

# Series AMER60-12VC

## Constant Voltage AC-DC converter suitable for driving LEDs



#### **FEATURES:**

- Universal Input: 90~295 VAC
- High Efficiency: Up to 88%
- Operating Temp: -40°C to +70°C
- Short Circuit / Open Circuit Protection
- Meets UL, CE Safety Requirement
- High PF at full load.
  - IP66/IP68
- 5-year limited warranty

# RoHS

#### Models Single output

Model	Max Output Power (W)	Output Voltage Range (V)	Output Current (mA)	Input Voltage (VAC/Hz)	Efficiency (%)
AMER60-12V	60	12	5000	90-295/47-63	88
AMER60-12VC*	60	12	5000	90-295/47-63	88

\*AMER60-12VC is rated for IP68

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	Minimum	Typical	Maximum	Units	
Input Current	90 VAC, full load			0.9	Arms	
Inrush current	230 VAC, cold start			60	A	
Leakage current				0.70	mA	
	115 VAC, full load	0.97				
Power Factor	230 VAC, full load	0.95				
	277 VAC, full load	0.90				
Input Fuse	1.5A / 250V					

### **Output Specifications**

Parameters	Conditions	Minimum	Typical	Maximum	Units
Voltage accuracy			±5		%
Line regulation	LL to HL		±3		%
Load regulation	Full Output Voltage Range		±3		%
Ripple & Noise				720	mV p-p
Rise Time	230VAC		100		ms
Setup Time	230VAC			1	S
Efficiency	25°C, Full load @230VAC		88		%
Rated Output current				5	А

### **Isolation Specifications**

Parameters	Conditions	Typical	Rated	Units
	I/P - O/P		3750	VAC
Tested I/O voltage	I/P – FG		2000	VAC
	O/P – FG		500	VAC
Isolation Resistance	500VDC	>100		MΩ



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### **General Specifications**

Parameters	Conditions	Typical	Maximum	Units
Over voltage protection	Latch up to shut down and Re-power to turn ON			
Over current protection	Current Limiting	5.5	6.5	А
Short circuit protection		Hiccup		
Short circuit restart		Auto Recovery		
Operating temperature	With Derating over 50°C	-40 to +70		
Storage temperature		-40 to +85		
Temperature coefficient			0.03	% / °C
Cooling	Free Air Convection			
Humidity			90	% RH
IP Rating	IP66 and IP68			
Weight	490			g
<b>Dimensions</b> $(L \times W + X H)$	7.28 X 1.91 X 1.31 inches 184.90 X 48.60 X 33.30 mm			

# Safety Specifications

Parameters			
Safety	Designed to meet UL60950-1, TUV EN60950-1		
	Electromagnetic Interference	EN55015 / FCC Part 15, Class B	
	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	
Standards	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, Line to Neutral 4kV, Neutral to 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	EN61547	
	to Lighting Equipment		

### **Pin Definition**

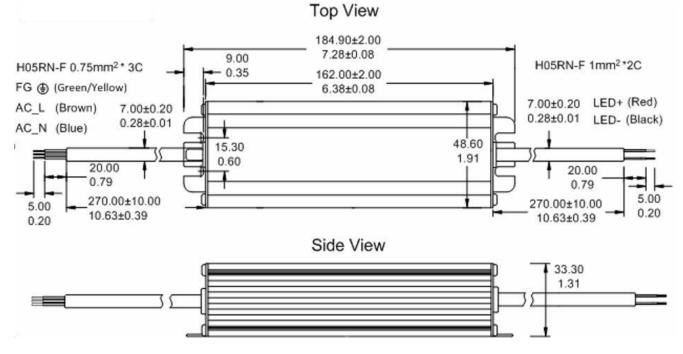
Wire	Connection
AC-N	Blue Color, For L or N lines.
AC-L	Brown Color, For L or N lines.
FG	Green Color, Ground lines.
LED+	The central pin of DC5521 Plug, Connected to the internal red wire
LED-	The external Cylinder pin of DC5521 Plug , Connected to internal black wire



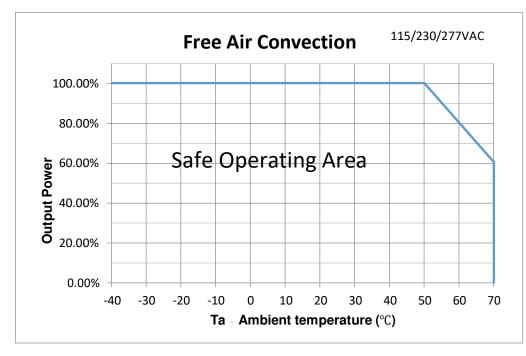
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### **Dimensions**



## **Derating 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. **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 <u>www.aimtec.com</u>.