

# AMM150 Series

## 150 Watts

- IT & Medical safety approvals
- 4000VAC 2x MOPP
- Active PFC
- EN55011 Class B conducted and radiated
- Encapsulated PCB mount
- Suitable for BF (body floating) applications



The AMM150 encapsulated AC/DC series is designed for use in both IT and medical applications. The units are PCB mount and have low emissions, meeting EN55011 level B for both conducted and radiated noise. They are suitable for BF applications with 2xMOPP, have a low no load power of <0.5W and use active power factor correction. All units come with a FiDUS 3 year warranty.

Dimensions:

4.3 x 2.3 x 1.38" (109.0 x 58.5 x 35.0mm)

## Models & Ratings

Model Number	Output Power	Output voltage	Output Current	Efficiency	Capacitive load
AMM15012	150W	12V	12.5A	93%	6000uF
AMM15024	150W	24V	6.25A	93.5%	2000uF
AMM15048	150W	48V	3.125A	93.5%	330uF

## Notes

1. All specifications at 230VAC, full load at 25°C unless specifically stated
2. Panel mount / DIN rail screw terminal version on request

## Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	90		264	VAC	Full power to 115VAC derating to 80% at 90VAC
Operating temperature	-30		70	°C	Derate linearly from 100% load at 50°C to 50% load at 70°C. 80% load max at -30°C, full power to -20°C
Efficiency	92.5		93.5	%	
Dimensions	4.3 x 2.3 x 1.38" (109.0 x 58.5 x 35.0mm)				
EMC	EN55011 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated, EN60601-1-2 immunity.				
Safety	IEC60601-1 3.1, ES60601-1, CAN/CSA-C22.2 No. 60601-1, UL62368-1, IEC60950, CE				

## Input

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		264	VAC	Full power to 100VAC derating to 80% at 90VAC
Input frequency	47		63	Hz	
Power factor	0.9				EN61000-3-2 class A compliant
Input current	1.25		2.5	A rms	2.5A At 115VAC, 1.25A at 230VAC
Inrush current	45		90	A	115/230VAC cold start at 25°C
No load input power			0.5	W	
Touch current			0.1	mA	264VAC

## Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	12	24	48	VDC	See Model & Ratings table
Set point accuracy			±2	%	
Line regulation			±1	%	Low line to High line
Load regulation			±1	%	0 to 100%
Minimum load	0			%	
Ripple & Noise			1	% pk-pk	
Hold up time	10			mS	115VAC
Overload protection					Trip & restart.
Short circuit protection					Trip & restart. High current latch
Overvoltage protection					Trip & restart.
Over temperature protection					Trip & restart.

## Safety Approvals

	Safety standard	Notes & Conditions
UL	ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10), CAN/CSA-C22.2 No. 60601-1(2008) UL/CAN/CSA 62368-1	
CB	IEC 60950-1:2005 (2nd Edition) A2:2013 IEC 60601-1 3.1 A12 2014	
CE		2011/65/EU RoHS Directive and 2014/35/EU Low voltage directive

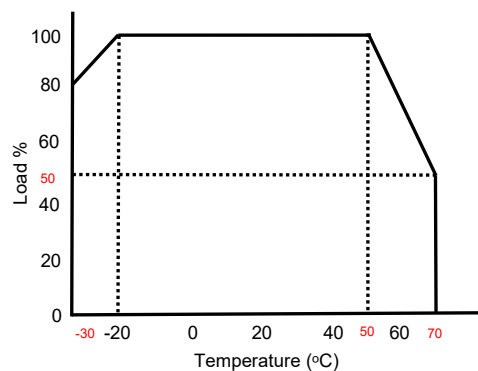
## General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	92.5	93	93.5	%	See Model & Ratings table
Isolation	4000			VAC	Input to output. 2XMOPP
	2000			VAC	Input to FE
	1500			VAC	Output to FE
Power density			11	W/In <sup>3</sup>	
MTBF	250			KHrs	At 25°C
Weight		365		g	

## Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	-30		70	°C	See derating curve below
Storage temperature	-30		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.05	%/°C	
Humidity			95	% RH	Non-condensing
Altitude			5000	m	
Shock and vibration	IEC60068-2-27, IEC60068-2-6 (10-500hz, 2G10min / cycle, 60min each axis)				

Derating curve



## EMC

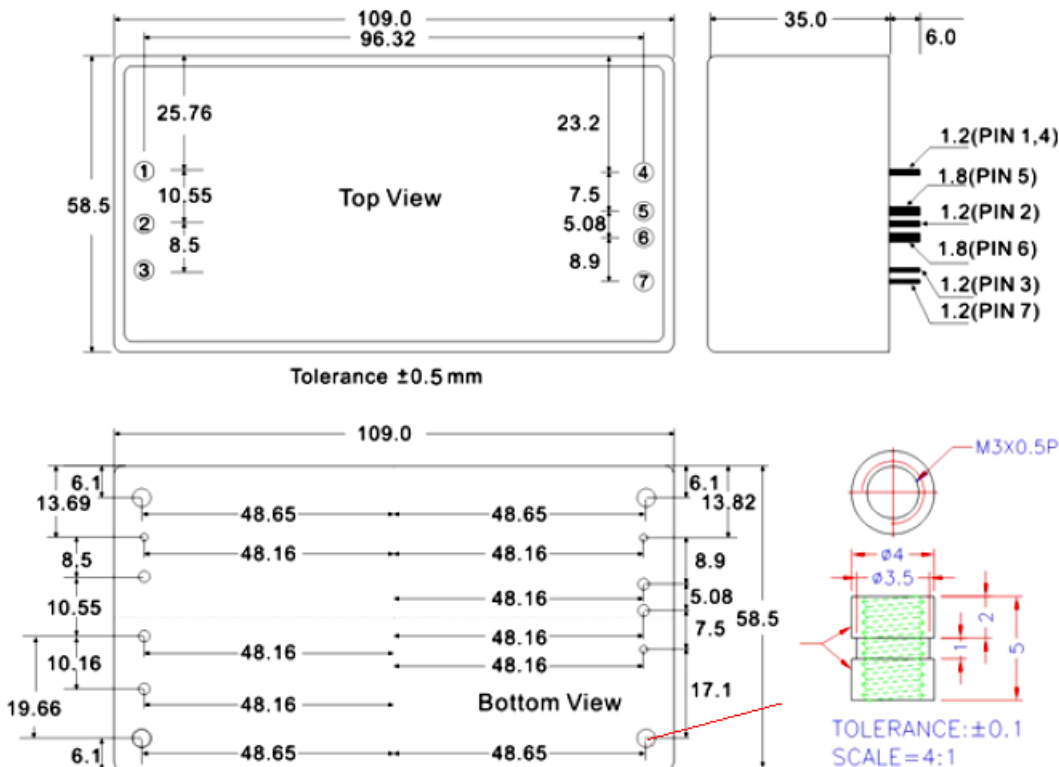
	Standard	Test level	Criteria	Notes & Conditions
Conducted Emissions	EN55011	B		
Radiated Emissions	EN55011	B		With functional earth connected
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			
EMC immunity	EN60601-1-2 4th edition			

## Trim

The output voltage can be trimmed by adding resistance between the trim pin and the -Vout pin for trim up and +Vout pin for trim down

	12V	24V	48V
Trim Up	+5% - 0% 34kΩ - 10MΩ	+5% - 0% 37.4kΩ - 10MΩ	+5% - 0% 38kΩ - 10MΩ
Trim Down	0% - -5% 10MΩ - 106kΩ	0% - -5% 10MΩ - 270kΩ	0% - -5% 10MΩ - 640kΩ

## Mechanical Details



### Dimension notes

- All dimensions shown in millimetres
- Pin diameter 5&6 1.8  $\pm 0.1\%$ mm others 1.2  $\pm 0.1\%$ mm