



- **Features**
 - ◆ Input voltage: 100~277Vac , 140-388Vdc
 - ◆ Built-in active PFC function 0.95 Typ.
 - ◆ High efficiency: up to 87% Typ.
 - ◆ Constant current, 2 channels output
 - ◆ Support DALI Dimming, DALI-2 Certificated
 - ◆ 4 in 1: DT8 tunable white(1500-6500K); DT6 tunable white(1500~6500K), solo dimming, dual dimming
 - ◆ Output current can be set from 150~1500mA
 - ◆ AUX output 12V, 150mA
 - ◆ Protection: OVP, SCP, OPP, OTP
 - ◆ According with UL Class2、EN SELV
 - ◆ 5-year warranty

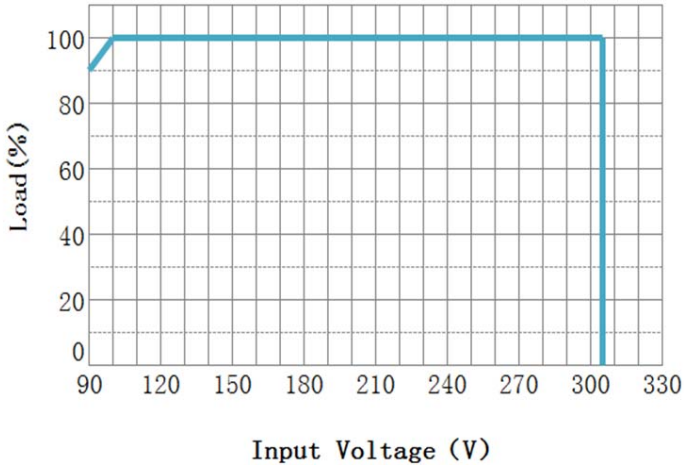
■ Specification

Model (MU050S150BQI501)						
Input	Efficiency(230Vac)	87% (Typical) at 55V/0.91A load condition				
	Efficiency(120Vac)	87% (Typical) at 55V/0.91A load condition				
	Voltage Range	90-305Vac , 126-427Vdc				
	Rated Input Voltage	100-277Vac , 140-388Vdc				
	Frequency Range (Hz)	50/60				
	Power Factor	>0.9 at 100~277Vac 50/60Hz input, with 60%~100% load conditions				
	THD	< 20%, at 100~277Vac 50/60Hz input, with 60%~100% load conditions				
	AC Current(Typ.)	0.55A MAX at 120VAC , 0.3A MAX at 230VAC				
	Inrush Current(Typ.)	<10A at 100~277Vac input 25°C cold start at 100% conditions .for more details in the attached graph				
	Input Power (W)	60(max)				
	Standby power (W)	<0.5W at input 120Vac, 230Vac				
Leakage Current(max.)	0.75mA at 277Vac 60Hz input					
Output	Output Voltage Range (V) _{Note.1}	8-55				
	Output Current Range(mA)	150-1500.Support hot plug, without overshoot current .				
	Rated Power (W)	50(max)				
	Output channels	2				
	Ripple Current	Output current 200~1500mA ripple LF(<120HZ) ≤ 3% Ripple = peak / average; ripple HF ≤ 30%				
	Current Tolerance	±5%				
	Line Regulation	±1%				
	Load Regulation	±3%				
	Setup, Rise Time	<0.5S @ 120V/60HZ, 230V/50HZ				
AUX output	12V±3%, 150mA max					
Dimming Control	DALI dimming / 0.1%lo~100%lo ref. Dimming module diagram and dimming curve					
Protection	Open circuit protection(V)	60				
	Short Circuit	Power supply stops output, recovers automatically when fault condition removed				
	Over Power	Solo&Dual dimming the current drops by 5% per 100ms; Tunable white each time drops 10%				
	Over Temperature	tc 100°C±10%. Hiccup mode,When the temperature of tc rise to 100°C(Typ.)				
Environment	Operating Temp.	-25~+65°C; tc 90°C				
	Operating Humidity	20~95%RH, non-condensing				
	Storage Temp., Humidity	-40~+85°C, 10-95%RH				
	Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axis				
	Ingress Protection Rating	IP20				
Safety & EMC	Safety Standard	UL8750, CSA C22.2 No.250.13-14, EN61347-1, EN61347-2-13				
		Isolation	Input	Output	Dimming interface	Enclosure
		Input	No applicable	3.75KV	3KV	1.875KV
		Output	3.75KV	No applicable	500V	1.5KV
		Dimming interface	1.6KV	1.6KV	No applicable	500V
	Enclosure	1.875KV	1.5KV	500V	No applicable	
Isolation Resistance	I/P-O/P ,I/P-FG,O/P-FG:100M Ohms/500VDC/25°C/70%RH					
EMC Emission	FCC Part 15 ClassB, EN55015, EN61000-3-2 Class C, EN61000-3-3					
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge L,N-FG 2KV, L-N 1KV) Additional suger test L,N-FG 2.5KV;L-N 2.5KV					
Others	Life time	>50000@Tc =75°C at 100% load conditions				
	MTBF	300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)				
	Dimension (LxWxH)	408 x 30 x 21 mm / 16.06 x 1.18 x 0.83 in				
	Weight	420g				

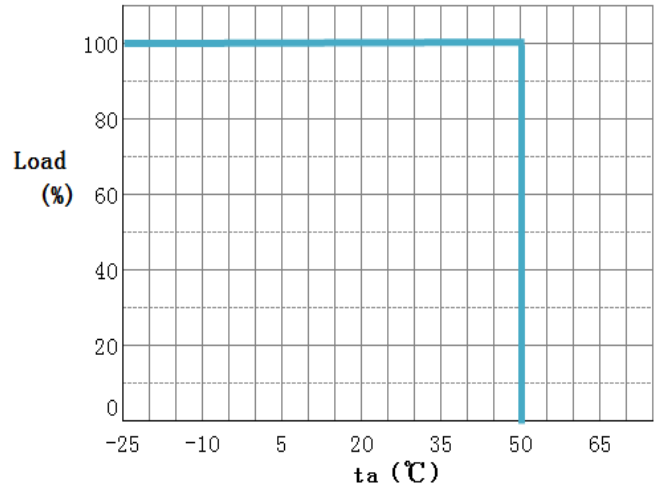
Note.1: refer to V/I curve

■ Curve

Derating Curve

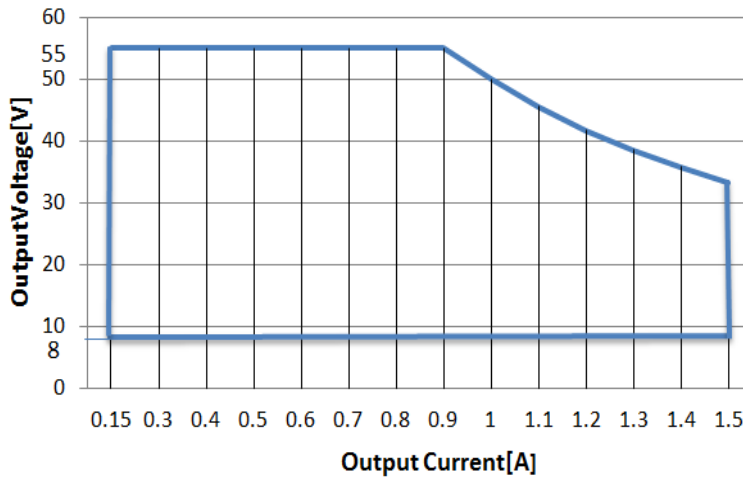


Derating Curve



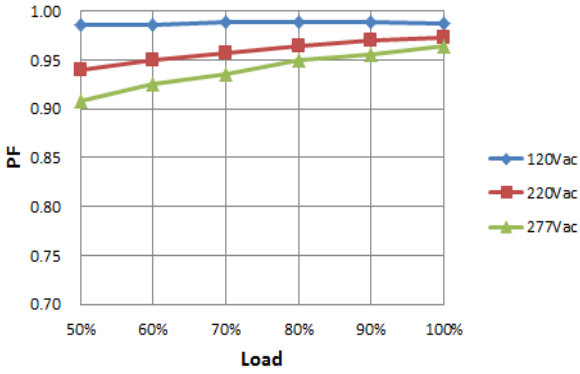
VI Curve

OPERATING RANGE/50W

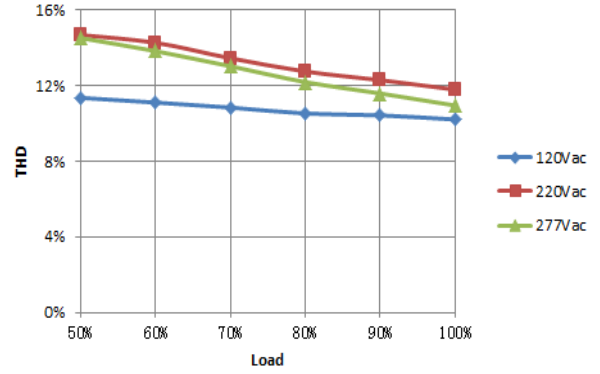


■ Curve

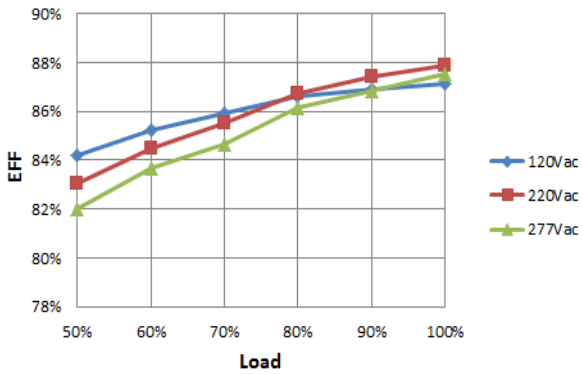
PF VS. Load Curve



THD VS. Load Curve

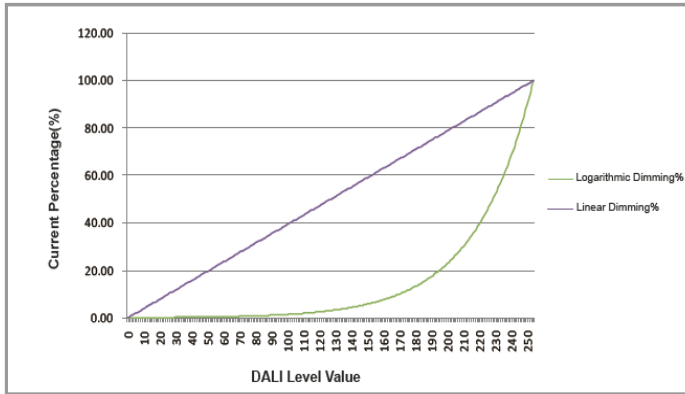


Efficiency VS. Load Curve

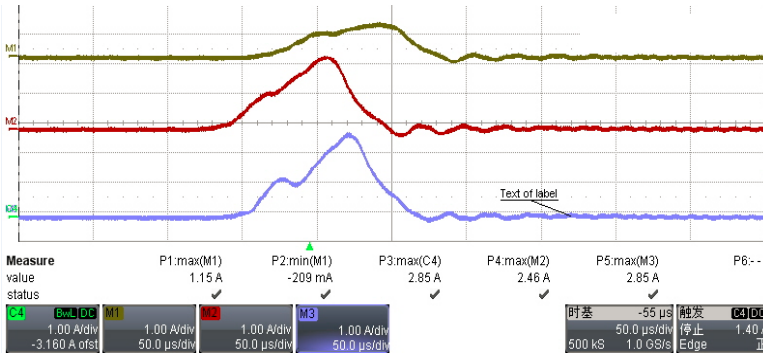


Curve

DALI Curve



Inrush current waveform



Inrush current information

Input voltage	Ipeak	Time@50% of Ipeak
120VAC	1.15	50us
220VAC	2.46	50us
277VAC	2.85	60us

Max number of drivers per MCB

Item	Max. number of drivers		
	120	220	277
MCB B type 10A	16	30	34
MCB B type 13A	21	38	45
MCB B type 16A	26	47	56
MCB B type 20A	32	59	70
MCB B type 25A	40	74	87

■ Application of introduction

1. DALI interface

- Comply with IEC62386-102(2.0), IEC62386-207, IEC62386-209
- update Online, use smart key to connect PC and the driver to update the firmware.

2. MCS interface(MCS+/MCS-)

- MCS+ interface voltage 15V
- Max current setting(each step is 1 mA), default driving current defined as 350mA.
- Log or linear dimming curve, default setting is log dimming.
- NTC thermal management protects LED lamp, when the temperature of LED lamp over temperature protection point, the current will be reduced by 50% every 5 minutes. Default setting is 85°C.

NTC compatibility list	NTC Manufacturer		NTC Model NO.	
		MURATA	NCP21WB473J03RA	
		VISHAY	NTCS0805e4473JXT	
		VISHAY	NTCLE100E3473	

- Control the status of Auxiliary power when dim level =0. Enable standby mode: when dim level =0, the Auxiliary power will be closed. Disable standby mode: when dim level =0, the auxiliary power still can work. Default setting is enable

3. Dimming performance

- When changed to any dimming level, flicker wouldn't occur, dimming would be achieved smoothly.
- In the range of 200~1500mA, the current operating in continuous mode; In the range of 0~200mA, the current operating in PWM dimming mode, and the PWM frequency 3.6KHZ.

4. Guide for setting driver's parameters Touch setting

- Touch Setting
Program driver's parameters quickly and easily through Near Field Communication. Software download link:
http://leddriver.moons.com.cn/SouProduct/UCenter/M_Search/Software_view.aspx?MATNR=TouchSetting&rnd=1411
- Smartkey Network
Driver's parameters can be set through Smartkey Ver.A1 and Smartkey Network. What's more, driver's firmware can be updated through this tool. Software download link:
http://leddriver.moons.com.cn/SouProduct/UCenter/M_Search/Software_view.aspx?MATNR=SmartkeyNetwork&rnd=1411

5. DT8 Tunable white; DT6 Tunable white、Solo dimming、Dual dimming function introduction

Channel Definition

DT8/DT6 Tunable white	Cold color channel	CH1
	Warm color channel	CH2

Function Description

DT8 Tunable white	One address controls intensity and color temperature	
DT6 Tunable white	Address X controls intensity	
	Address X+1 controls color temperature	
DT6	Solo dimming	Dim two channels through 1 address simultaneously.
	Dual dimming	Dim two channels through 2 addresses respectively.

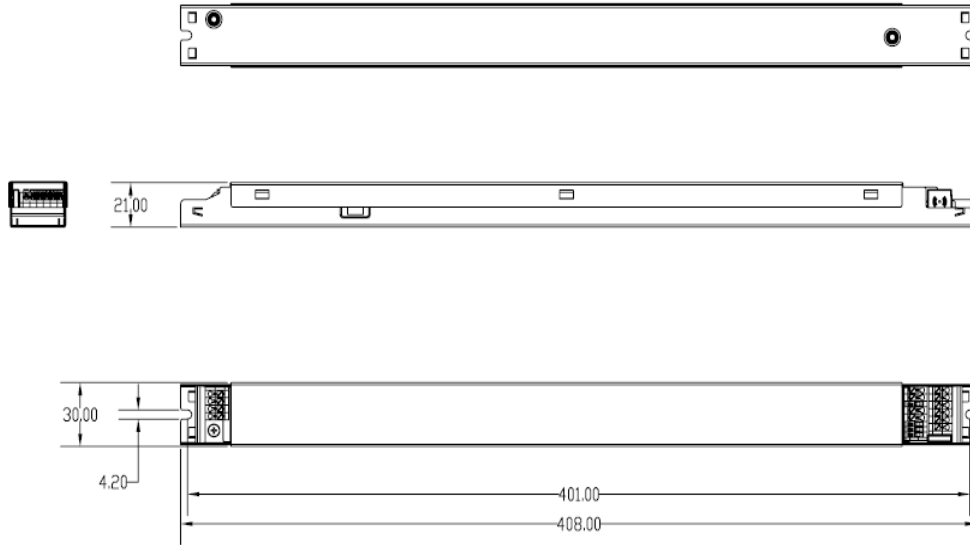
6. Default factory settings

The screenshot shows a software interface with a top navigation bar containing icons for Load, Save, Read, Write, and Setting. Below this, there are several configuration sections:

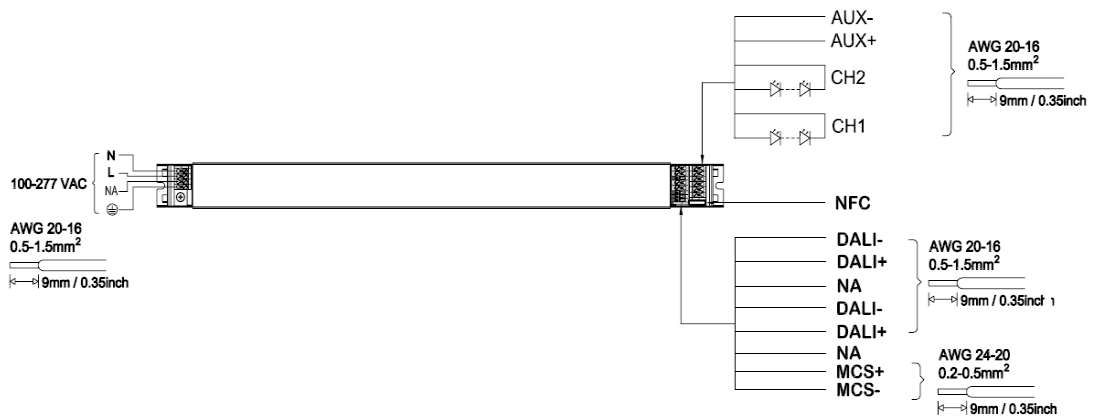
- Current:** Two sliders for Channel 1 and Channel 2, both set to 350 mA.
- General Setting:**
 - Dimming Strategy: DT 8 CCT Driver
 - Dimming Curve: Logarithmic
 - Minimum Dimming Level: 0.1 %
 - NTC: 85
 - AUX Enable: Enable
 - Physical CCT: Warmest 2500 K, Coolest 6500 K
 - Logical CCT: Warmest 2500 K, Coolest 6500 K

■ Mechanical Specification

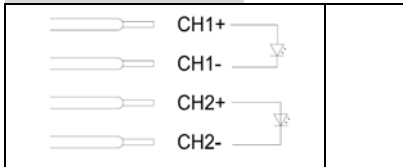
Dimensions(Unit:mm)



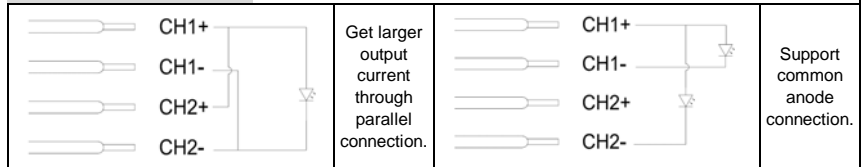
Port:



Normal connection using



Special connection using



RoHS Compliance:

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.