

Excellent Integrated System Limited

Stocking Distributor

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[Phihong USA](#)
[PDA050W-450G](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

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50W LED Driver with 4 Channel Constant Current Outputs PDA050W LED Power Supply with 0-10V Dimming



Features

- 4 Channel Output
- OVP, Short-Circuit Protection, OTP & Brownout Protection
- Class 2 Output per UL1310
- UL8750 Compliant
- AC input: 108-304VAC
- ≥ 0.9 Power Factor Correction & THD <20%
- IP65 Rated

Applications

- Indoor Lighting
- Linear Fluorescent Replacement
- Outdoor Lighting

Safety Approvals

- cUL/UL

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

Model	DC Output Current ¹	DC Output Voltage Range			Output Power
		Min.	Typ.	Max.	
PDA050W-450G	450mA	22V	-	26.5V	50W

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PDA050W Multi-Channel Characteristics

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INPUT:

AC Input Voltage

108 to 304V AC

Nominal AC Input Voltage

120~277VAC

Leakage Current

<3.5mA at 277VAC – Case to Ground
 <0.25mA at 277VAC – Outputs to Ground

Maximum Input Current

0.55A (RMS) at 108VAC, 60Hz

AC Inrush Current

<30A at 277VAC, 60Hz

OUTPUT:

Total Output Power

Maximum output should be <52W

Efficiency

>82% at 120VAC, >84% at 277VAC

Standby Power

<2.5W maximum

Power Factor

≥0.9 at nominal input voltage, full load

Ripple (CH1~CH4)

240mA 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 5 to 95%

Case Temperature

Case may not exceed 70°C at ambient 50°C

Dimming

Dimming	Min.	Typ.	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 (453mA ± 5%)
Sink Current	-	-	1mA	

100% brightness without dimmer: Open state for dimming port

EMC

FCC 47 Part 15 Class A

Immunity

EN61000-4-2 Criteria B
 EN61000-4-3
 EN61000-4-4
 EN61000-4-5 Criteria B
 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 resistor

Short Circuit Protection

Auto restart without damage

Output Overvoltage Protection

Auto shut down

Open Circuit Protection

Once the circuit is opened, the output voltage should be less than 140% at nominal AC input conditions

Open Temperature Protection

Wires

Input	Gauge	Length
Black (live)	UL1316 AWG18	453mm
White (neutral)	UL1316 AWG18	453mm
Ground		
Green/Yellow (GND)	UL1316 AWG18	220mm
Output		
Red (LED CH1~4+)	UL1569 AWG22	76mm
Black (GND CH1~4-)	UL1569 AWG22	76mm
Dimming		
Violet (Dimmer +)	UL1316 AWG18	127mm
Gray (Dimmer-)	UL1316 AWG18	127mm

Output Connector

Molex 8 pin p/n – 09-50-1081 mate p/n – 09-65-2088

Ingression Protection

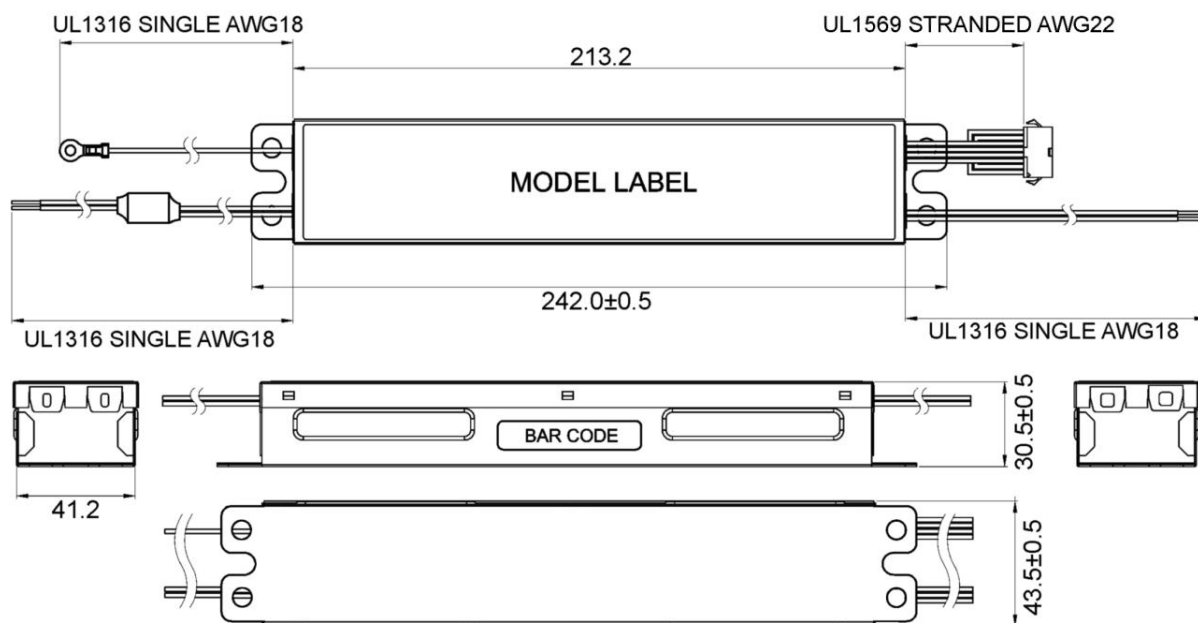
IP65

Warranty

5 Years

Dimension Diagram Unit:mm

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Output Connection:

Pin Number	Connection
Pin 1	V+
Pin 2	GND
Pin 3	GND
Pin 4	V+
Pin 5	V+
Pin 6	GND
Pin 7	GND
Pin 8	V+