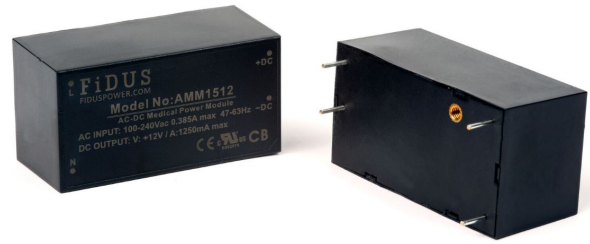


## 15 Watts

- Ultra compact size (2.07 x 1.08 x 0.93")
- IT & Medical safety approvals
- Single output 5 to 24V
- Encapsulated PCB mount
- EN55011 Level B conducted and radiated
- <0.1W No load input power
- 5 year warranty



Medical

Dimensions:

2.07 x 1.08 x 0.93" (52.5 x 27.5 x 23.5mm)

The AMM15 series of compact, encapsulated AC-DC modules are PCB mount and have low emissions, meeting EN55011 level B for both conducted and radiated noise. They are approved for IT and medical applications and operate across a wide temperature range (-40 to +80°C). Units offer low no load power consumption of <0.1W, are available with 5 to 24V outputs and come with FIDUS 5 year warranty.

### Models & Ratings

Model Number	Output Power	Output voltage	Output Current	Efficiency
AMM1505	15W	5V	3A	80%
AMM1509	15W	9V	1.67A	82%
AMM1512 <sup>(1)</sup>	15W	12V	1.25A	87%
AMM1515	15W	15V	1A	86%
AMM1524 <sup>(1)</sup>	15W	24V	0.63A	87%

### Notes

1. High stock items

### Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	90		264	VAC	
Operating temperature	-40		80	°C	Derate linearly from 100% power at 55°C (50°C under 115VAC) to 30% load at 80°C. 80% load max at -40°C. Full power from -30°C
Efficiency	80		87	%	
Dimensions	2.07 x 1.08 x 0.93" (52.5 x 27.5 x 23.5mm)				
EMC	EN55011 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated,				
Safety	IEC60601-1 3.1, ES60601-1, CAN/CSA-C22.2 No. 60601-1, IEC60950-1, UL60950-1, CSA C22.2 no. 60950-1 as per cUL, CE				

### Input

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		264	VAC	No derating
	120		370	VDC	DC fuse required
Input frequency	47		440	Hz	
Power factor					EN61000-3-2 class A compliant
Input current			385	mA rms	At 115VAC
Inrush current		20/40		A	115/230VAC cold start at 25°C
No load input power			0.1	W	
Earth leakage current					Class II construction, no earth
Input protection	3.15A 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	%	5 to 100%
Transient response			4	%	For a 25% load change, recovery to within 1% in less than 500uS.
Ripple & Noise			120	mV pk-pk	5 and 9V models.
			±1%	mV pk-pk	All other models. All models measured with 0.1uF ceramic and 47uF electrolytic. 20 MHz bandwidth.
Hold up time	15		56	mS	Min. at 115VAC and Max at 230VAC. Full load
Overload protection	123		188	%	
Short circuit protection					Trip & restart. Automatic recovery
Overvoltage protection	114		141	%	

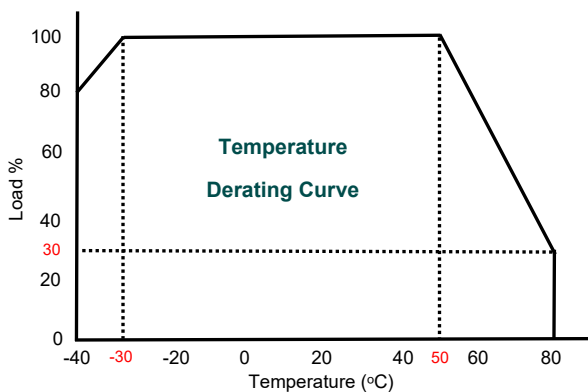
## General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	80		87	%	See Model & Ratings table
Isolation	4000			VAC	Input to output
Switching frequency	66		132	KHz	
Power density			7.2	W/In <sup>3</sup>	
MTBF		>350		KHrs	As per MIL-HDBK-217F, 25°C GB
Weight		59		g	

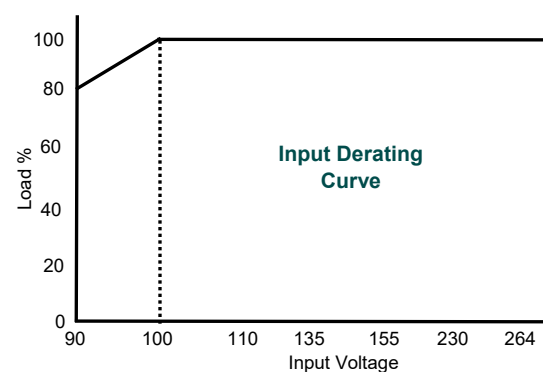
## Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	-40		80	°C	Derate linearly from 100% load at 55°C (at 50°C under 115VAC) to 30% load at 80°C. 80% load max at -40°C.
Storage temperature	-40		90	°C	
Cooling					Convection cooled
Temperature coefficient			±0.05	%/°C	
Humidity			95	% RH	Non-condensing

Derating curve



Derating curve



## EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55011	B		
Radiated	EN55011	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

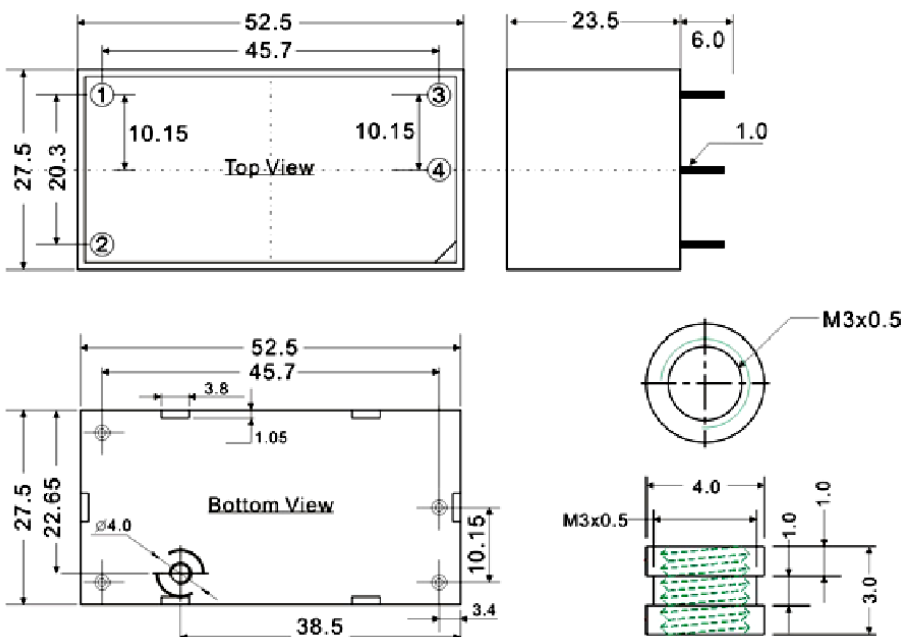
## EMC: Immunity

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

## Safety Approvals

	Safety standard	Notes & Conditions
UL	UL60950-1, CAN/CSA C22.2 No. 60950-1-07 ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1(2008)	
CB	IEC60950-1:2005 (2nd Ed) A2:2013 IEC60601-1:2005 (3.1) + A12 2014	
CE		2011/65/EU RoHS Directive and 2014/35/EU Low voltage directive
Means of protection	Input to Output: 2 x MOPP	
Equipment protection class		Class II

## Mechanical Details



Pin Connections	
Pin	Function
1	AC IN (L)
2	AC IN (N)
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  $\pm 0.5$  ( $\pm 0.002$ )