



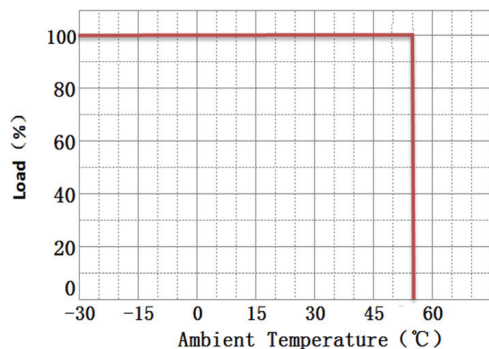
- **Features**
- ◆ Input voltage: 108-305Vac
  - ◆ Built-in active PFC function 0.95 Typ.
  - ◆ High efficiency: up to 86% Typ.
  - ◆ Built-in Lightning protection
  - ◆ Constant Current / 0-10V Dimming
  - ◆ Protection: OVP, SCP,OTP
  - ◆ Full potting: material Asphalt



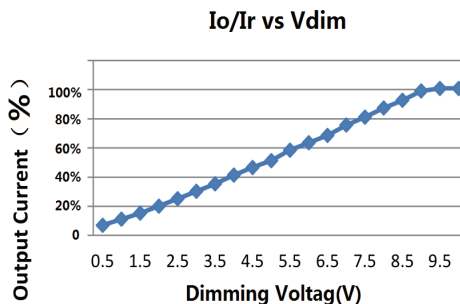
| ■ Specification                                                                           |                                     |                                                                                                                                                                                                                                                                      |                                                                                  |       |       |       |       |
|-------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------|-------|-------|-------|
| Model<br>(MU050PxxxAQ_0-10V)                                                              |                                     | 065                                                                                                                                                                                                                                                                  | 075                                                                              | 085   | 100   | 120   | 140   |
| Input                                                                                     | Efficiency(230Vac)                  | 86.0%                                                                                                                                                                                                                                                                | 86.0%                                                                            | 86.0% | 86.0% | 86.0% | 86.0% |
|                                                                                           | Voltage Range (Vac)                 | 108 ~ 305                                                                                                                                                                                                                                                            |                                                                                  |       |       |       |       |
|                                                                                           | Rated Input Voltage (Vac)           | 120-277                                                                                                                                                                                                                                                              |                                                                                  |       |       |       |       |
|                                                                                           | Frequency Range (Hz)                | 47~63                                                                                                                                                                                                                                                                |                                                                                  |       |       |       |       |
|                                                                                           | Power Factor                        | 0.95 (Typical) at 230Vac                                                                                                                                                                                                                                             |                                                                                  |       |       |       |       |
|                                                                                           | THD                                 | <20% with 80%~100% load, at 230Vac                                                                                                                                                                                                                                   |                                                                                  |       |       |       |       |
|                                                                                           | AC Current(Typ.)                    | 0.3A MAX at 230VAC                                                                                                                                                                                                                                                   |                                                                                  |       |       |       |       |
|                                                                                           | Inrush Current(Typ.)                | 25A 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 50Hz input                                                                                                                                                                                                                                          |                                                                                  |       |       |       |       |
| Output                                                                                    | Output Voltage Range (V)            | 28-55                                                                                                                                                                                                                                                                | 28-55                                                                            | 28-55 | 24-48 | 26-40 | 26-35 |
|                                                                                           | Rated Current(mA)                   | 650                                                                                                                                                                                                                                                                  | 750                                                                              | 850   | 1000  | 1200  | 1400  |
|                                                                                           | Maximum Power (W)                   | 36                                                                                                                                                                                                                                                                   | 41                                                                               | 47    | 48    | 48    | 49    |
|                                                                                           | Ripple Current( (PK-AV) /AV)        | 5% max. (peak-to-average value) at 100% Iout                                                                                                                                                                                                                         |                                                                                  |       |       |       |       |
|                                                                                           | Current Tolerance <sup>Note.1</sup> | ±5%                                                                                                                                                                                                                                                                  |                                                                                  |       |       |       |       |
|                                                                                           | Setup, Rise Time                    | 0.5s(typ.), measured at 230Vac input                                                                                                                                                                                                                                 |                                                                                  |       |       |       |       |
| Dimming Control                                                                           | 0~10V/DMI+ Voltage                  | Absolute maximum voltage -20Vmin~20Vmax                                                                                                                                                                                                                              |                                                                                  |       |       |       |       |
|                                                                                           | 0~10V/DMI+ Short Current            | <2mA                                                                                                                                                                                                                                                                 |                                                                                  |       |       |       |       |
|                                                                                           | DIMMING FUNCTION                    | 0~10V/10%Io~100%Io ref. Dimming curve                                                                                                                                                                                                                                |                                                                                  |       |       |       |       |
| Protection                                                                                | Over Voltage(V)                     | 60                                                                                                                                                                                                                                                                   | 60                                                                               | 60    | 60    | 60    | 60    |
|                                                                                           | Short Circuit                       | Hiccup mode.The power supply shall be self-recovery when the fault is removed.                                                                                                                                                                                       |                                                                                  |       |       |       |       |
| Environment                                                                               | Operating Temp.                     | -30~+55℃ ( Refer to 'Derating Curve' )                                                                                                                                                                                                                               |                                                                                  |       |       |       |       |
|                                                                                           | Tcase                               | 85℃ max                                                                                                                                                                                                                                                              |                                                                                  |       |       |       |       |
|                                                                                           | Operating Humidity                  | 20~95%RH, non-condensing                                                                                                                                                                                                                                             |                                                                                  |       |       |       |       |
|                                                                                           | Storage Temp., Humidity             | -40~+85℃, 10~95%RH                                                                                                                                                                                                                                                   |                                                                                  |       |       |       |       |
|                                                                                           | Temp. Coefficient                   | 0.03%/°C ( 0~50℃ )                                                                                                                                                                                                                                                   |                                                                                  |       |       |       |       |
|                                                                                           | Vibration                           | 10~500Hz, 5G 12min/cycle, period for 72min each along X、 Y、 Z axes                                                                                                                                                                                                   |                                                                                  |       |       |       |       |
|                                                                                           | Safety Standard                     | EN61347-1, EN61347-2-13                                                                                                                                                                                                                                              |                                                                                  |       |       |       |       |
| Safety & EMC                                                                              | Withstand Voltage                   | I/P-O/P:3.0KVAC I/P-FG(Case):1.5KV O/P-FG(Case):0.5KV                                                                                                                                                                                                                |                                                                                  |       |       |       |       |
|                                                                                           | Isolation Resistance                | I/P-O/P ,I/P-FG,O/P-FG: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 2KV, L-N 1KV)<br>Power supply shall comply with IEEE C.62.41-1991,Class A operation.The line transient shall consist of seven strikes of a 100 kHz ring wave,2.5kV level for both common mode and differential mode. |                                                                                  |       |       |       |       |
|                                                                                           | Others                              | MTBF                                                                                                                                                                                                                                                                 | 200,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃) |       |       |       |       |
| Lifetime                                                                                  |                                     | >=100 KHrs lifetime (continous) at Tcase = 65 ℃<br>>=50 KHrs lifetime (continous) at Tcase = 75 ℃                                                                                                                                                                    |                                                                                  |       |       |       |       |
| Dimension                                                                                 |                                     | 241.3*33.2*26.2 mm (LxWxH)                                                                                                                                                                                                                                           |                                                                                  |       |       |       |       |
| Weight                                                                                    |                                     | 420 g                                                                                                                                                                                                                                                                |                                                                                  |       |       |       |       |
| Note.1: At Rated Current ,Includes set up tolerance, line regulation and load regulation. |                                     |                                                                                                                                                                                                                                                                      |                                                                                  |       |       |       |       |

## Curve

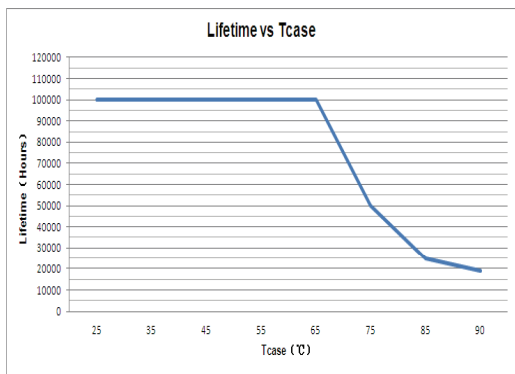
Derating Curve



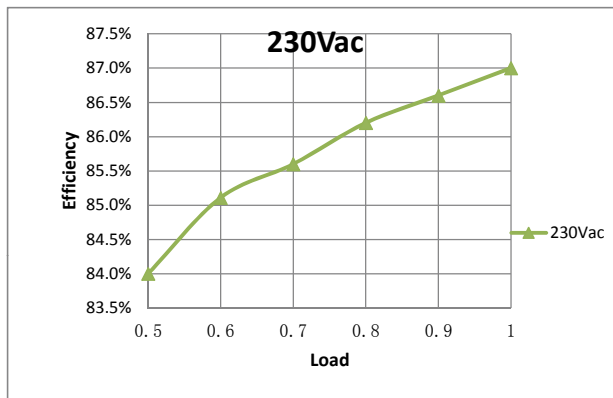
Dimming Curve



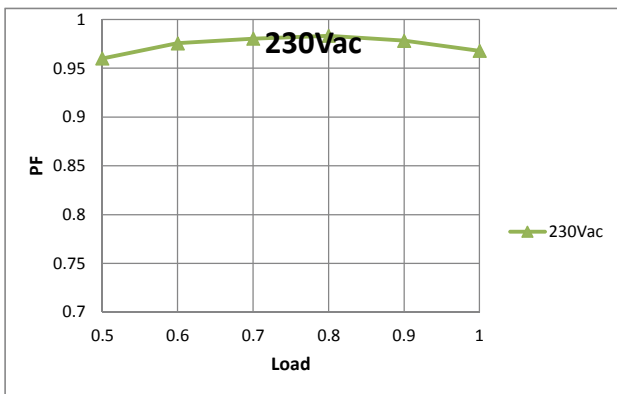
Life Time VS. Tcase (Ref.)



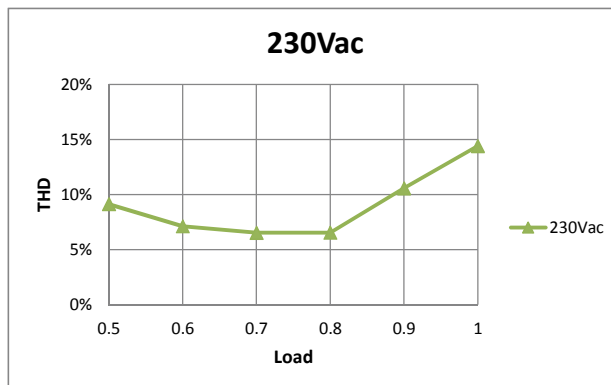
Efficiency VS. Load Curve (MU050P140AQ\_0-10V)



Power Factor VS. Load Curve

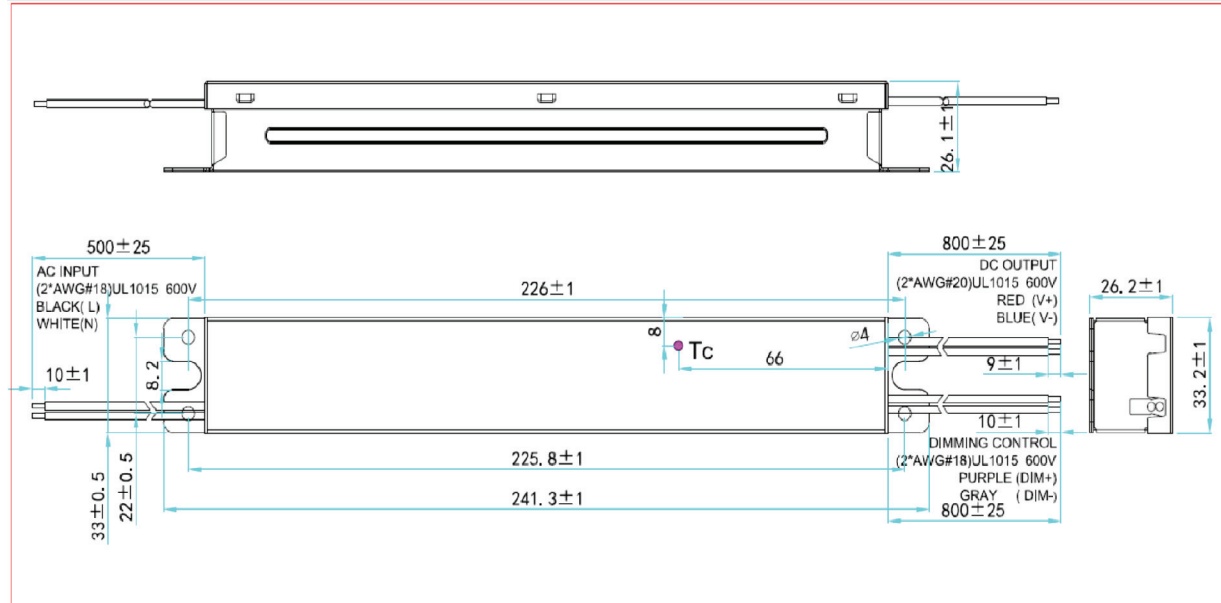


THD Curve



## ■ Mechanical Specification

Dimensions(Unit:mm)



### RoHS Compliance:

Our products comply with the European Directive of LVD (2014/35/EU), WEEE (2012/19/EU) and ROHS (2011/65/EU and (EU) 2015/863), calling for the elimination of lead and other hazardous substances from electronic products.