

## LED DRIVER SPECIFICATIONS

Customer's Part Number:

\_\_\_\_\_

MOONS' Part Number:

\_\_\_\_\_

Model:

**ME100M105AQ**

P/N:

**86-143Vdc 700mA**

### CUSTOMER'S APPROVAL STAMP

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Please sign back after your approval. The specifications will come into force when we receive purchase order.

| DWG | CHK | STANDARD | APPD. |
|-----|-----|----------|-------|
|     |     |          |       |

| Rev. | Date       | Contents                 | ECO NO.      | DWG     | CHK     | APPR    |
|------|------------|--------------------------|--------------|---------|---------|---------|
| A0   | 2019.05.20 |                          | New release  | Lisheng | Yangzhi | Tubilin |
| A1   | 2019/9/17  | Nameplate added EAC mark | ECO19-1460DE | Lisheng | Yangzhi | Tubilin |
|      |            |                          |              |         |         |         |



■ **Features**

- Input voltage: 176-305VAC
- Built-in active PFC function: 0.98Typ.
- Low THD: 10% Typ.
- High efficiency: 90% Typ.
- Waterproof (IP67)
- Protection: OVP, SCP, OTP

■ **Specification**

**ME100M105AQ PN: 86-143Vdc 700mA**

|              |                                      |                                                                                                                                                        |
|--------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Efficiency(230Vac) <sup>Note.1</sup> | 90%(Typ.), 88%(Min.)                                                                                                                                   |
|              | Voltage Range (V) <sup>Note.2</sup>  | 176 ~ 305Vac                                                                                                                                           |
|              | Voltage Rated (V) <sup>Note.2</sup>  | 200-240Vac                                                                                                                                             |
|              | Frequency Range (Hz)                 | 47~63                                                                                                                                                  |
|              | Power Factor                         | 0.98 (Typical) at 220Vac                                                                                                                               |
|              |                                      | >0.9 with 70%~100% load, at 220~277Vac                                                                                                                 |
|              | THD                                  | <15% with 80% ~ 100% load, at 100~277Vac                                                                                                               |
|              |                                      | <20% with 50%~100% load, at 100~277Vac                                                                                                                 |
|              | AC Current(Max)                      | 0.6A MAX at 220VAC                                                                                                                                     |
|              | Inrush Current(Max.)                 | 65A at 230Vac input 25℃ Cold Start ( time wide=500uS, measured at 50% Ipeak,Not applicable for the inrush current to Noise Filter for less than 0.2ms) |
|              | Leakage Current(Max.)                | 0.75mA at 277Vac/60Hz                                                                                                                                  |
|              | Output Voltage range (V)             | 86-143                                                                                                                                                 |
|              | Rated Current(mA)                    | 700                                                                                                                                                    |
|              | Rated Power (W)                      | 100(max)                                                                                                                                               |
|              | Ripple Current                       | <10%((PK-AV) /AV) full load)                                                                                                                           |
|              | Current Tolerance                    | 5%                                                                                                                                                     |
|              | Line Regulation                      | 1%                                                                                                                                                     |
|              | Load Regulation                      | 3%                                                                                                                                                     |
| Protection   | Turn on delay Time                   | 0.5s(typ.), measured at 220Vac input                                                                                                                   |
|              | Over Voltage(V)                      | <172                                                                                                                                                   |
|              |                                      | Protection type: Voltage limiting.output will not exceed the upper limit voltage , recovers automatically after fault condition is removed.            |
|              | Over Current                         | -                                                                                                                                                      |
|              | Short Circuit                        | Protection type: Hiccup mode. recovers automatically after short is removed.                                                                           |
| Environment  | Over temperature                     | Decreases output current,returning to normal after over temperature is removed.                                                                        |
|              | AC Brownout                          | Vin_on 140Vac typ.,Vin_off 130Vac typ.                                                                                                                 |
|              | Operating Temp.                      | -40~+70℃( Refer to 'Derating Curve' )                                                                                                                  |
|              | Tc                                   | 90℃ max                                                                                                                                                |
|              | Operating Humidity                   | 20~95% RH non-condensing                                                                                                                               |
| Safety & EMC | Storage Temp., Humidity              | -40~+85℃ , 10~95%RH                                                                                                                                    |
|              | Temp. Coefficient                    | 0.03%/℃ ( 0~50℃ )                                                                                                                                      |
|              | Vibration                            | 10-500Hz,5G 12min/cycle , period for 72min each along X、 Y、 Z axes                                                                                     |
|              | Safety Standard                      | UL8750;UL1012;CAN/CSA-C22.2 No.107-01;IEC/EN61347-1;IEC/EN61347-2-13;                                                                                  |
|              | Withstand Voltage                    | I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.5KV                                                                                                           |
| Others       | Isolation Resistance                 | I/P-O/P:100M Ohms (500VDC/25℃/70%RH)                                                                                                                   |
|              | EMC Emission                         | EN55015, EN61000-3-2 Class C, EN61000-3-3                                                                                                              |
|              | EMC Immunity                         | EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge L,N-FG 10KV, L-N 4KV)                                                                                         |
|              | MTBF                                 | 250,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)                                                                       |
|              | Lifetime                             | 50,000 Hours at Tc 75℃(Refer to"Life Time VS. Tcase (Ref.)")                                                                                           |
|              | Dimension                            | 183 x67.5 x37 mm (LxWxH)                                                                                                                               |
|              | Weight(Typ.)                         | 0.85kg                                                                                                                                                 |

Note.1: Measured at full load and steady-state temperature in 25℃ ambient(Efficiency will be about 2% lower if measured immediately after startup); Note. 2: Derating may be needed under low input voltages , Please Refer to 'Derating Curve' ; Note. 3: All parameters NOT specially mentioned are measured at 230VAC input , rated load and 25℃ of ambient temperature ;

subject to change without notice

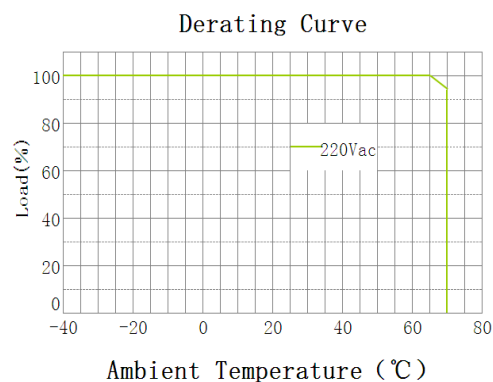
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**SHANGHAI MOONS' AUTOMATION CONTROL CO., LTD.**

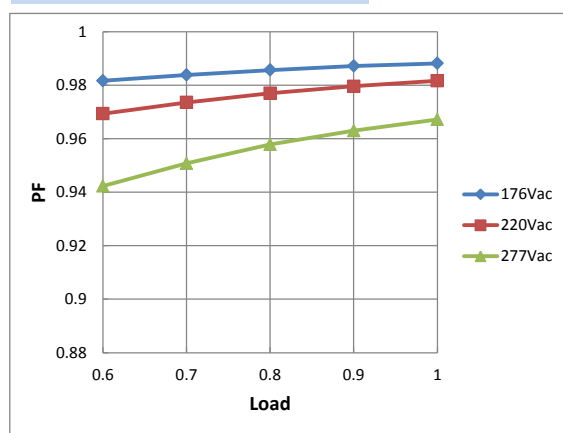
Add: No.168, Mingjia Road, Shanghai 201107, P.R.China

Tel: +86 (0)21 52634688 Website: www.moons.com.cn

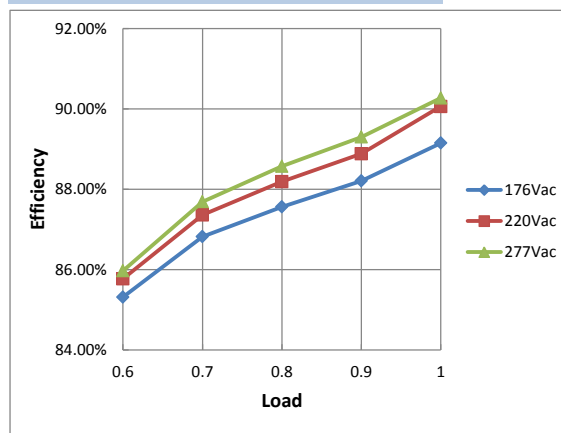
**Derating Curve**



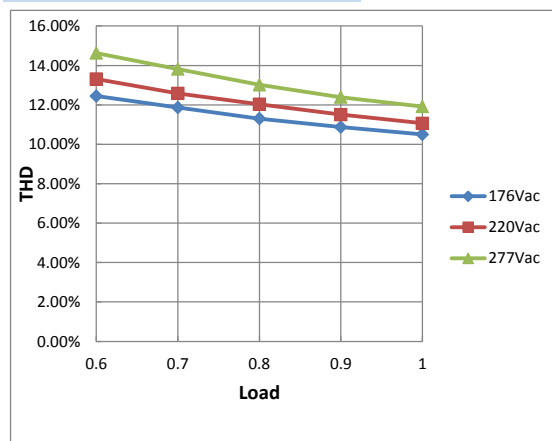
**Power Factor VS. Load Curve**



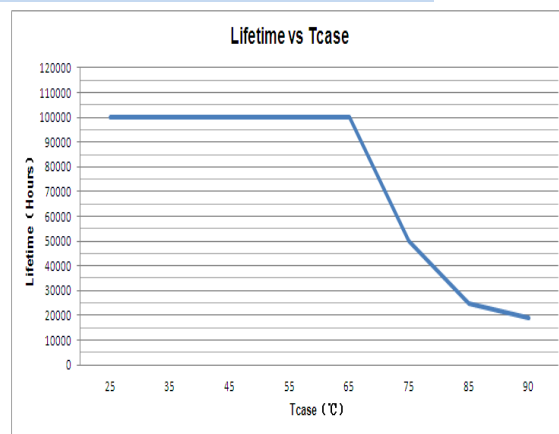
**Efficiency VS. Load Curve**



**THD Curve**

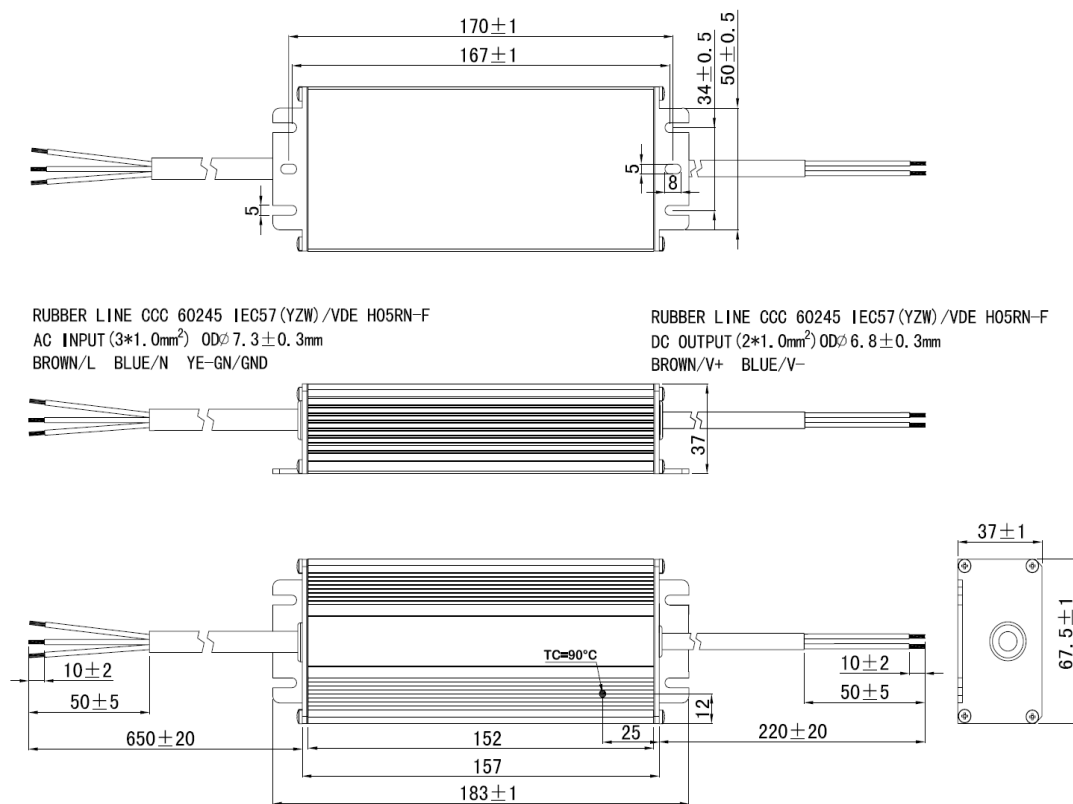


**Life Time VS. Tcase (Ref.)**



## ■ Mechanical Specification

Dimensions (Unit: mm)



## ■ Nameplate

|                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                     |                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>● AC/L BROWN (棕色)<br/>                 ● AC/N BLUE (蓝色)<br/>                 ● YE-GN (黄绿色)</p> <p><b>INPUT (输入)</b></p> | <p><b>MOONS'</b><br/> <b>LED Driver (LED控制装置)</b><br/> <b>Energy Saving Solutions</b><br/> <b>For LED Module Only</b><br/> <a href="http://www.moons.com.cn">Http://www.moons.com.cn</a><br/> <a href="http://www.moonsindustries.com">Http://www.moonsindustries.com</a><br/>                 SHANGHAI MOONS' AUTOMATION CONTROL CO.,LTD<br/>                 (上海鸣志自动控制设备有限公司) MADE IN CHINA (中国制造)</p> | <p><b>ME100M105AQ</b><br/>                 P/N:700mA 85-143Vdc<br/>                 Input Voltage (输入电压): 200-240Vac 50/60Hz<br/>                 Input Current (输入电流): 0.6A<br/>                 Output Voltage (输出电压): 57-143Vdc<br/>                 Output Current (输出电流): 700-1050mA<br/>                 U-OUT (最大输出电压): 172V</p> <p><b>IP67 RoHS</b></p> | <p>CE CCC ENEC EAC</p> <p>Output Current (输出电流): 1050mA Max<br/>                 Output Power (输出功率): 100W<br/>                 ta:60°C<br/>                 tc:90°C PF&gt;0.90</p> | <p>● V- BLUE (蓝色)<br/>                 ● V+ BROWN (棕色)</p> <p><b>OUTPUT (输出)</b></p> |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

RoHS Compliance:

Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.