

## Product Specification

Product Name: 80W LED driver

Product Model: MEP-080B058

Product Code: \_\_\_\_\_

Rev.: \_\_\_\_\_

Address: XiLi Songbai Road 1061, Nanshan  
District, Shenzhen City, Guangdong  
Province, P.R.China

Post Code: 518108

TEL: 0755-27657000

FAX: 0755-27657908

E-mail: wcx@mosopower.com

Web site: <http://www.mosopower.com>

| Prepared By | Checked By | Approved By |
|-------------|------------|-------------|
|             |            |             |



### Product Feature

- ◆ Input Voltage: 100~240Vac;
- ◆ Surge immunity: DM-4KV, CM-6KV;
- ◆ Protection: SCP, OVP, OTP;
- ◆ IP65 design for indoor and outdoor applications

### Application

- ◆ LED street lighting, industrial lighting and landscape lighting.

### DESCRIPTION

The MEP series is a constant-current LED power supply with input voltage range of 100 ~ 240Vac, high power factor and low THD. With input undervoltage protection, lightning protection, output overvoltage protection, short circuit protection, over temperature protection, to ensure the high reliability of products. This series has compact structure and is specially designed for explosion-proof lamp, mine lamp

### Models

| Model Number | Input voltage range(Vac) | Max Output Power (W) | Output Voltage Range (Vdc) | Output current (A) | Typical Efficiency | Typical THD | Typical PF |        |
|--------------|--------------------------|----------------------|----------------------------|--------------------|--------------------|-------------|------------|--------|
|              |                          |                      |                            |                    |                    |             | 120Vac     | 230Vac |
| MEP-080B058  | 100-240                  | 80                   | 30-58                      | 1.4                | 88%                | 8%          | 0.98       | 0.96   |

**INPUT SPECIFICATIONS**

| Parameter        | Min.  | Typ.       | Max.   | Notes                                   |
|------------------|-------|------------|--------|---|
| Input Voltage    | 90Vac | 100-240Vac | 264Vac | Please refer to the Derating curve      |
| Input Frequency  | 47HZ  | 50/60Hz    | 63Hz   |   |
| Leakage Current  | -     | -          | 0.75mA | 240V/50Hz                               |
| Input AC Current | -     | -          | 1.1A   | 100-240Vac with Full load               |
| Inrush Current   | -     | -          | 75A    | 230Vac input · Ta = 25°C ( cold start ) |
| Power Factor     | 0.97  | 0.98       | -      | 120Vac, 100% Load                       |
|                  | 0.95  | 0.96       | -      | 230Vac, 100% Load                       |
| THD              |       | 8%         | 15%    | 120 ~ 240Vac, 70%-100% Load             |

**OUTPUT SPECIFICATIONS**

| Parameter                          | Min.          | Typ. | Max.         | Notes   |
|------------------------------------|---------------|------|--------------|---|
| Output Current Tolerance           | -8% $\pm$ set | -    | 8% $\pm$ set | Full load   |
| Total Output Current Ripple(pk-pk) | -             | 10%  | 15%          | Full load & LED Load, ripple is different with difference LED load. 20MHz BW      |
| Startup Overshoot Current          | -             | -    | 10%          | 120~240Vac & Full load, LED Load  |
| No Load Output Voltage             | -             | -    | 80V          |   |
| Standby power consumption          | -             | -    | 5W           |   |
| Line Regulation                    | -             | -    | $\pm$ 2%     | 25°C $\pm$ 10°C ambient temperature, input voltage changes from 120Vac to 240Vac. |
| Load Regulation                    | -             | -    | $\pm$ 3%     | 25°C $\pm$ 10°C ambient temperature, 230Vac input, load changes from 60% to 100%. |
| Turn-on Delay Time                 | -             | 1S   | 3S           | 120Vac, 100% Load   |
|                                    | -             | 0.5S | 2S           | 230Vac, 100% Load   |
| Auxiliary source Output Voltage    | -             | 12V  | -            | MEP-080B058H without auxiliary source   |
| Auxiliary source Output Current    | 0mA           | -    | 30mA         |   |

**GENERAL SPECIFICATIONS**

| Parameter                                    | Min.             | Typ.        | Max.  | Notes  |
|--|------------------|-------------|-------|--|
| Efficiency@120Vac                            | 85%              | 87%         | -     | Measured at full load and 25°C ambient temperature   |
| Efficiency@230Vac                            | 86%              | 88%         | -     | Measured at full load and 25°C ambient temperature   |
| Dielectric Strength input to output          | -                | 3750Vac     | -     | 60s, current is less than 10mA;  |
| Dielectric Strength input to PE              | -                | 1600Vac     | -     | 60s, current is less than 10mA;  |
| Dielectric Strength output to PE             | -                | 1600Vac     | -     | 60s, current is less than 10mA;  |
| Grounding Resistance                         | -                | -           | 0.1Ω  | Under 25°C±10°C ambient temperature, pass 25A current for 60s,   |
| Insulation Resistance                        | 50MΩ             | -           | -     | Under 25°C±10°C ambient temperature and less than 70% relative humidity, apply 500V dc voltage to each port of Input to output, input to GND, output to GND and last 60s |
| MTBF   | -                | 200000Hours | -     | 25°C, 230Vac, 80% load (MIL-HDBK-217F)   |
| Lifetime                                     | -                | 50000Hours  | -     | 230Vac & 100% load, 70°C case temperature, refer to lifetime VS Tc curve for details   |
| Operating Case Temperature for Safety Tc_s   | -40°C            | -           | +90°C |  |
| Operating Case Temperature for Warranty Tc_w | -40°C            | -           | +70°C | 5 Years Warranty<br>Humidity: 10% to 95% RH  |
| Storage Temperature                          | -40°C            | -           | +85°C | Humidity: 10% to 95% RH  |
| Dimensions (L×W×H)mm                         | ∅112×38mm        |             |       |  |
| Net Weight                                   | 660±40g/PCS      |             |       |  |
| Package                                      | L380×W315×H265mm |             |       |  |

**Note:** All specifications are tested by Cree XLamp XP-G2 and typical measured at 220Vac and 25°C unless otherwise stated.

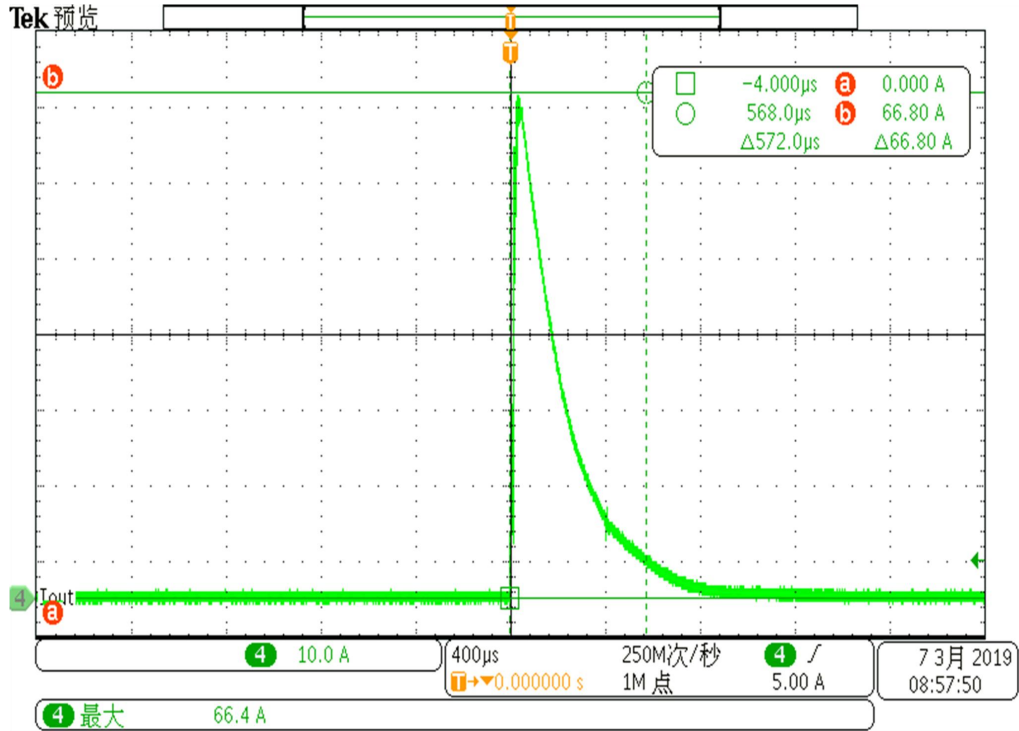
**SAFTY STANDARDS**

| Safety Category | Country / Territory | Standards   |
|-----------------|---------------------|---|
| CCC             | China               | GB19510.1, GB19510.14   |
| CE              | Europe              | EN61347-1, EN61347-2-13   |
| CB              | CB Countries        | IEC61347-1, IEC61347-2-13   |
| UL              | USA                 | UL 8750, UL 1310(Class 2 Power Units), UL 1012  |
| CUL             | Canada              | CSA C22.2 No.107.1-01, CSA C22.2 No.223-M91 (Power Supplies With Extra-Low-Voltage Class 2 Outputs) |
| KC              | South Korea         | K61347-1, K61347-2-13, K62384   |
| PSE             | Japan               | J61347-1, J61347-2-13   |
| SAA             | Australia           | AS/NZS IEC 61347-2-13   |
|                 |                     | AS/NZS 61347.1  |

**EMC COMPLIANCE**

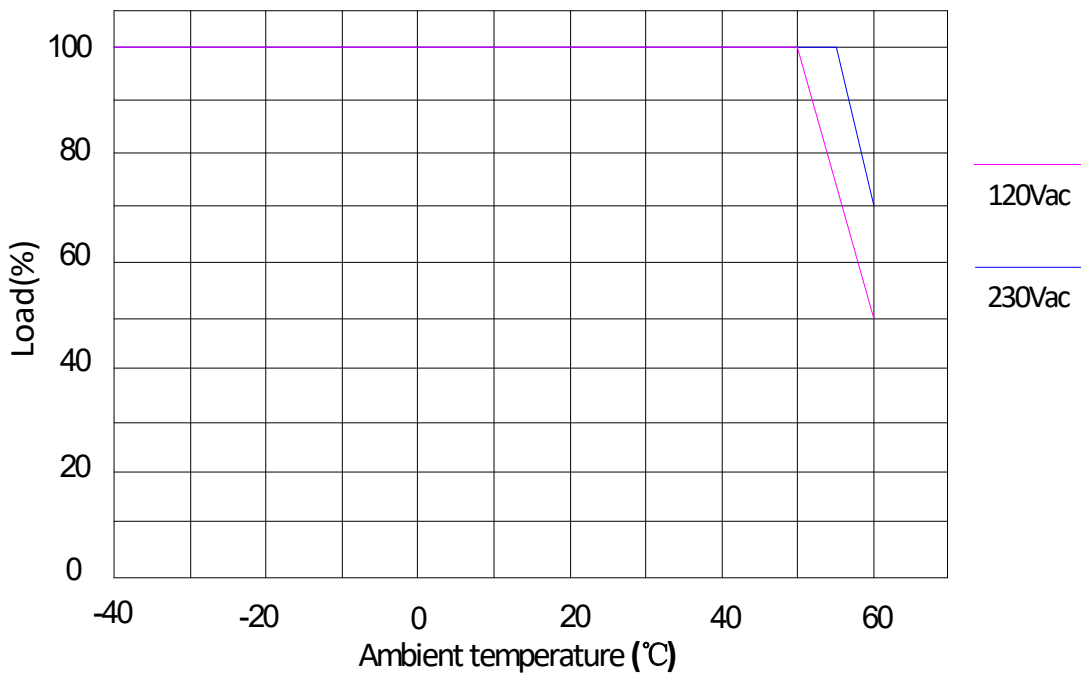
| EMC Category | Country / Territory | Standards                            |
|--------------|---------------------|--------------------------------------|
| CCC          | China               | GB 17743, GB 17625.1                 |
| CE           | Europe              | EN 55015, EN 61000-3-2, EN 61000-3-3 |
|              |                     | EN61000-4-2,3,4,5,6,8,11             |
|              |                     | IEC 61547                            |
| KC           | South Korea         | K61547                               |
|              |                     | K00015                               |
| PSE          | Japan               | J55015                               |
| FCC          | USA                 | FCC part 15                          |

### INRUSH CURRENT WAVEFORM

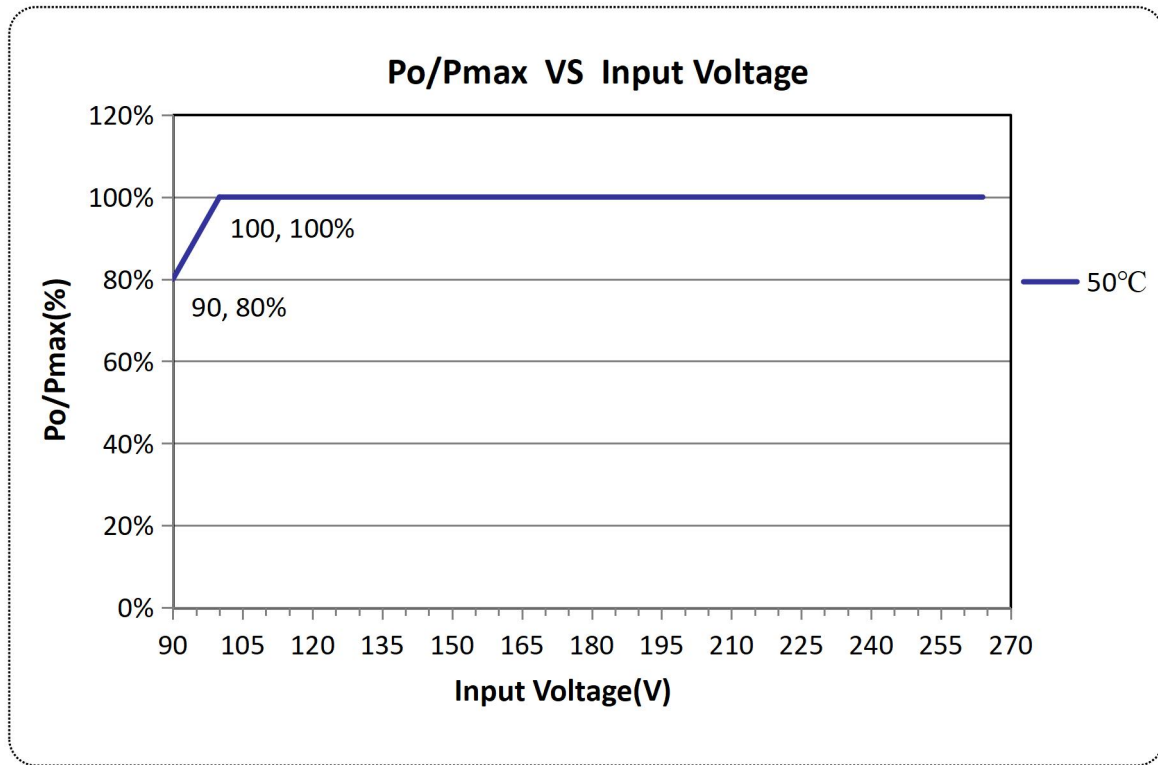


### DERATING CURVE

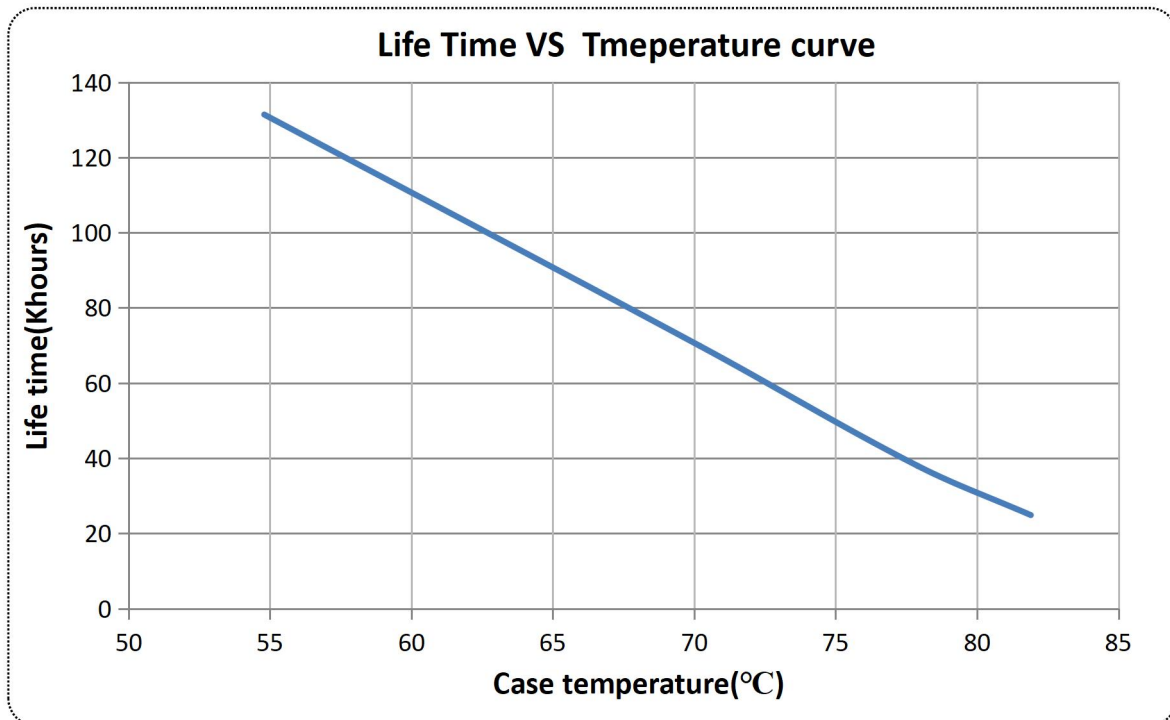
Derating curve



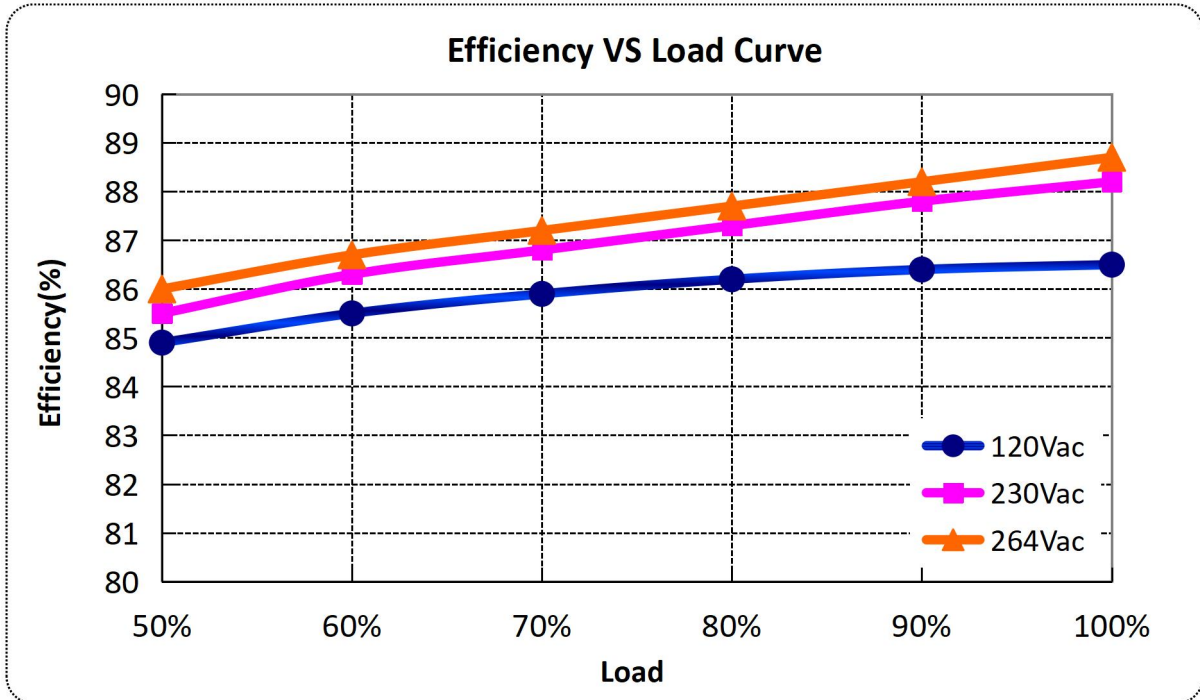
### OUTPUT POWER VS INPUT VOLTAGE



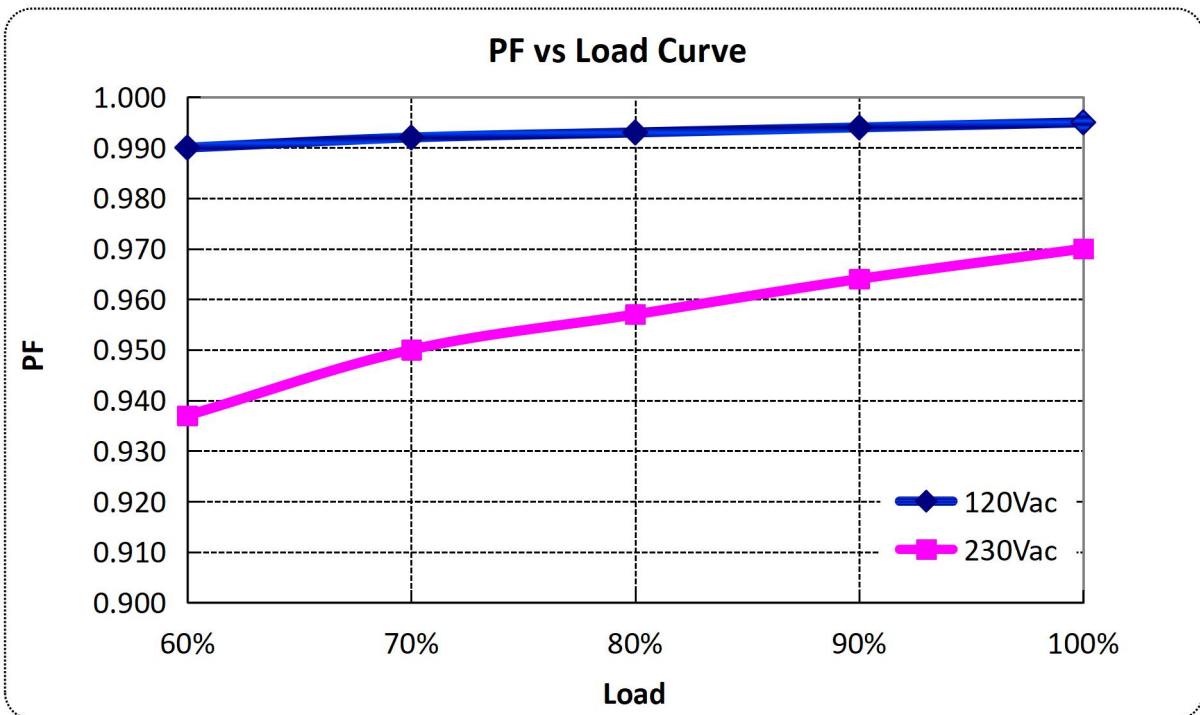
### LIFETIME VS CASE TEMPERATURE



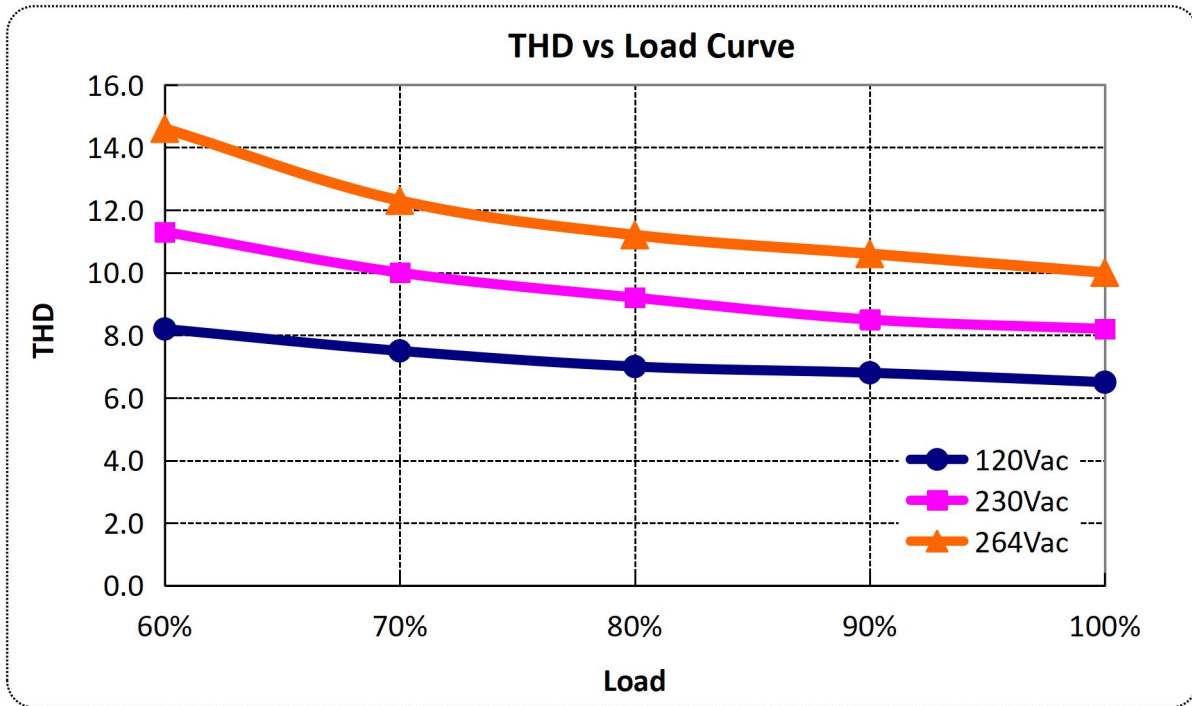
### EFFICIENCY VS LOAD



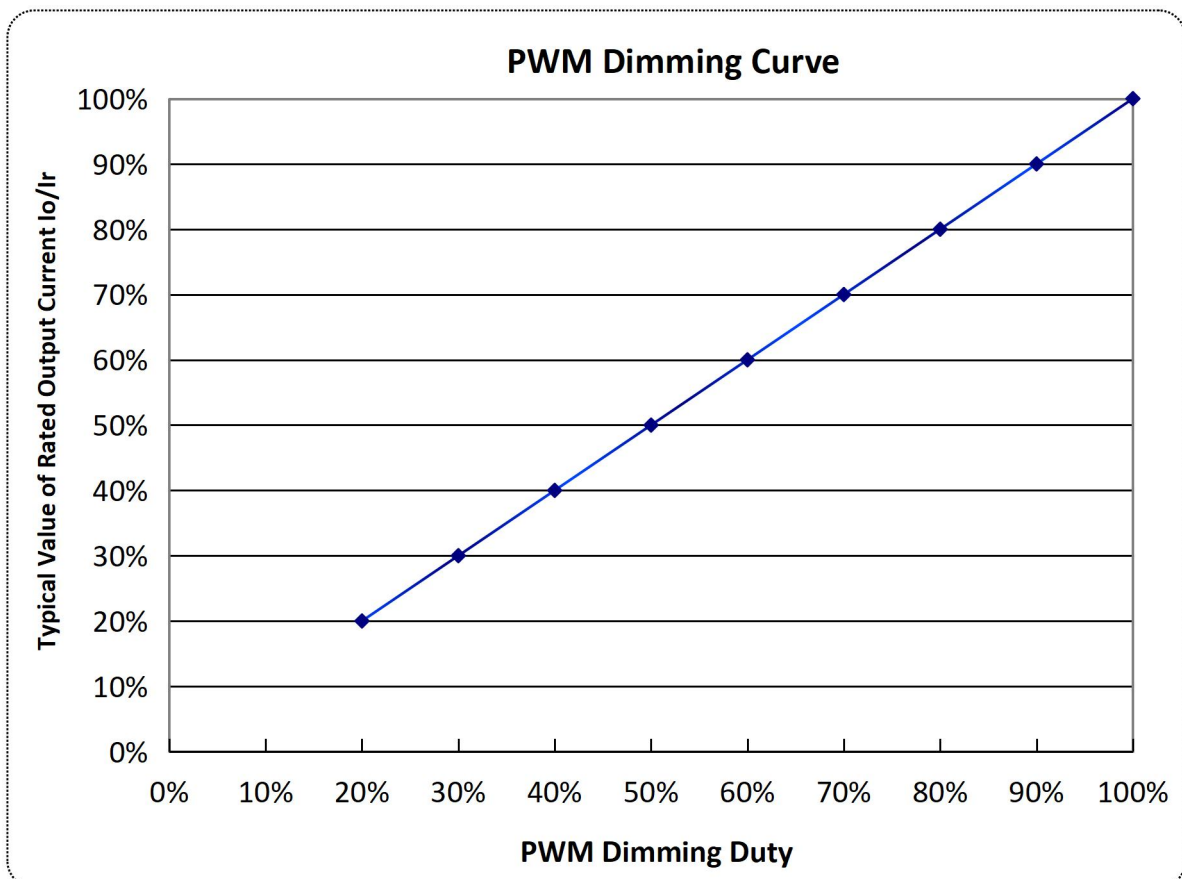
### POWER FACTOR VS LOAD



### TOTAL HARMONIC DISTORTION



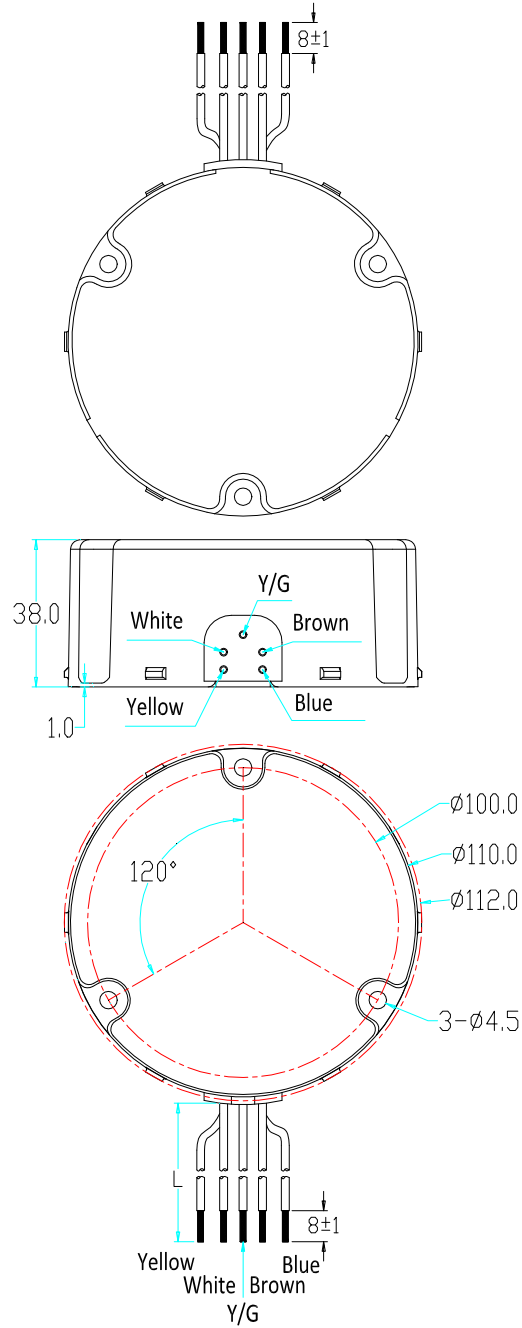
### PWM DIMMING



**PROTECTIONS**

| <b>Parameter</b>            | <b>Notes</b>  |
|-----------------------------|---|
| Over Temperature Protection | Decreases output current, returning to normal after over temperature is removed.                  |
| Short Circuit Protection    | The input power shall decrease when the output rail short, the power supply shall not be damaged. |
| Over Voltage Protection     | Run into protection model when output voltage exceeds limit, and return to normal when the fault  |

**MECHANICAL OUTLINE**



| Wire              | Specification           | Note |
|-------------------|-------------------------|------|
| Input L Brown     | UL3398 18AWG L=180±20mm |      |
| Input N Blue      | UL3398 18AWG L=180±20mm |      |
| Input Y/G         | UL3239 18AWG L=180±20mm |      |
| Output Vo+ White  | UL3239 18AWG L=180±20mm |      |
| Output Vo- Yellow | UL3239 18AWG L=180±20mm |      |



# Specification for Approval

Product Name: 80W LED driver

Product Model: MEP-080B058

Product Code: \_\_\_\_\_

Rev. \_\_\_\_\_

| 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      Post Code: 518108  
Province, P.R.China  
TEL: 0755-27657000      FAX: 0755-27657908  
E-mail: wcx@mosopower.com      Web site: <http://www.mosopower.com>

| Prepared By | Checked By | Approved By |
|-------------|------------|-------------|
|             |            |             |