 61547-2013 ГOCT 30804.3.2-2013 (IEC 61000-3-2:2009) ГOCT 30804.3.3-2013 (IEC 61000-3-3:2008)	
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**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**

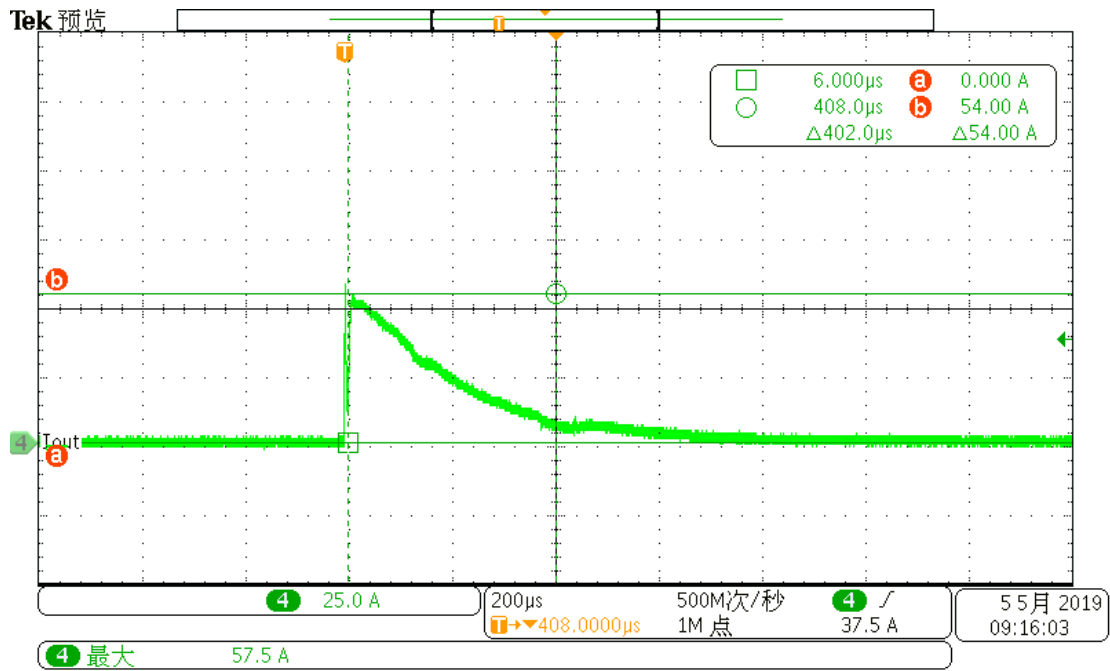
EMC Category	Country / Territory	Standards	Approved
CCC	China	GB/T 17743, GB 17625.1	
CE	Europe	EN 55015	√
		EN 61000-3-2, EN 61000-3-3	√
		EN61000-4-2,3,4,5,6,11	√
		EN 61547	√
KC	South Korea	K61547	
		K00015	
PSE	Japan	J55015	
FCC	USA	FCC part 15	

**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.

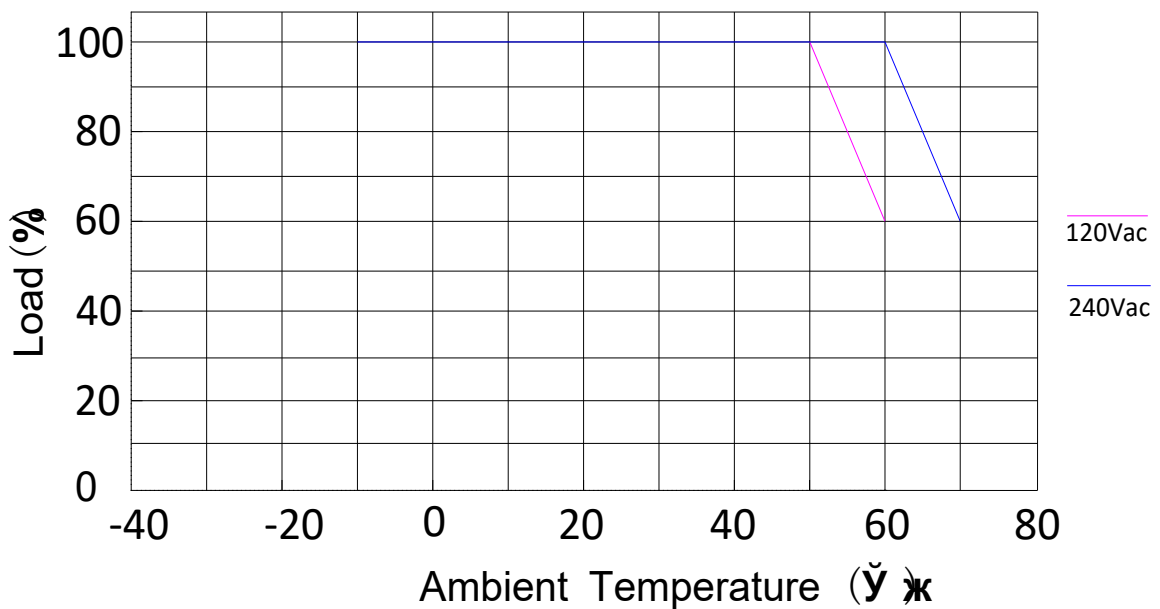


**INRUSH CURRENT WAVEFORM**

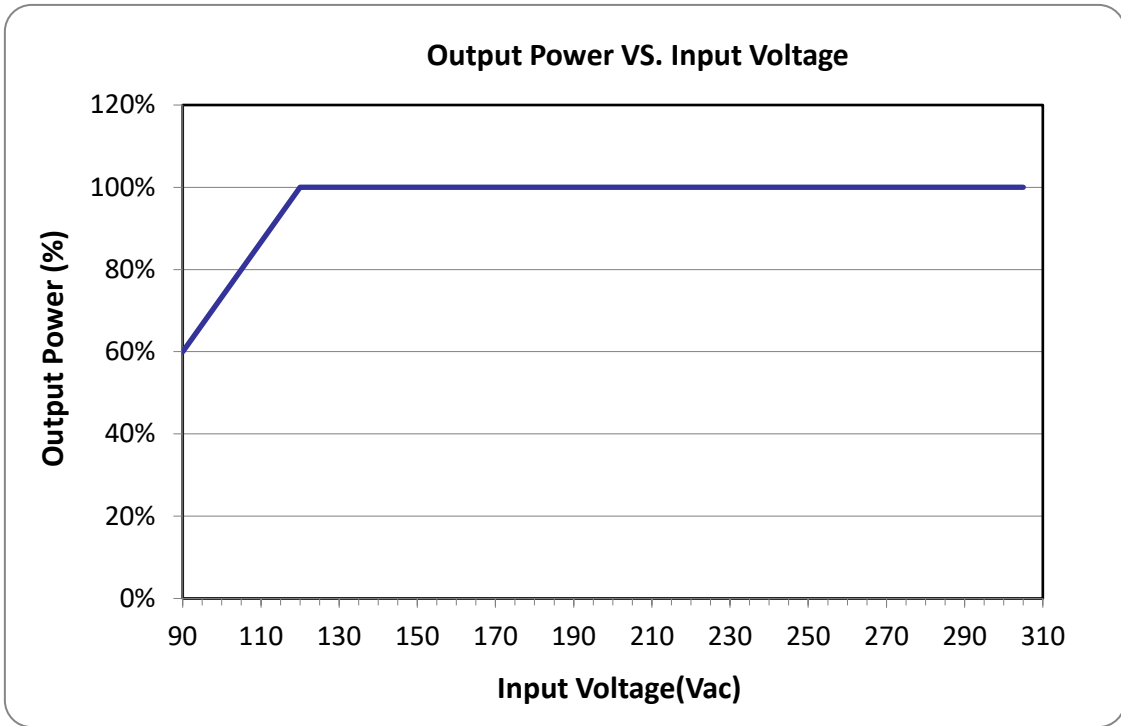


**DERATING CURVE**

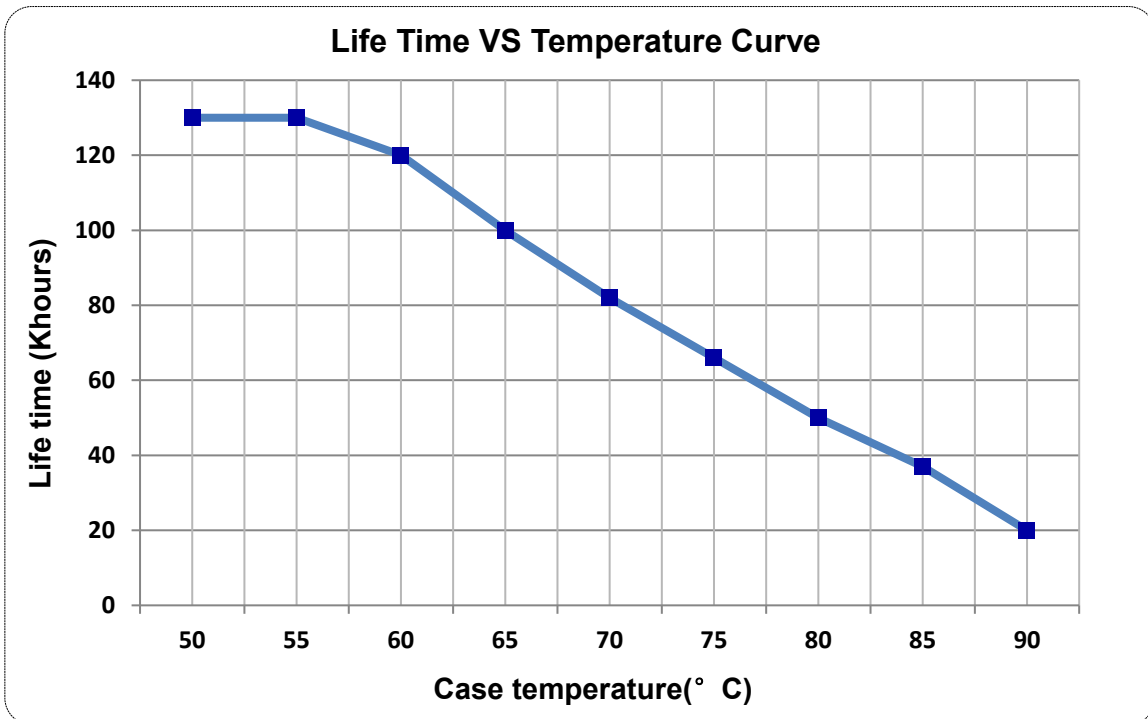
Derating Curve



**OUTPUT POWER VS INPUT VOLTAGE**

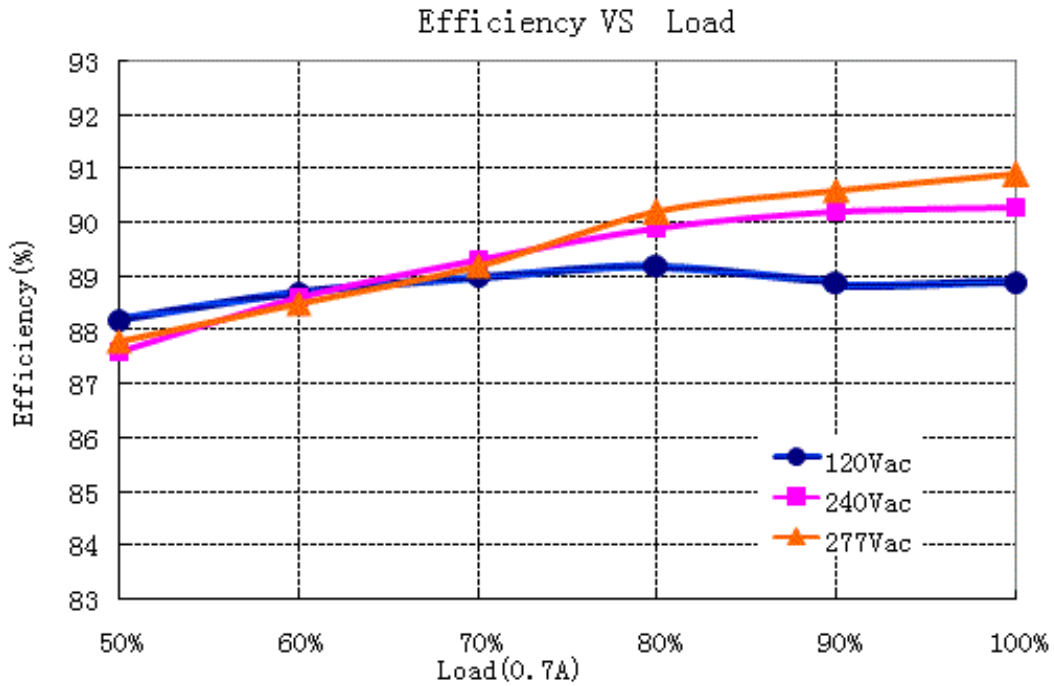


**LIFETIME VS CASE TEMPERATURE**

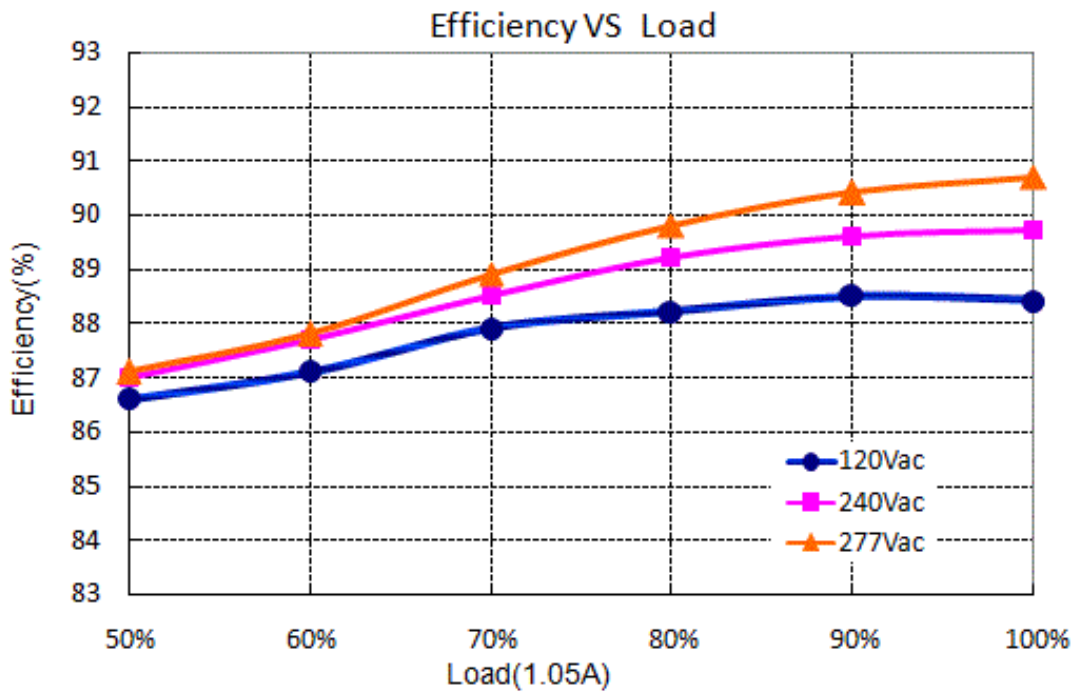


**EFFICIENCY VS LOAD**

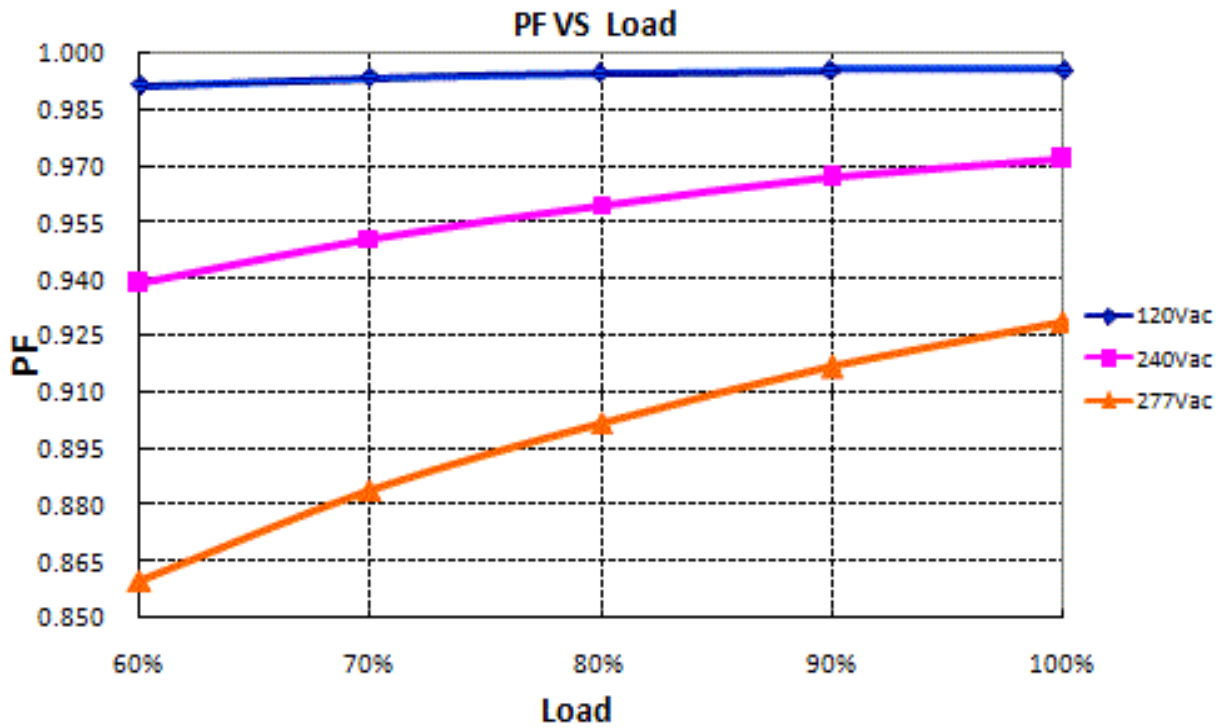
**Io=0.7A**



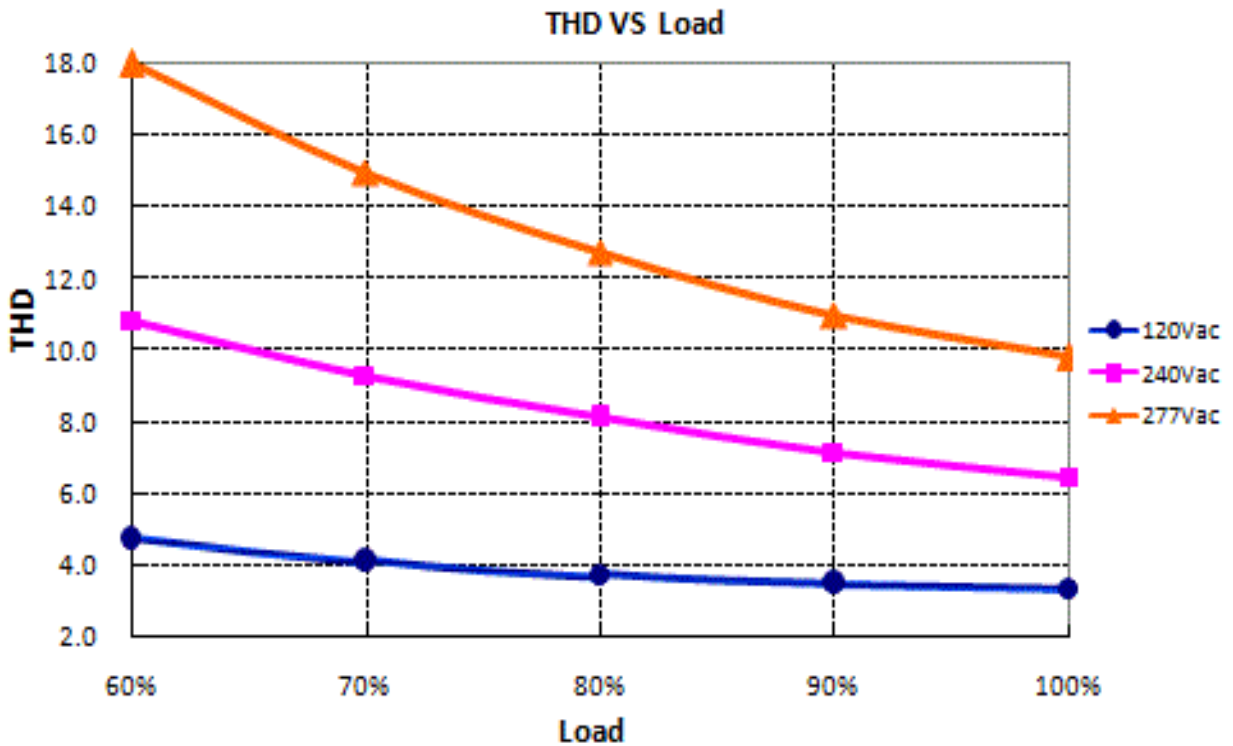
**Io=1.05A**



**POWER FACTOR VS LOAD**



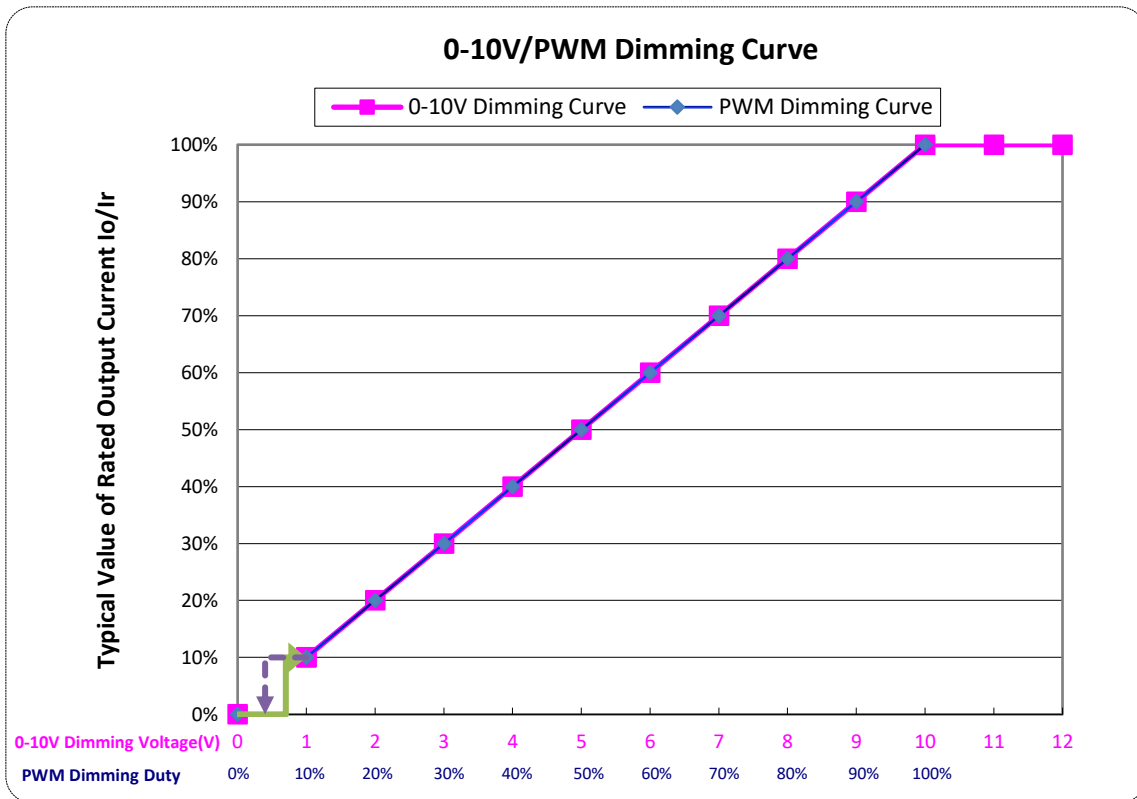
**TOTAL HARMONIC DISTORTION**



**PROTECTIONS**

Parameter		Min.	Typ.	Max.	Notes
Input Over Voltage Protection	Input Protection Voltage	340Vac	-	390Vac	Turn off the output when the input voltage exceeds protection voltage.
	Recovery Voltage	300Vac	-	340Vac	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		The driver Can Survive input Voltage Stress of 100V for 48 hours			
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			

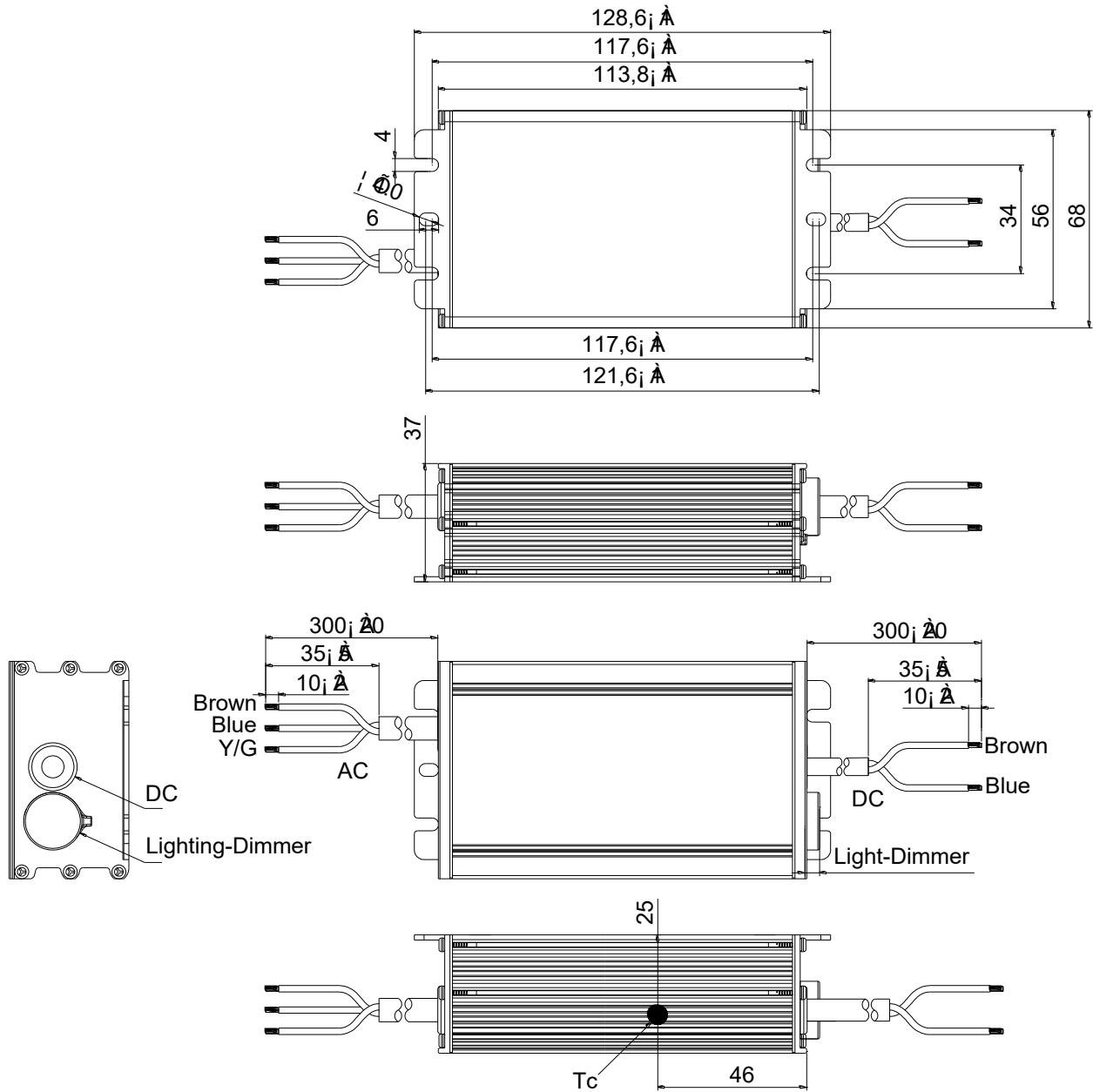
**0-10V/PWM DIMMING**



**Note:** The dim to off model is realized by decreasing the output voltage, the power supply still has a residual voltage when dim

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

### MECHANICAL OUTLINE



Wire	Specification	Note
Input	SJOW 17AWG 3x1.0mm <sup>2</sup> L=300±20mm	CCC/CE/UL
Output	SJOW 17AWG 2x1.0mm <sup>2</sup> L=300±20mm	CCC/CE/UL

**LABEL**

104.00 mm

INPUT

L BROWN

G Y/G

N BLUE

**MOSO**<sup>®</sup> X6-075V108 IOVP

LED DRIVER  
Constant current type

INPUT	100-277V~ 50/60Hz, 1.1A Max. PF:0.95
OUTPUT	54-108V=== 0.53-1.05A Uout= 120V=== Max.Power: 75W
t <sub>c</sub> : 90°C	t <sub>a</sub> : 50°C Input:100-200V~ t <sub>a</sub> : 60°C Input:200-277V~

CE ENEC 110

IP67 RoHS

SELV

OUTPUT

BROWN Vo +

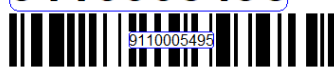



BLUE Vo -

Io ADJ (+)

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

45.50 mm

**For carton label(100\*60mm)**

<b>MOSO Production No.:</b>	<b>9110005495</b> 	<b>Q'ty:</b>	<b>0 PCS</b> 
<b>MOSO Part No.:</b>	<b>1234567890</b>	<b>N.W.:</b>	<b>KG</b>
<b>Model:</b>	<b>X6-075V108 IOVP</b>	<b>G.W.:</b>	<b>KG</b>
<b>Purchase Order No.:</b>		<b>Date Code:</b>	<b>2025-00-00</b>
<b>Initial Current:</b>		<p><b>MOSO</b><sup>®</sup></p> 	
<b>CTN No.:</b>	<b>91100054950001</b> 		



## Specification for Approval

Product Name: X6 75W IOVP version  
Product Model: X6-075V108 IOVP  
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



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Product Model: X6-075V108 IOVP

Rev. A.1

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Prepared By	Checked By	Approved By

Specification subject to change without notice