



FEATURES:

- AC-DC or DC-DC Constant current LED Driver
- Input range 90-264VAC/47-440Hz
- High Efficiency up to 75%
- Operating temperature 0 to 80°C
- SCP, Over Load Protection
- Waterproof Case rated IP67

Models
Single output



Model	Max Output Power (W) ①	Output Voltage Range (V)	Output Current (A)	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Efficiency (%)
AMEPR5-1630AZ	4.8	8-16	0.3	90-264/47-440	120-370	75
AMEPR5-1435AZ	4.9	6-14	0.35	90-264/47-440	120-370	74
AMEPR5-1236AZ	4.32	5-12	0.36	90-264/47-440	120-370	74
AMEPR5-0670AZ	4.2	2-6	0.7	90-264/47-440	120-370	73
AMEPR5-05100AZ	5	3-5	1	90-264/47-440	120-370	72

① 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.

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Inrush current <2ms	115VAC	15		A
	230VAC	30		
Leakage current	115VAC	0.2		mA
	230VAC	0.25		
AC current	115VAC	0.09		A
	230VAC	0.06		
External fuse			250V/0.5A	
Start up time		150		ms

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Current accuracy		±5		%
Line regulation	LL-HL	±5		%
Load regulation	0-100% load	±10		%
Ripple & Noise ②	20MHz Bandwidth	100		mV p-p
Hold-up time		7		ms
Minimum Load Voltage	See the models table			

② Tested with 0.1µF (M/C) or (C/C) and 220µF (E/C) parallel capacitors at the end.

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		65		KHz
Over Load protection		110		%
Over voltage protection		110		%
Short circuit protection		Continuous		
Short circuit restart		Auto recovery		

General Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Operating temperature	With derating over 55°C	0 to +80		°C
Maximum case temperature			100	°C
Storage temperature		-40 to +95		°C
Temperature coefficient		±0.02		% / °C
Cooling	Free air convection			
Humidity			95	% RH
Case material	Plastic			
Potting	Epoxy (IP67 rated)			
Wires	UL1015 22AWG * 10CM			
Weight		22		g
Dimensions (L X Diameter)	29 x 26.5 mm (1.14x1.04 inch)			
MTBF	>400,000 hrs (MIL-HDBK-217F at +25°C)			

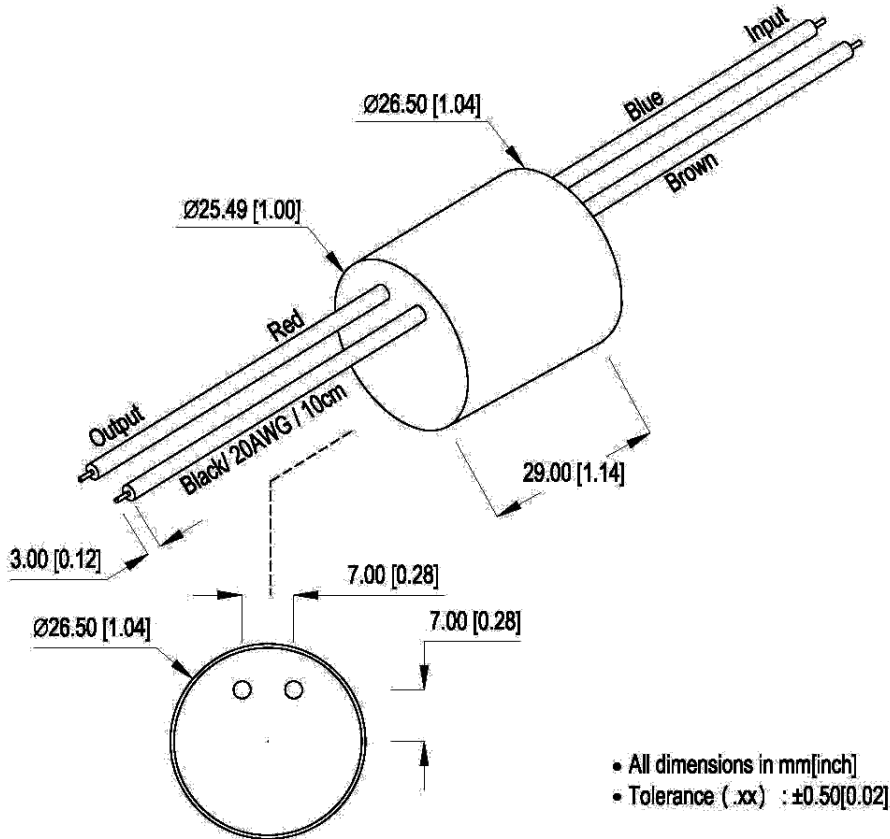
Environment Approval

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	1 mm
	Acceleration	3g, 3 loops 30min one cycle, 3h total, every axis tested
	Converter operation	Before and after test, body mounted (on chassis)

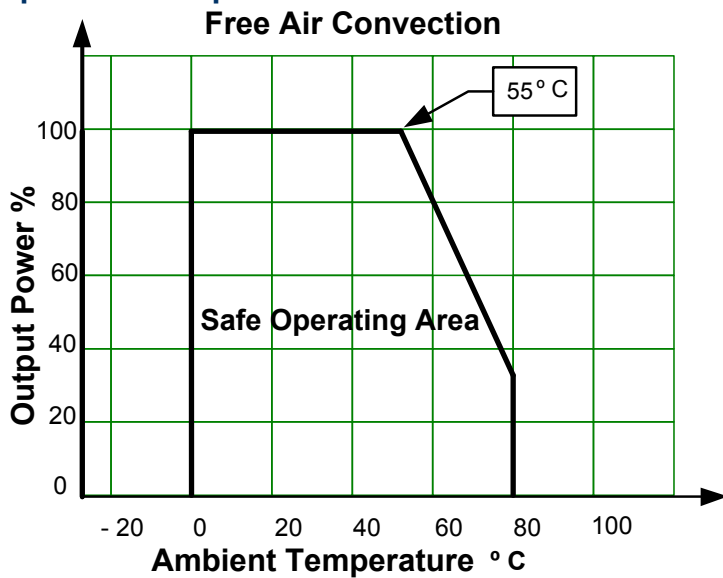
Safety Specifications

Parameters		
Agency approvals	cULus, CE, FCC	
Standards	EN61347-1, EN61347-2-13, IEC62384, UL8750, UL60950-1, EN55015, EN55024	
Standards	Radiated and Conducted Emission	FCC Part 15 Subpart B, Class B, ANSI C63.4 :2003
	EMI - Conducted and radiated emission	EN 55022
	Harmonic Current Emissions	IEC/EN 61000-3-2, (EN60555-2)
	Voltage fluctuations and flicker	IEC/EN 61000-3-3, (EN60555-3)
	Electrostatic Discharge Immunity	IEC 61000-4-2
	RF, Electromagnetic Field Immunity	IEC 61000-4-3
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4
	Surge Immunity	IEC 61000-4-5
	RF, Conducted Disturbance Immunity	IEC 61000-4-6
	Power frequency Magnetic Field Immunity	IEC 61000-4-8
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11

Dimensions



Temperature Graph



NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 5. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet.