SHANGHAI MOONS' AUTOMATION CONTROL CO.LTD

SPECIFICATIONS FOR APPROVAL

MODEL：   MU096I210AQI12

CUSTOMER :

CUSTOMER P/N :

DATE：   2016.05.16

CUSTOMER'S APPROVAL ITEMS
ITEM 1   SPECIFICATIONS(MSSD-5483 A0)   4 Pages
CUSTOMER'S APPROVAL STAMP

SHANGHAI MOONS'
R&D   DEPARTMENT

| APPD.	CHK.	DWG.

Features:

- Model MU096I210AQI12
- Compliant with Class 2 Power supply safety standards
- Support isolated 0~10V dimming
- 1 LED channel, 100% dimming output current can be set to from 200mA to 2100mA
- Constant power maximum is 96W
- Normal life time is 50000 hours（at the case's temperature of 70℃）
- 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%
- 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…52℃
Case Temperature	87℃
Weight	520g
Reference dimension	178.8×83.4×31.6

① Load:48V*2000mA

Dimensions:
149.7
38.6±1
31.6±1
51.1
2-8/32UNG
50.8   61
83.4±0.5
178.8±0.5
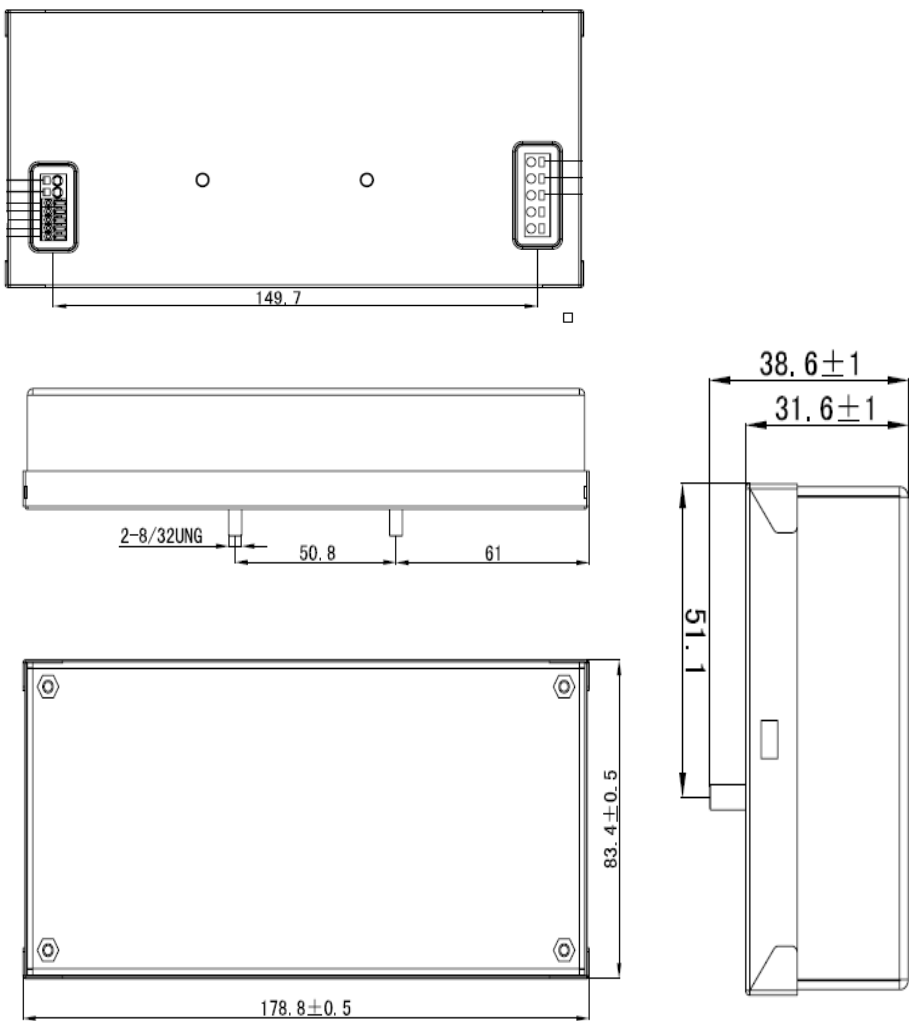
Standard：

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	

SHANGHAI MOONS' AUTOMATION CONTROL CO.,LTD
Tel:+86(0)21 52634688 Fax:+86(0)21-52634098 info@moons.com.cn
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MOONS'

Functions

• **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 NTC①. 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 cannot 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 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%.

• **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.
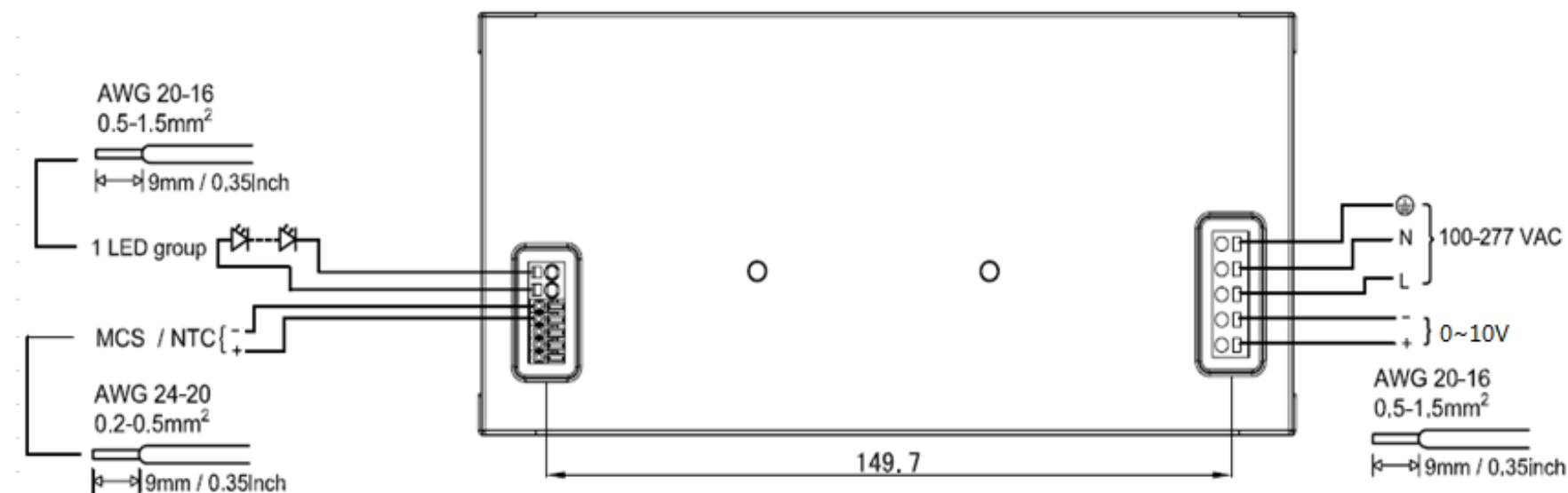
• **Daisy-Chain**

> 0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

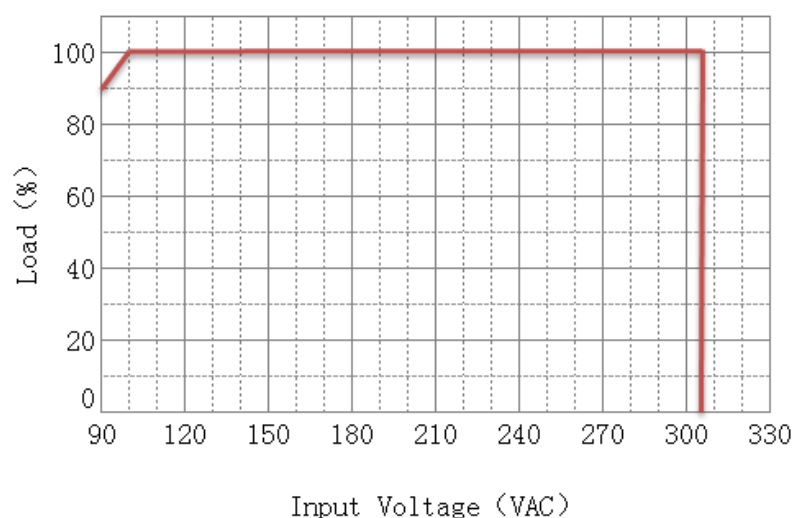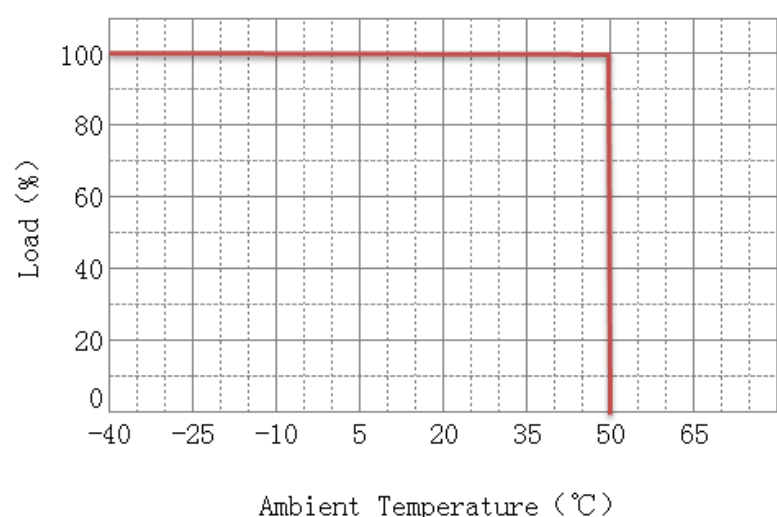①Recommended manufacture and type of the NTC
　　Manufacture: Thinking
　　Type: TSM2A473J409ARZA(SMD) \ VISHAY NTCS0805e4473JXT \ MURATA NCP21WB473J03RA

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MOONS'

Ports

AWG 20-16
0.5-1.5mm²

|←—→|9mm / 0.35Inch

1 LED group

MCS / NTC

AWG 24-20
0.2-0.5mm²

|←—→|9mm / 0.35Inch

149.7

N } 100-277 VAC
L

} 0~10V

AWG 20-16
0.5-1.5mm²
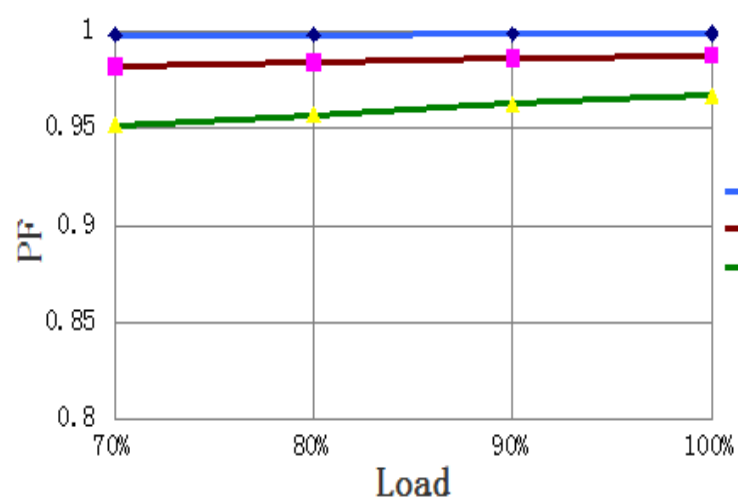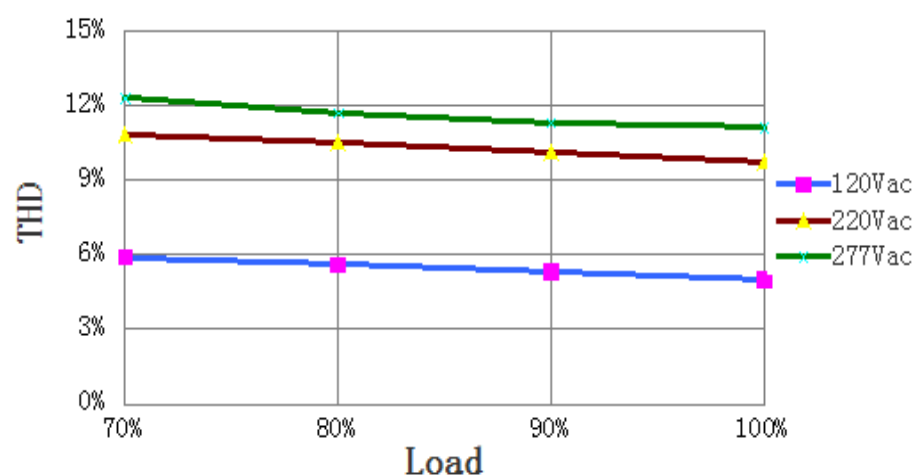
|←→|9mm / 0.35inch

Test curve

Derating Curve

Power Factor Curve

Current Total Harmonic Curve

Efficiency Curve
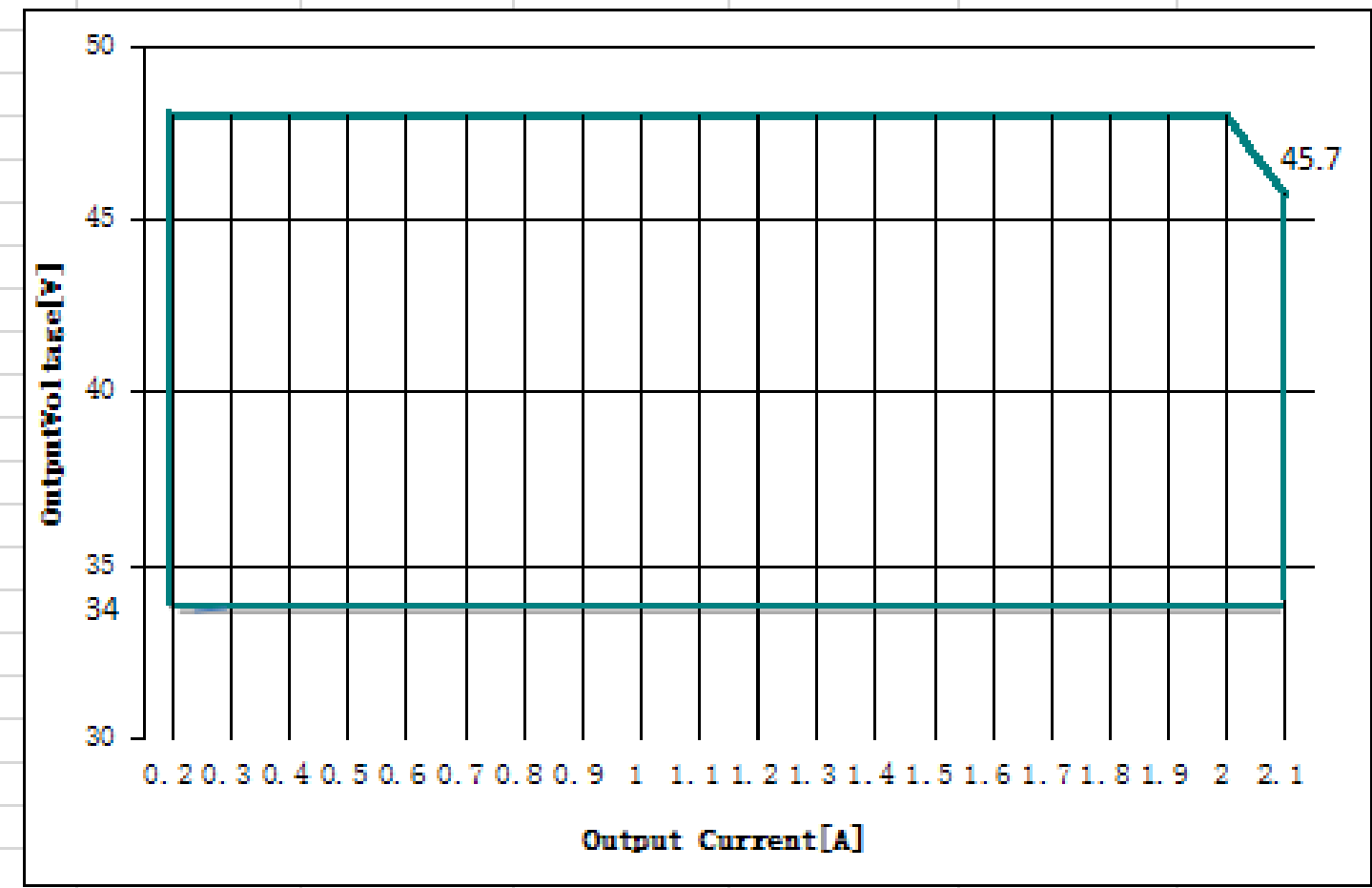
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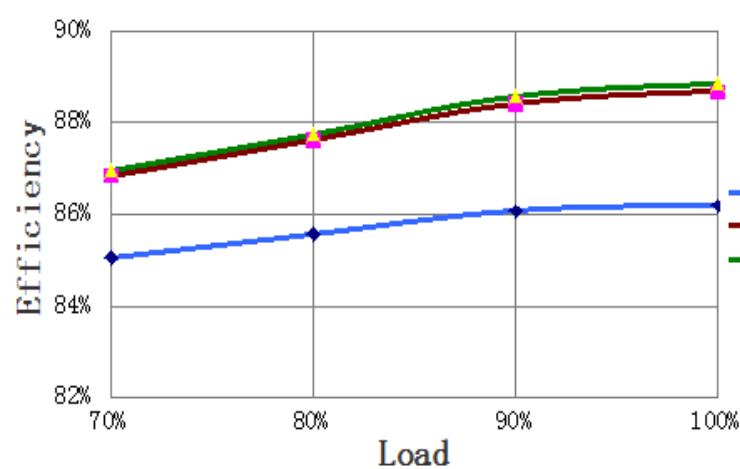
Test curve

V/I OPERATING RANGE

Lifetime VS.Tcase

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