

5CH Intelligent Driver



0.1% Deep Dimming
Human Centric
Lighting

120W MAX/1CH,
240W MAX/5CH

■ 240W S Series-5 Channels DMX/RDM Driver - PD240S048EPI850

MOONS' 240W 5 channels driver is designed for 12-48V constant voltage LED strip, and offers an excellent dimming experience. The output PWM frequency could achieve 22 KHz and meet Flicker-Free requirement.

■ Main Characteristics

- 5CHS output constant voltage driver
- Programmable operation window
- 0.1% dimming
- DMX/RDM dimming
- 2 types of dimming curve(logarithm,linear)
- Maximum output power 240W
- Flicker free for whole operation range

■ Precautions

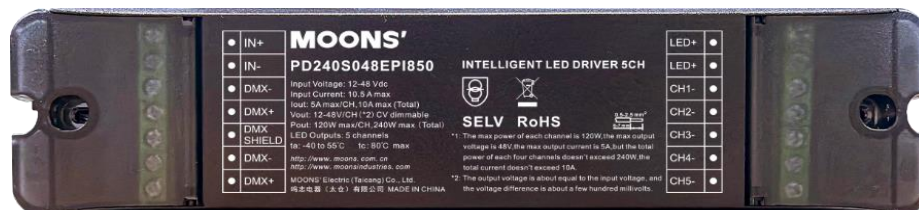
- Output load as far as possible only LED, resistor or diode and part of the TVS protection circuit.
- Common-anode configuration is acceptable.
- Output loads do not include capacitive loads
- LED load circuit such as active constant current circuit, please cooperate with the sample to verify; The response speed of some constant current circuits may affect the dimming performance.

■ Applications

- Office, architecture, education, healthcare, smart home

■ Certification

- Comply with UL Class2.ClassP



■ Electrical Specifications

Input	Efficiency (48VDC)	98% Typical at Full Load	
	Voltage Range (Vdc)	11~50	
	Rated Input Voltage (Vdc)	12~48	
	Input Current	10.5A MAX	
	Inrush Current (Typical)	<10A at 50Vdc 25°C cold start at 100% (Test when DC source and drive are connected)	
	Input Power (W)	250(MAX.)	
	Leakage Current (MAX.)	0.75mA MAX. @50Vdc	
Output	Constant Voltage Mode	Output Voltage Range (VDC)	12~48
	Output Current Range(A)	0~5 max per channel	
	Rated Power (W)	240W(Max) :120W max per channel	
	Output Channel Number	5chs	
	Startup Time	<0.5s measured @ 11~50Vdc input	
Dimming Port	DMX Dimming	Support DMX/RDM Isolated DMX dimming 0.1~100%. Optional dimming curve: gamma(default),logarithmic,linear,square	
Protection	Open Circuit Protection (V)	Input Voltage	
	Short Circuit	Automatic recovery	
Environment	Operating Temperature	-40~+55°C	
	Operating Humidity	20~95%RH, non-condensing	
	Storage Temperature	-40~+85°C	
	Storage Humidity	10~95%RH	
	Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axis	
	Drop Test	i. Pass functional test at 4 ft drop test. ii. Fail safe up to 12 ft drop test or is visibly destroyed	
	Sound Rated	Class A inaudible in 24 dBA ambient	
Safety & EMC	Ingress Protection Rating	IP20	
	Safety Standard	EN61347-2-13, EN62384	
	EMC Emission	EMC Immunity	EN55015 EN61547
Others	Lifetime	> 50000 hours @Tc =70°C at 100% load conditions	
	MTBF	500,000 hours, measured at full load, 25°C ambient temperature SR-332 Issue 3	
	Dimension	LxWxH: 180.7mm*42.7mm*20mm	
	Weight	105.2g	

■ Dimming Performance

▪ Flicker Free

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

▪ Dimming Method

In the full range,the current operates in constant voltage PWM mode output, and voltage output frequency 22kHz.

■ Programmable Performance

▪ Default Factory Setting

Load

Save

Read

Write

Setting

⌵ Current

⌵ General Setting

Channel Setting

Power On Level

Failure Level

Address Count

DMX Start Address

Dimming Curve

Minimum Dimming Level

Device Label

Fade Time

Network Resolution

Failure Delay Time

⌵ Other Information

Maximum Temperature

Lights On Time

Ch1

1

Ch2

2

Ch3

3

Ch4

4

Ch5

5

Ch1

100.0

Ch2

100.0

Ch3

100.0

Ch4

100.0

Ch5

100.0

Ch1

Hold

Ch2

Hold

Ch3

Hold

Ch4

Hold

Ch5

Hold

5

1

Logarithmic

0.1

300

8 Bit

1.0

46

°C

6

Hr

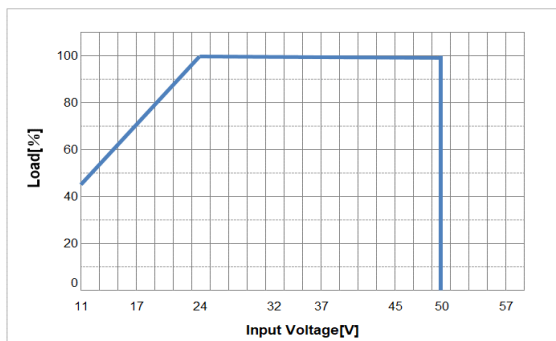
■ Output Power range and Current range

Output voltage	12V	24V	48V	Channel
Output power range (MAX)	60W	120W	120W	CH1
	60W	120W	120W	CH2
	60W	120W	120W	CH3
	60W	120W	120W	CH4
	60W	120W	120W	CH5
	120W	240W	240W	Total (5 ch)

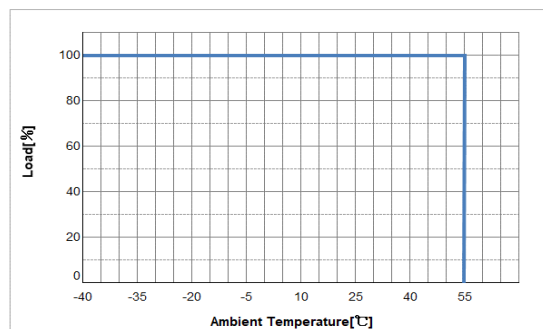
Output voltage	12V	24V	48V	Channel
Output current range (MAX)	5A	5A	2.5A	CH1
	5A	5A	2.5A	CH2
	5A	5A	2.5A	CH3
	5A	5A	2.5A	CH4
	5A	5A	2.5A	CH5
	10A	10A	5A	Total (5 ch)

■ Curve

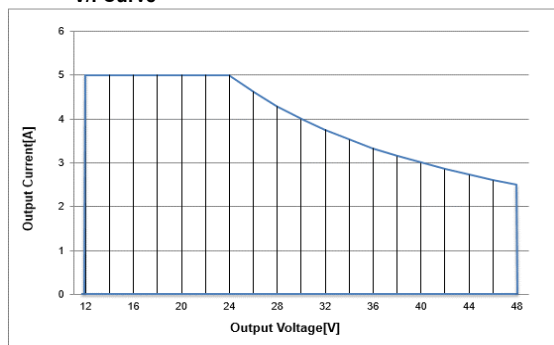
▪ Derating Curve



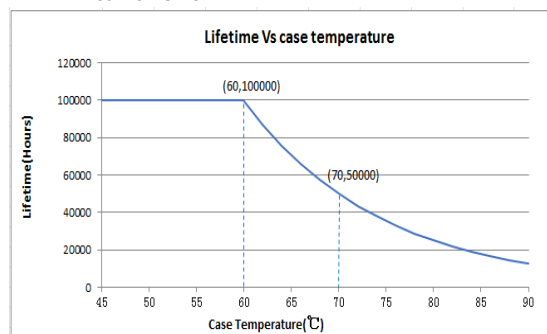
▪ Derating Curve



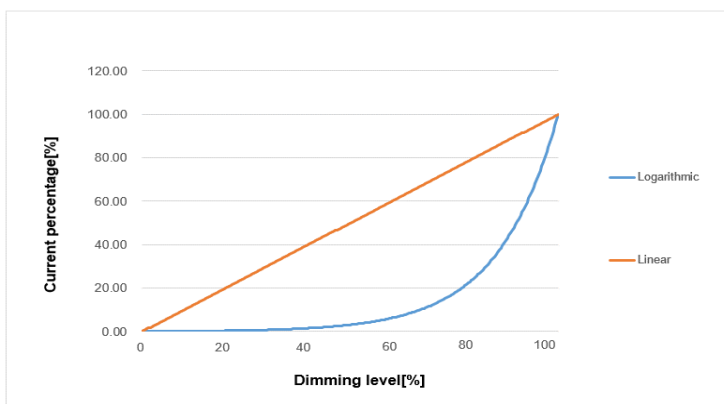
▪ V/I Curve



▪ Lifetime Vs Tc

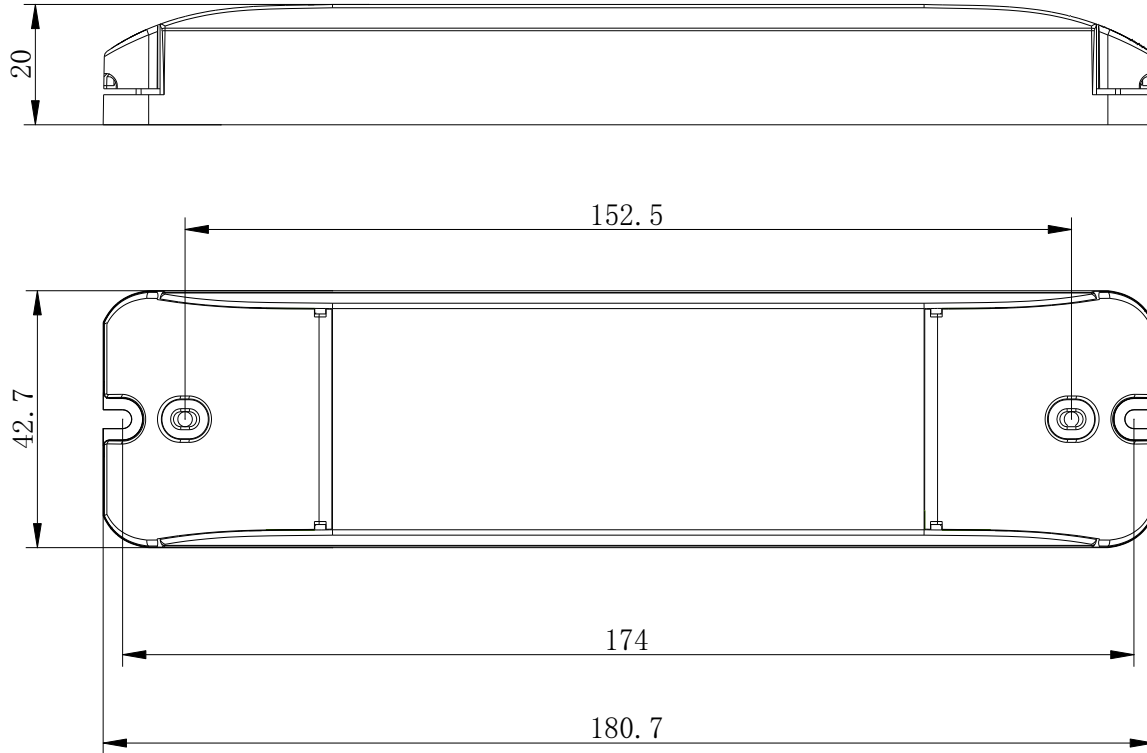


▪ Dimming Curve

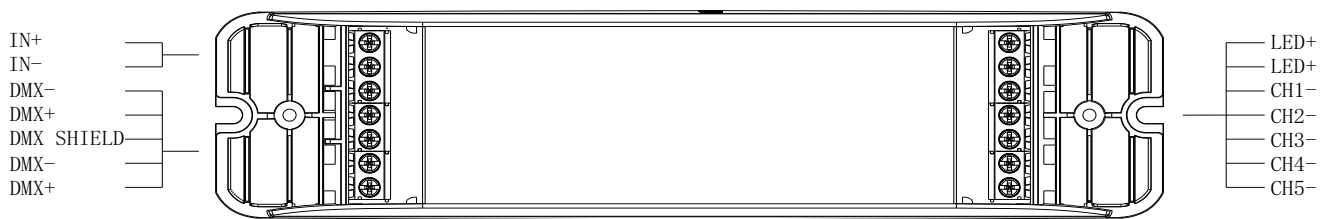


■ Mechanical Specification

▪ Dimensions (Unit: mm)



▪ Connection diagram



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

! To remove wire, let the screw loose using the screwdriver.

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.