



**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
- IP65 Rated
- AC input: 108-304VAC
- $\geq 0.9$  Power Factor Correction & THD <20%

**Applications**

- Indoor Lighting
- Linear Fluorescent Replacement
- Outdoor Lighting

**Safety Approvals**

- cUL/UL8750
- Class 2 Output per UL1310

**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 <sup>1</sup>	DC Output Voltage Range			Output Power
		Min.	Typ.	Max.	
PDA050W-450G	450mA	22V	-	26.5V	12.5W

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**INPUT:**

**AC Input Voltage**  
108 to 304VAC

**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 Tc +70°C  
Storage Temperature -40 to +85°C

Operating Humidity 10 to 95%  
Storage Humidity 5 to 95%

**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  
IEC61000-3-2 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
<b>Ground</b>		
Green/Yellow (GND)	UL1316 AWG18	220mm
<b>Output</b>		
Red (LED CH1~4+)	UL1569 AWG22	76mm
Black (GND CH1~4-)	UL1569 AWG22	76mm
<b>Dimming</b>		
Violet (Dimmer +)	UL1316 AWG18	127mm
Gray (Dimmer-)	UL1316 AWG18	127mm

**Output Connector**

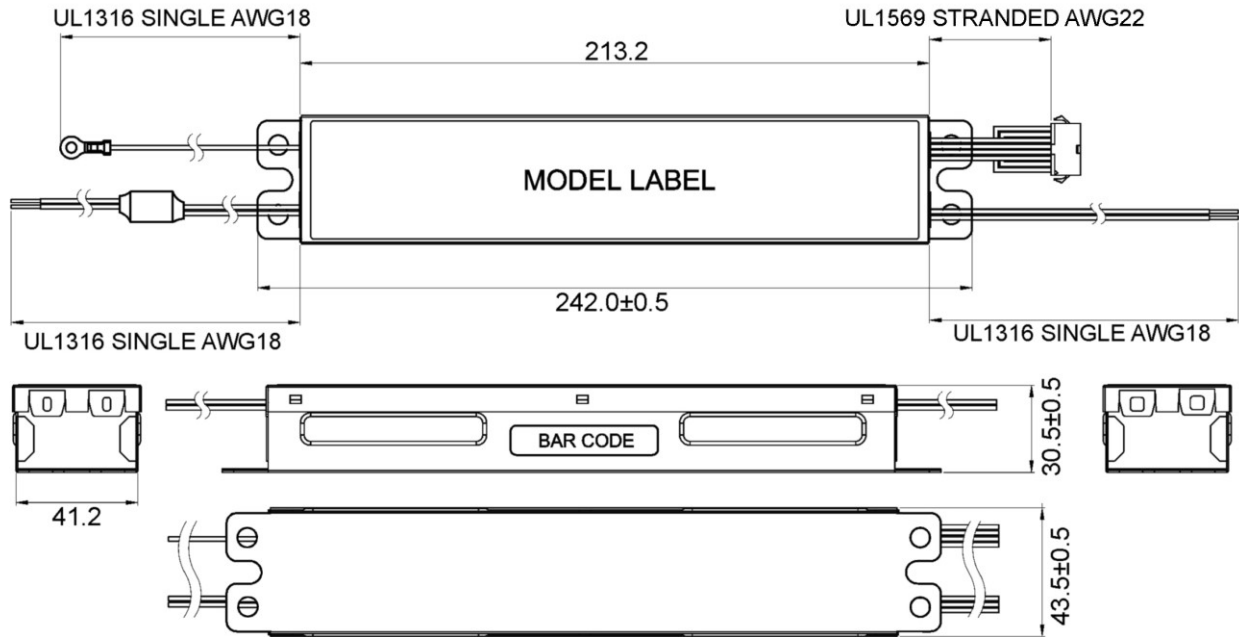
Molex 8 pin p/n – 09-50-1081 mate p/n – 09-65-2088

**Ingression Protection**

IP65

**Warranty**

5 Years



**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+

**Dimming Curve**

