AKM36 series

XP Power

36W External desktop

AC-DC power supplies

The AKM36 series of desktop adaptors comply with the latest energy efficiency level VI standards with high active mode efficiency and extremely low no load power consumption.

Available with a standard jack plug connector these adaptors suit a wide variety of cost sensitive industrial electronics and medical (2 x MOPP) applications while maintaining industry leading performance.



Features

- Regulated single outputs 9V to 36VDC
- Energy efficiency level VI
- European CoC tier 2
- Medical & ITE approvals
- Class II
- Optional white versions
- 3 year warranty

Applications

Analytical instrumentation

Healthcare

Home healthcare

Medical diagnostic

Process control

Dimensions

108.0 x 50.0 x 33.8 mm (4.25" x 1.97" x 1.33")

Documentation

For further information click the link or scan the code

→ xppower.com

Models & ratings

Model number[3]	Output power	Output voltage	Output current	Total regulation[1]	Efficiency[2]
AKM36US09C2	36W	9.0V	4.0A	5%	88.9%
AKM36US12C2		12.0V	3.0A		89.3%
AKM36US15C2		15.0V	2.4A		88.4%
AKM36US18C2		18.0V	2.0A		89.5%
AKM36US24C2		24.0V	1.5A		89.4%
AKM36US30C2		30.0V	1.2A		89.9%
AKM36US36C2		36.0V	1.0A		89.2%

Notes:

1. Total regulation includes initial set accuracy, line and load regulation.
2. Typical average value measured at 25%, 50%, 75% and 100% at 230VAC.
3. For white case version add suffix '-W' e.g. AKM36US12C2-W. MOQ applies, contact sales for details.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage	90		264	VAC	
Input frequency	47		63	Hz	
Input current			1.0	A	90VAC
Inrush current			70	A	230VAC cold start +25°C
Power factor					EN61000-3-2 Class A
No load input power			75	mW	
Input protection	Internal fuse in line				

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage	9		36	VDC	See models and ratings table
Minimum load	No minimum load required				
Start up delay			4	s	
Start up rise time		30		ms	
Hold up time	10			ms	Full load and 100VAC
Total regulation			5	%	See models and ratings table
Transient response			4	% deviation	Recovery within <1% within 500µs for a 60% step load change at 0.15A/µs
Ripple & noise			200	mV pk-pk	Measured with 20MHz bandwidth and 10µF electrolytic in parallel with 0.1µF ceramic capacitor
Short circuit protection	Continuous, trip and restart (hiccup mode) with auto recovery				
Temperature coefficient			0.05	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency		89.5		%	Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 115 VAC input
Energy efficiency	Level VI				
Isolation	4000			VAC	Input to output, 2 x MOPP
Leakage current			50	µA	264VAC, 60Hz
Switching frequency	24		70	kHz	Variable
Mean time between failure	200			khrs	MIL-HDBK-217F, at +25°C GB.
Weight		240 (0.53)		g (lb)	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	0		+40	°C	
Storage temperature	-20		+70	°C	
Cooling	Natural convection				
Operating humidity	5		90	%RH	Non-condensing
Operating altitude			5000	m	
Shock	1m drop onto concrete on each of 6 axes, non operating				
Vibration	10		300	Hz	2g, 0.3 decades/min, 15 mins for each of 3 axes

EMC: emissions

Phenomenon	Standard	Test level	Notes & conditions
Conducted	EN55032	Class B	
Radiated	EN55032	Class B	
Harmonic currents	EN61000-3-2	Class A	
Voltage flicker	EN61000-3-3		

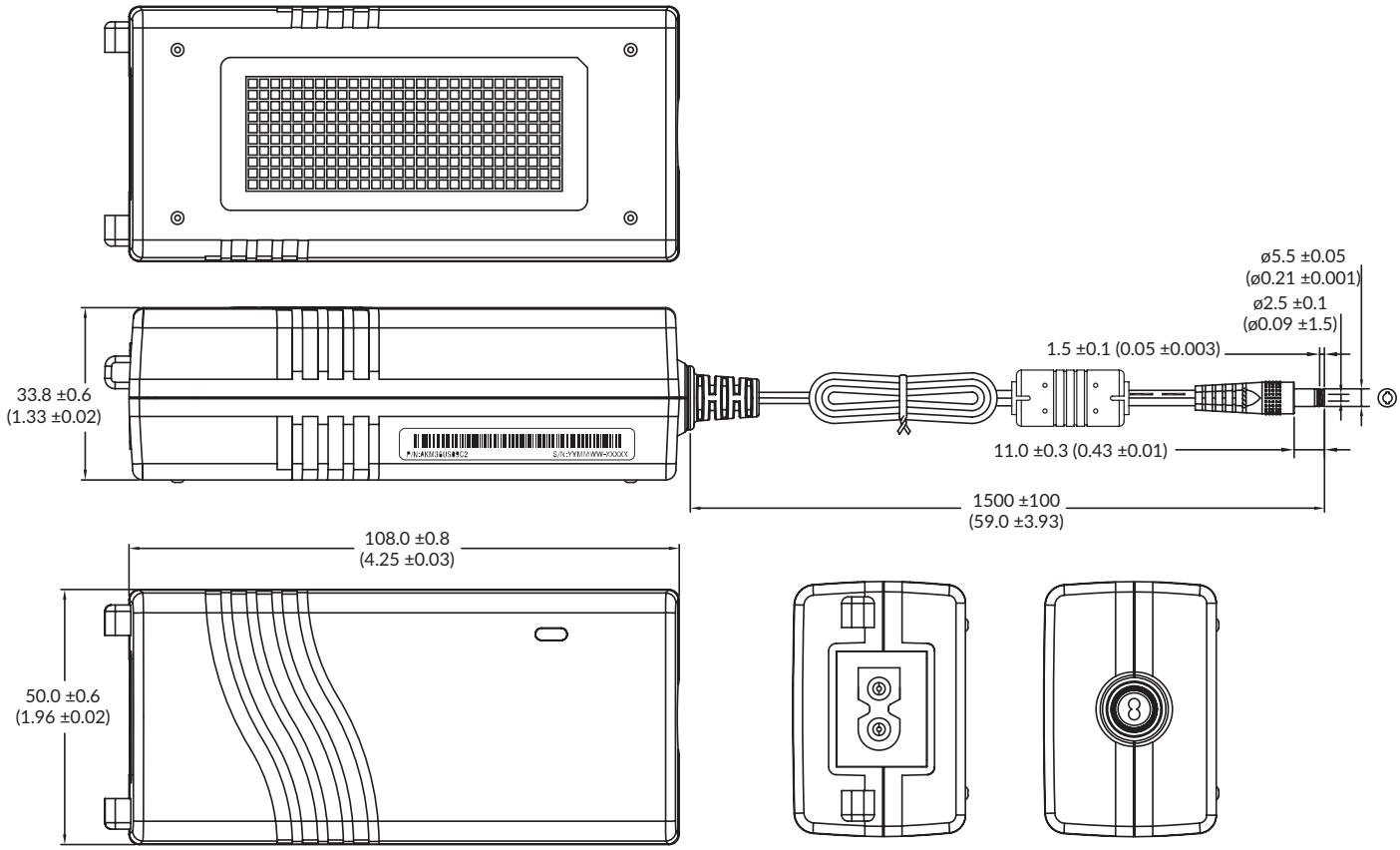
EMC: immunity

Phenomenon	Standard	Test level	Criteria	Notes & conditions
Medical device EMC	IEC60601-1-2	Ed.4.0 : 2014	as below	
Low voltage PSU EMC	EN61204-3	High severity level	as below	
ESD immunity	EN61000-4-2	±8kV contact, ±15kV air	A	
Radiated immunity	EN61000-4-3	10V/m	A	
EFT/burst	EN61000-4-4	Level 3	A	
Surge	EN61000-4-5	Level 2	A	
Conducted immunity	EN61000-4-6	6V	A	
Magnetic fields	EN61000-4-8	30A/m	A	
Dips and interruptions	EN61000-4-11	Int: 100% 10ms	A	
		Dip: 30% 500ms	A/B	High Line/Low Line
		Int: 100% 5000ms	B	
	EN60601-1-2	Dip: 30% 25AC cycles	A/B	High Line/Low Line
		Int: 100% 0.5 AC cycle	A	At 8 angles
		Int: 100% 1 AC cycle	A/B	High Line/Low Line
		Int.: >95% 5000ms	B	

Safety approvals

Certification	Safety Standard	Notes & Conditions
UL	UL62368-1, CAN/CSA C22.2 No. 62368-1-14	Information Technology
	ANSI/AAMI ES 60601-1	Medical, 2 x MOPP
TUV	EN62368-1:2014/A11:2017	Information Technology
	EN60601-1	Medical, 2 x MOPP
CB	IEC60950-1:2005 Ed 2 / IEC62368-1:2014	Information Technology
	IEC60601-1	Medical, 2 x MOPP
CSA	CSA C22.2 No. 60601	Medical, 2 x MOPP
AU/NZ	AU/NZ 60950.1	
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Mechanical details



Notes:

1. Dimensions in mm (inches)
2. Weight: 240g (0.53lbs)
3. Output plug: ø5.5 x ø2.5 x 11.0mm, centre positive
4. The standard IEC320-C7 cable fits the polarised IEC320-C8 (C8P) connector