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31W LED Driver with 4 Constant Current Outputs PDA031W Series LED Power Supply with 0-10V Dimming



Features

- 0-10V Dimming
- RoHS Compliant
- Over-Voltage, Short & Open Circuit Protection
- Constant Current Output
- High Efficiency

- AC input: 108-304VAC
- Brownout/Brownout Recovery
- UL1310 and UL8750 Compliant
- Limited Power Source
- IP65 Rated for Indoor/Outdoor Use
- Power Factor Correction

Applications

• Indoor Lighting

Outdoor Lighting

Safety Approvals

- cUL/UL
- CSA

• CE

Mechanical Characteristics

• Length: 242mm (9.5in)

• Width: 43.5mm (1.7in)

• Height: 30.5mm (1.2in)

• Weight: 675g (1.5lbs)

Output Specifications

Channel 1~4

Madal	DC Output Voltage Range			Output Current Range		
Model	Min.	Тур.	Max.	Min.	Тур.	Max.
PDA031W-264G	22V	24.5V	26.5V	253mA	264mA	275mA

Channel 5 – Auxiliary Power

DC Output Voltage Range			Output Current Range			
Min.	Тур.	Max.	Min.	Typ.	Max.	
18V	20V	24V	-	40mA	-	

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PDA031W-264G Characteristics

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INPUT:

AC Input Voltage

108 to 304V AC

Nominal AC Input Voltage

120~277VAC

Leakage Current

<3.5mA at 227VAC – Case to Ground <0.25mA at 227VAC – Outputs to Ground

Maximum Input Current

0.37A (RMS) at 108VAC, 60Hz

AC Inrush Current

<30A at 277VAC, 60Hz

OUTPUT:

Total Output Power

Maximum output should be <32W

Efficiency

>81% at 227VAC, >83% at 120VAC

Standby Power

<3W maximum

Power Factor

≥0.9 at nominal input voltage, full load

Ripple (CH1~CH4)

160mA p-p

Turn on/off Time

0.5 seconds maximum at nominal AC input

ENVIRONMENTAL:

Operating Temperature 0 to +50°C Storage Temperature -40 to +85°C

Operating Humidity 10 to 95% Storage Humidity 05 to 95%

Dimming

Dimming	Min.	Тур.	Max.	Remarks	
Dim Voltage-1	-	-	1V	Cut off Current at 1.V Dim. Voltage	
Dim Voltage-2	-	-	1.2V	Output Current ≤14mA	
Dim Voltage-3	-	5.5V	-	Driver shall provide 95mA ± 10% Current	
Dim Voltage-4	-	-	10V	Driver 10V shall provide 100% Output (264mA ± 4%)	
Sink Current	-	-	1mA		
100% brightness without dimmer: Open state for dimming port					

Warranty

5 Years

EMC

EN55015, FCC 47 Part 15 Class A

Immunity

EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-8

EN61000-4-11

EN61000-3-2 Class C

Isolation Test

Primary to Secondary: 3000VAC, <5mA, 1 minute

Insulation Resistance

Primary to Secondary: 500VDC, >5M ohm, 1 minute

FEATURES:

Input Over Current Protection

The input power line will be fused with a 2A /300V fuse

Short Circuit

Auto restart without damage

Output Overvoltage Protection

Output should not exceed 39V, auto shut down

Open Circuit Protection

Once the circuit is opened, the output voltage should be less than 39V at nominal AC input conditions

Wires

Input

Black (live) UL1316 AWG18 White (neutral) UL1316 AWG18

Ground

Green/Yellow (GND) UL1316 AWG18

Output

Red (LED CH1~4+) UL1569 AWG22 Black (GND CH1~4-) UL1569 AWG22

Dimming

Violet (Dimmer +) UL1316 AWG18 Gray (Dimmer-) UL1316 AWG18 Blue (Auxiliary Power) UL1316 AWG18

Ingression Protection

IP65

Lifetime

50K Hours minimum at max load and ambient 50°C

Mounting Provision

Screw mounting, accessible without opening unit

