AEJ50 Series

AC-DC Power Supplies

XP Power

50 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- <0.15 W Standby Power
- Single Output 12 to 48 V
- 0 °C to 65 °C Operation
- Universal Input
- 3 Year Warranty

GREEN XP POWER

Dimensions:

AEJ50:
4.72 x 2.05 x 1.22" (120.0 x 52.0 x 31.0 mm)

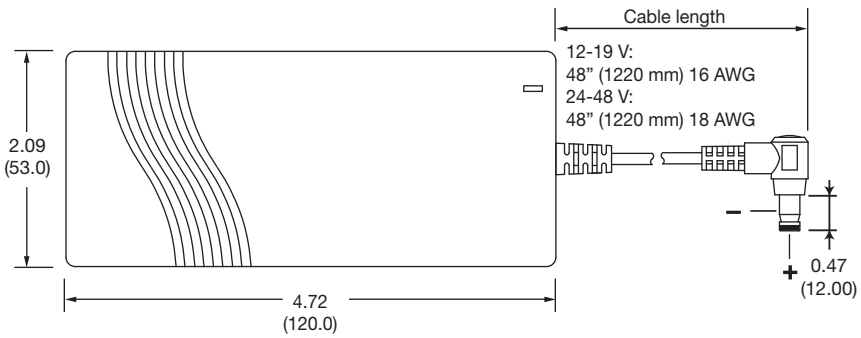
Models & Ratings

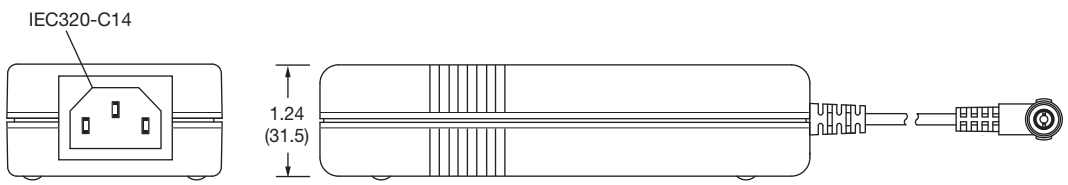
Output Power	Output Voltage	Output Current	Total Regulation	Efficiency[1]	Model Number
50 W	12.0 V	4.20 A	±5%	89%	AEJ50US12
	15.0 V	3.36 A		89%	AEJ50US15
	19.0 V	2.65 A		89%	AEJ50US19
	24.0 V	2.10 A		89%	AEJ50US24
	28.0 V	1.80 A		89%	AEJ50US28
	36.0 V	1.40 A		89%	AEJ50US36
	48.0 V	1.05 A		89%	AEJ50US48

Notes

1. Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 230 VAC input.

Mechanical Details





Notes

1. All dimensions shown in inches (mm).
2. Weight: 0.60 lbs (300 g) approx.
3. Tolerance is ±0.02 (±0.5) maximum, except output cable length which is ±2" (±50 mm)
4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	90		264	VAC	
Input Frequency	47		63	Hz	
Input Current		1.20		A	Measured at 100VAC
Inrush Current			50	A	230 VAC, cold start at 25 °C
Earth Leakage Current			350	µA	264 VAC, 60 Hz
No Load Input Power			0.15	W	
Input Protection	T2.0A/250 VAC internal fuse in line				

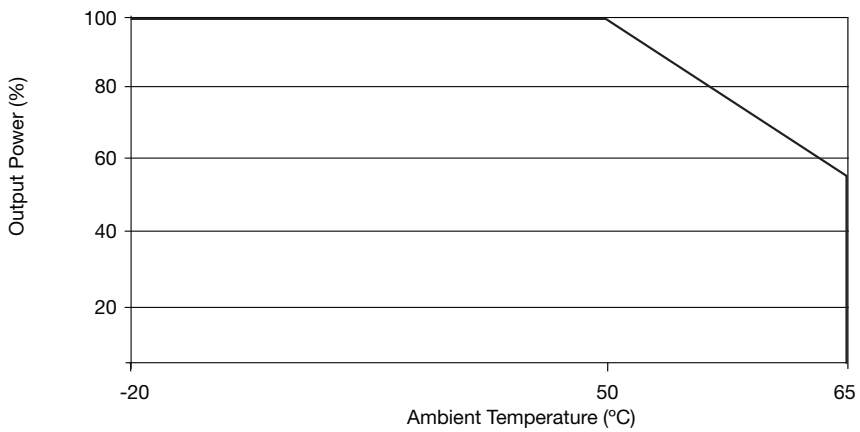
Output

Characteristic	Min.	Typ.	Max.	Units	Notes & Conditions
Output Voltage	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±2	%	At 60% load
Minimum Load					No minimum load required
Start Up Delay			3	s	
Start Up Rise Time			20	ms	
Hold Up Time		8		ms	Full load and 115 VAC
Line Regulation			±1	%	
Total Regulation			±4	%	
Transient Response			5	%	Maximum deviation, recovering to less than 1% within 500 µs for 25% step load
Ripple and Noise			1	% pk-pk	Measured with 20 MHz Bandwidth and 10 µF electrolytic in parallel with 0.1 µF ceramic capacitor.
Overshoot			10	%	At turn on / turn off
Overload Protection	115		250	%	
Overvoltage Protection	112		140	%	
Short Circuit Protection	Trip and restart (hiccup), auto resetting				
Temperature Coefficient		0.05		%/°C	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-20		+65	°C	Derate from 100% load at 50 °C to 58% load at 65 °C
Cooling	Natural convection				
Operating Humidity	5		90	%RH	Non-condensing
Storage Temperature	-40		+85	°C	
Operating Altitude			5000	m	
Shock	IEC68-2-27, 30 g, 11 ms half sine, 3 times in each of 6 axes				
Vibration	IEC68-2-6, 10-500 Hz, 2 g 10 mins/sweep, 60 mins for each of 3 axes				

Derating Curve

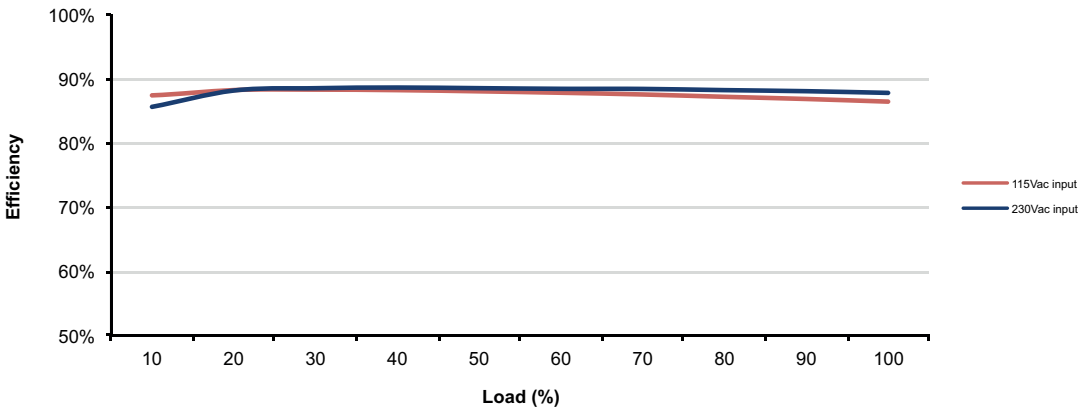


General

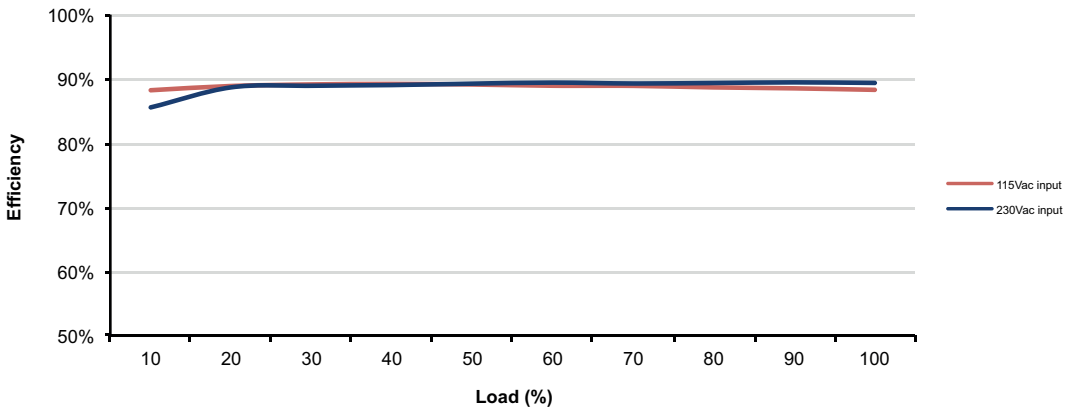
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		89		%	See Models and Ratings table and curves.
Isolation: Input to Output	3000			VAC	
Input to Ground	1500			VAC	
Output to Ground					Negative output is connected to ground
Switching Frequency		65		kHz	
Power Density			4.23	W/in^3	
Mean Time Between Failure	285			kHrs	MIL-HDBK-217F at 25 °C GB for 24 V version
Weight		0.60 (300)		lb (g)	

Efficiency Curves

AEJ50US12



AEJ50US24



EMC: Emissions

Phenomenon	Standard	Test Level	Notes & Conditions
Emissions	EN55032	Level B	Conducted & Radiated
Harmonic Current	EN61000-3-2	Class A	
Voltage Flicker	EN61000-3-3		

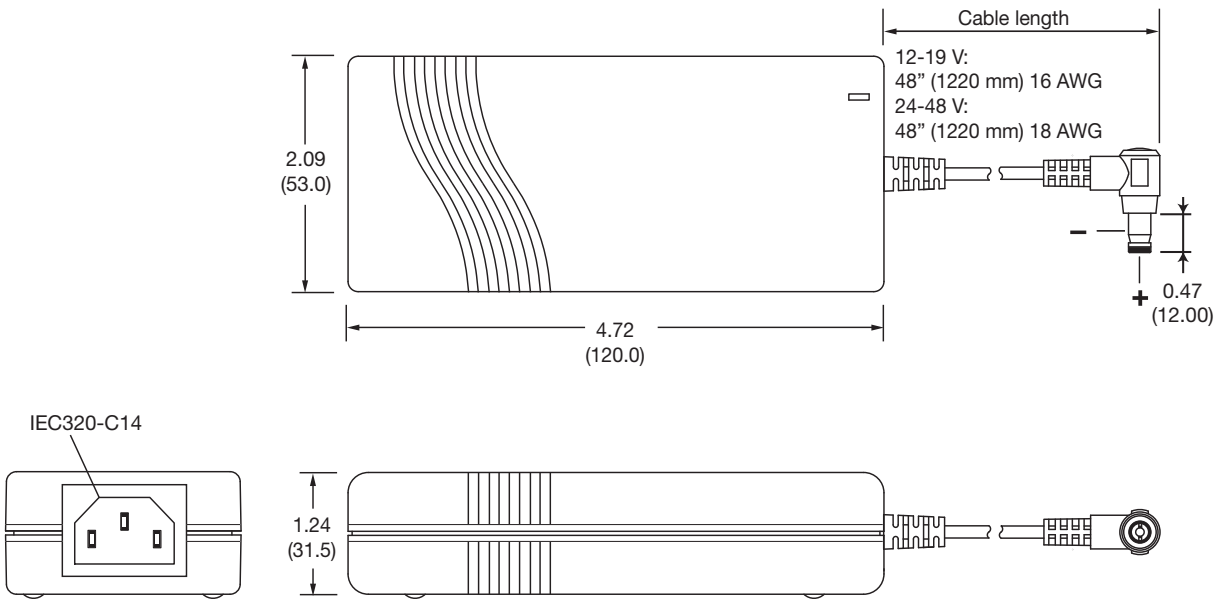
EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD	EN61000-4-2	±8 kV Air, ±6 kV contact	A	
Radiated	EN61000-4-3	3 V/m	A	
EFT/Burst	EN61000-4-4	2	A	
Surge	EN61000-4-5	Installation Class 3	A	
Conducted	EN61000-4-6	3 V	A	
Magnetic Fields	EN61000-4-8	3 A/m	A	
Dips and Interruptions	EN61000-4-11	Dip: 30% 500 ms	A/B	High Line/Low Line
		Dip: 60% 100 ms	A/B	High Line/Low Line
		Int: 100% 5000 ms	B	
		Int: 100% 10 ms	A	

Safety Approvals

Certification	Safety Standard	Notes & Conditions
UL	UL62368-1	
EN	EN62368-1	
CB	IEC62368-1	
AU/NZ	AU/NZ 60950.1	
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Mechanical Details



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