

## 40W Intelligent Series - MU040I180AQI2 (DALI,1ch)

### Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Mode of wiring: From the side to wiring.
- Constant power maximum is 40W
- Normal life time is 50000 hours ( at the case's temperature of 75°C )
- Dimming range 0.1%~100%
- Protection compliant with IP20
- CUL / CE
- 5-year warranty



126 × 76 × 30mm

### Electrical Specifications

|                      |  |
|----------------------|--|
| Input voltage range  | 100 - 277 V  |
| Frequency            | 50 / 60 Hz   |
| Input current        | 0.6A   |
| Inrush current       | < 15A  |
| Rated power          | 40W  |
| Power factor         | >0.95 ( 230V,50Hz,full loaded )  |
| Efficiency           | 86 - 88 % ( 230V,50Hz,full loaded )  |
| Output voltage range | 8 - 50 V   |
| Output current range | 200-1800mA   |
| Protections          | Thermal protection,short-circuit protection,no-load protection,over-power protection |

### Environmental Specifications

|                             |                         |
|-----------------------------|-------------------------|
| Operating temperature       | -25°C - +63°C           |
| Storage temperature         | -40°C - +85°C           |
| Maximum case temperature    | 86°C                    |
| Cooling method              | Convection              |
| Life time                   | 50,000 hours at tc 75°C |
| Reference dimension( LxWxH) | 126 × 76 × 30 mm        |

### Safety & EMC Compliance

|                                     |   |
|-------------------------------------|---|
| CUL                                 | UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91      |
| CE                                  | EN61347-1,EN61347-2-13                      |
| Conducted Emissions                 | FCC Part15 Class B /EN55015                 |
| Radiated Emissions                  | FCC Part15 Class B /EN55015                 |
| Harmonic Current Emissions          | EN 61000-3-2                                |
| Voltage Fluctuations and Flicker    | EN 61000-3-3                                |
| Electrostatic Discharge             | EN 61000-4-2                                |
| RFE Field Susceptibility            | EN 61000-4-3                                |
| Electrical Fast Transient           | EN 61000-4-4                                |
| Surge immunity test                 | EN61000-4-5 (Surge: L-N 1KV ,L/N-Earth 2KV) |
| Conducted Radio Frequency           | EN 61000-4-6                                |
| Power Frequency Magnetic Field Test | EN 61000-4-8                                |
| Voltage Dips                        | EN 61000-4-11                               |
| Electromagnetic Immunity            | EN61547                                     |

## Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS( Multifunctional Configuration Settings) ports. With MOONS' Configurator software, you can set the MAX current of the driver( each step is 1 mA),dimming curve type,tc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

**Thermal Protection**

When the temperature of the inside PCB exceeds 110°C , output current will be decreased to 50%. And it can not recover until the temperture drops to 70°C .

**Short-circuit Protection**

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 4s.

**No-load Protection**

The driver operating with no load will not be damaged, and it will try to restart every 4s. So the driver supports hot plug in.

**Over-Power Protection**

If the total power exceeds 50W, the output current of each channel will decrease to 50% , and then the maximum output power is increased to 40W gradually.

- DALI Signal Abnormality

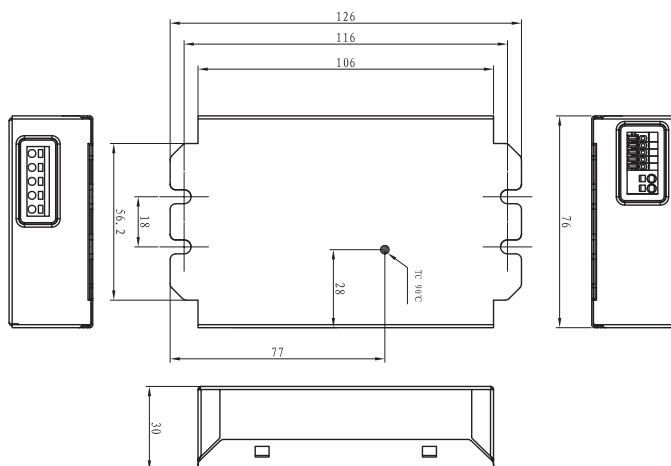
If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

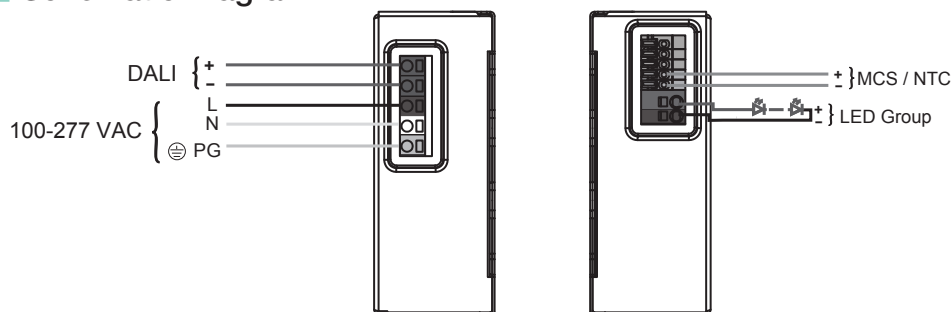
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.

Please refer to the specification of Smartkey.

## Mechanical Outline (unit: mm)



## Schematic Diagram



Numbering System

Quick Selection

LED Driver  
- General Series  
- Outdoor Use  
- H Series

LED Driver  
- General Series  
- Outdoor Use  
- Half Potted Series

LED Driver  
- General Series  
- Outdoor Use  
- A Series

LED Driver  
- General Series  
- Outdoor Use  
- Other Series

LED Driver  
- Intelligent Series  
- 50W Intelligent Series

LED Driver  
- Intelligent Series  
- 40W Intelligent Series

LED Driver  
- Intelligent Series  
- 50W Intelligent Series

LED Driver  
- Intelligent Series  
- 50W Intelligent Series

LED Driver  
- Intelligent Series  
- Other Series

General Power Supplies  
- MP Series

SPD

Appendix