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Technical Document Number: MSSD -5159- A0

MU096I210AQI22 LED DRIVER SPECIFICATIONS

Part Description: Input: 90Vac~305Vac

Customer's Part Number:

MOONS' Part Number: MU096I210AQI22

Customer:

<p>Company:</p> <p>Department:</p> <p>Approved by:</p> <p>Date:</p>
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EDITED:

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APPROVED:

DATE:

SHANGHAI MOONS' AUTOMATION CONTROL Co., LTD.

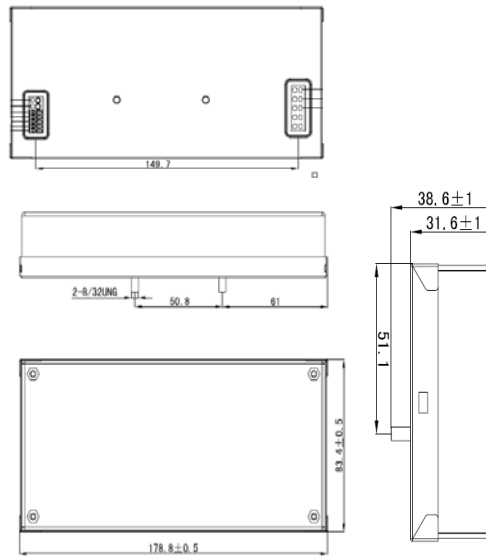
Features:

- Model MU096I210AQI22
- Compliant with Class 2 Power supply safety standards
- DALI dimming constant current LED driver , support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 2100mA
- Constant power maximum is 96W
- Normal life time is 50000 hours (at the case's temperature of 70℃)
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

Electrical Specification:

Rated input voltage range	100 - 277 V
Maximum input voltage range	90 - 305 V
Input voltage frequency	50 / 60 HZ
Input Power (230V,50HZ)	113W
Leakage current	<0.75mA
Output voltage range	34 - 48 V
Efficiency typical value (230V,50HZ,full loaded①)	85 %
Power factor (230V,50HZ,full loaded①)	>0.95
Stand-by power consumption	<0.5W
THD(230V,50HZ,full loaded①)	<13%
Start-up time (230V,50HZ,full loaded)	<1S
Start-up time (120V,50HZ,full loaded)	<1S
The maximum setup current precision	± 5%
Ripple current (full loaded)	± 15%
Input inrush current	<65A
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 Humidity	20~90%RH, non-condensing
Storage Humidity	5%-95%RH, non-condensing
Ambient Temperature	-25...50℃
Case Temperature	85℃
Weight	520g
Reference dimension	178.8×83.4×31.6

① Load:48V*2000mA



Standard:

UL8750,UL1310,	EN61000-4-2	EN61000-4-11
EN61347-1,EN61347-2-13	EN61000-4-3	EN61547
EN55015	EN61000-4-4	IEC62386-101/102/207
FCC Part 15 Class B	EN61000-4-5	
EN61000-3-2	EN61000-4-6	
EN61000-3-3	EN61000-4-8	

Functions**• 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.

• Set the Current

With the help of our Smartkey and DALI Configurator, you can set the current of the driver, each step is 1 mA.
Please refer to specification of Smartkey.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC^①. 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 100°C, output current will be decreased to 50%. And it cannot recover until the temperature 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 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 100W, the output current of each channel will decrease to 50%.

• DALI Signal Abnormality

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

• Online Update

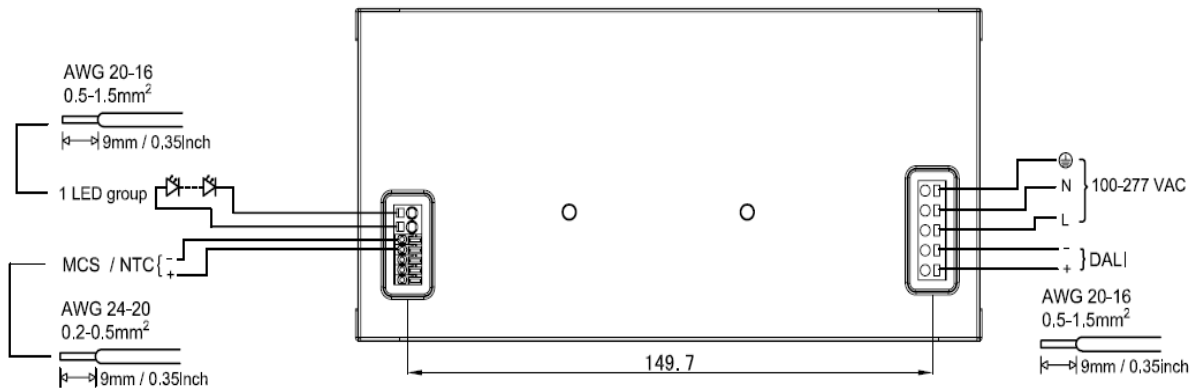
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.
Please refer to the specification of Smartkey.

①Recommended manufacture and type of the NTC

Manufacture: Thinking

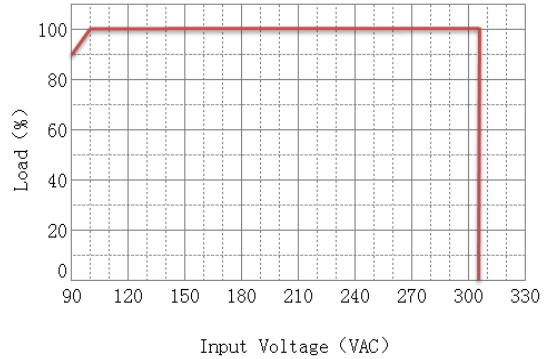
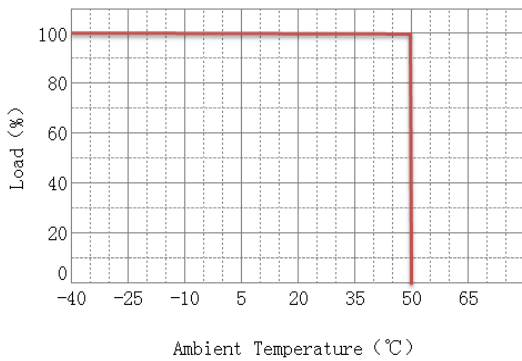
Type: TSM2A473J409ARZA(SMD)

Ports

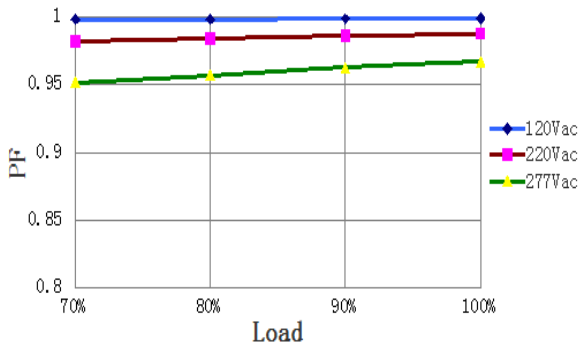


Test curve

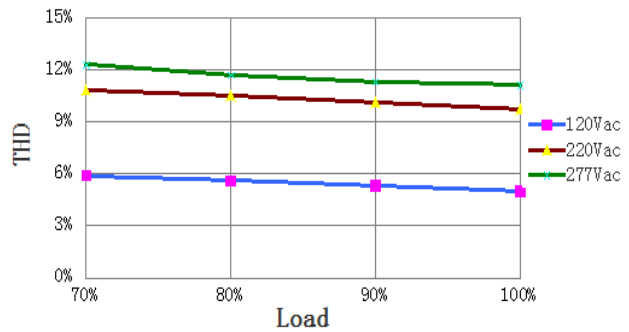
Derating Curve



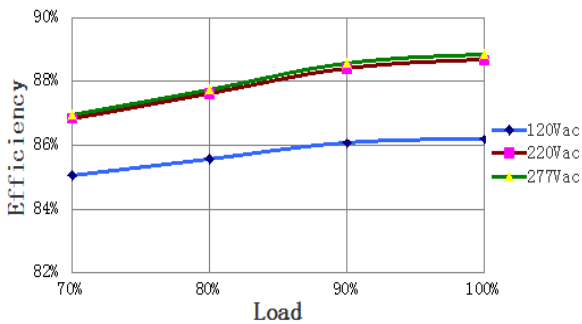
Power Factor Curve



Current Total Harmonic Curve

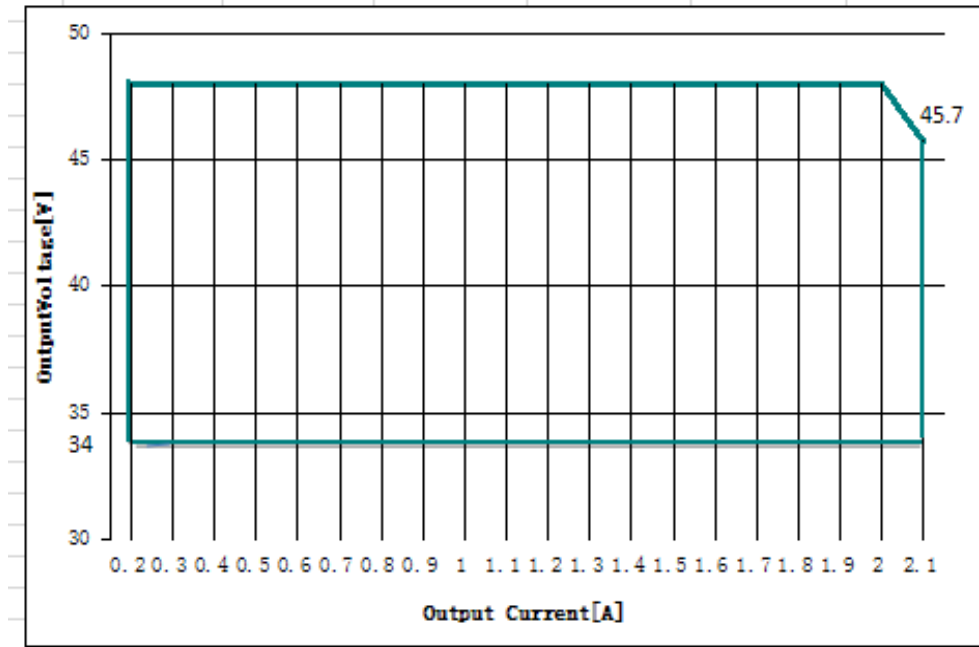


Efficiency Curve



Test curve

V/I OPERATING RANGE



Lifetime VS.Tcase

