

THEA 92

LED Lighting Driver Dimmer

Dimmable 92 Watt LED Driver with Auxiliary Output.

Product Description

The THEA 92 LED power supply provides up to 92 W of output power for driving and dimming High Brightness LEDs. Features include a 0-10Vdc Analog Control Interface, external thermistor interface for LED load protection and 12 V auxiliary outputs for powering a LED fixture cooling source.

Ideal applications: hospitality, retail, commercial, architectural lighting.

Schedule ID	
Part Number	
Notes	



Key Features

- Output current adjustment with external resistor
- 0-10V lighting control
- Smooth, flicker-free dimming to less than 1%
- 12V Auxiliary voltage output
- Drive currents from 1750 mA to 2800 mA
- 88% efficiency rating
- Surge protection
- Up to 92 watts total output power
- Reduces heat at fixture; protects LEDs
- UL recognized; RoHS compliant

Model Options

Model #	Rated Output Voltage	Drive Current	# of LEDs	Rated Output Power
86-A-2100-ANA-12V	20 to 43.8 Vdc	2100 mA	6 to 12	92.0 W
86-A-1750-ANA-12V	20 to 43.8 Vdc	1750 mA	6 to 12	76.7 W
86-B-2800-ANA-12V	20 to 32 Vdc	2800 mA	6 to 9	90.0 W

THEA 92 Specifications

Input

Rated Input Voltage	120 to 277 Vac
Rated Input Frequency	50/60 Hz
Power Factor EN61000-3-2	@120 Vac 0.99 W/VA; @277 Vac 0.91 W/VA, 100% load typical
Input Current Total Harmonic Distortion	@120 or 277 Vac 13% typical, 100% load

Output

Rated Output Power	92 W max
Efficiency	Full load @120 Vac (no load on auxiliary output); 88% typical
System Power Cycle Delay	0.9 second typical
Output Current Tolerance	+/-5 % of nominal
Auxiliary Voltage	12 Vdc @ 160 mA, less than 1% load/line regulation

System Protection

Output	Over voltage, over current, short circuit protection
Over Temperature	Power supply will throttle back output current gradually when case temperature reaches 85°C/185°F nominal.

Safety and EMI/EMC

Agency Approvals	UL 8750 NEC Class 2 outputs, US only
Emissions	ICES-003; FCC Title 47, Part 15, EN55022 Class A
EN61000-3-2	Harmonics Emissions, Class C
EN61000-4-4	Electrical Fast Transient, 1KV Criteria B
EN61000-4-5	Surge, 2KV Criteria B
EN61000-4-11	Voltage Dips, Interruptions, and Voltage Variations, according to EN61547 and EN55024

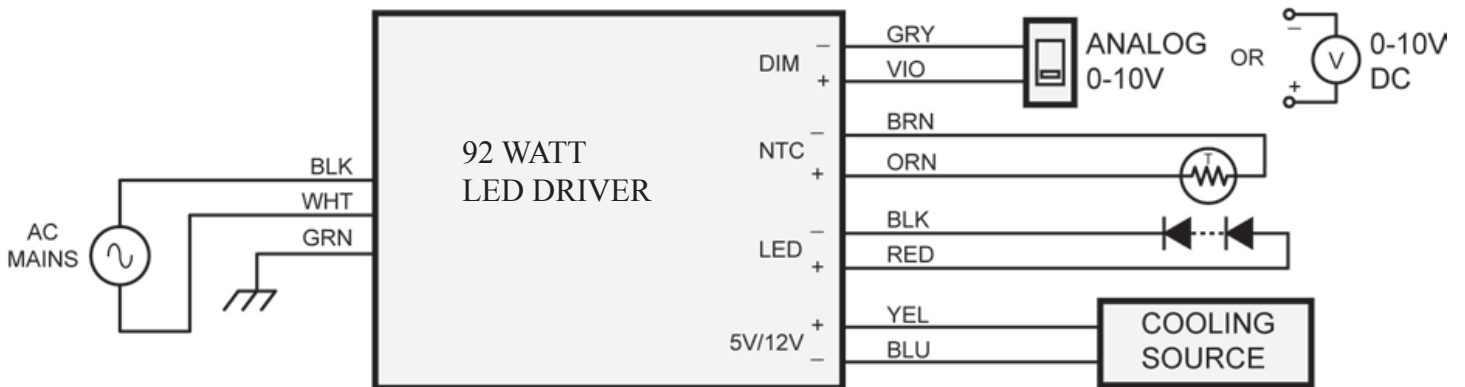
Environmental

Location Rating	Dry/Damp Location
Operating Ambient Temperature	-20°C to 50°C / -4°F to 122°F
Maximum Case Temperature	T _c =80°C / 176°F
Storage Ambient Temperature	-40°C to 80°C/ -40°F to 176°F
Relative Humidity	5% to 95% noncondensing
Mean Time Between Failure (MIL HDBK-217F)	>125,000 hours @ T case 70°C/158°F

Control Interface

Control Method	Analog 0-10 Vdc, IEC 60929 Annex E Outputs 0.5 mA max or variable 0-10 Vdc Voltage Source; Class 2 outputs.
Loss of Analog Input Signal	Outputs will go to 100% light intensity in less than 1 second

Wiring Diagram



Input and Output Connections

Input Connection	Output Connection	Interface Connection	12 V Auxiliary	Thermal Feedback
3 wires, 18 AWG Line, Neutral, Ground	2 wires, 18 AWG +LED & -LED Red & Black	2 wires, 22 AWG +DIM & -DIM Purple & Gray	2 wires, 22 AWG +Fan & -Fan Yellow & Blue	2 wires, 22 AWG +NTC & -NTC Orange & Brown

Output Current Adjustment

Output Current (mA) 2100mA Model	Output Current (mA) 2800mA Model	Resistor Value (Ohms)
1850	2450	11,670
1800	2350	11,500
1700	2250	11,220
1600	2120	10,930
1500	1970	10,520
1400	1850	10,230

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