MU050I105BQI5

Features

- 2 LED channels,100% dimming Output Current can be set to from 200mA to 1050mA
- 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 DMX/RDM Dimming
- Dim-to-off with Standby Power<0.3 W
- Constant Power Maximum is 50W
- Protection: OTP, SCP, NLP,OPP
- Mode of wiring: Single-ended wiring
- UL Class 2,IP20
- 5-year warranty



 $130\times76\times30mm$

Electrical Specifications

Rated input voltage range	100-277 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	200-1050mA			
Maxium input power	<70W			
Effiency typical value (230V,50Hz,full loaded 1)	88 - 90%			
Power factor (230V,50Hz,full loaded 1)	>0.95			
Stand-by power consumption 2	<0.3W			
THD(230V,50Hz,full loaded 1)	<10%			
Start-up time (230V,50Hz,full loaded)	<0.5\$			
Start-up time (120V,50Hz,full loaded)	<1\$			
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℃~+65℃,20%~95%RH			
Storage Temp., Humidity	-40℃~+85℃,10%~95%RH			
Lifetime	≥50000hours@Tc=72°C at 120VAC input,100% load			
Weight	360g			
Reference dimension	130 × 76 × 30mm			

Model Specifications

Туре	Output Current	Output Voltage	Output Power	Input Power (230V,50Hz)	Efficiency	Case Temperature	Ambient Temperature
MU050I105BQI5	1000 mA	50 V	50.00 W	56.20 W	89.0%	85℃	-25 - 50℃
	1050 mA	48 V	50.40 W	56.80 W	88.7%	85℃	-25 - 50℃

^{*1 :} Load:50V*1A

^{*2:} Stand-by power consumption 110V<50mW, 230V<200mW

Safety & EMC Compliance

UL8750, UL1310, CAN/CSA-C22.2 No.223-M91			
EN 61347-1, EN61347-2-13			
FCC Part15 Class B / EN55015			
FCC Part15 Class B / EN55015			
EN61000-3-2			
EN61000-3-3			
EN61000-4-2			
EN61000-4-3			
EN61000-4-4			
EN61000-4-6			
EN61000-4-8			
EN61000-4-11			
EN61547			

Function Description

DMX/RDM

DMX in + 、 DMX in - 、 Shield; DMX out + 、 DMX out - 、 Shield are the interfaces of DMX/RDM, support daisy-chain.

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, DMX start address, scene modes 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 $^\circ\! C$, output current will be decreased to 50%. And it can not recover until the temperature drops to 70 $^\circ\! C$.

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

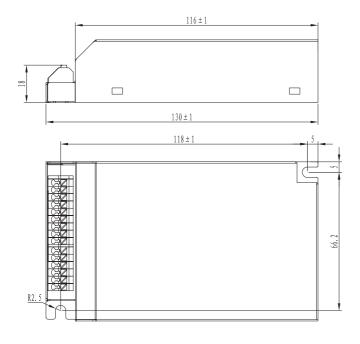
If the total power exceeds 60W, the output current of each channel will decrease to 50%, and then the maximum output power is increased to 50W gradually.

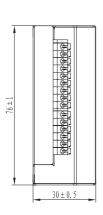
Online Update

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

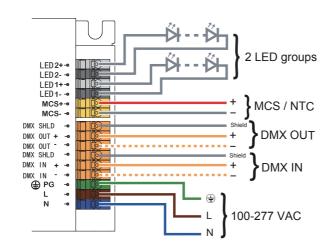
^{*1:} Recommended manufacture and type of the NTC
Manufacture: Thinking TSM2A473J409ARZA(SMD) \ VISHAY NTCS0805e4473JXT \ MURATA NCP21WB473J03RA

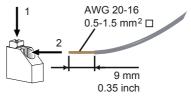
Mechanical Outline (unit: mm)





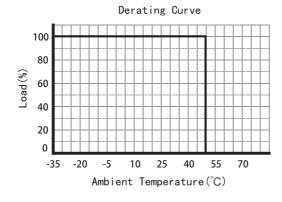
Ports

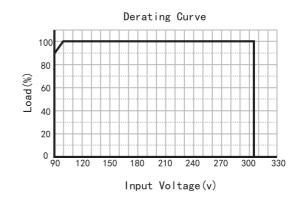




Solid or stranded copper wires only.

Test curve





Lifetime VS.Tcase Lifetime[KHours] 70 75 80 Tcase[°C]

V/I OPERATING RANGE 60 40 40 20 10 8 0 0.2 0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95 1 1.05 1.1

Output Current[A]

