![aimtec logo] **aimtec**
Your Power Partner

Series AMEPR8D-AZ
up to 0.7A | AC-DC LED Driver

FEATURES:

- AC-DC Constant Current LED Driver
- Input Range 90-264VAC/47-440Hz
- High Efficiency up to 80%
- Operating Temperature -20 to 85°C
- Total Harmonic Distortion < 20%

- Class 2 Power Supply
- Active PFC
- SCP, Over Load Protection
- Leading or Trailing Edge Triac
- IP67 Case

Models
Single output

Model	Max Output Power (W)①	Output Voltage Range (V)	No Load Output Voltage (V max.)	Output Current (A)	Input Voltage (VAC/Hz)	Efficiency (%)	
						115 VAC	230 VAC
AMEPR8D-2435AZ	8.4	12-24	34	0.35	90-264/47-440	79	80
AMEPR8D-1840AZ	7.2	9-18	20	0.4	90-264/47-440	77	79
AMEPR8D-1270AZ	8.4	6-12	15	0.7	90-264/47-440	75	78

*Exceeding the maximum output power will permanently damage the converter.

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

AMEPR8D-AZ's AC/DC LED drivers have electrical safeguards designed within to protect it from conventional electrical abnormalities with the levels listed in the safety table. Applications for use within rural agricultural, heavy industrial, and other areas or regions which are prone to 'dirty' electrical conditions which would subject any of the above models to excessive voltages surges or spikes, may damage or cause early life failure of product. In this case consideration should be made by the end user to ensure that adequate line or mains surge suppression is installed in front of Aimtec device to ensure the longevity of the products. Failure to identify excessive line surges violations prior to installation may damage sensitive equipment permanently.

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current (full load)	115 VAC		85	mA
	230 VAC		50	mA
Inrush current <2ms (cold start)	115 VAC		10	A
	230 VAC		5	A
Leakage current	230 VAC		0.02	mA
Power factor	115 VAC (full load)	0.98		
	230 VAC (full load)	0.95		
External fuse	Recommended slow blow type	1		A
Start-up time		100		ms

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Current accuracy		±15		%
Line regulation	(LL-HL)	±0.5		%
Load regulation	min.-max. load	±5		%
Ripple & Noise*		1.6		V p-p
Hold-up time		28		ms
Minimum load voltage	See the models table			
Maximum Capacitive Load			200	µF

*Ripple and Noise are measured at 20MHz bandwidth by using a 0.1µF (M/C) or (C/C) and 220µF (E/C) parallel capacitor.

www.aimtec.com
F 052.1e R3.H
Tel: +1 514 620 2722
1 of 4
Toll free: + 1 888 9 AIMTEC (924 6832)
North America only

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	3sec		3000	VAC
Isolation resistance		>1000		MΩ

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		66		KHz
Over load protection		≧110		%
Over voltage protection		≧110		%
Short circuit protection		Auto recovery		
Operating temperature	With derating over 75°C	Refer to model application		ºC
Storage temperature		-40 to +95		ºC
Maximum case temperature			100	ºC
Temperature coefficient		±0.02		% / ºC
Cooling		Free air convection		
Humidity	Non condensing	20~95		% RH
Case material		Plastic		
Potting		Epoxy (IP67 rated)		
Wires		UL1015 Input 18AWG*10CM / Output 20 AWG*10CM		
Weight		55		g
Dimensions (D X L)		27.4 x 70.3 mm (1.08 x 2.77 inches)		
MTBF		>400,000 hrs (MIL-HDBK-217F at +25°C)		

Environment Approval

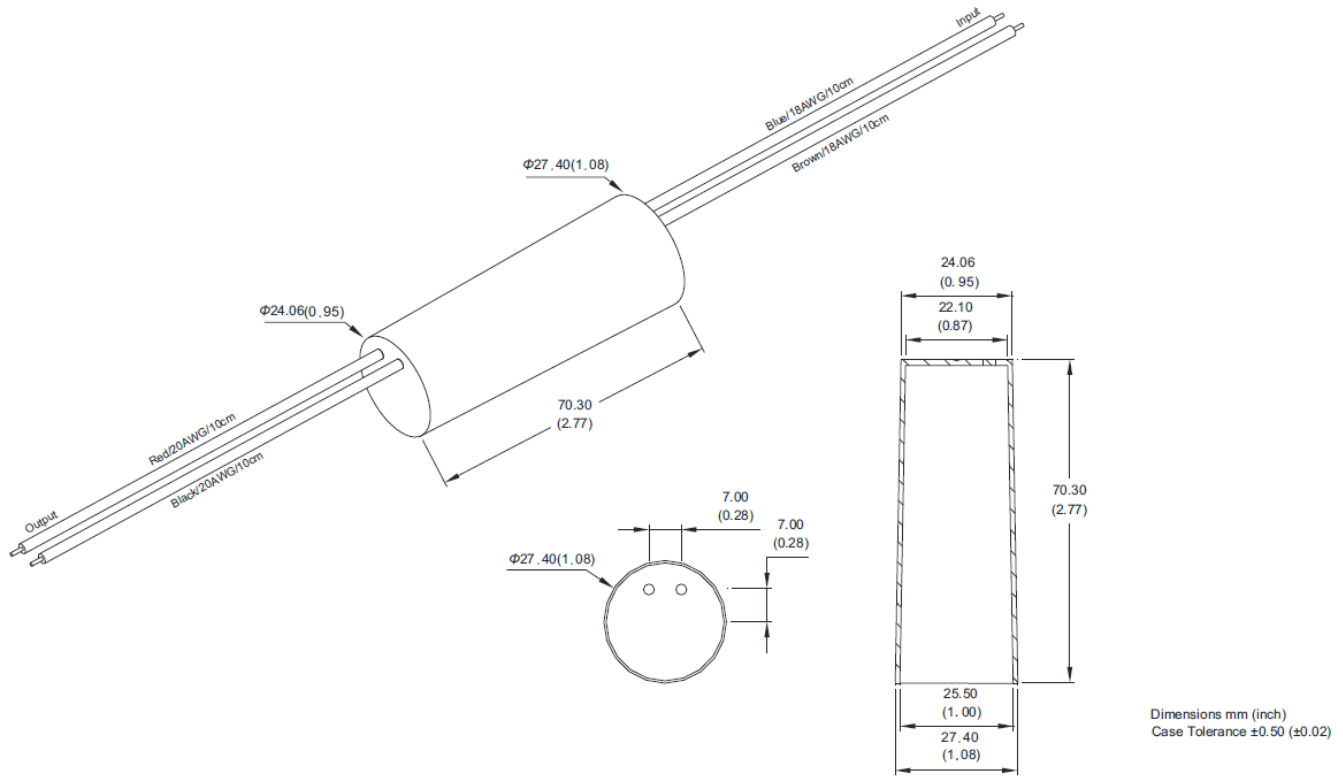| Test	Parameters	Conditions
Shock	Wave form	Half sine wave
	Acceleration amplitude	5gn
	Bump duration	30ms
	Converter operation	Before and after test, body mounted (on chassis)
	Number of bumps	18 (3 in each direction for every axis)
Vibration	Test mode	Sweep sine, 10-100Hz, speed 0.05Hz/s
	Displacement	1mm
	Acceleration	3g, 3 loops 30min one cycle, 3h total, every axis tested
	Converter operation	Before and after test, body mounted (on chassis)

Safety Specifications

Parameters	
Agency approvals	cULus, FCC
Standards	UL8750, UL60950-1, class 2 power supply per UL1310, FCC15,

Wire Specifications

Wire	Parameters	Color
Input	ACN	Blue
	ACL	Brown
Output	+V Output	Red
	-V Output	Black

www.aimtec.com
F 052.1e R3.H

Tel: +1 514 620 2722
2 of 4

Toll free: + 1 888 9 AIMTEC (924 6832)
North America only

Dimensions

Dimensions mm (inch)
Case Tolerance ±0.50 (±0.02)

Derating

www.aimtec.com
F 052.1e R3.H

Tel: +1 514 620 2722
3 of 4

Toll free: + 1 888 9 AIMTEC (924 6832)
North America only
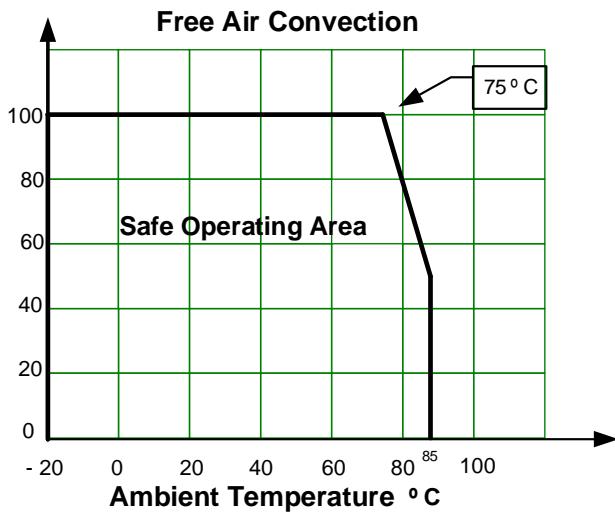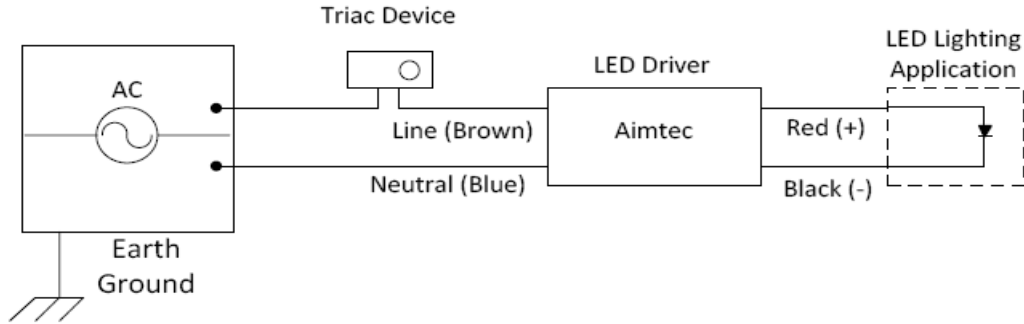
Triac Dimming Feature

Triac Dimming Notes:

A- The triac device can be installed on either Line or Neutral

B- Aimtec LED drivers have been designed to function with a wide range of available Triac devices, however the following list of Triac devices have been tested and are recommended by Aimtec.

1) Company: LUTRON
   Series: SKYLARK
   Model: SF-10P-WH (input voltage: 120Vac)
   Model: SF-12P-277-WH (input voltage 277Vac)

2) Company LUTRON
   Series: DIVA
   Model: DVF-103P-WH (input voltage: 120Vac)
   Model: DVF-103P-277-WH (input voltage: 277Vac)

3) Company BERKER
   Model: 2867 10 (input voltage:230Vac)

If the power voltage range is 90~135Vac, triac suggested use model SF-10P-WH or DVF-103P-WH.

If the power voltage range is 180~260Vac, triac suggested use model SF-12P-277-WH or DVF-103P-277-WH.