



AMER72N-Z



Aimtec's AMER72N-Z series is a 72W AC/DC LED driver featuring a constant current output mode, targeting LED lighting applications. The driver has an input voltage range from 90 305VAC and has an output voltage of up to 24V at 3A.

Thanks to a high efficiency of 89% and its fanless design, the LED driver can operate safely at an ambient temperature range between -40 and +70°C under free air convection.

Low output ripple & noise as well as continuous short circuit protection as well as the driver's IP67 metal housing makes this series great for both indoor and outdoor applications.

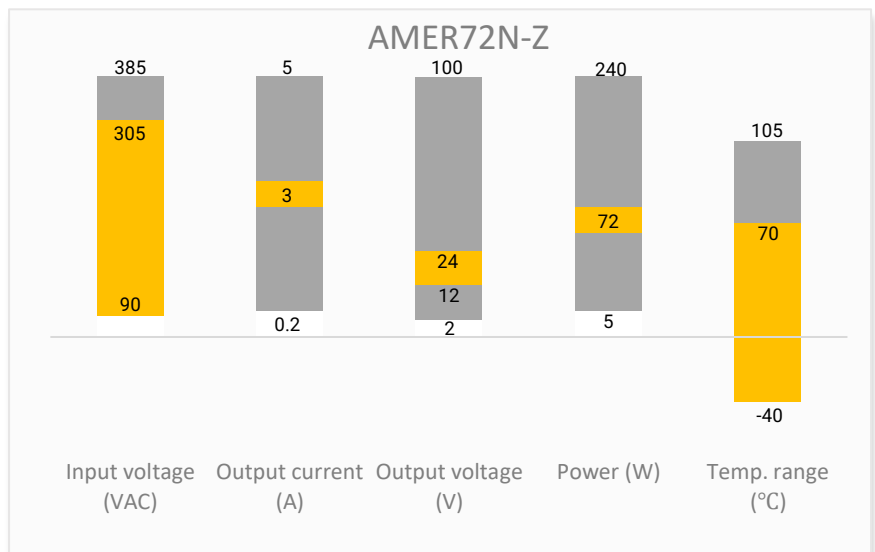
Encapsulated, IP67

Features

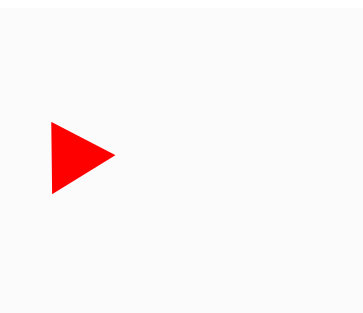


- Accurate Constant Current Output $\pm 5\%$
- Active Power Factor Correction
- IP67 design for indoor/outdoor
- Short Circuit, Over Voltage, Over Temperature Protection
- High Efficiency: Up to 89%

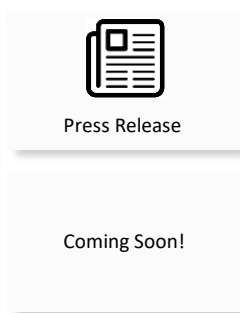
Summary



Training



Product Training Video
(click to open)



Application Notes

Applications



Lighting

Models & Specifications

Single Output

Model	Max Output Power (W)	Output Voltage Range (V)	Output Current (A)	Input Voltage (VAC/Hz)	Efficiency 115/230/277VAC (%) typ.		
AMER72N-24300Z	72	12-24	3	90-305/47-63	86	88.5	89

Input Specification

Parameters	Conditions	Typical	Maximum	Units
Input Current	90 VAC, full load		1.1	A rms
Inrush current	230 VAC, cold start		60	A
Leakage current			0.25	mA
Power Factor	115 VAC, full load	0.96		
	230 VAC, full load	0.92		
	277 VAC, full load	0.88		
Input Fuse	3.15A / 300V			
Start-up Time	230 VAC		1.1	Sec.

Output Specification

Parameters	Conditions	Typical	Maximum	Units
Current accuracy	Full range		±5	%
Line regulation	LL to HL		±3	%
Load regulation	Full load		±3	%
Ripple & Noise	Full load		200	mV

Isolation Specification

Parameters	Conditions	Typical	Maximum	Units
Isolation voltage	Input – Output	3750		VAC
	Input – Frame ground	2000		
	Output – Frame ground	500		
Resistance	500Vdc 70%RH	>100		MOhm

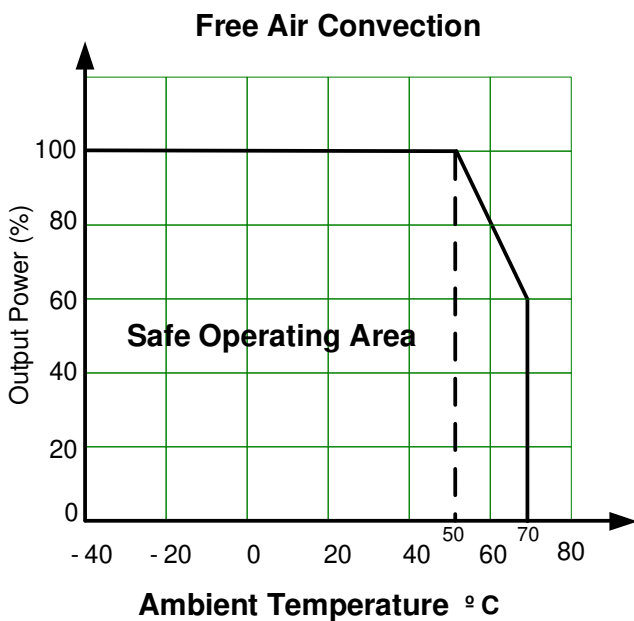
General Specifications

Parameters	Conditions	Typical	Maximum	Units
Over voltage protection	Auto Recovery		25.2	V
Short circuit protection	Continuous, Current limiting			
Short circuit restart	Auto Recovery			
Operating temperature	See derating	-40 to +70	°C	
Storage temperature		-40 to +85	°C	
Temperature coefficient			0.03	% / °C

Cooling	Free Air Convection		
Humidity		90	% RH
IP Rating	IP67		
Dimensions (L X W X H)	7.28 x 1.91 x 1.31 inches 184.9 x 48.6 x 33.3 mm		
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.			

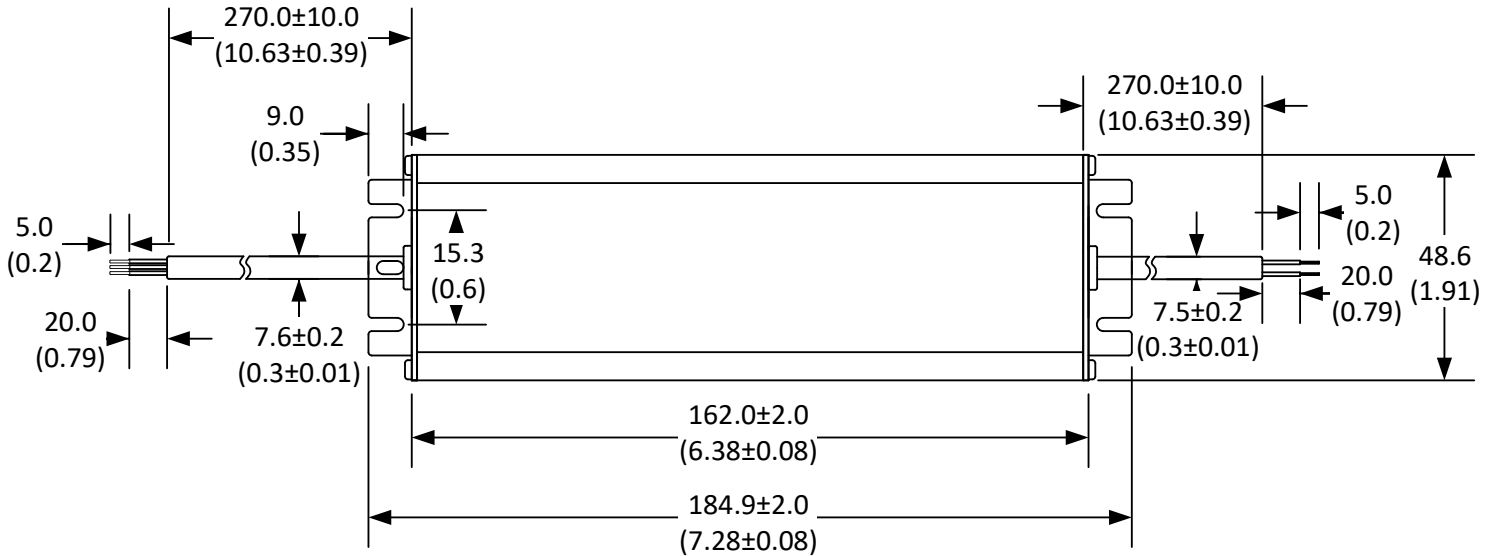
Safety Specifications		
Parameters		
Standards	Design to meet IEC/UL/EN60950	
	EMI – Conducted and radiated emission	EN55015 / EN61000-3-2, class C (≥75 load)
	Harmonic Current Emissions	EN61000-3-2, Class B
	Voltage fluctuations and flicker	EN61000-3-3
	Electrostatic Discharge Immunity	EN61000-4-2, 8kV Air, 4kV Contact, Level 3, Criteria A
	RF, Electromagnetic Field Immunity	EN61000-4-3, Test-RS Level 3, Criteria A
	Electrical Fast Transient / Burst Immunity	EN61000-4-4, Burst EFT Level 3, Criteria A
	Surge Immunity	EN61000-4-5, L-N 4kV, L/N - FG 6kV
	RF, Conducted Disturbance Immunity	EN61000-4-6. Test-CS Level 3, Criteria A
	Power frequency Magnetic Field Immunity	EN61000-4-8, Test 3A/m, Criteria A
	Voltage dips, Short Interruptions Immunity	EN61000-4-11, Criteria B
	Electromagnetic Immunity Requirements Applies to Lighting Equipment	EN61547

Derating

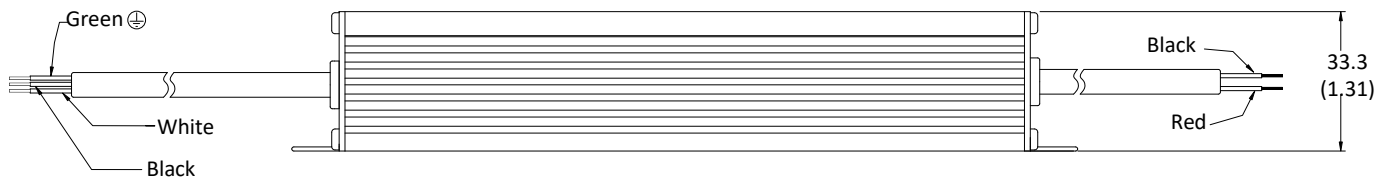


Dimensions

Top View



Side View



Pin Out Specifications	
Pin	Single
AC-N	White Color, Wire Gauge #18
AC-L	Black Color, Wire Gauge #18
FG	Green Color, Wire Gauge #18
Vo+	Red Color, Wire Gauge #18
Vo-	Black Color, Wire Gauge #18

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. **6.** 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. **7.** Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.