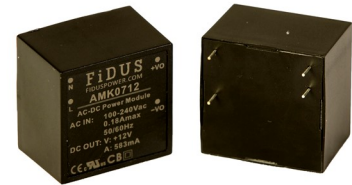


# AMK07 Series

## 7 Watts

- Ultra compact 7W in 1.08 x 1.08 footprint
- Encapsulated PCB mount
- 90-264VAC Universal input
- Single output 5 to 24V
- -40 to +70°C Operation
- <0.1W No load input power
- 5 Year warranty



The AMK07 series of ultra compact, encapsulated AC-DC power modules are PCB mount and have low emissions, meeting EN55022 level B for both conducted and radiated noise. They provide 7W of power and have a wide temperature range from -40 to +70°C. The series offers low no-load power consumption of <0.1W and outputs are available from 5 to 24V. High volumes are held in stock for the popular models and all models have a FiDUS 5 Year warranty.

**Dimensions:**

1.08 x 1.08 x 0.74" (27.4 x 27.4 x 18.7mm)

### Models & Ratings

Model Number	Output Power	Output voltage	Output Current	Efficiency
AMK0705 <sup>(1)</sup>	6.3W	5V	1.26A	77%
AMK0712 <sup>(1)</sup>	7W	12V	0.58A	80%
AMK0715	7W	15V	0.46A	80%
AMK0724	7W	24V	0.29A	80%

### Notes

1. High stock items

### Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	90		264	VAC	No derating
Operating temperature	-40		70	°C	5V model derates linearly from 100% power at 47°C to 40% power at 70°C. 60% power max at -40°C, full power from -25°C. All other models derate linearly from 100% power at 50°C to 50% power at 70°C. 60% power max at -40°C, full power from -25°C. See derating curve.
Efficiency	70		80	%	
Dimensions	1.08 x 1.08 x 0.74" (27.4 x 27.4 x 18.7mm)				
EMC	EN55022 Level B Conducted and Radiated. EN61000-4, Surge, EFT, ESD, conducted and radiated,				
Safety	UL60950-1, CSA22.2 No 234 as per cUL, IEC/EN60950 CE				

### Input

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		264	VAC	No derating
	120		370	VDC	DC fuse required, DC+ to N, DC- to L
Input frequency		50/60		Hz	
Input current		180/110		mA rms	At 115VAC/230VAC
Inrush current		20/40		A	115/230VAC cold start at 25°C
No load input power			0.1	W	
Input protection	2A Slow blow fuse required				

## Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	5		24	VDC	See Model & Ratings table
Set point accuracy			±2	%	
Line regulation			±0.5	%	Low line to High line
Load regulation			±1	%	10 to 100%
Minimum load	0			%	
Transient response			1	%	For a 25% load change, recovery to within 1% in less than 500µs.
Ripple & Noise		200		mV pk-pk	24V model
		100/150		mV pk-pk	Ripple / Noise for all other models. All models measured with 0.1µF ceramic and 47µF electrolytic. 20 MHz bandwidth.
Hold up time		30		mS	Min. at 230VAC. Full load
Overload protection	138%		189%		Hiccup Auto-recovery
Short circuit protection					Trip & restart. Automatic recovery (hiccup)

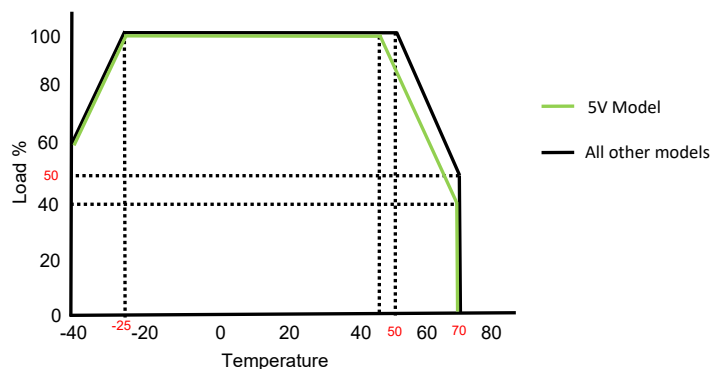
## General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Isolation	3000			VAC	Input to output
Power density			8.1	W/in <sup>3</sup>	
MTBF		>500		KHrs	As per MIL-HDBK-217F, 25°C GB
Weight		26		g	

## Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	-40		70	°C	5V model derates linearly from 100% power at 47°C to 40% power at 70°C. 60% power at -40°C, full power from -25°C. All other models derate linearly from 100% power at 50°C to 50% power at 70°C. 60% power max at -40°C, full power from -25°C. See derating curve.
Storage temperature	-40		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.02	%/°C	
Humidity			95	% RH	

Derating curve



## EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55022	B		
Radiated	EN55022	B		
Voltage flicker	EN61000-3-3			

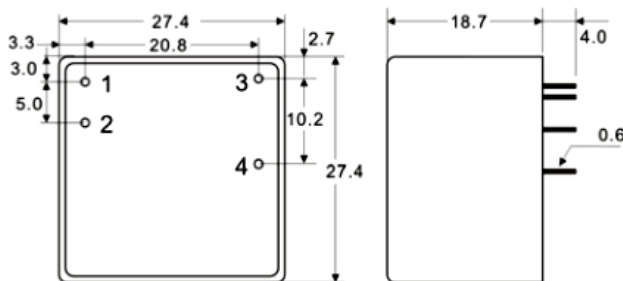
## EMC: Immunity

	Standard	Test level	Criteria	Notes & Conditions
ESD	EN61000-4-2	±2kV contact, ±3kV air	A	
Radiated	EN61000-4-3	2	A	
EFT	EN61000-4-4	2	A	
Surges	EN61000-4-5	Installation Class 3	B	
Conducted	EN61000-4-6	2Vrms	A	
Magnetic Fields	EN61000-4-8	1A/m	A	50/60Hz

## Safety Approvals

	Safety standard	Notes & Conditions
UL/cUL	UL60950-1, CSA 22.2 No 234 as per cUL	
CE		2011/85/EU RoHS Directive and 2014/35/EU Low voltage directive
CB/TUV	IEC/EN60950 A2 2013	
Equipment protection class		Class II

## Mechanical Details



Pin Connections	
Pin	Function
1	AC IN (N) / DC +
2	AC IN (L) / DC -
3	+DC OUT
4	-DC OUT

### Dimension notes

- All dimensions shown in millimetres
- Pin diameter  $0.5 \pm 0.05$  ( $0.02 \pm 0.002$ )
- Case tolerance  $\pm 0.5$  ( $\pm 0.002$ )