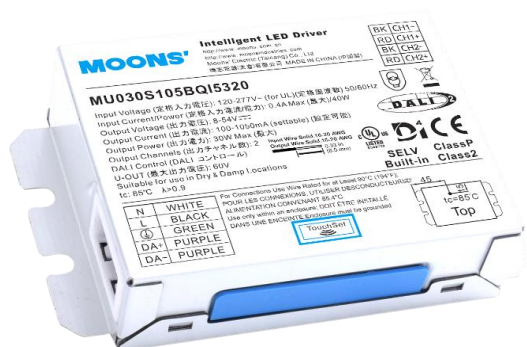


# S Series Intelligent Driver



**0.1% Deep Dimming**  
**Human Centric Lighting**

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

## ■ 30W S Series-2 Channels DALI Driver-MU030S105BQI5320

MOONS' 30W S Series 2 Channels LED Drivers are designed for DALI dimming application, the DALI dimming mode can be set to DT8 CCT mode, DT6 CCT mode , DT6 Solo address mode, DT6 Dual addresses mode.It is a wireless programmable LED driver with MOONS' Touch setting tool.

## ■ Main Characteristics

- 2 Channels, constant current driver
- Programmable operation window
- Low inrush current
- Standby power<0.2W
- 0.1% Dimming
- DT8 CCT mode, DT6 CCT mode , DT6 Solo address mode, DT6 Dual addresses mode
- 2 types of dimming curve(logarithmic/linear)
- 30W max each channel with total 30W load
- 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, 209, 250, 251, 252, 253
- Comply with UL Class2, ClassP
- Comply with Energy Star 2.2
- Certificated : ( DALI2 ,D4I in Process )



## ■ Electrical Specifications

|                   |                             |  |
|-------------------|-----------------------------|--|
| Input             | Efficiency (230Vac)         | 86% (Typical)  |
|                   | Efficiency (120Vac)         | 85% (Typical)  |
|                   | Voltage Range (Vac)         | 90~305   |
|                   | Rated Input Voltage (Vac)   | 100~277  |
|                   | 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)        | 0.4A MAX. @120Vac, 0.2A MAX. @230Vac   |
|                   | Inrush Current (Typical)    | <10A at 120~277Vac input 25℃ cold start at 100% condition                                  |
|                   | Input Power (W)             | 40(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)   | 100~1050   |
|                   | Rated Power (W)             | 30(MAX.)   |
|                   | Output Channel Number       | 2  |
|                   | Ripple Current              | <15% at max. lout (ripple=(pk-avg)/avg) Low frequency (<120 Hz) content <1%                |
|                   | 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%, < 56.5mA  |
|                   | DALI Dimming                | DALI dimming 0.1%~100%, Soft-on, Fade-to-Black ,optional dimming curve: logarithmic/linear |
| Protection        | Open Circuit Protection (V) | 58.5   |
|                   | Short Circuit               | Output current of power supply equals set current  |
|                   | Over Temperature            | Automatic recovery   |
| Environment       | Operating Temperature       | -25~+40℃   |
|                   | 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-C22.2 No.223-M91,EN61347-1, EN61347-2-13                    |
|                   | 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 2.5KV, L-N 2.5KV)                          |
| Others            | Lifetime                    | >50000 hours @Tc = 67℃ 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)    | 102x64x29  |
|                   | Weight                      | 222g   |

## ■ Dimming Performance

### ▪ Flicker Free

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

### ▪ Dimming Method

In the range of 250~1050mA,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.

## ■ Porgrammable Performance

### ▪ Touch Setting

Program driver's parameters without cable.

[Download Software](#)

### ▪ 1mA Current Programmable Step

### ▪ Default Factory Setting

Load

Save

Read

Write

Setting

Current

Channel 1

350

mA

Channel 2

350

mA

General Setting

Dimming Strategy

DT 6 Solo Driver With F

Dimming Curve

Logarithmic

Minimum Dimming Level

0.1

%

NTC

85

AUX Power

Disable

Dali Power

Disable

Solo CH1 Disable

Enable

Solo CH2 Disable

Enable

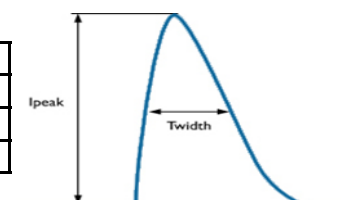
Other Information

! GTIN-13 Code:

## ■ Inrush Current

### ▪ Ipeak & Time

| Input Voltage | Inrush Current Ipeak | Inrush Current Time, measured 50% of Ipeak |
|---------------|----------------------|--|
| 120 Vac       | 3A                   | 45us                                       |
| 220 Vac       | 6.1A                 | 45us                                       |
| 277 Vac       | 7.4A                 | 45us                                       |

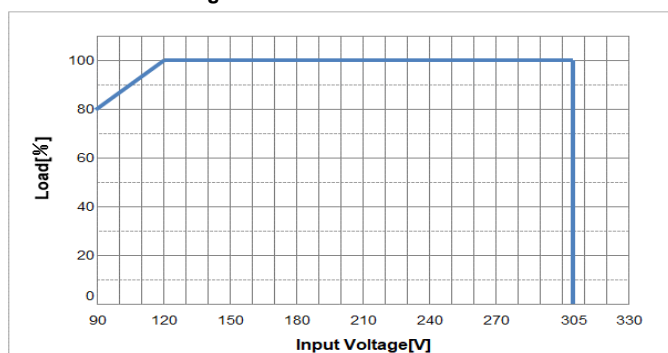


### ▪ Automaitc Circuit Breakers

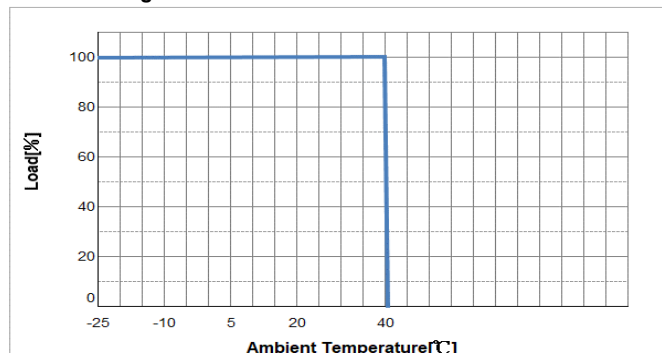
| ACB Type                      | B10 | B13 | B16 | B20 | C10 | C13 | C16 | C20 |
|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Number of LED Drivers @120Vac | 26  | 34  | 41  | 51  | 26  | 34  | 41  | 51  |
| Number of LED Drivers @220Vac | 50  | 65  | 80  | 100 | 50  | 65  | 80  | 100 |
| Number of LED Drivers @277Vac | 59  | 77  | 95  | 119 | 59  | 77  | 95  | 119 |

## ■ Curve

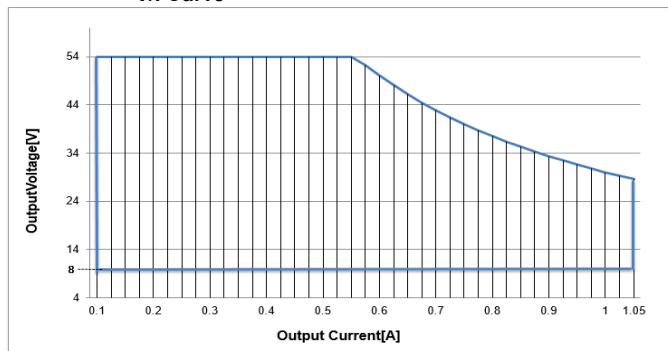
▪ Derating Curve



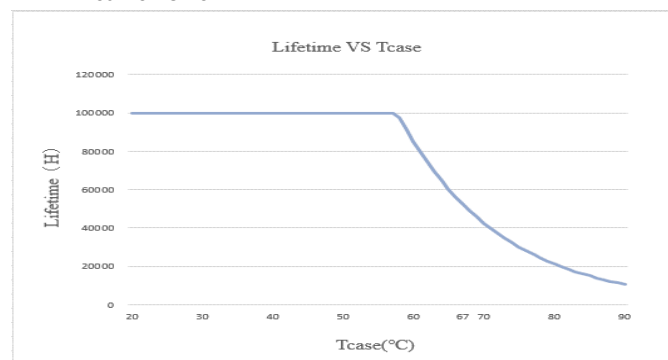
▪ Derating Curve



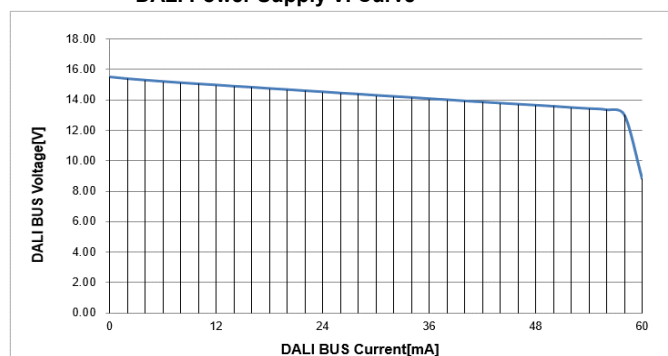
▪ V/I Curve



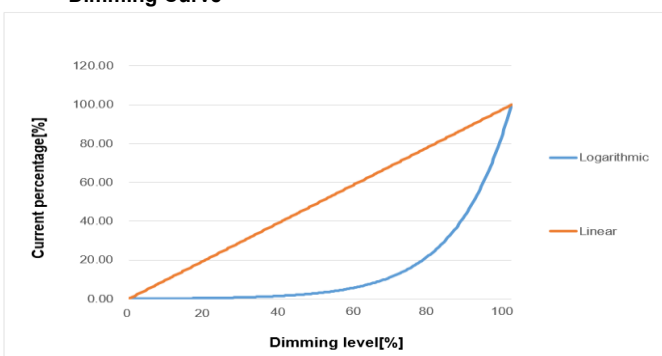
▪ Lifetime Vs Tc



▪ DALI Power Supply VI Curve

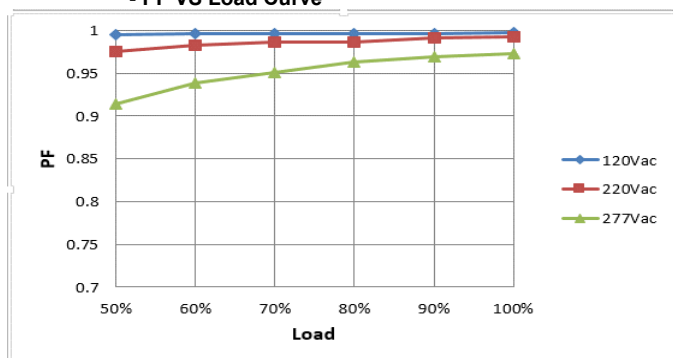


▪ Dimming Curve

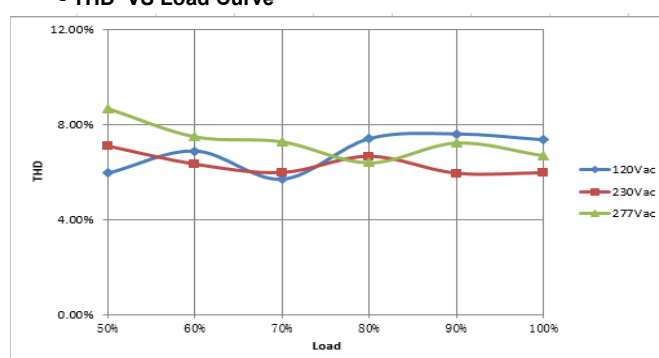


■ Curve

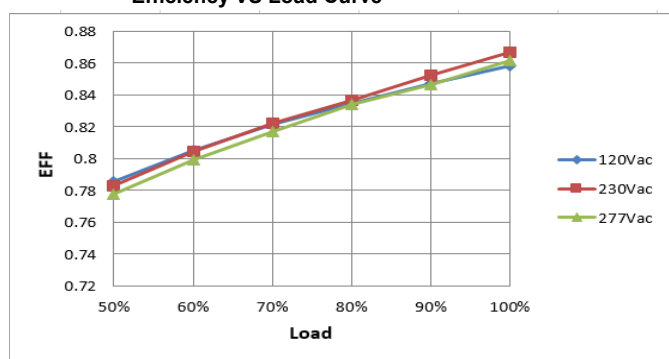
■ PF VS Load Curve



■ THD VS Load Curve

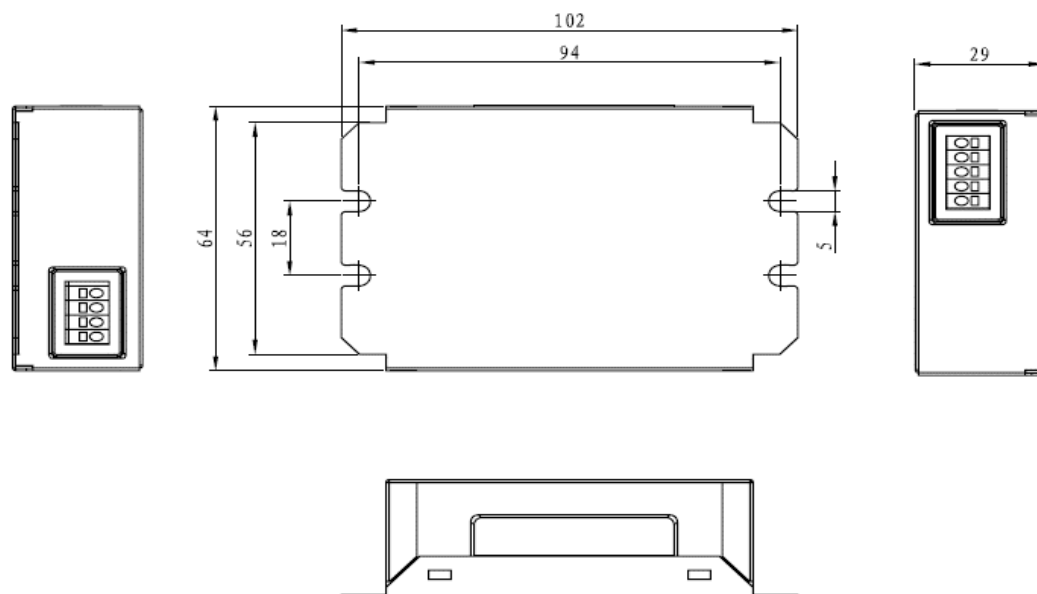


■ Efficiency VS Load Curve

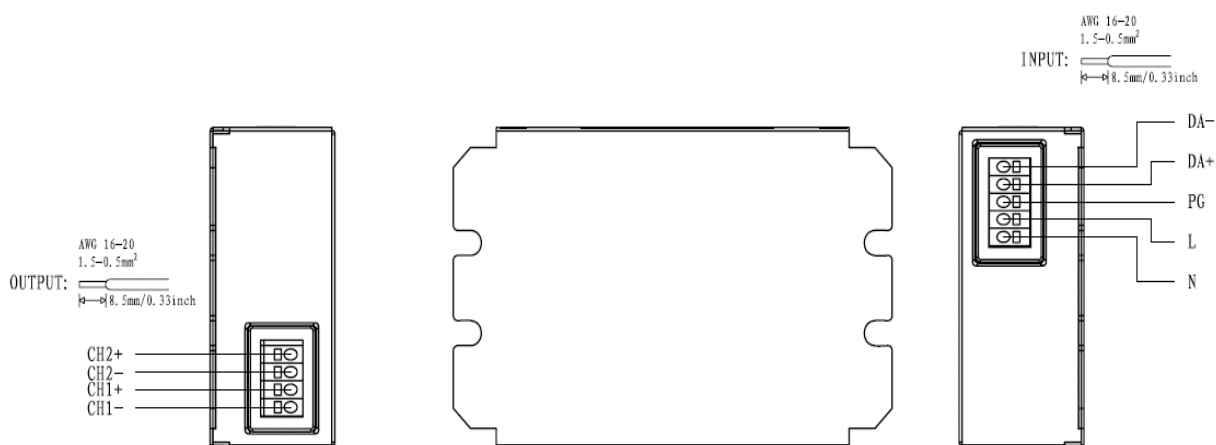


## ■ Mechanical Specification

### • Dimensions (Unit: mm)



### • Ports



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

! To remove wire, insert screwdriver into slot.

1. Multiple LED outputs cannot be connected in series to power an LED load with a forward voltage > 54V.
2. Multiple LED outputs cannot be connected in parallel to deliver a drive current that exceeds the maximum drive current that can be delivered by a single LED output.
3. Common-anode or common-cathode configurations are not acceptable.
4. Cross connecting multiple LED outputs of a LED driver may result in permanent damage to the LED driver itself and/or the LED light engine(s).

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.