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	TITLE: MU096I210AQI52 SPECIFICATIONS	
		REVISION: A1

Technical Document Number: MSSD -5160- A1

MU096I210AQI52 LED DRIVER SPECIFICATIONS

Part Description: Input: 90Vac~305Vac

Customer's Part Number:

MOONS' Part Number: MU096I210AQI52

Customer:

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

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STANDARD:

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APPROVED:

DATE:

SHANGHAI MOONS' AUTOMATION CONTROL Co., LTD.

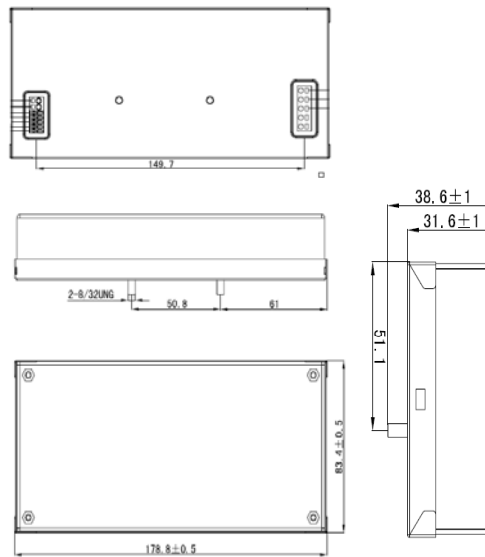
Features:

- Model MU096I210AQI52
- Compliant with Class 2 Power supply safety standards
- DMX/RDM constant current LED driver
- 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	
FCC Part 15 Class B	EN61000-4-5	
EN61000-3-2	EN61000-4-6	
EN61000-3-3	EN61000-4-8	

Functions

- **DMX/RDM**

DMX+、DMX-、Shield are the interfaces of DMX/RDM.

- **Set the Current**

With the help of our Smartkey and DMX 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 plug in.

- Over-Power Protection**

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

- **Online Update**

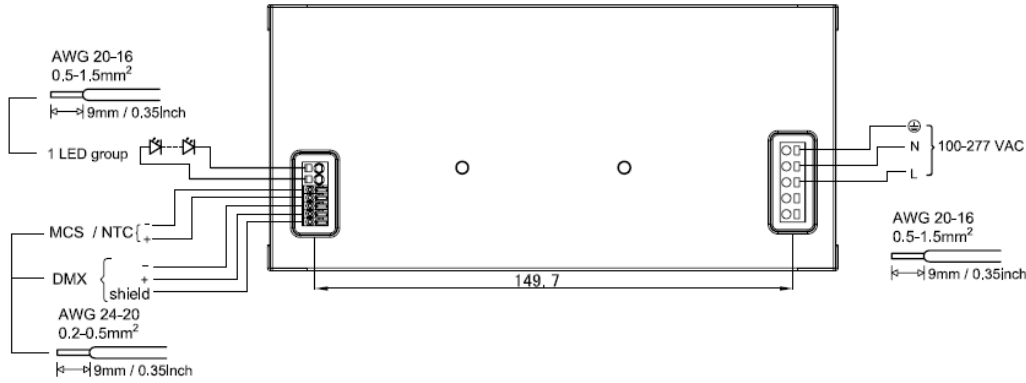
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.
Please refer to the specification of Smartkey.

① Recommended manufacture and type of the NTC

Manufacture: Thinking

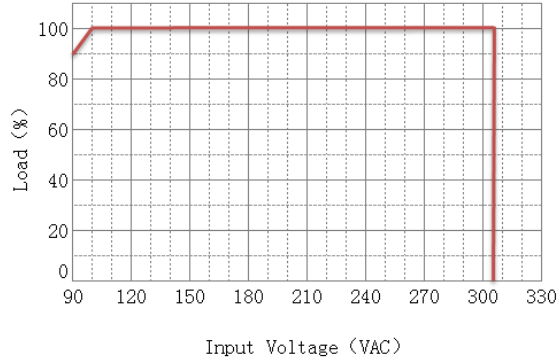
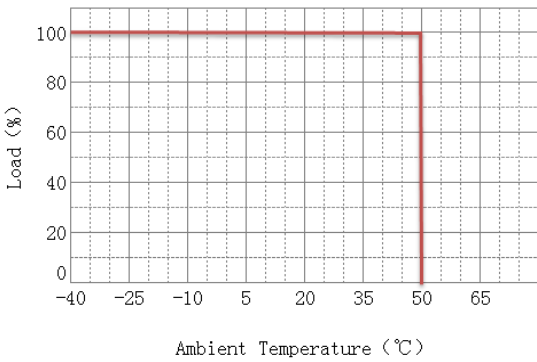
Type: TSM2A473J409ARZA(SMD)

Ports

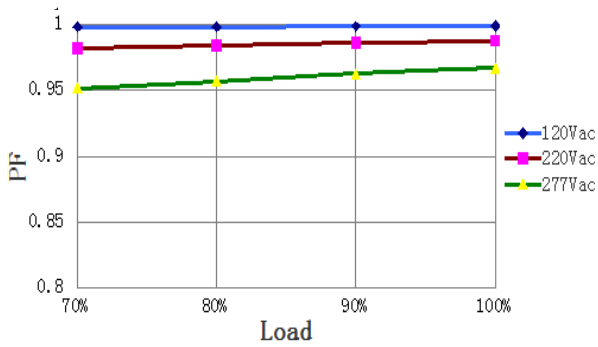


Test curve

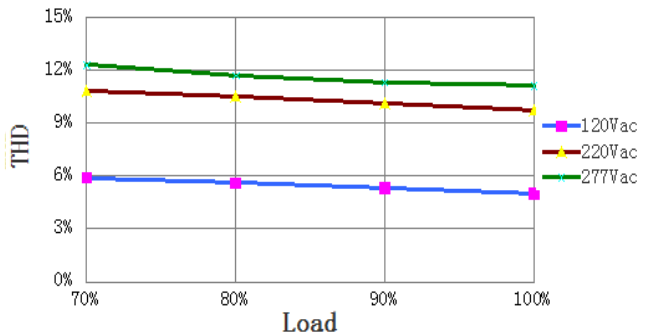
Derating Curve



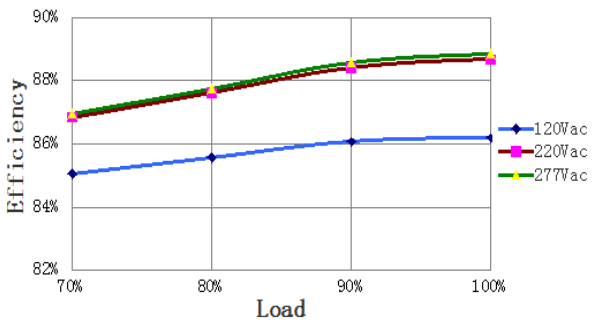
Power Factor Curve



Current Total Harmonic Curve

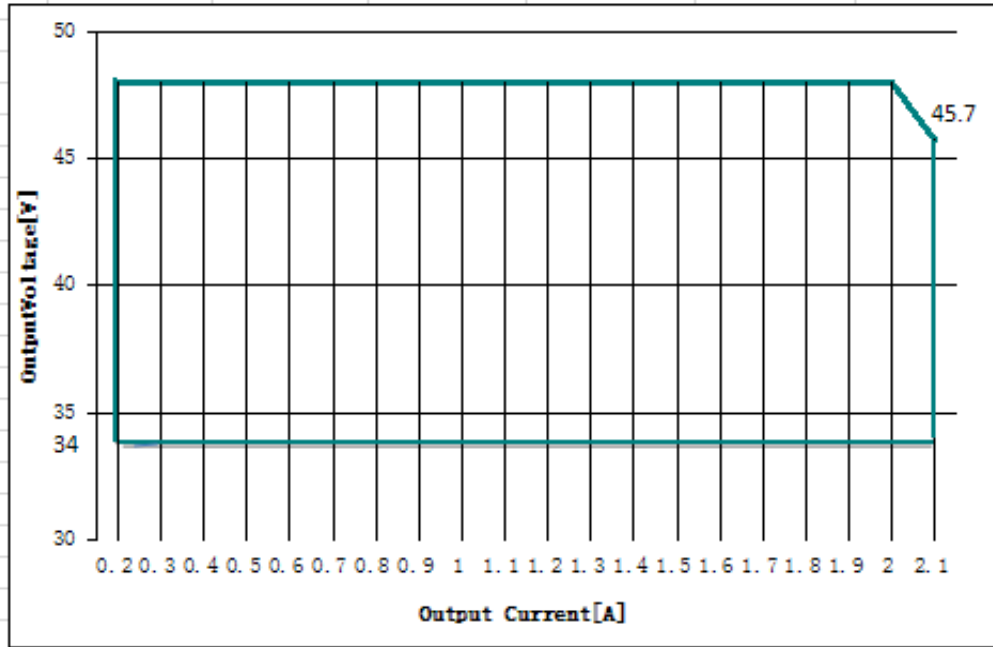


Efficiency Curve



Test curve

V/I OPERATING RANGE



Lifetime VS. Tcase

