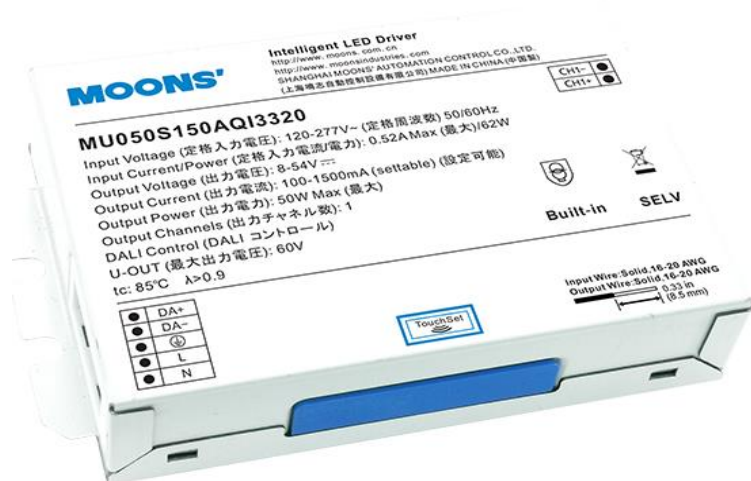


S Series Intelligent Driver



0.1% Deep Dimming
Human Centric
Lighting

Flicker Free

Meet :
CEC title 24 JA8 &
JA10
IEEE PAR 1789-2015

■ 50W S Series-1 Channel DALI Driver-MU050S150AQI3320

MOONS' 50W S Series 1 Channel LED Drivers are designed for DALI dimming application. It is a wireless programmable LED driver with MOONS' Touch setting tool.

■ Main Characteristics

- 1 Channel, constant current driver
- Programmable operation window
- Low inrush current
- Standby power < 0.2W
- 0.1% Dimming
- 2 types of dimming curve (logarithmic/linear)
- Output power 50W max
- Flicker free for whole operation range
- DALI BUS power 15V/56mA
- Input power detection accuracy $\pm 5\%$ or < 0.5W

■ Benefits

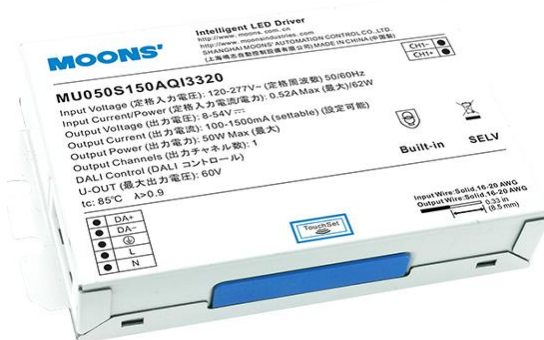
- Application-oriented operating window for maximum compatibility
- Excellent dynamic response performance
- Exceptionally smooth fades

■ Applications

- Architecture, Art and Museum, Entertainment, Hospitality, Healthcare, Urban landscape

Certification

- Comply with IEC62386-101, 102, 207, 250, 251, 252, 253
- Comply with UL Class2, ClassP
- Comply with Energy Star 2.2
- Certificated :



Input	Efficiency (230Vac)	87% (Typical)
	Efficiency (120Vac)	86.5% (Typical)
	Voltage Range (Vac)	108~305
	Rated Input Voltage (Vac)	120~277
	Frequency Range (Hz)	50/60
	Power Factor	>0.9 at 120~277Vac 50/60Hz input, with 50%~100% load conditions
	THD	<20% at 120~277Vac 50/60Hz input, with 50%~100% load conditions
	AC Current (Typical)	0.6A MAX. @120Vac, 0.3A MAX. @230Vac
	Inrush Current (Typical)	<10A at 120~277Vac input 25℃ cold start at 100% condition
	Input Power (W)	65(MAX.)
	Standby Power (W)	<0.2W @120Vac/60HZ, 230Vac/50HZ, 277Vac/60HZ
	Leakage Current (MAX.)	0.75mA MAX. @277Vac
Output	Output Voltage Range (VDC)	8~54
	Output Current Range (mA)	100~1500
	Rated Power (W)	50(MAX.)
	Output Channel Number	1
	Ripple Current (PK-PK)/AV	20% MAX. at output 300~1500mA conditions
	Current Tolerance	±5% at output current range
	Line Regulation	±1%
	Load Regulation	±3%
	Startup Time	540ms~660ms @ 120Vac/230Vac/277Vac for DALI 2.0
Power measurement	Input Power Tolerance	5% or 0.5W whichever is greater – accuracy
Dimming Port	DALI Bus Power Supply	15VDC ± 30%, < 56mA
	DALI Dimming	a. Range: 0.1% to 100% b. Soft-on, Fade-to-Black c. optional dimming curve: logarithmic/linear
Protection	Open Circuit Protection (V)	58.5
	Short Circuit	Output current of power supply equals set current
	Overload protection	Automatic recovery
	Over Temperature	Automatic recovery
Environment	Operating Temperature	-25~+50℃
	Operating Humidity	20~95%RH, non-condensing
	Storage Temperature	-40~+85℃
	Storage Humidity	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,UL1310 Class 2, CAN/CSA-C22.2No.107.1-01,EN61347-1, EN61347-2-13
	EMC Emission	FCC Part 15 ClassB, EN55015, EN61000-3-2 Class C, EN61000-3-3
	EMC Immunity	EN61000-4-3,4,6,8,11, ANSI C62.41.2 (3.5KV),EN61000-4-5(Surge L, N-FG: 2.5KV, L-N: 2.5KV),EN61000-4-2(air discharge 8KV)
Others	Lifetime	>50000 hours @Tc =70℃ at 100% load conditions
	MTBF	500,000 hours, measured at full load, 25℃ ambient temperature SR-332 Issue 3
	Dimension (L x W x H mm)	124 x 76 x 25.5
	Weight	286g

■ Dimming Performance

▪ Flicker Free

i. Meet :CEC title 24 JA8 & JA10, IEEE PAR 1789-2015

▪ Dimming Method

In the range of 250~1500mA,the current operates in continuous mode;

In the range of 0~250mA,the current operates in PWM dimming mode, and the PWM frequency 7.2KHZ.

■ Programmable Performance

▪ Touch Setting

Program driver's parameters without cable.

[Download Software](#)

▪ 1mA Current Programmable Step

▪ Default Factory Setting

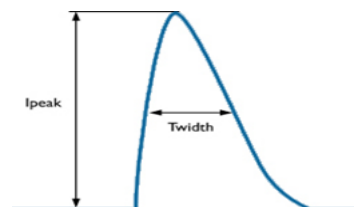
The screenshot displays the software interface for the MU050S150AQI3320 driver. At the top, there are five icons: Load (folder), Save (floppy disk), Read (green up arrow), Write (green down arrow), and Setting (gear). Below these icons, the 'Current' section shows a slider for 'Channel 1' set to 350 mA. The 'General Setting' section includes: Dimming Curve (Logarithmic), Minimum Dimming Level (0.1), NTC (85), AUX Power (Disable), and Dali Power (Disable). The 'Other Information' section includes: Maximum Temperature (53), Lights On Time (No record (0xFFFF)), and GTIN (0).

! GTIN-13 Code:

■ Inrush Current

▪ Ipeak & Time

Input Voltage	Inrush Current Ipeak	Inrush Current Time, measured 50% of Ipeak
120 Vac	3.36A	54us
220 Vac	6.48A	52us
277 Vac	7.8A	50us

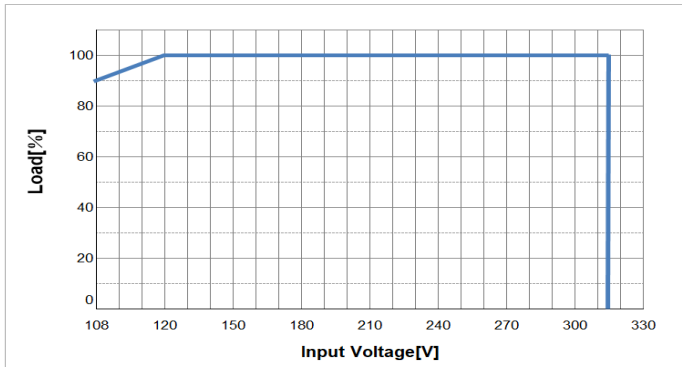


▪ Automaitc Circuit Breakers

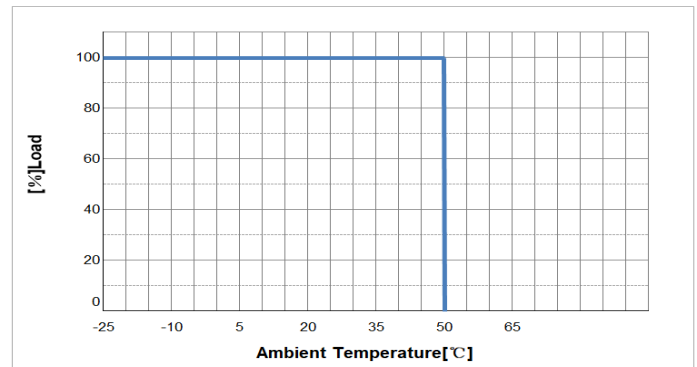
ACB Type	B10	B13	B16	B20	C10	C13	C16	C20
Number of LED Drivers @120Vac	22	29	35	44	22	29	35	44
Number of LED Drivers @220Vac	42	55	67	84	42	55	67	84
Number of LED Drivers @277Vac	51	67	82	103	51	67	82	103

■ Curve

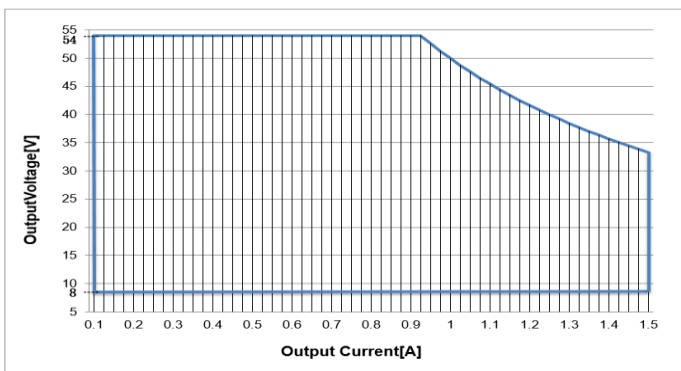
▪ Derating Curve



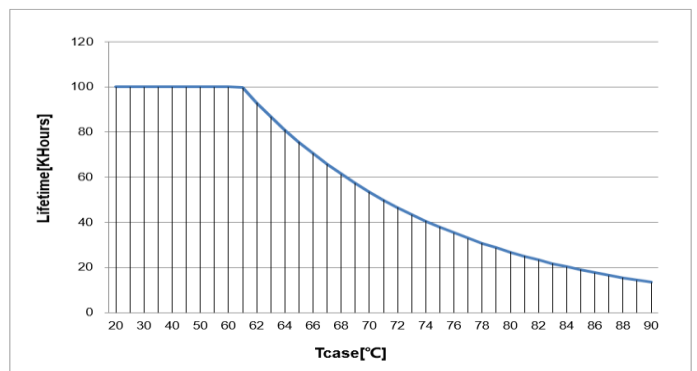
▪ Derating Curve



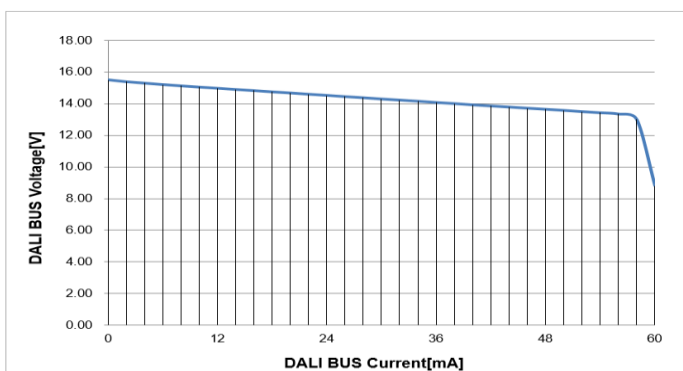
▪ V/I Curve



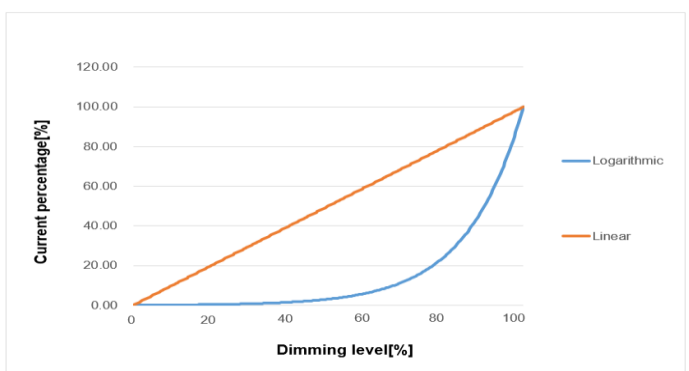
▪ Lifetime Vs Tc



▪ DALI Power Supply VI Curve

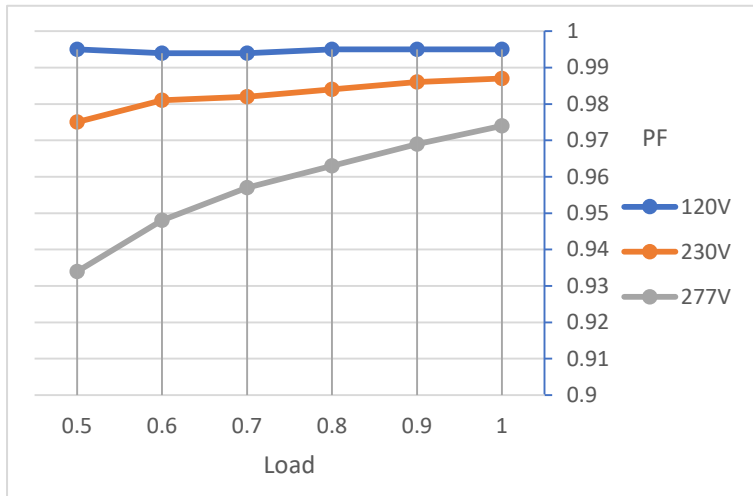


▪ Dimming Curve

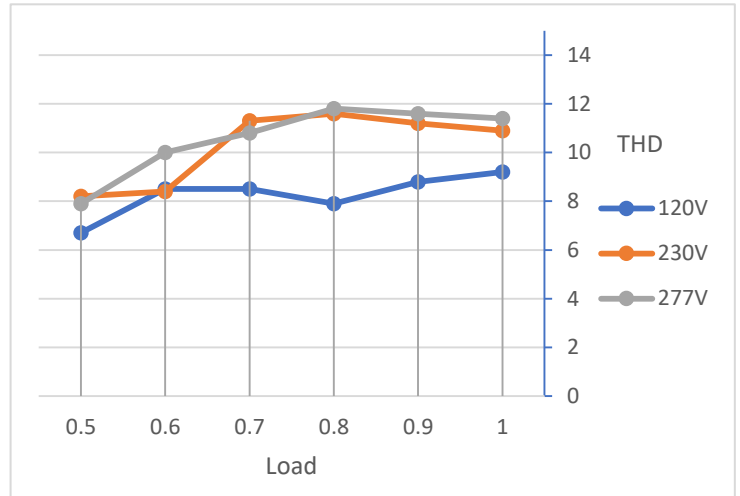


■ Curve

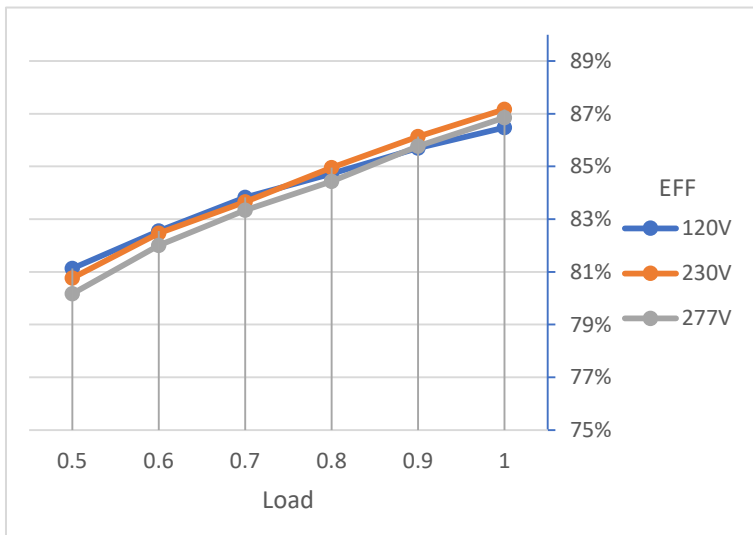
■ PF VS Load Curve



■ THD VS Load Curve

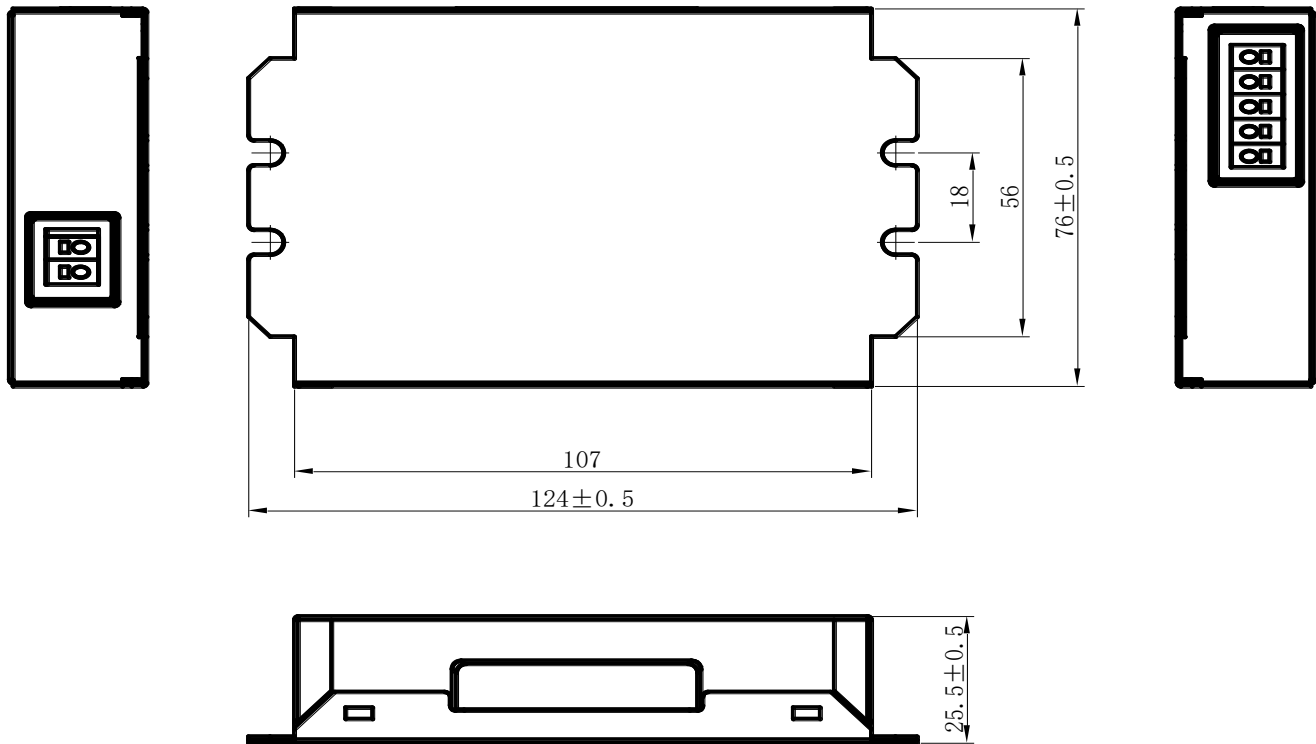


■ Efficiency VS Load Curve



■ Mechanical Specification

▪ Dimensions (Unit: mm)



▪ Ports



! These terminals are intended for both solid and stranded wire.

! To remove wire, insert screwdriver into slot.

RoHS Compliance:
Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.