



FEATURES:

- Accurate Constant Current Output $\pm 5\%$
- High Efficiency: Up to 92%
- Active Power Factor Correction
- UVLO, Open Circuit Protection
- IP65/IP67 design for indoor/outdoor
- Short Circuit Protection
- Over Temperature Protection
- 5 Year Warranty



Models
Single output

Model	Max Output Power (W)	Output Voltage Range (V)	Output Current (mA)	Input Voltage (VAC/Hz)	Efficiency (%)
AMER160-48320Z	153.6	15-48	3200	90-305/47-63	92.0
AMER160-55290Z	159.5	30-55	2900	90-305/47-63	92.0
AMER160-48340Z	163.2	15-48	3400	90-305/47-63	92.0

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
Input Current	90 VAC, full load		2.4	Arms
Inrush current <2ms	115 VAC, cold start		40	A
	305 VAC, cold start		65	
Leakage current			0.75	mA
Input dissipation	No Load		3.0	W
	Output Short		5.0	W
Power Factor	115 VAC, full load		0.98	
	277 VAC, full load		0.92	
Input Fuse	5A/300V			
Start-up Time	115 VAC, full load		1.0	Sec.
	277 VAC, full load		1.0	Sec.

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Current accuracy		± 5		%
Line regulation	LL to HL	± 1		%
Load regulation	Full Output Voltage Range	± 5		%
Ripple & Noise			200	mV
Output Current Ripple	Full load		1.0	Io%
Current Overshoot	LL to HL, full load at cold start, % of rated output current		10	%
Hold-up time (min.)		10	15	ms
Minimum Load Voltage	See Models Table Above			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O Isolation Voltage	I/P – O/P		3750	VAC
	I/P – FG		2000	VAC
	O/P – FG		500	VAC
Isolation Resistance	I/P – O/P, 500Vdc	>100M Ω		Vdc
Isolation Capacitance		3000		pF

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		100	220	KHz
Over voltage protection			63	V
Short circuit protection	Continuous current mode			

Short circuit restart	Auto Recovery		
Open circuit protection	Continuous voltage mode		
Over Temperature Protection	Threshold – Shutdown Output	+110	°C
	Hysteresis – Auto Recovery	+85	°C
Operating temperature	With Derating over 60°C	-40 to +70	°C
Maximum case temperature		90	°C
Storage temperature		-40 to +85	°C
Temperature coefficient		0.03	% / °C
Cooling	Free Air Convection		
Humidity		90	% RH
Case material	Metal (Aluminum)		
Potting material	polysiloxane		
IP Rating	IP67		
Weight	1100		g
Dimensions (L X W X H)	9.02 x 2.68 x 1.53 Inches, 229.0 x 68.0 x 38.8 mm		
MTBF	>450,000 hrs (MIL-HDBK-217F at +25°C)		

Safety Specifications

Parameters

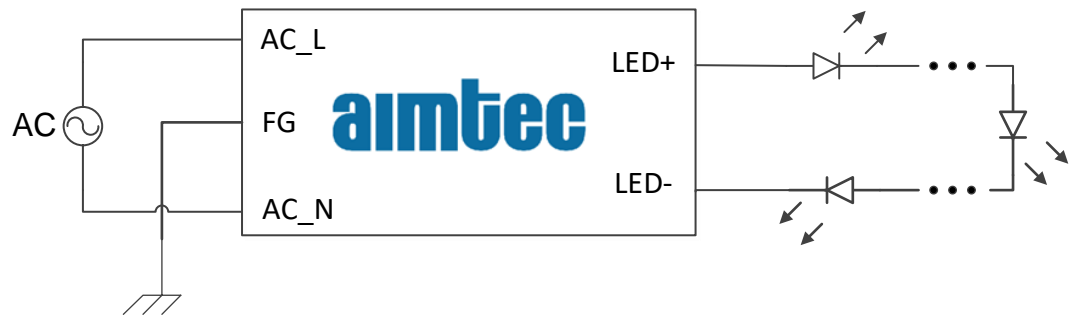
Standards	Electromagnetic Interference	EN55015 / FCC Part 15, Class B
	Harmonic Current Emissions	EN61000-3-2, Class B
	Voltage fluctuations and flicker	EN61000-3-3
	Electrostatic Discharge Immunity	EN61000-4-2, 8kV Air, 4kV Contact, Level 3, Criteria A
	RF, Electromagnetic Field Immunity	EN61000-4-3, 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, Line/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 to Lighting Equipment	EN61547

Pin Definition

Wire	Connection
Brown	AC L
Blue	AC N
Yellow/Green	FG
Red	+V Output
Black	-V Output

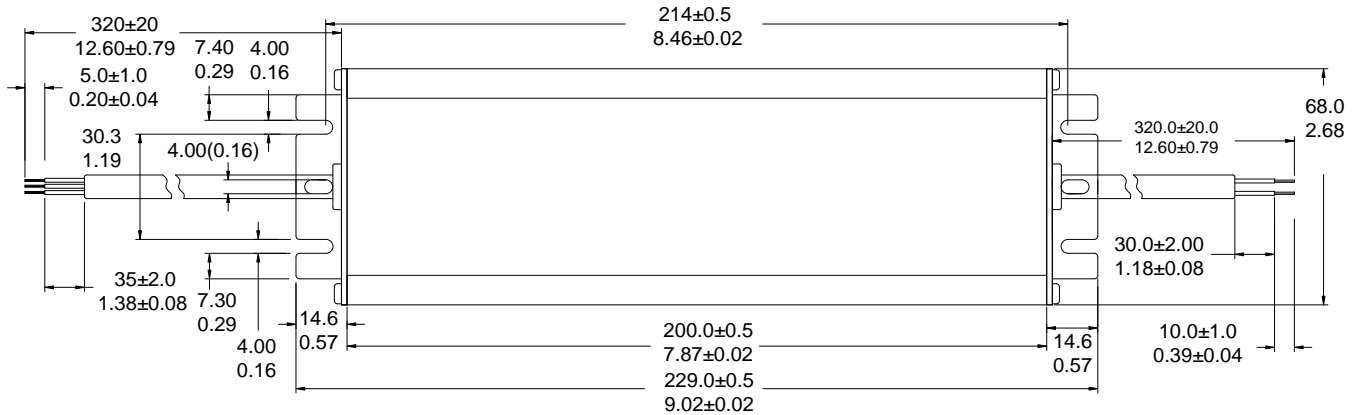
Input wire gauge #18
Output wire gauge #14

Application circuit

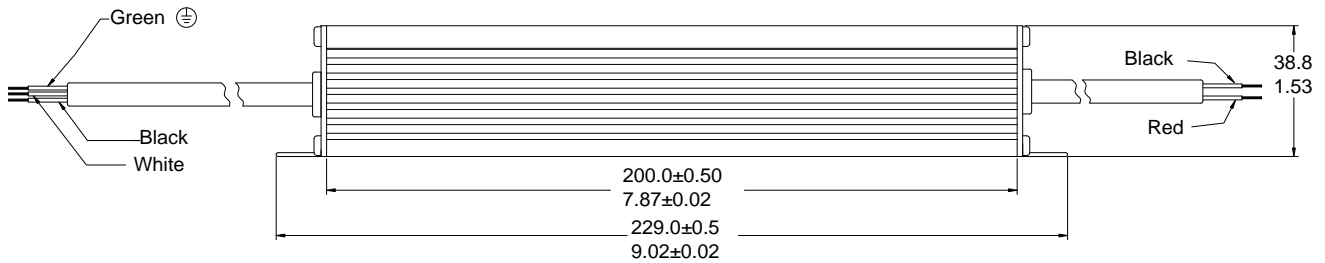


Dimensions

Top View

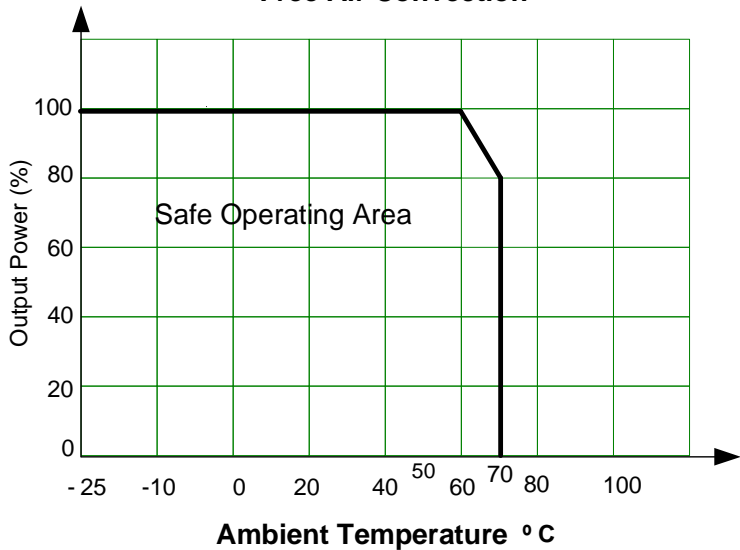


Side View



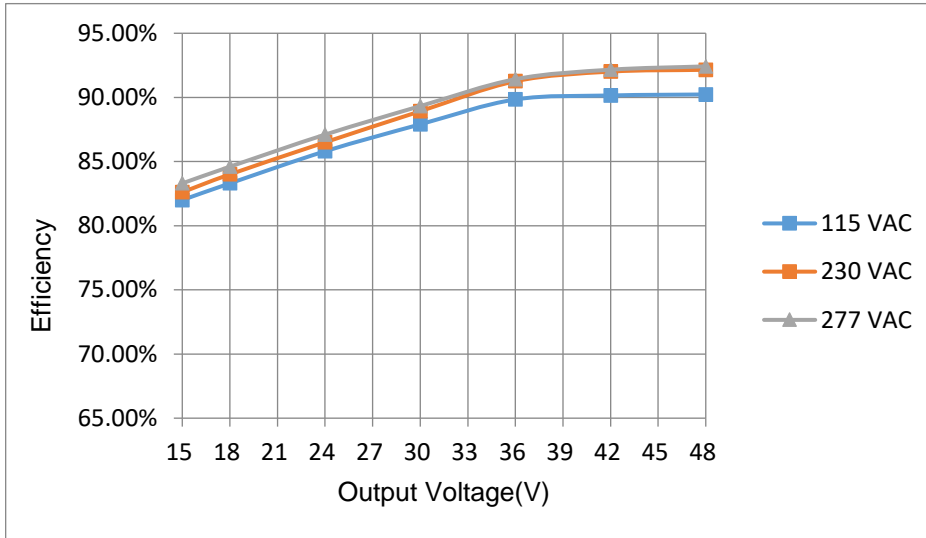
Derating

Free Air Convection

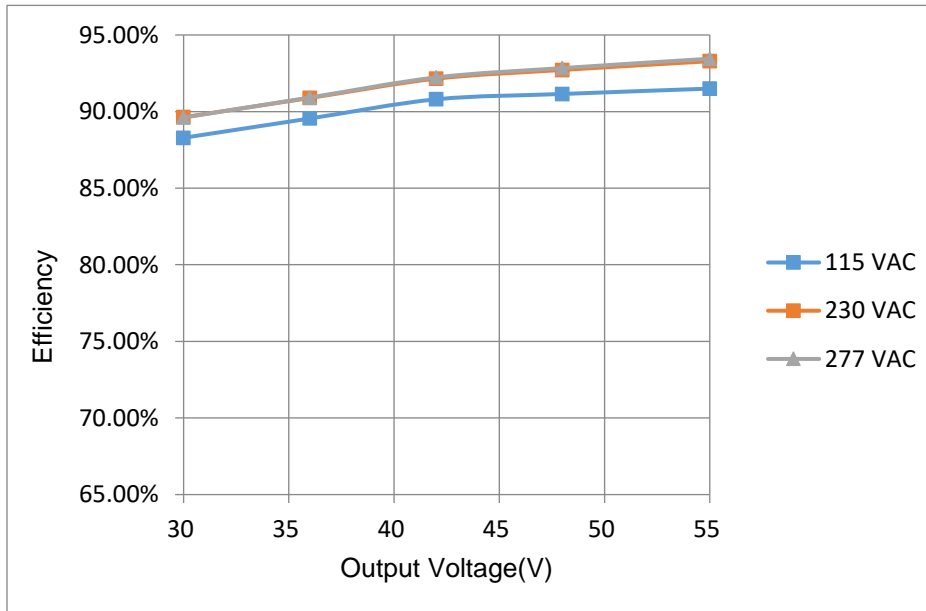


Efficiency Vs. Input Voltage & Output Voltage (Constant current load)

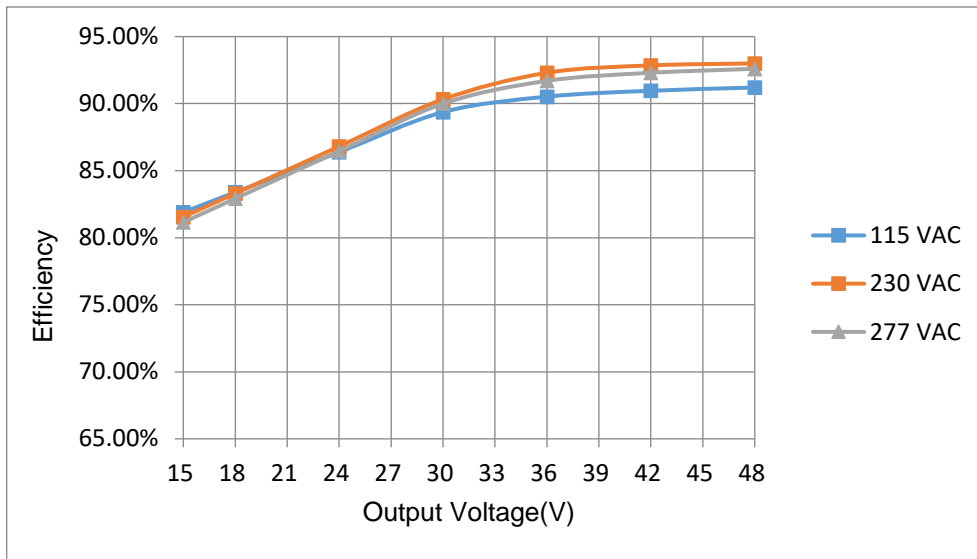
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AMER160-55290Z

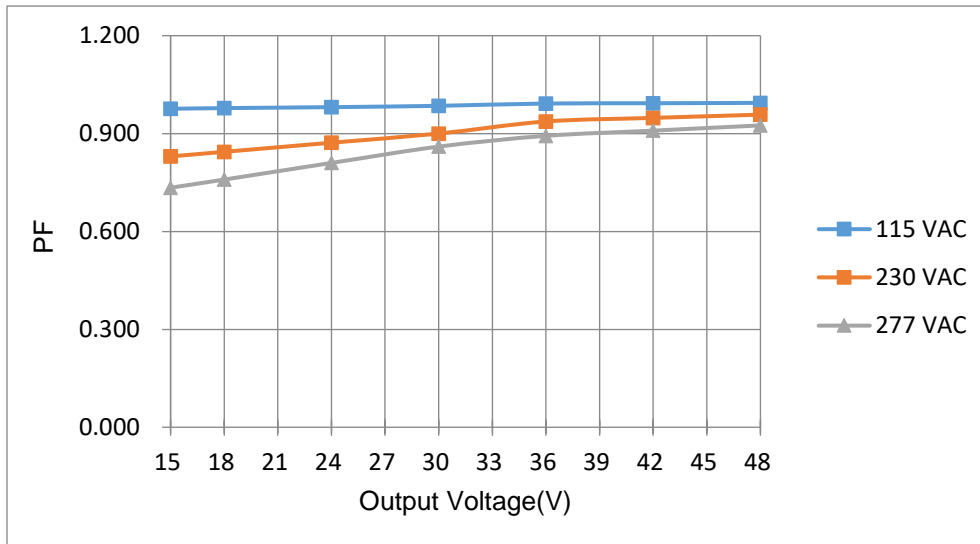


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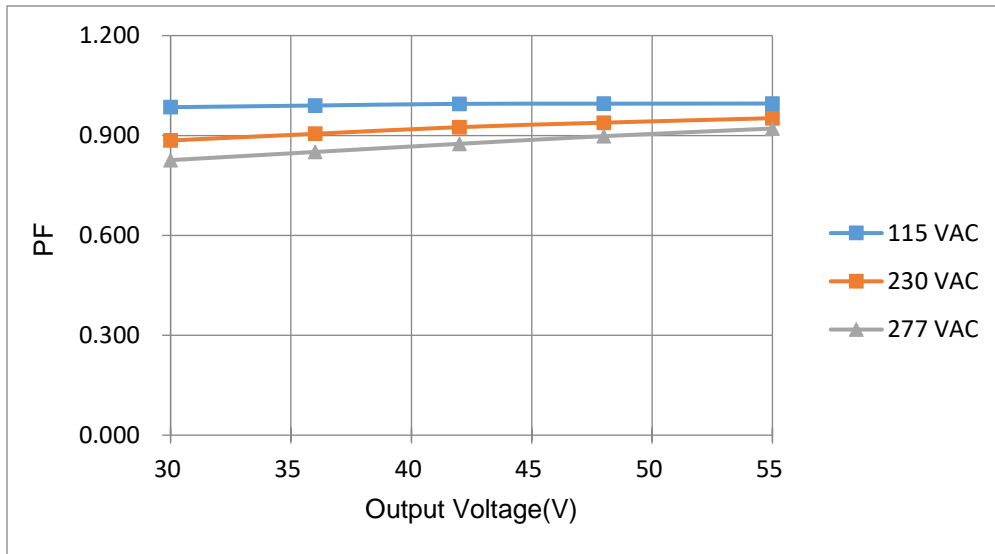


PF vs. Input Voltage & Output Voltage (constant current mode)

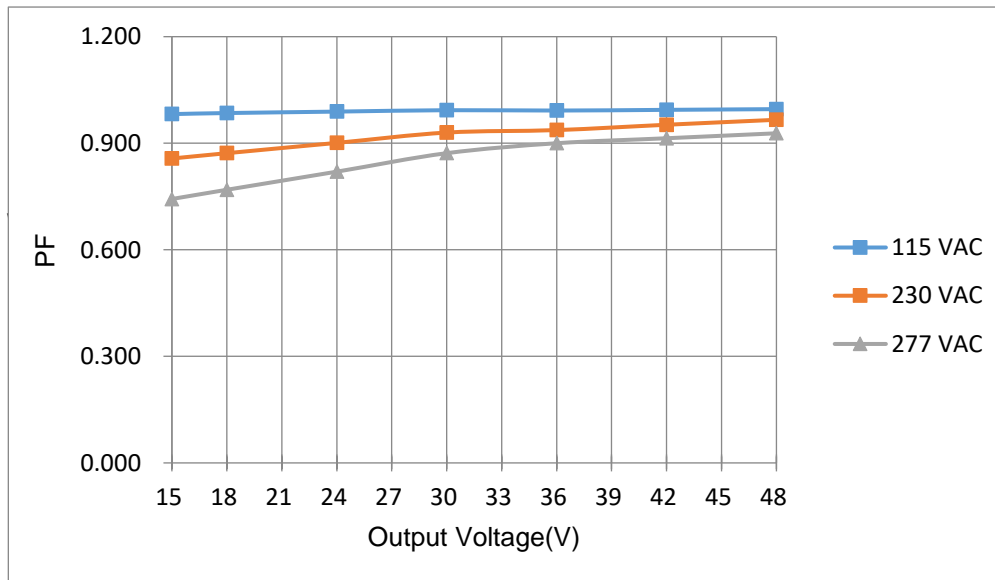
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