

# Specification for Approval

Product Name: 75W Constant Voltage LED Driver  
Product Model: V6E-075B024  
Rev. D.4  
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>

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REVISION HISTORY

Version	Description of Change		Date	Notes
	Before	Now		
A.1	—	Datasheets Release	2021-03-10	
B.2		ECL202110002	2021-10-8	Gao dong zhong
C.2		ECL202203076	2022-03-30	Jiaqiang Deng
D.4		ERL202307035	2023-08-16	Gao dong zhong



### Product Features:

- ◆ Input voltage: 176~264Vac;
- ◆ Constant voltage output;
- ◆ High power factor >0.97(230Vac& full load);
- ◆ THD<10%;
- ◆ Protection: Input UVP, output SCP,OVP,OTP,OCP;
- ◆ Surge immunity: DM6KV,CM10KV;
- ◆ IP67, glue potted, suitable for dry / wet / damp locations;
- ◆ 5 years warranty.

### Application

- ◆ Suitable for landscape lighting.

### DESCRIPTION

The V6E-075 series is a 75W constant-voltage, the LED driver that operates from 176~264Vac input with excellent power factor and low THD. It is designed for landscape lighting. The high efficiency of the driver and compact metal case enables them to run cooler, significantly improving reliability and extending product life. To ensure trouble-free operation, protection is provided against input surge, under voltage, output over current, over voltage, short circuit, and over temperature.

### MODELS

Model Number	Max Output Power(W)	Output Voltage (Vdc)	Output Current Range (A)	Typical Efficiency	Typical PF	Typical THD
V6E-075B024	75	24	0~3.20	88%	0.98	5%

### Notes:

All performance parameters are measured at 25°C ambient temperature, 230Vac input, and full load conditions, except for those specified.

**INPUT SPECIFICATIONS**

Parameter	Min.		Typ.		Max.		Notes
Input Voltage	176Vac		200-240Vac		264Vac		
Input Frequency	47Hz		50/60		63Hz		
Leakage Current	-		-		0.70mA		240Vac/60Hz
Input AC Current	-		-		0.50A		200-240Vac & full load
Inrush Current	-		-		75A		Cold start, 10%I <sub>peak</sub> , 230Vac & full load
Power Factor	0.97		0.98		-		230Vac, 50-60Hz, 100% load
	0.95		0.96		-		230Vac, 50-60Hz, 75% load
	0.90		0.92		-		230Vac, 50-60Hz, 50% load
THD	-		5%		15%		220-240Vac, 50-60Hz, 50%~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 Voltage Tolerance	-2%	-	+2%	Full load
Total Output Voltage Ripple(pk-pk)	-3%	-	+3%	Full load, Measured by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor.
Output overshoot	-5%	-	+5%	When the power is on
Line Regulation	-0.5%	-	+0.5%	25°C±10°C ambient temperature, input voltage changes from 200Vac to 240Vac.
Load Regulation	-1%	-	+1%	25°C±10°C ambient temperature, 230Vac input, load changes from 50% to 100%.
Turn-on Delay Time	-	-	1S	230Vac, 100% load

**GENERAL SPECIFICATIONS**

Parameter	Min.	Typ.	Max.	Notes
Efficiency@230Vac V6E-075B024	87%	88%	-	Full load. Measured at full load and 25°C ambient temperature
Efficiency@230Vac V6E-075B024	86%	87%	-	75% load. Measured at full load and 25°C ambient temperature
Efficiency@230Vac V6E-075B024	85%	86%	-	50% load. Measured at full load and 25°C ambient temperature
Dielectric Strength	Input-Output	-	3750Vac	5mA/60S
	Input-PE	-	1875Vac	
	Output- PE	-	500Vac	
Grounding Resistance	-	-	0.1Ω	25A/60S
Insulation Resistance	10MΩ	-	-	Input-Output, Input-PE, Output-PE, 500Vdc/60S /25°C/70%RH
MTBF	-	200Khrs	-	230Vac, 80% load (MIL-HDBK-217F@SR332)
Lifetime	-	50000Hours	-	230Vac&100% load, 75°C case temperature, refer to lifetime VS Tc curve for details
Ambient Temperature	-40°C		+60°C	
Operating Case Temperature for Safety Tc_s	-40°C	-	+90°C	
Operating Case Temperature for Warranty Tc_w	-40°C	-	+75°C	5 years warranty case temperature Humidity: 10% to 100% RH
Storage Temperature	-40°C	-	+90°C	Humidity: 10% to 100% RH
Dimensions (L*W*H)mm	L137.5*W67.2*H37			
Net Weight	600±50g/PCS			
Package	L488mm*W298mm*H200mm; 15PCS/Ctn, Gross Weight: 9.5kg			

**SAFTY 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)	
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	

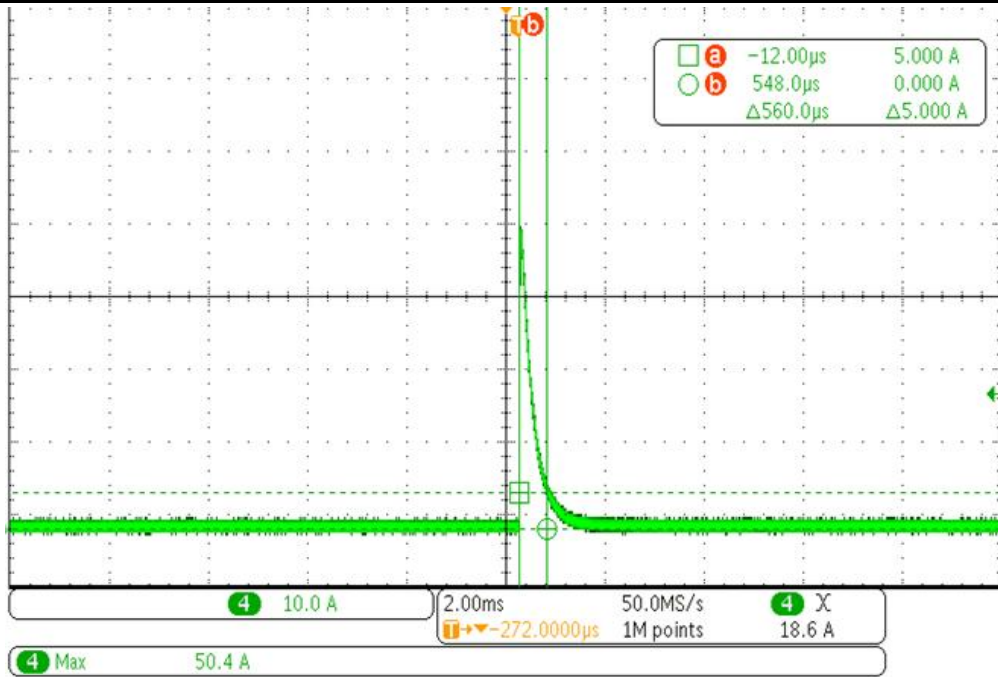
**EMC COMPLIANCE**

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	

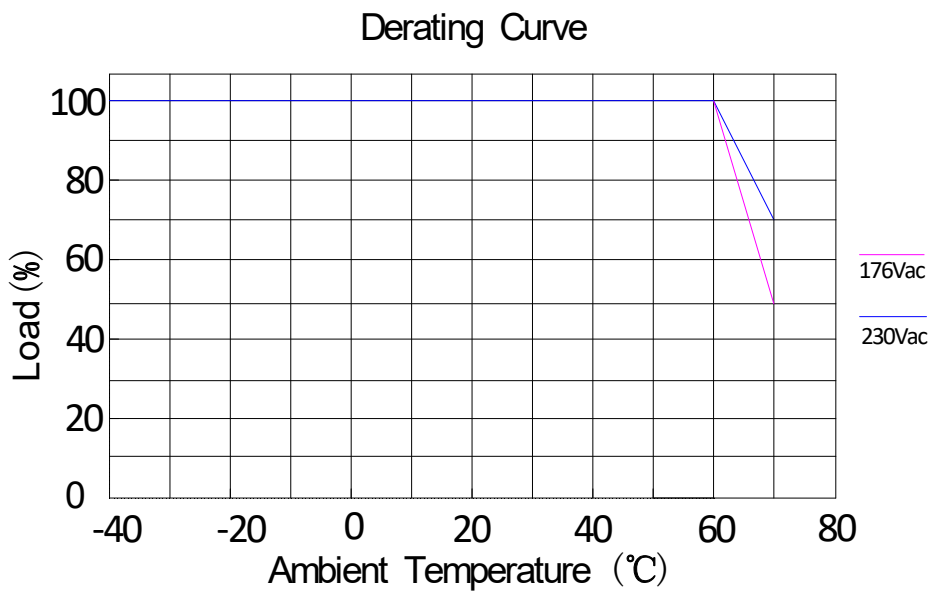
**NOTE:**

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**

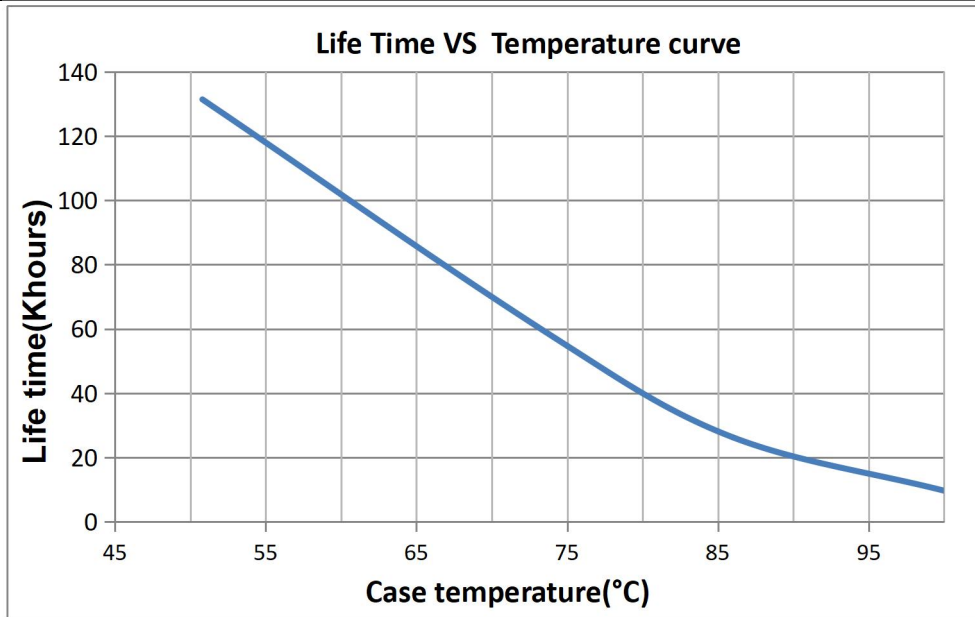


### DERATING CURVE



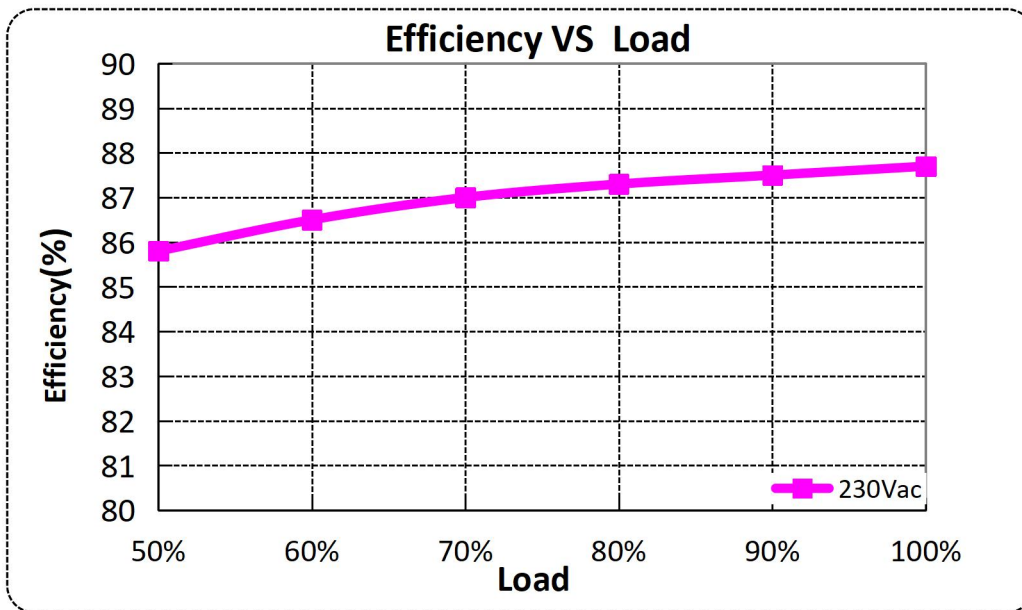
### LIFETIME VS CASE TEMPERATURE



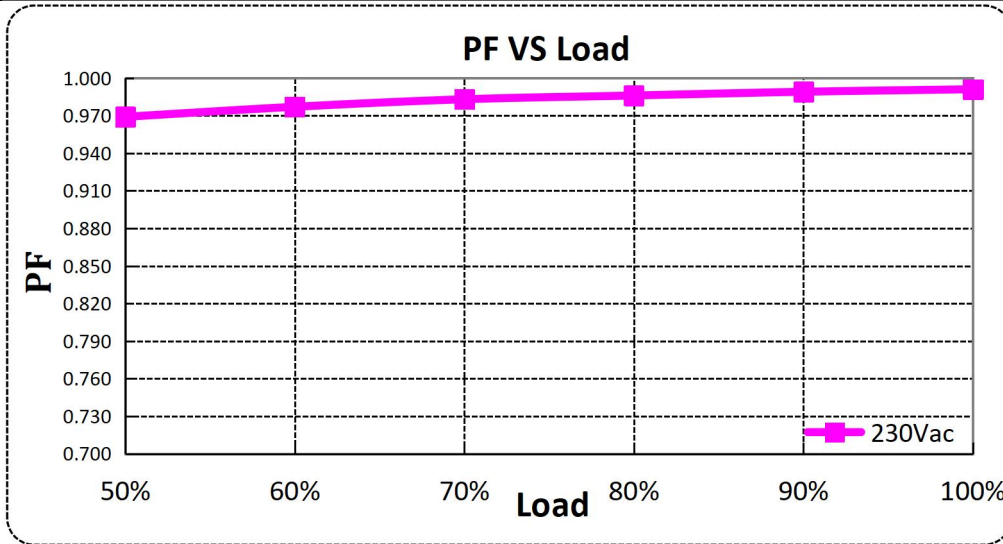


### EFFICIENCY VS LOAD

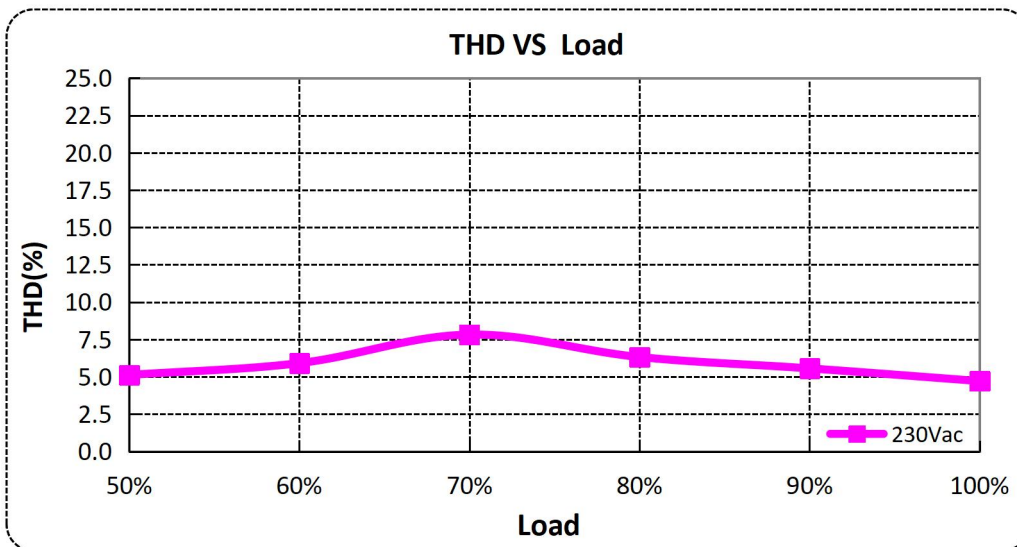
V6E-075B024



### POWER FACTOR VS LOAD



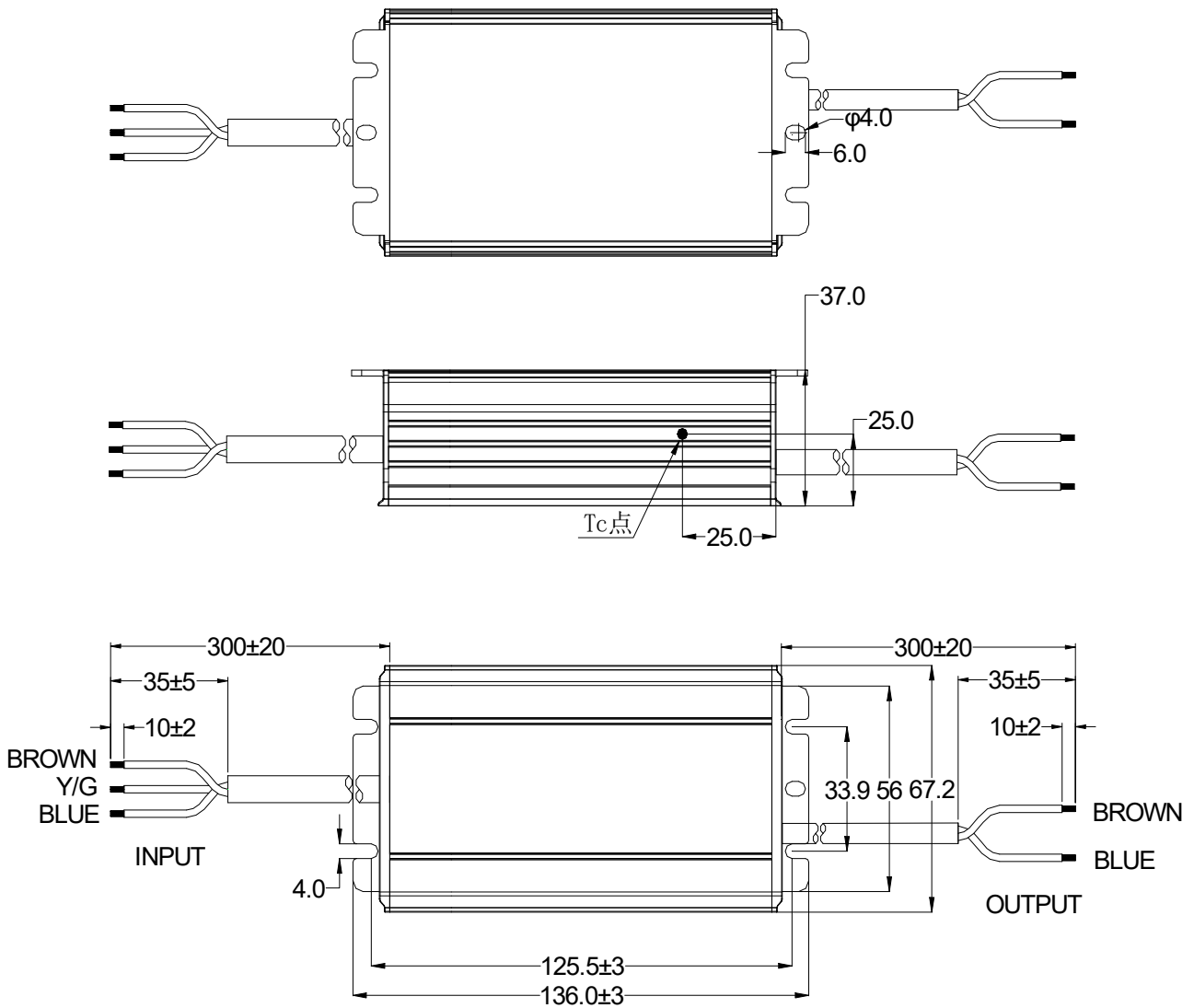
### TOTAL HARMONIC DISTORTION



### PROTECTIONS

Parameter	Min.	Typ.	Max.	Notes
Input under voltage protection	150Vac	160Vac	175Vac	Turn off the output when the input voltage falls below protection voltage.
Over temperature protection	Turn off the output. Returning to normal after over temperature is removed.			
Short circuit protection	Hiccup mode. The output shall return to normal when the fault condition is removed.			
Over current protection	When the load is 1.1- 2 times as high as the rated load, the driver will be in hiccup state The output shall return to normal when the fault condition is removed.			
Over voltage protection	Turn off the output voltage, when the fault is removed, restart and resume.			

### MECHANICAL OUTLINE



Wire	Specification	Note
Input	CCC+VDE 3*1.0mm <sup>2</sup> L=300±20mm	CCC/CE
Output	CCC+VDE 2*1.0mm <sup>2</sup> L=300±20mm	CCC/CE

### LABEL

112.00 mm

32.00 mm

**INPUT**

L (BROWN 棕)

G (Y/G 黄/绿)

N (BLUE 蓝)

**MOSO<sup>®</sup> V6E-075B024**

LED DRIVER  
LED 控制装置 (恒压型/恒流型)

INPUT (输入)	200-240V ~ 50/60Hz, 0.5A Max
OUTPUT (输出)	Output current: 3.20A Max. U <sub>rated</sub> 24V <sup>DC</sup> , Prated: 75W Max.
t <sub>c</sub> : 90°C	t <sub>a</sub> : 60°C Input: 200-240V ~

中国制造  
 仅适用LED模块  
**MADE IN CHINA**  
 For LED module only

深圳茂硕电子科技有限公司  
 Suitable for Dry, Damp and Wet locations  
 SHENZHEN MOSO ELECTRONICS TECHNOLOGY CO., LTD  
 No. 1961, Songbai Road, Xili Town, Nanshan District,  
 Shenzhen, CHINA





**OUTPUT**

(BROWN 棕) Vo +

(BLUE 蓝) Vo -






### ROHS

Our products comply with RoHS Directive (EU) 2015/863

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www.mosopower.com

Tel: +86-755-27657000

Email: info@mosopower.com

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