

FEATURES:


- Accurate Constant Current Output $\pm 5\%$
- High Efficiency: Up to 88%
- Active Power Factor Correction
- Short Circuit / Open Circuit Protection
- Class 2 Power Unit
- Long Life, High reliability
- IP20, Suitable for Indoor LED Lighting
- 3 Years Limited Warranty

Models
Single output


Model	Max Output Power (W)	Output Voltage Range (V)	Output Current (mA)	Input Voltage (VAC/Hz)	Efficiency (%)
AMEPR40-10040Z	40.0	80-100	400	90-264/47-63	88
AMEPR40-42100Z	42.0	30-42	1000	90-264/47-63	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		0.6	Arms
Inrush current <2ms	115 VAC, cold start		20	A
	230 VAC, cold start		40	
Leakage current			0.75	mA
Input dissipation	No Load		1	W
	Output Short		2	W
Power Factor	115 VAC, full load	0.98		
	230 VAC, full load	0.95		
Input Fuse		2A / 250V		
Start-up Time	115 VAC, full load		2.0	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			5	V p-p
Output Current Ripple	Full load, 16.7-20ms duration		1.6	A p-p
Current Overshoot	LL to HL, full load at cold start, % of rated output current		10	%
Minimum Load Voltage	See Models Table Above			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	IEC61347		3750	VAC
Isolation Resistance	500Vdc	>100M Ω		Vdc
Isolation Capacitance		100		pF

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency			135	KHz
Over voltage protection	AMEPR40-10040Z		120	V
	AMEPR40-42100Z		50	V
Short circuit protection	Continuous, Hiccup Mode			
Short circuit restart	Auto Recovery			

Open circuit protection	Continuous, Hiccup Mode		
Operating temperature		-20 to +50	°C
Maximum case temperature		80	°C
Storage temperature		-30 to +90	°C
Temperature coefficient		0.05	% / °C
Cooling	Free Air Convection		
Humidity		90	% RH
Case material	Plastic		
Weight		150	g
Dimensions (L X W+ X H)	5.71 X 1.89 X 1.26 inches 145.0 X 48.0X 32.0 mm		
MTBF	>300,000 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 2kV
	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

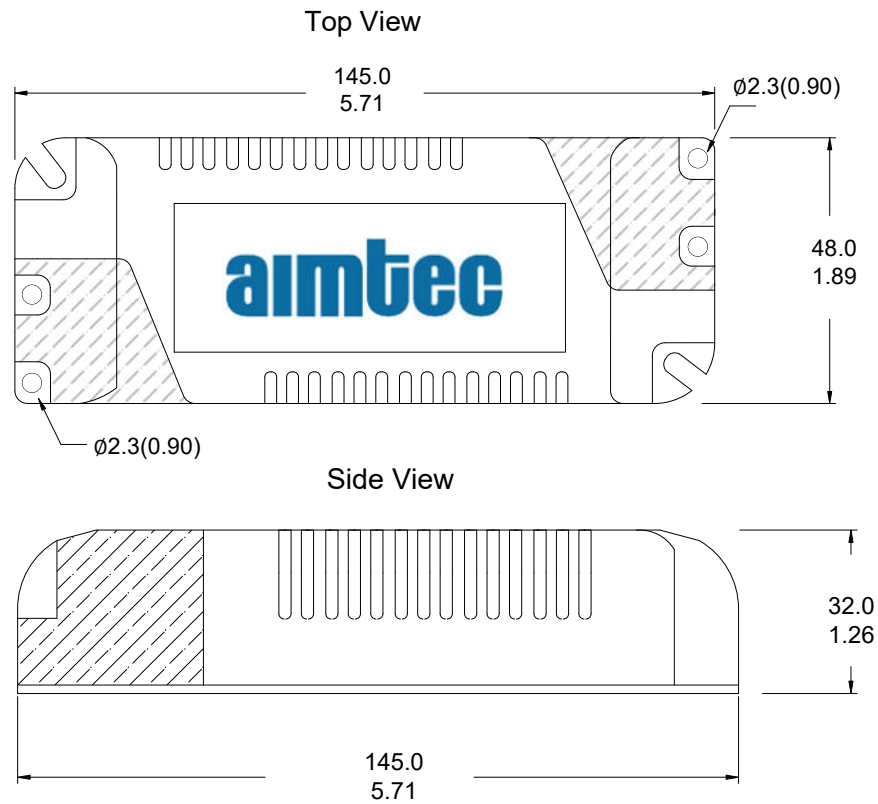
Application Block diagram



Pin Definition

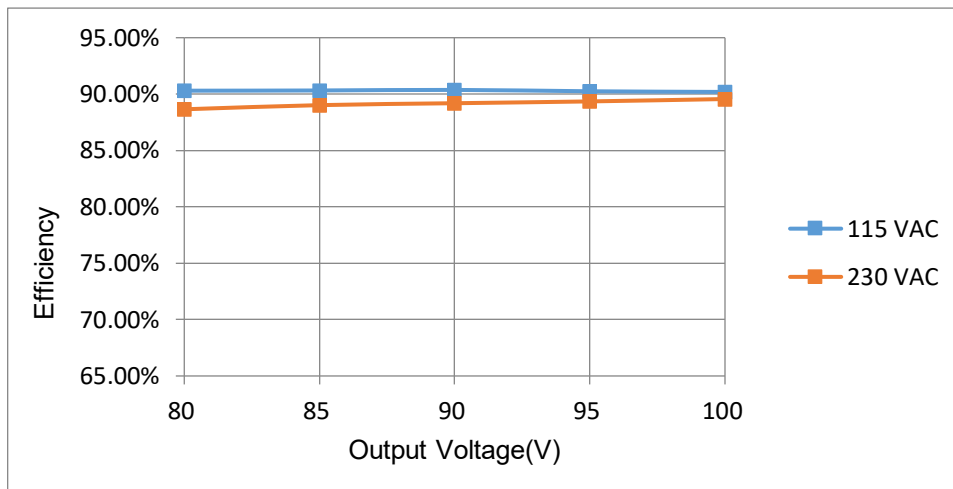
Pin	Description
L, N	Input terminals, Connected to L and N lines
LED+	Output terminal, Connected to the positive pole of LEDs
LED-	Output terminal, Connected to the negative pole of LEDs

Dimensions

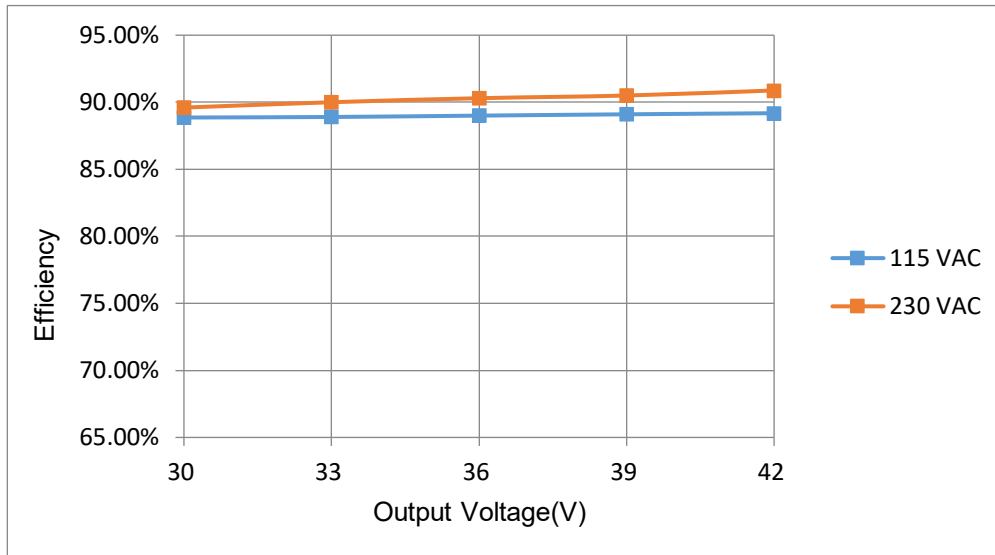


Efficiency Vs. Input Voltage & Output Load Voltage

AMEPR40-10040Z

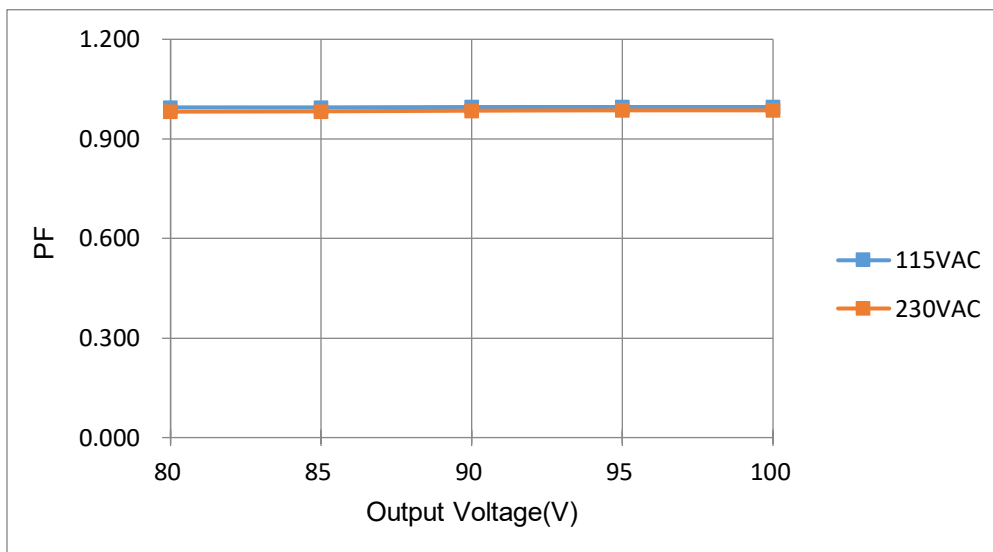


AMEPR40-42100Z

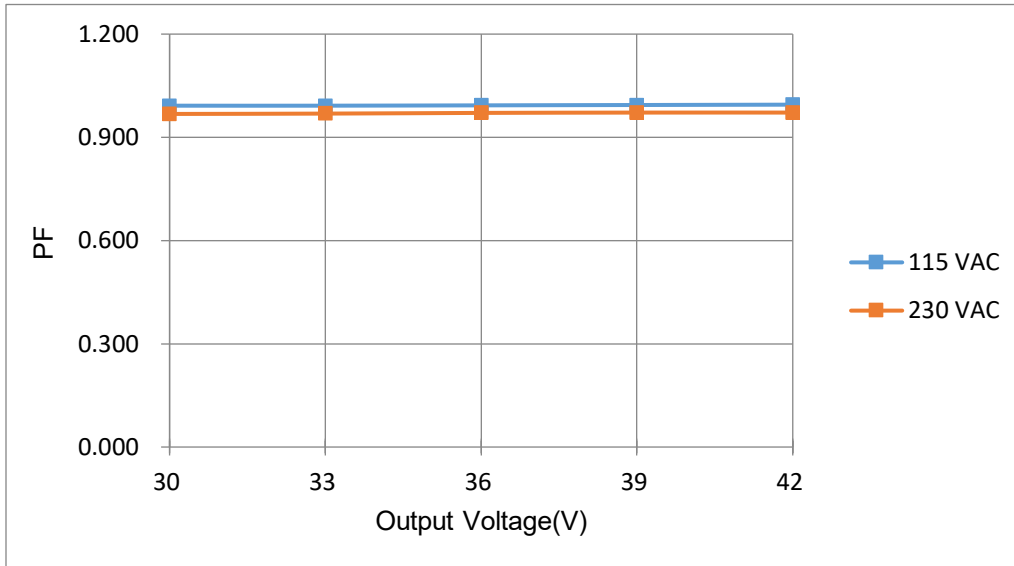


PF vs. Input Voltage & Output Load Voltage

AMEPR40-10040Z



AMEPR40-42100Z



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