

# 160W CONVECTION COOLED

The AEJ160 Series of ITE approved desktop adapters complies with the latest international efficiency requirements including Level VI and EU2019/1782.

As part of a range starting at 36W, the 160W AEJ160 with its wide selection of output voltages is suitable for many applications in the industrial and technology fields.



## Features

- Energy efficiency level VI & EU2019/1782
- Active power factor correction
- Single outputs 12V to 56V
- <0.15W standby power
- -20°C to +65°C operating temperature
- Universal input
- 3 year warranty

## Applications



Industrial Electronics



Instrumentation



Technology

## Dimensions

5.91" x 2.76" x 1.5" (150.0 x 70.0 x 38.0 mm)

## Models & Ratings

Model Number	Output Voltage	Output Current	Total Regulation	Efficiency <sup>(6)</sup>
AEJ160PS12	12.0V	12.5A	±5%	91%
AEJ160PS24	24.0V	6.66A		92%
AEJ160PS28	28.0V	5.70A		92%
AEJ160PS30	30.0V	5.31A		92%
AEJ160PS36	36.0V	4.44A		92%
AEJ160PS48	48.0V	3.33A		93%
AEJ160PS56	56.0V	2.85A		93%

### Notes:

1. All dimensions shown in inches (mm).
2. Weight: 1.27lbs (575g) approx.
3. Tolerance is ±0.02 (±0.5) maximum, except output cable length which is ±2" (±50mm)
4. Output connector is power mini DIN and mates with KYCON KPJX-4S or equivalent.
5. Optional output connector is barrel jack with 5.5mm dia. outer barrel, inner dia. is 2.5mm with a center + and outer shell - polarity. Add suffix '-B' e.g., AEJ160PS24-B.
6. Typical at 230VAC and 75% load.

### Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	90		264	VAC	
Input Frequency	47		63	Hz	
Power Factor		0.95			230VAC, 100% load EN61000-3-2 class A
Input Current		2.0		A	100VAC
Inrush Current			120	A	230VAC cold start, 25°C
Earth Leakage Current			250	µA	264VAC, 60Hz
No load Input Power			0.15	W	
Input Protection	T3.15A/250V Internal fuse fitted in line and neutral.				

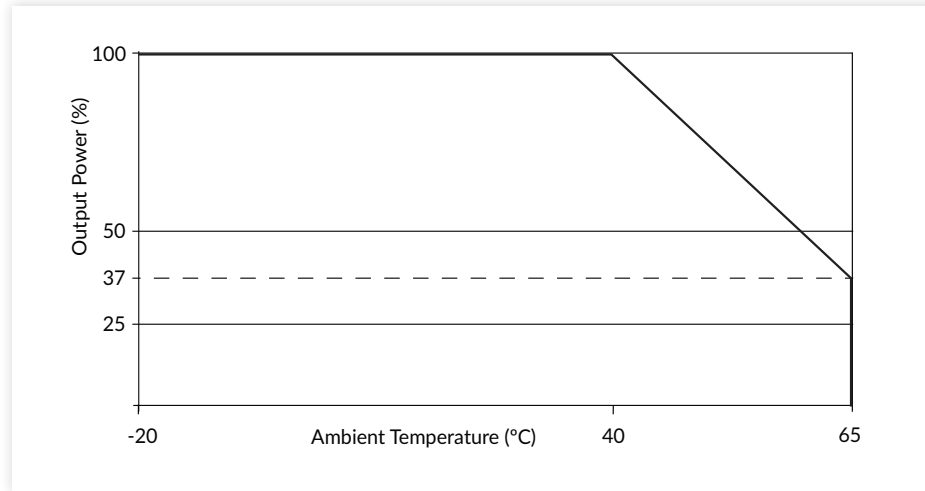
### Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	12		56	VDC	See Models and Ratings table
Initial Set Accuracy			±2	%	60% load
Minimum Load	No minimum load required				
Start Up Delay			3	s	
Start Up Rise Time			30	ms	
Hold Up Time	15	25		ms	Full load and 115VAC
Line Regulation			±1	%	
Load Regulation			±4	%	
Transient Response			5	%	Maximum deviation, recovering to less than 1% within 500µs for 25% step load
Over/Undershoot			5	%	At turn on / turn off
Ripple & Noise			1	%	Measured with 20MHz Bandwidth and 10µF electrolytic in parallel with 0.1µF ceramic capacitor.
Overvoltage Protection	106		140	%	Latching, recycle AC to recover
Overload Protection	110		150	%	
Temperature Coefficient			0.05	%/°C	
Short Circuit Protection	Trip and restart (hiccup), auto resetting				

### Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-20		+65	°C	Derate linearly from 100% load at 40°C to 37% load at 65°C
Storage Temperature	-40		+85	°C	
Cooling	Natural convection				
Operating Altitude			5000	m	
Vibration	IEC68-2-6, 10-500Hz, 2g 10 mins/sweep, 60 mins for each of 3 axes				
Shock	IEC68-2-27, 30g, 11ms half sine, 3 times in each of 6 axes				

**Derating Curve**



**General**

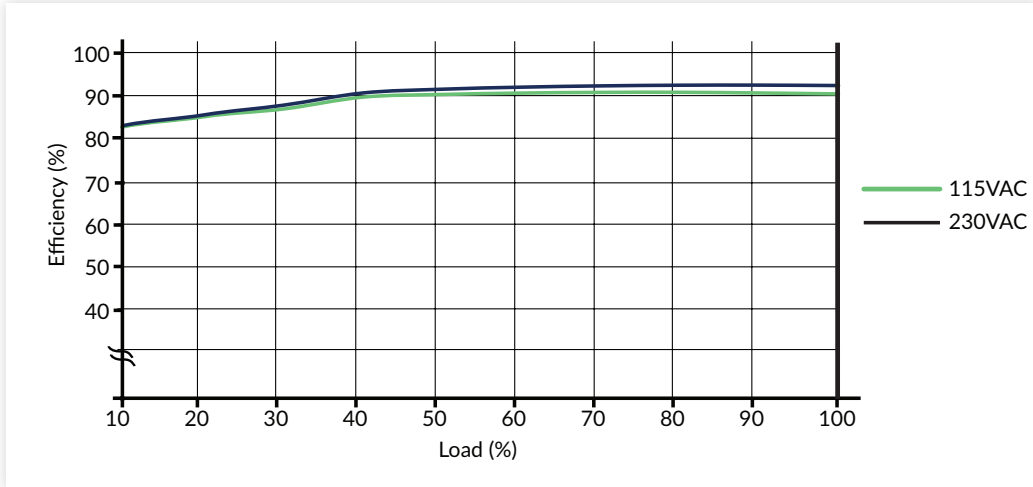
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		92		%	See Models and Ratings table
Isolation: Input to Output	3000			VAC	
Input to Ground	1500			VAC	
Output to Ground	Negative output is connected to ground				
Switching Frequency	75		120	kHz	For PFC
	110		135	kHz	Main converter
Power Density			6.5	W/in <sup>3</sup>	
Mean Time Between Failure		300		khrs	24V version, MIL-HDBK-217F, 25°C GB, 115VAC
Weight		1.27 (575)		lb(g)	

**EMC: Emissions**

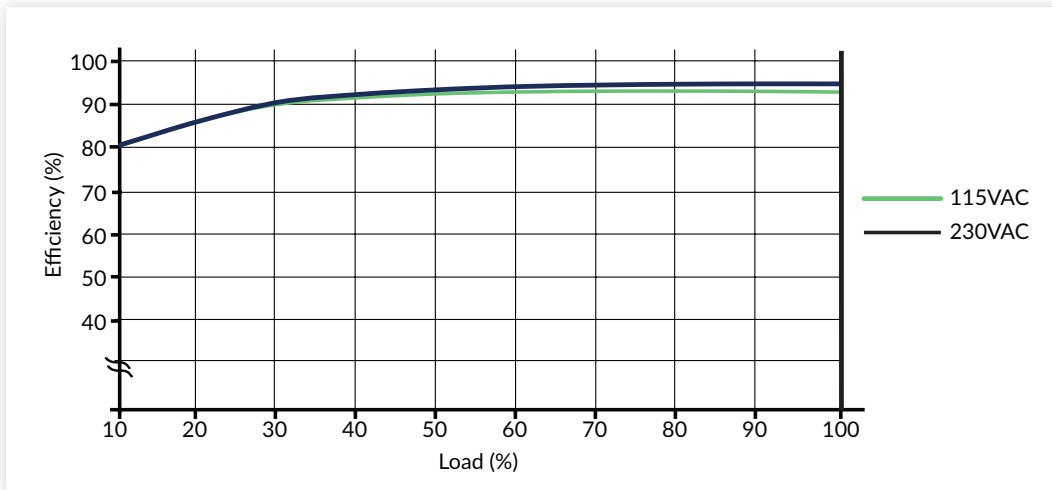
Phenomenon	Standard	Test Level	Notes & Conditions
Emissions	EN55032	Level B	Conducted & Radiated
Harmonic Currents	EN61000-3-2	Class A	
Voltage Flicker	EN61000-3-3		

Efficiency Curves

AEJ160PS12



AEJ160PS24



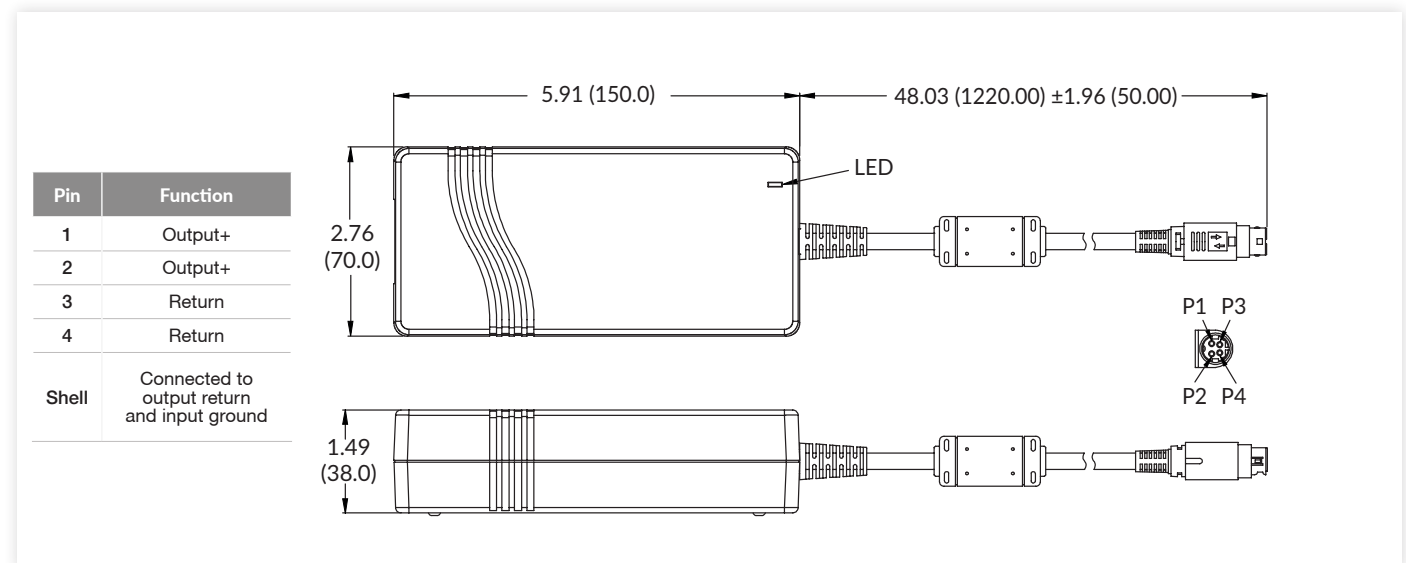
EMC: Immunity

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

Safety Approvals

Certification	Standard	Notes & Conditions
CB Report	IEC62368-1	
UL	UL62368-1	
EN	EN62368-1	
AU/NZ	AU/NZ 62368-1	
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Mechanical Details



Notes:

1. All dimensions shown in inches (mm).
2. Weight: 1.27lbs (575g) approx.
3. Tolerance is ±0.02 (±0.5) maximum, except output cable length which is ±2" (±50mm)
4. Output lead is 950mm for 12V version, 1220mm for other models.
5. Standard output connector is power mini DIN and mates with KYCON KPJX-4S or equivalent.
6. Optional output connector is 5.5mm dia. outer barrel, inner dia. is 2.5mm with a center + and outer shell - polarity. Add suffix -B, eg AEJ160PS24-B.

01 November 2022