Series AMER60N-Z

up to 1600mA | AC-DC LED driver



FEATURES:

- Universal Input: 90~305 VAC
- High Efficiency: Up to 88%
- Active Power Factor Correction
- Short Circuit / Open Circuit Protection
- IP65/67 Design for outdoor application
- Long Life, High reliability
- Ultra-low ripple without flickering
- 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 (%)
AMER60N-42130Z	54.6	24-42	1300	90-305/47-63	87
AMER60N-42140Z	58.8	24-42	1400	90-305/47-63	87
AMER60N-42150Z	63.0	24-42	1500	90-305/47-63	88
AMER60N-42160Z	67.2	24-42	1600	90-305/47-63	88

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		1.0	Arms
Inrush current <2ms	115 VAC, cold start		40	A
	230 VAC, cold start		60	
Leakage current			0.75	mA
Input dissipation	No Load		1.5	W
	Output Short		4.5	W
Power Factor	115 VAC, full load	0.98		
	230 VAC, full load	0.95		
Input Fuse	3.15A / 300V			
Start-up Time	115 VAC, full load		1.5	Sec.
	230 VAC, full load		1.0	Sec.

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Current accuracy		±5		%
Line regulation	LL to HL	±3		%
Load regulation	Full Output Voltage Range	±5		%
Ripple & Noise			200	mV p-p
Output Current Ripple	Full load		120	mA
Current Overshoot	LL to HL, full load at cold start, % of rated output current		15	%
Hold-up time (min)			0	ms
Minimum Load Voltage	See Models Table Above			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	I/P – O/P		3750	VAC
	I/P – FG		2000	VAC
	O/P – FG		500	VAC
Isolation Resistance	500VDC	>100		MΩ
Isolation Capacitance			5000	pF

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		150		KHz
Over voltage protection			50	VDC
Over current protection	Constant Current Mode			
Short circuit protection	Hiccup			
Short circuit restart	Auto Recovery			
Open circuit protection	Hiccup			
Operating temperature	With Derating over ºC	-40 to +60		ºC
Maximum case temperature		90		ºC
Storage temperature		-40 to +90		ºC
Temperature coefficient			0.03	% / ºC
Cooling	Free Air Convection			
Humidity			90	% RH
Case material	Metal (Aluminum)			
Potting material	polysiloxane			
IP Rating	IP67			
Weight	490			g
Dimensions (L X W+ X H)	7.36 X 1.91 X 1.31 inches 187.00 X 48.60 X 33.30 mm			
MTBF	400,000 hrs (MIL-HDBK-217F at +25°C)			

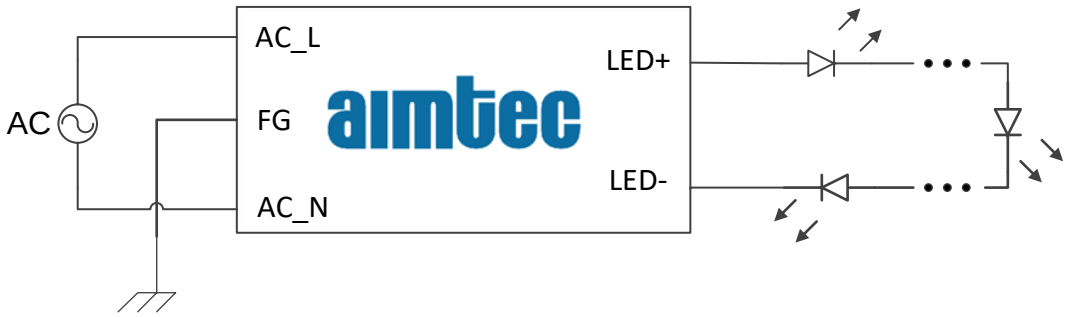
Safety Specifications

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, 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

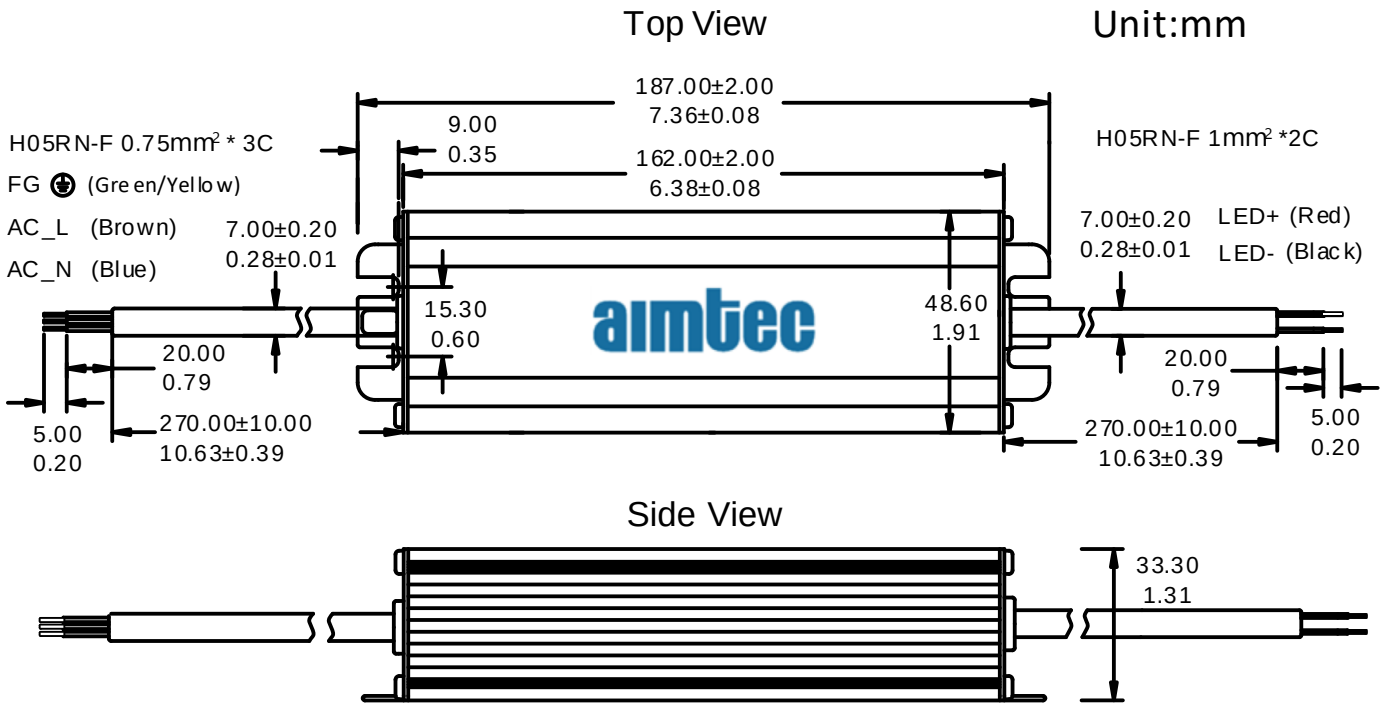
Pin Definition

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

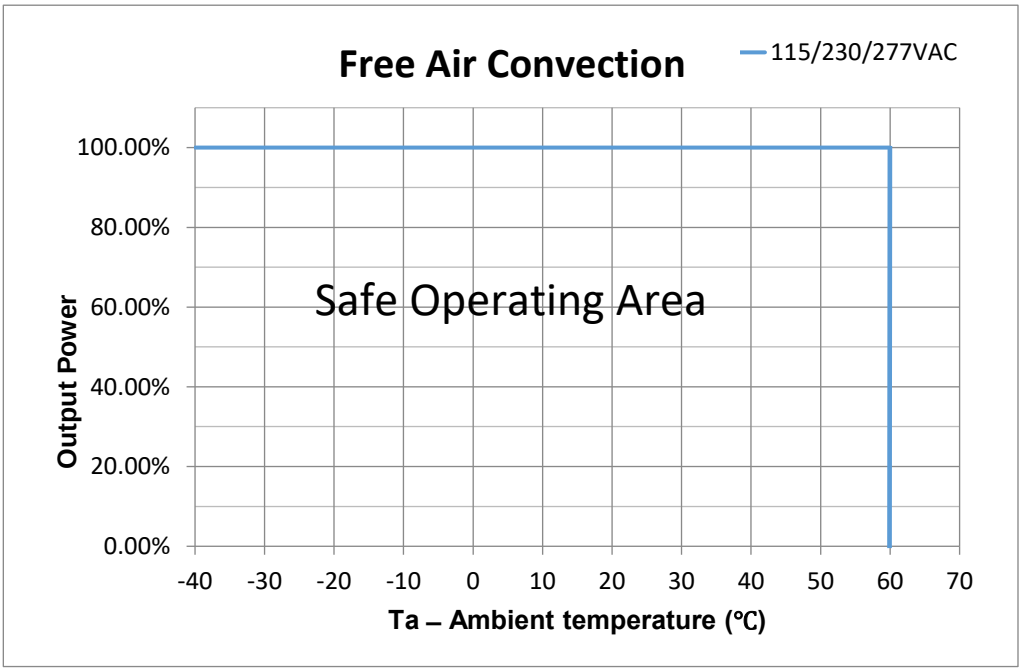
Block diagram



Dimensions

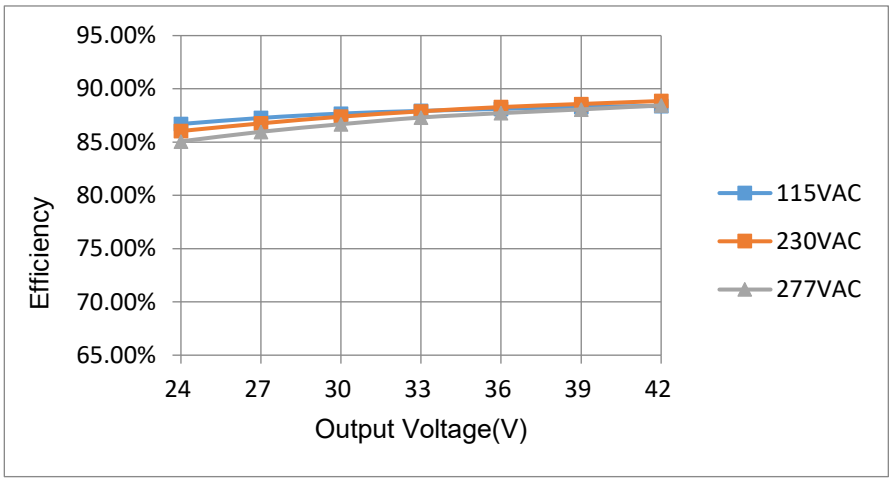


Derating Graph

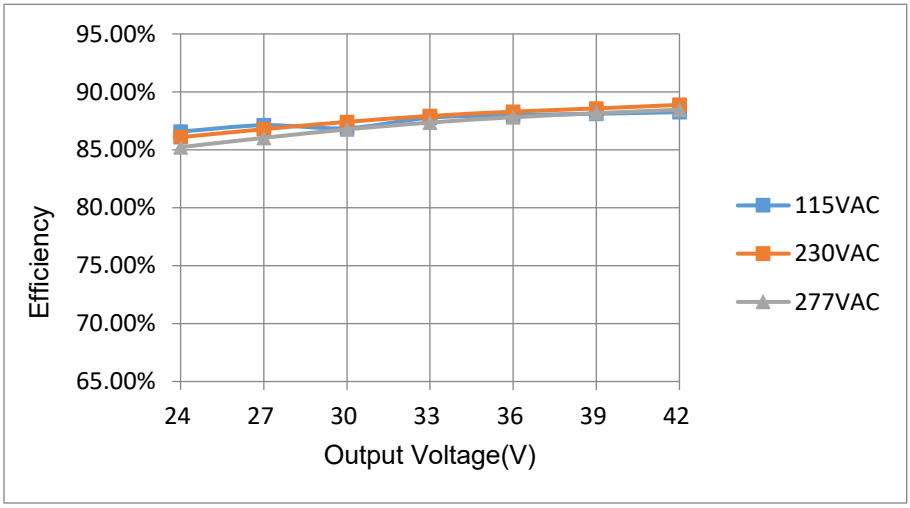


Efficiency Vs. Input Voltage & Output Voltage

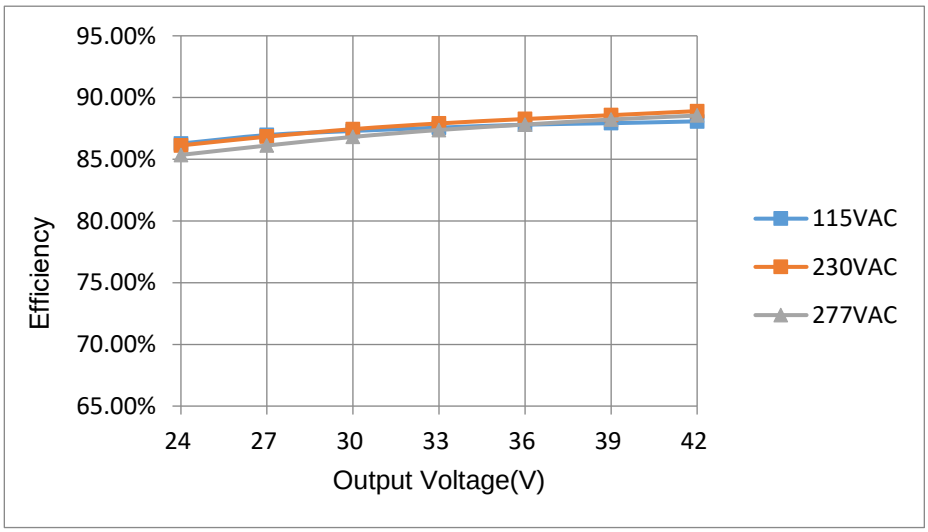
AMER60N-42130Z



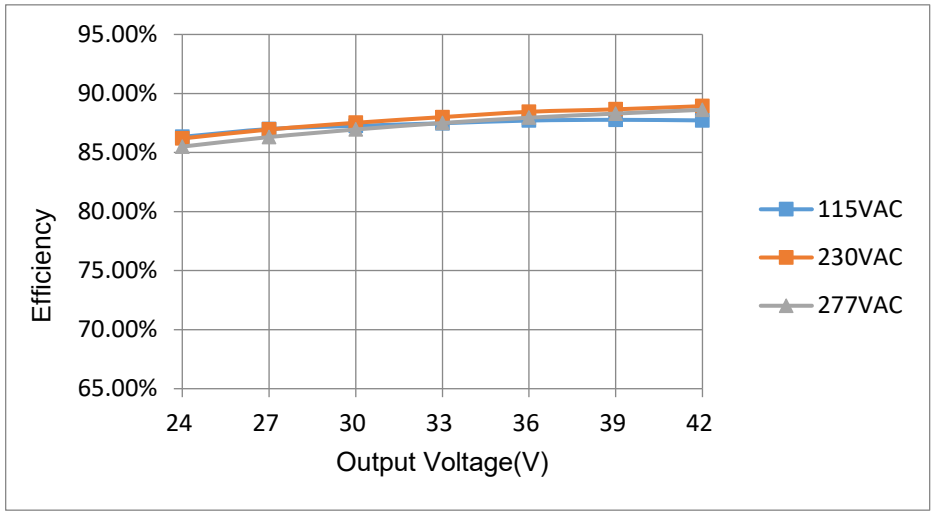
AMER60N-42140Z



AMER60N-42150Z

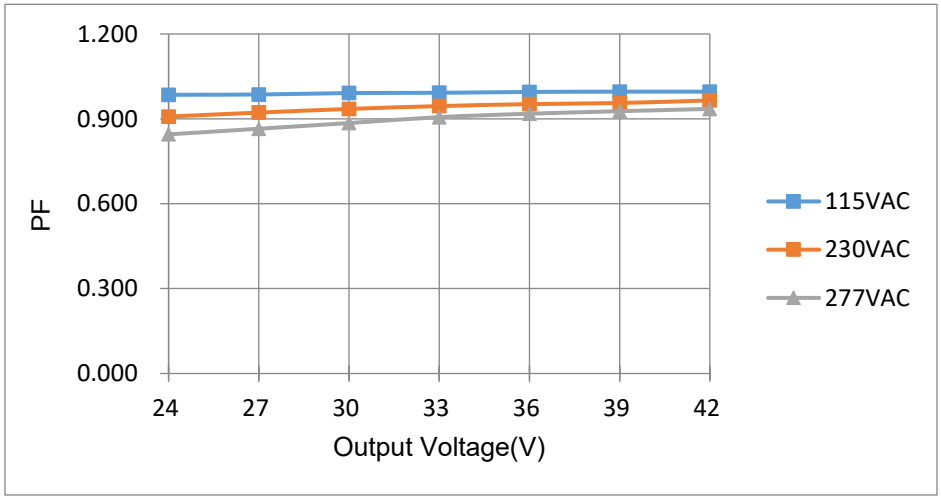


AMER60N-42160Z

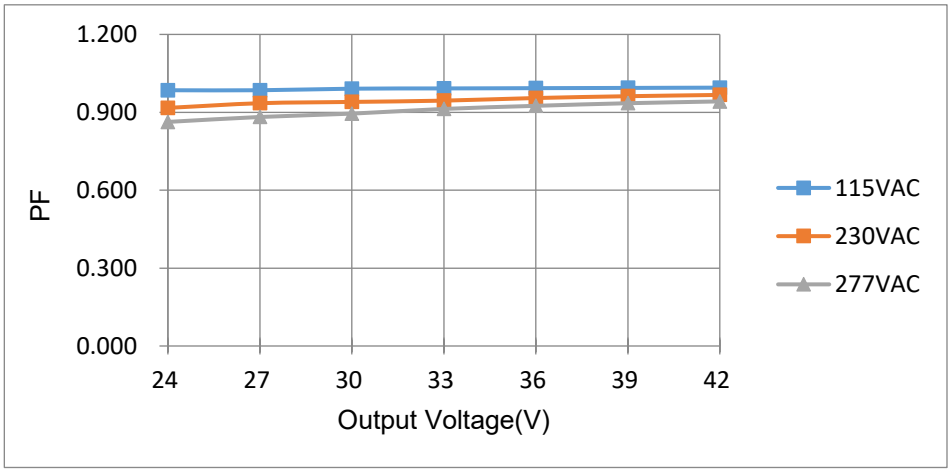


PF vs. Input Voltage & Output Voltage

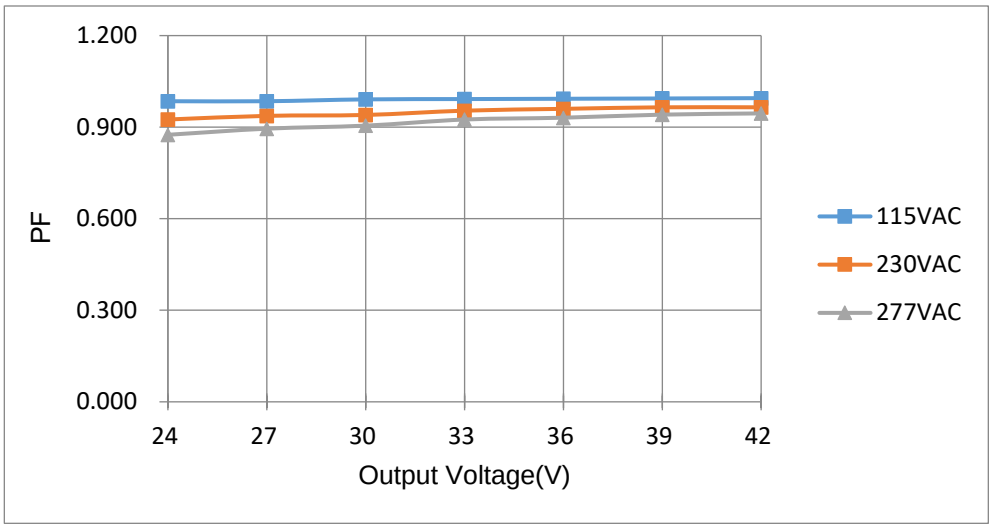
MER60N-42130Z



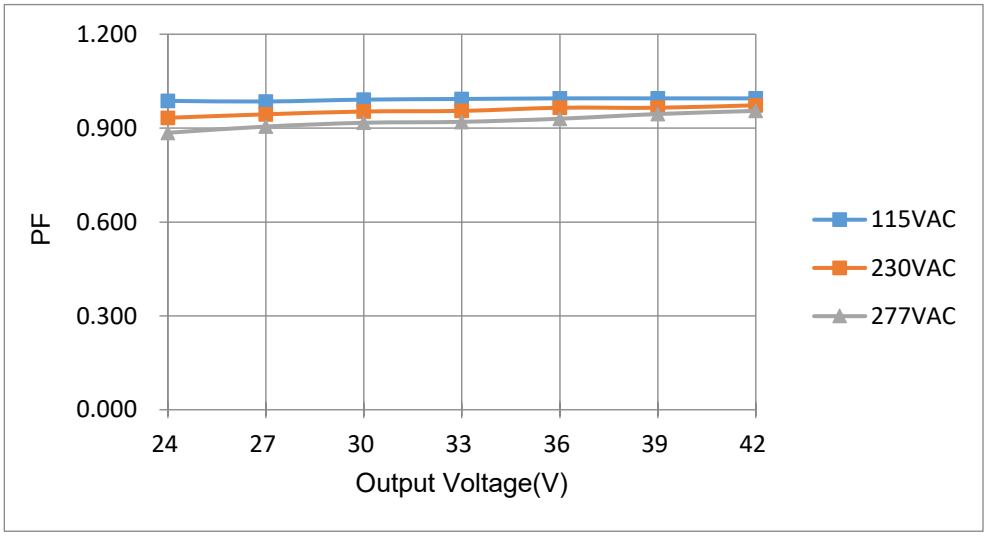
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AMER60N-42150Z



AMER60N-42160Z



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