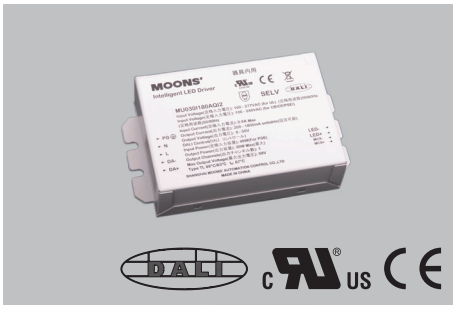
MU030I180AQI2

Features

- 1 LED channel,100% dimming Output Current can be set to from 200mA to 1800mA
- Soft light Dimming Range 0.1%~100%
  For linear dimming curve, the minimum dimming level is 0.1%
  For logarithmic dimming curve, the minimum dimming level is 0.1%
- Support DALI Dimming
- Dim-to-off with Standby Power<0.3 W
- Constant Power Maximum is 30W
- Protection: OTP, SCP, NLP,OPP
- Mode of wiring: From the side to wiring
- UL Class 2,IP20
- 5-year warranty



126 × 76 × 30mm

Electrical Specifications

Rated input voltage range	90-305 VAC
Maximum input voltage range	90 - 305 V
Input voltage frequency	50 / 60 Hz
Leakage current	<750uA
Output voltage range	8 - 50 V
Output current	200-1800mA
Maxium input power	<40W
Effiency typical value（230V,50Hz,full loaded①）	84 - 86 %
Power factor（230V,50Hz,full loaded①）	>0.95
Stand-by power consumption②	<0.3W
THD(230V,50Hz,full loaded①）	<13%
Start-up time（230V,50Hz,full loaded）	<0.5S
Start-up time（120V,50Hz,full loaded）	<1S
The maximum setup current precision	± 5%
Input inrush current	<15A
Dimming range	0.1 -100%
Withstand Voltage I/P-O/P	3750 V
Withstand Voltage I/P-FG	1875 V
Withstand Voltage O/P-FG	500V
Surge L/N-earth，L-N	2KV,1KV
Operating Temp., Humidity	-25℃~+67℃,20%~95%RH
Storage Temp.,Humidity	-40℃~+85℃,10%~95%RH
Lifetime	≥50000hours@Tc=77℃ at 120VAC input,100% load
Weight	360g
Reference dimension	126 × 76 × 30 mm

Model Specifications

Type	Output Current	Output Voltage	Output Power	Input Power (230V,50Hz)	Efficiency	Case Temperature	Ambient Temperature
MU030I180AQI2	600 mA	50 V	30.0	35.1	85.5%	89℃	-25 - 67℃
	700 mA	43 V	30.1	35.2	85.6%	89℃	-25 - 67℃
	800 mA	38 V	30.4	35.4	85.8%	89℃	-25 - 67℃
	900 mA	34 V	30.6	35.6	86.1%	89℃	-25 - 67℃
	1000 mA	30 V	30.0	34.9	85.9%	89℃	-25 - 67℃
	1100 mA	28 V	30.8	35.9	85.9%	89℃	-25 - 67℃
	1200 mA	25 V	30.0	35.0	85.7%	89℃	-25 - 67℃
	1300 mA	23 V	29.9	35.0	85.3%	89℃	-25 - 67℃
	1400 mA	22 V	30.8	36.0	85.5%	89℃	-25 - 67℃
	1500 mA	20 V	30.0	35.4	84.8%	89℃	-25 - 67℃
	1600 mA	19 V	30.4	35.9	84.7%	89℃	-25 - 67℃
	1700 mA	18 V	30.6	36.2	84.4%	89℃	-25 - 67℃
	1800 mA	17 V	30.6	36.6	83.7%	89℃	-25 - 67℃

*1: Load:50V*600mA
*2: Stand-by power consumption 110V<50mW, 230V<200mW

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
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 Standards

Comply with IEC62386-102(2.0), IEC62386-207.

• 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,etc.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℃ , output current will be decreased to 50%. And it can not recover until the temperture drops to 70℃ .

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 40W, the output current of each channel will decrease to 50%, and then the maximum output power is increased to 30W gradually.

• DALI Signal Abnormality

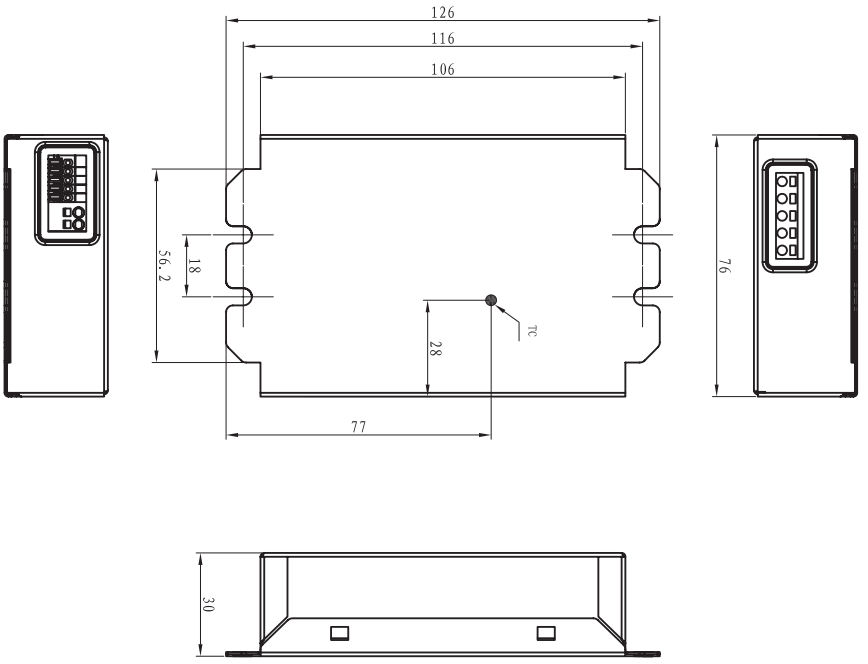
If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

• Online Update

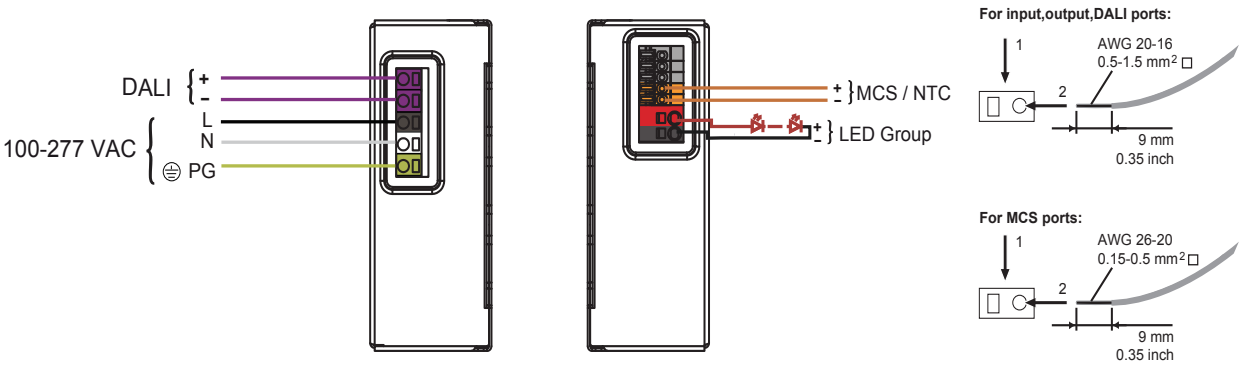
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update. Please refer to the specification of Smartkey.

*1: Recommended manufacture and type of the NTC
Manufacture:Thinking TSM2A473J409ARZA(SMD) \ VISHAY NTCS0805e4473JXT \ MURATA NCP21WB473J03RA

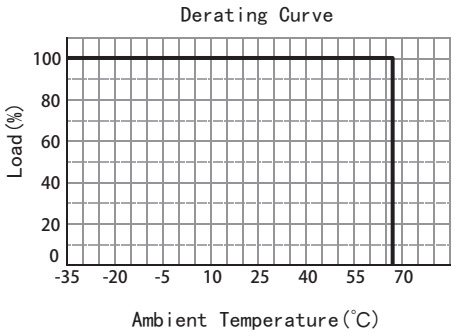
Mechanical Outline (unit: mm)

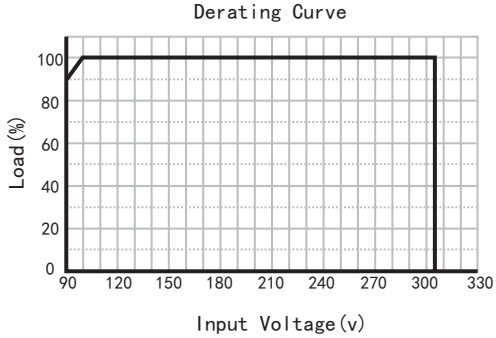


Ports

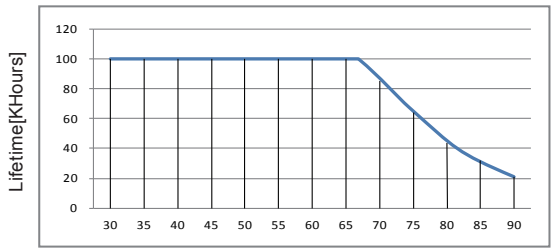


Test curve

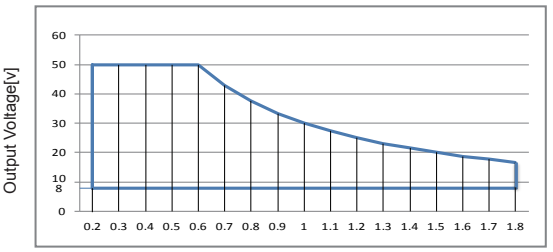




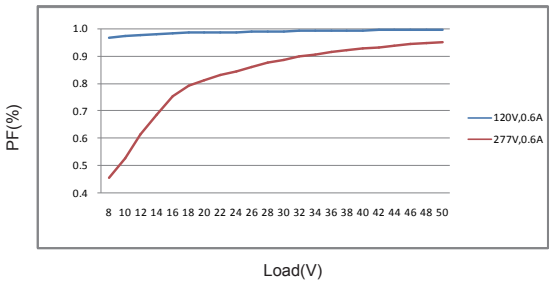
Lifetime VS.Tcase



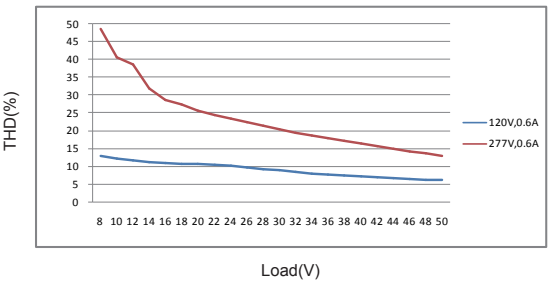
V/I OPERATING RANGE



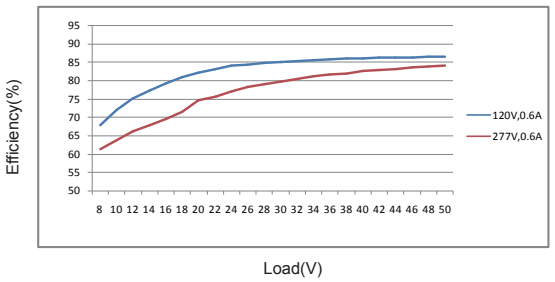
Power Factor Curve



Current Total Harmonic Curve



Efficiency Curve



DALI Curve