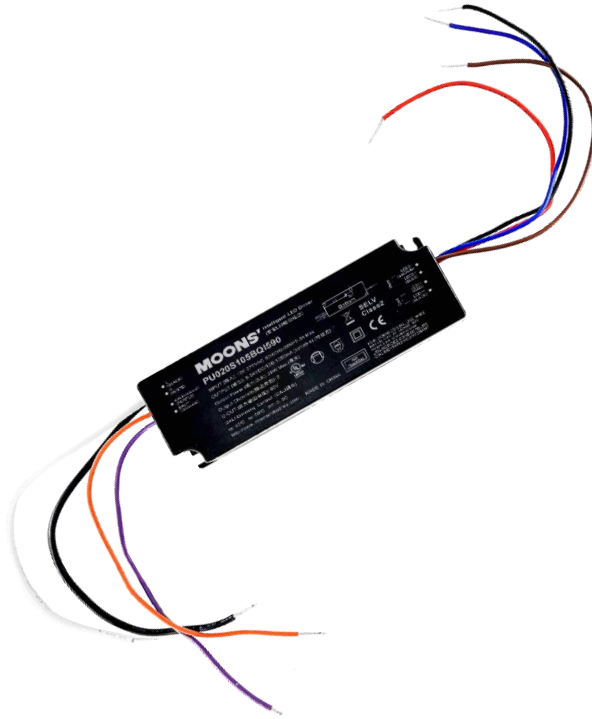


S Series Intelligent Driver



0.1% Deep Dimming
Human Centric Lighting

Flicker Free

Meet :

CEC title 24 JA8 & JA10
IEEE PAR 1789-2015

■ 20W S Series-2 Channels DALI Driver-PU020S105BQI5920

MOONS' 20W 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)
- 20W max each channel with total 20W load
- Flicker free for whole operation range
- DALI BUS power 15V/56mA
- Input power detection accuracy $\pm 5\%$ or < 0.5W

■ Benefits

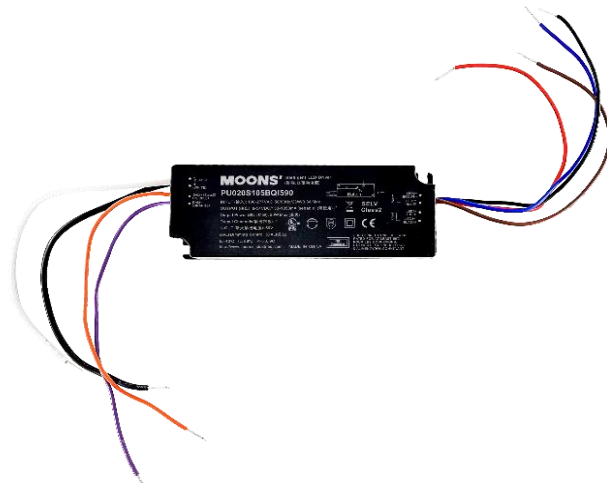
- Application-oriented operating window for maximum compatibility
- Excellent dynamic response performance
- Exceptionally smooth fades

■ 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.
- Comply with Energy Star 2.2
- Certificated :



■ Electrical Specifications

Input	Efficiency (230Vac)	84% (Typical)
	Voltage Range (Vac)	90~305
	Rated Input Voltage (Vac)	100~277
	Frequency Range (Hz)	50/60
	Power Factor	>0.9 at 100~277Vac 50/60Hz input, with 50%~100% load conditions
	THD	<20% at 100~277Vac 50/60Hz input, with 50%~100% load conditions
	AC Current (Typical)	0.28A MAX. @100Vac, 0.12A MAX. @230Vac
	Inrush Current (Typical)	<10A at 100~277Vac input 25℃ cold start at 100% condition
	Input Power (W)	28(MAX.)
	Standby Power (W)	<0.2W @100Vac/50HZ, 230Vac/50HZ, 277Vac/60HZ
	Leakage Current (MAX.)	0.5mA MAX. @277Vac
Output	Output Voltage Range (VDC)	8~54
	Output Current Range (mA)	150~1050
	Rated Power (W)	20(MAX.)
	Output Channel Number	2CHS. Support DT8(1500k~6500k); DT6 CCT(1500k~6500k) ,solo dimming,dual dimming
	Ripple Current (PK-PK)/AV	<10% 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	540~660ms @ 100Vac/230Vac/277Vac
Input power detection	Measurement accuracy	5% or 0.5W, take the relatively large value as the accuracy specification
Dimming Port	DALI Bus Power Supply	15VDC ± 30%, < 56mA
	DALI Dimming	DALI dimming 0.1%~100%, Soft-on, Fade-to-Black ,optional dimming curve: logarithmic/linear
Protection	Over temperature protection	tc 100℃ +/-10%, the driver stop working
	Short Circuit	Output current of power supply equals set current
Environment	Operating Temperature	-40~+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, EN61000-3-2 , EN61000-3-3
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11,12(L-N 4KV), EN61547,EN61000-4-2(Air discharge12KV)
Others	Lifetime	>50000 hours @Tc =82 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)	109*41*27
	Weight	170g

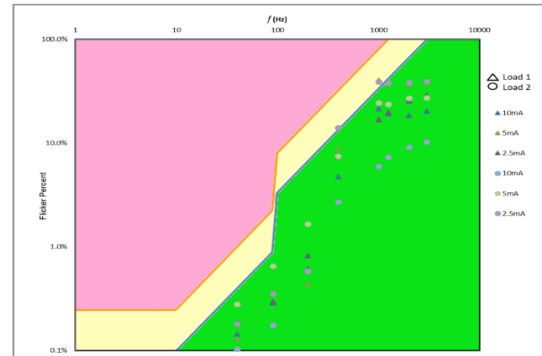
■ Dimming Performance

▪ Flicker Free

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



Solutions Flicker Percent Frequency Spectrograms (0-10000Hz)



▪ 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.

■ Programmable 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 mA

Channel 2 mA

General Setting

Dimming Strategy

Dimming Curve

Minimum Dimming Level %

NTC

AUX Power

Dali Power

Physical CCT Warmest K Coolest K

Logical CCT Warmest K Coolest K

Power On Level Tc K

System Failure Level Tc K

Other Information

Maximum Temperature °C

Lights On Time Hours

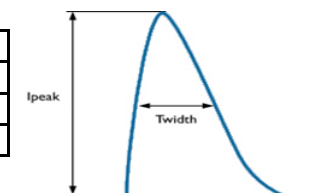
GTIN

GTIN-13 Code: 6971481490571

■ Inrush Current

▪ Ipeak & Time

Input Voltage	Inrush Current Ipeak	Inrush Current Time, measured 50% of Ipeak
100 Vac	1.7A	30us
220 Vac	3.8A	35us
277 Vac	4.8A	35us

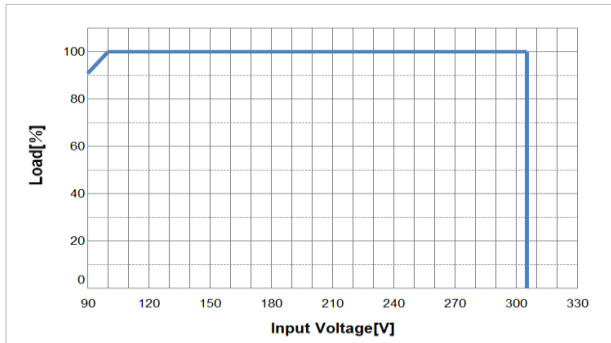


▪ Automaitc Circuit Breakers

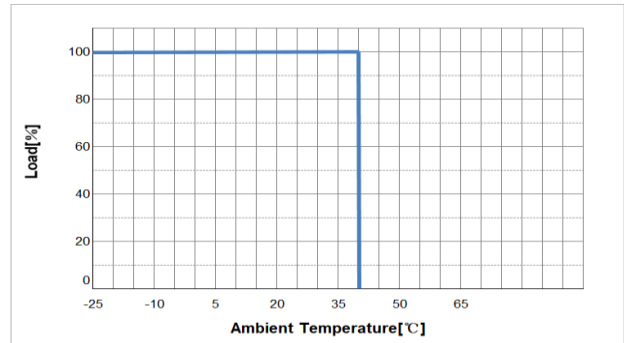
ACB Type	B10	B13	B16	B20	C10	C13	C16	C20
Number of LED Drivers @100Vac	16	20	25	31	26	33	41	51
Number of LED Drivers @220Vac	35	46	56	70	57	74	91	114
Number of LED Drivers @277Vac	43	56	69	86	70	91	112	140

■ Curve

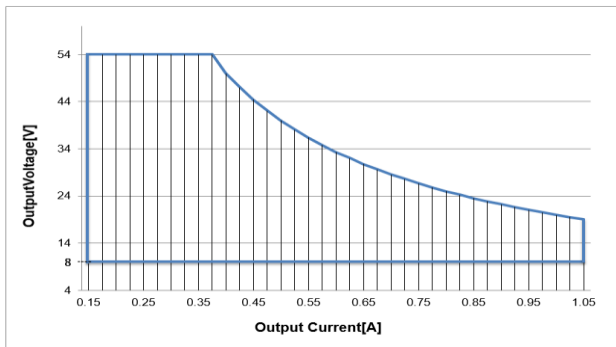
▪ Derating Curve



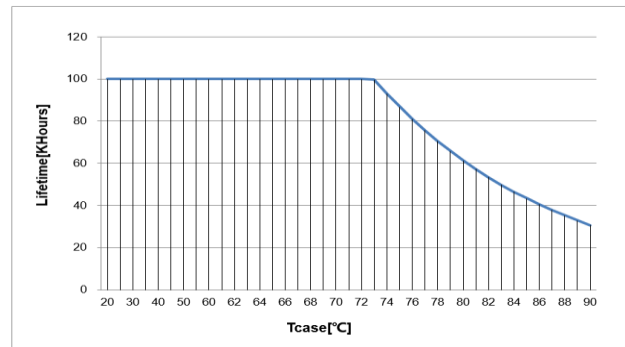
▪ Derating Curve



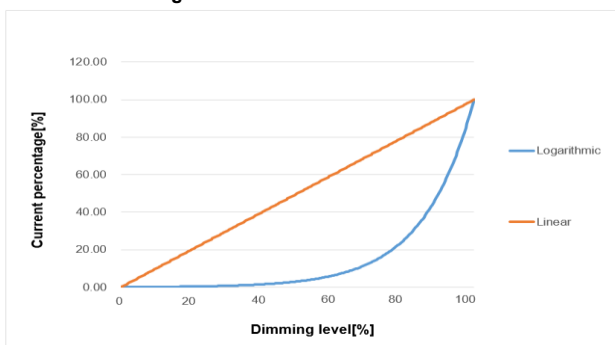
▪ V/I Curve



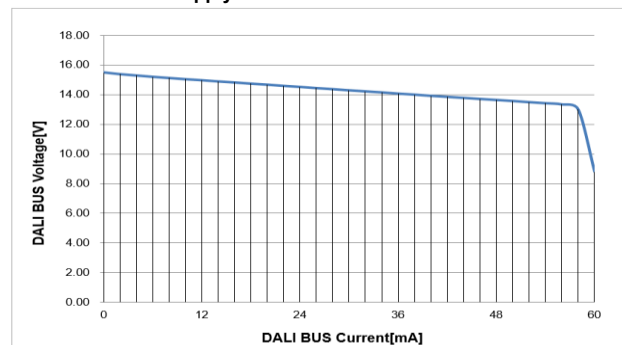
▪ Lifetime Vs Tc



▪ Dimming Curve

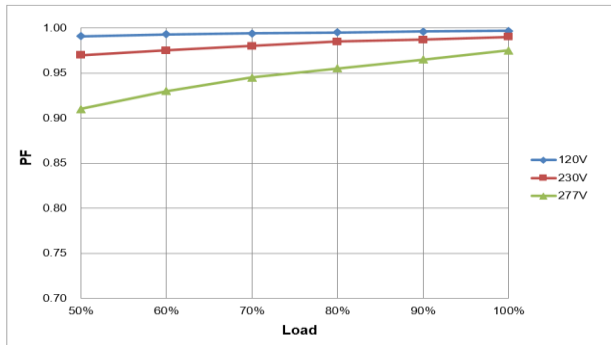


▪ DALI Power Supply VI Curve

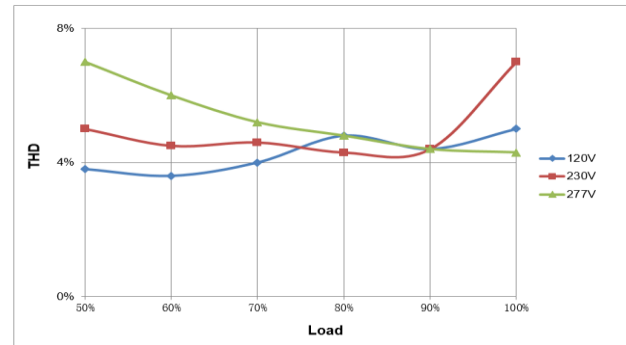


■ Curve

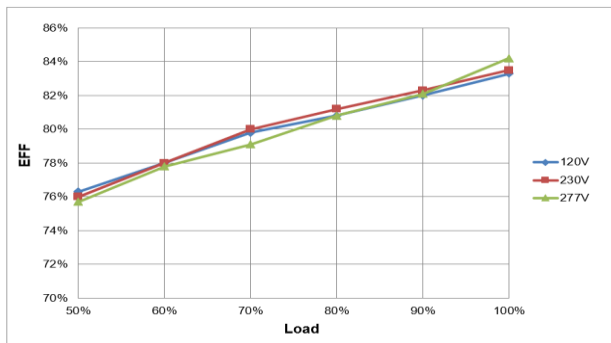
■ PF VS Load Curve



■ THD VS Load Curve

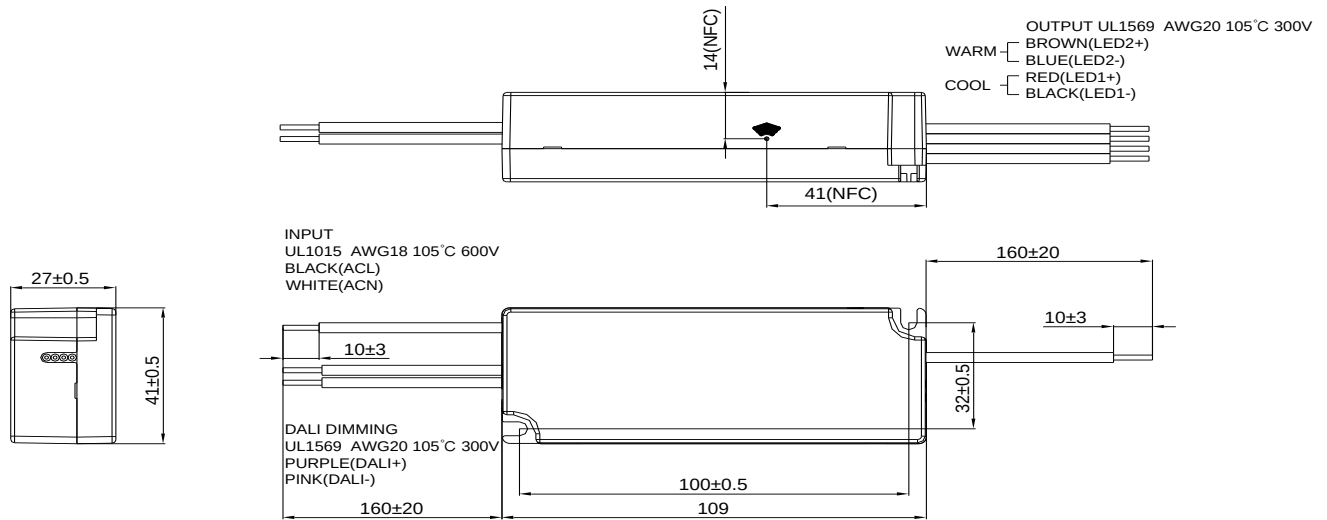


■ Efficiency VS Load Curve

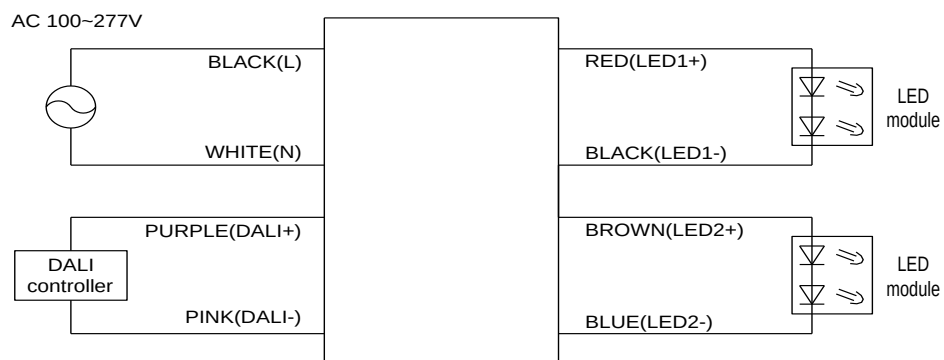


■ Mechanical Specification

▪ Dimensions (Unit: mm)



▪ Connection diagram



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.