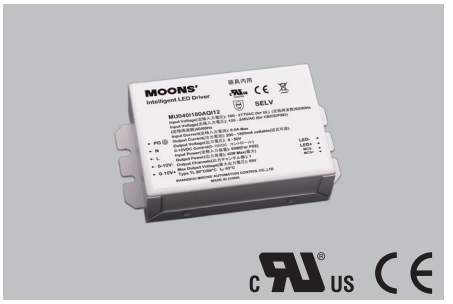
MU040I180AQI12

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 Isolated 0~10V Dimming
- Dim-to-off with Standby Power<0.3 W
- Constant Power Maximum is 40W
- Protection: OTP, SCP, NLP,OPP
- Mode of wiring: At the bottom of 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	<50W
Effiency typical value（230V,50Hz,full loaded①）	86 - 88 %
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℃~+63℃,20%~95%RH
Storage Temp.,Humidity	-40℃~+85℃,10%~95%RH
Lifetime	≥50000hours@Tc=75℃ 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
MU040I180AQI12	800 mA	50 V	40.0	45.5	87.9%	86℃	-25 - 63℃
	900 mA	44 V	39.6	45.1	87.8%	86℃	-25 - 63℃
	1000 mA	40 V	40.0	45.5	87.7%	86℃	-25 - 63℃
	1100 mA	36 V	39.6	45.2	87.6%	86℃	-25 - 63℃
	1200 mA	33 V	39.6	45.2	87.6%	86℃	-25 - 63℃
	1300 mA	31 V	40.3	45.9	87.8%	86℃	-25 - 63℃
	1400 mA	29 V	40.6	46.4	87.5%	86℃	-25 - 63℃
	1500 mA	27 V	40.5	46.4	87.3%	86℃	-25 - 63℃
	1600 mA	25 V	40.0	46.1	86.8%	86℃	-25 - 63℃
	1700 mA	24 V	40.8	47.2	86.4%	86℃	-25 - 63℃
	1800 mA	22 V	39.6	45.9	86.3%	86℃	-25 - 63℃

*1： Load:50V*800mA
*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

- 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

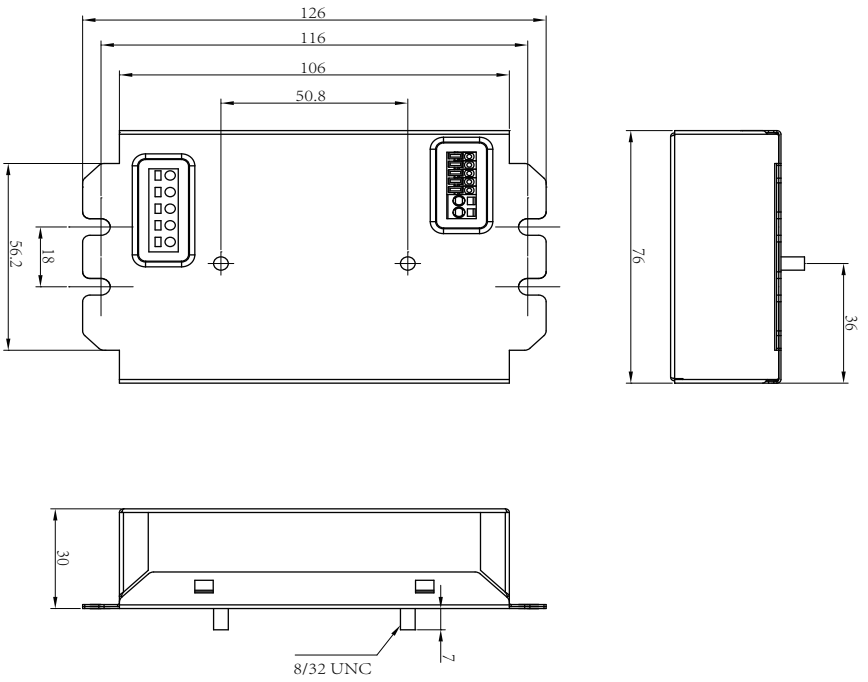
Thermal Protection
When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it can not recover until the temperture drops to 70℃ .
Short-circuit Protection
Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart 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 50W, the output current of each channel will decrease to 50%, and then the maximum output power is increased to 40W gradually.

- Online Update

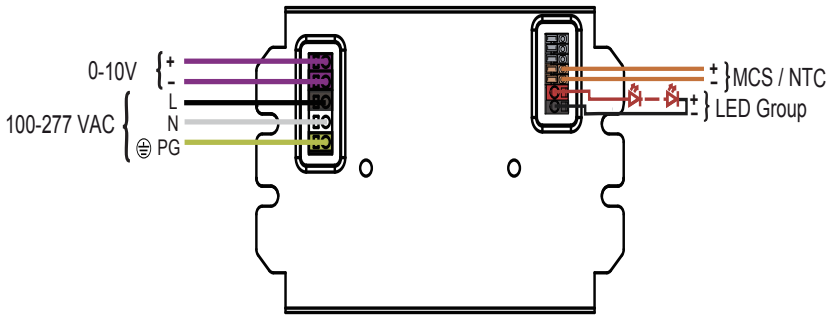
Use smart key to connect PC and the driver to update the firmware
Please refer to the specification of Smart key

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

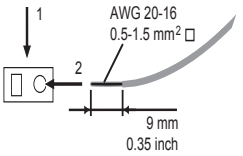
Mechanical Outline (unit: mm)



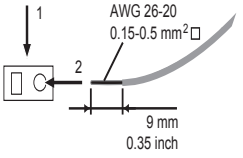
Ports



For input,output,0-10V ports:

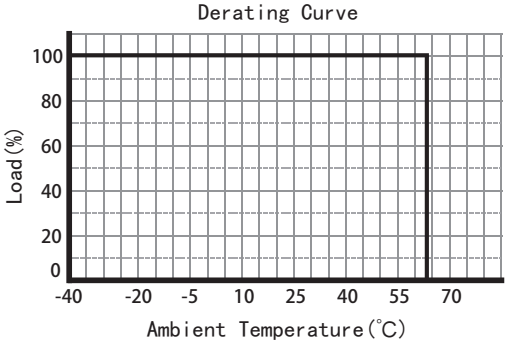


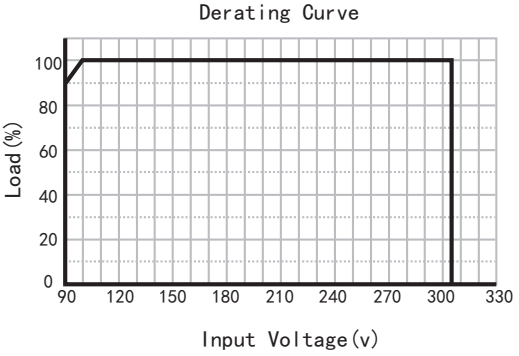
For MCS ports:



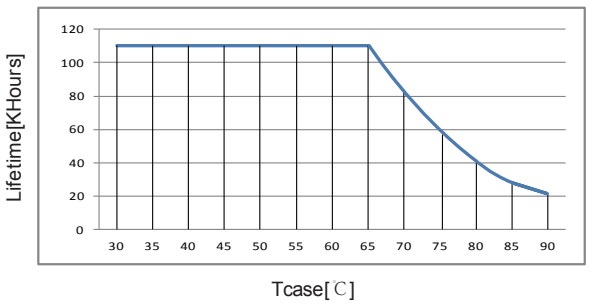
Solid or stranded copper wires only.

Test curve

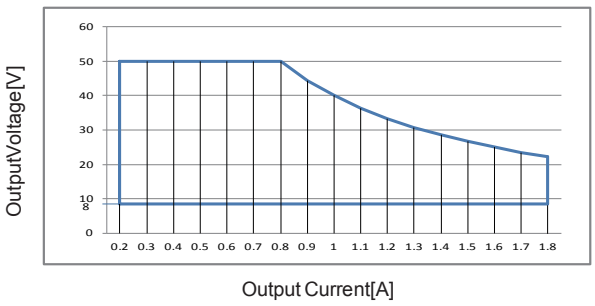




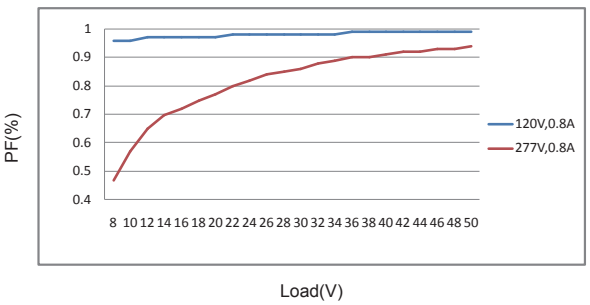
Lifetime VS.Tcase



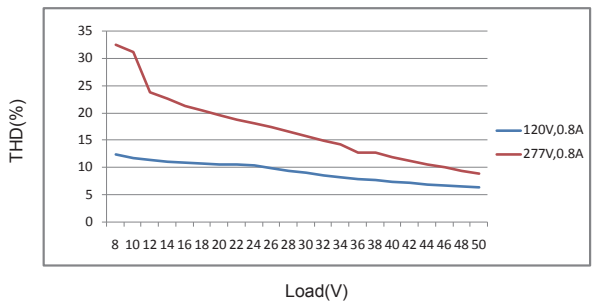
V/I OPERATING RANGE



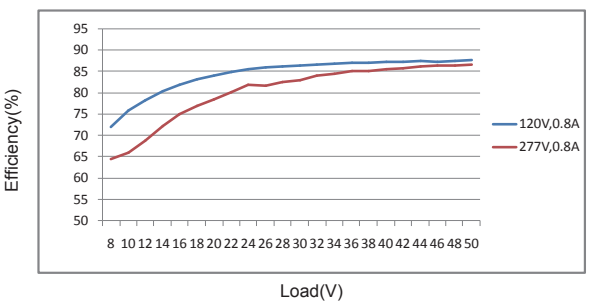
Power Factor Curve



Current Total Harmonic Curve



Efficiency Curve



0-10V Curve