AMFW48-NZ

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Encapsulated

Aimtec's EMC filter modules are extremely useful in reducing noise in sensitive analog circuit applications. Filters connected on the input of DC-DC converters can ensure system compliance with EMC requirements according to IEC/EN61000-4 and CISPR32/EN55032 standards.

Aimtec's DC-DC converter modules can be paired with the new generation of Aimtec's EMC filters to achieve the required compliance. The Aimtec EMC line can currently offers solutions up to 100W output power.

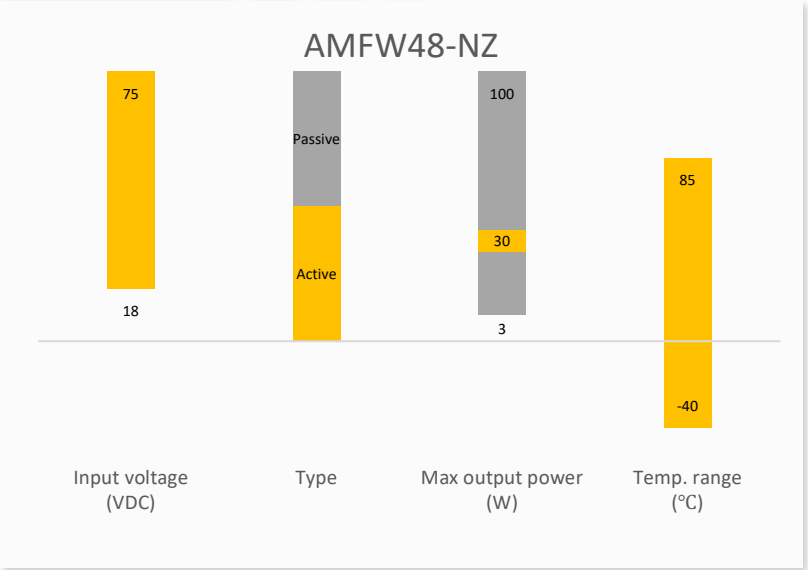
Features

- Wide Input: 18 - 75VDC
- Operating Temp: -40 °C to +85 °C
- High Isolation Voltage: 500VAC
- Input Reverse Voltage Protection
- Build-in Soft-Start Function

RoHS

3yr Warranty

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

Applications

Power Grid

Industrial

Telecom

Instrumentation

Models & Specifications

Models		
Model	Input Voltage (VDC)	Max Output Power (W)
AMFW48-0.625NZ	18 - 75	30
Note: Use suffix "ST" for chassis and suffix "STD" for DIN-Rail mounting (ex. AMFW48-0.625NZ-ST is chassis mounting and AMFW48-0.625NZ-STD is DIN-Rail mounting version).		

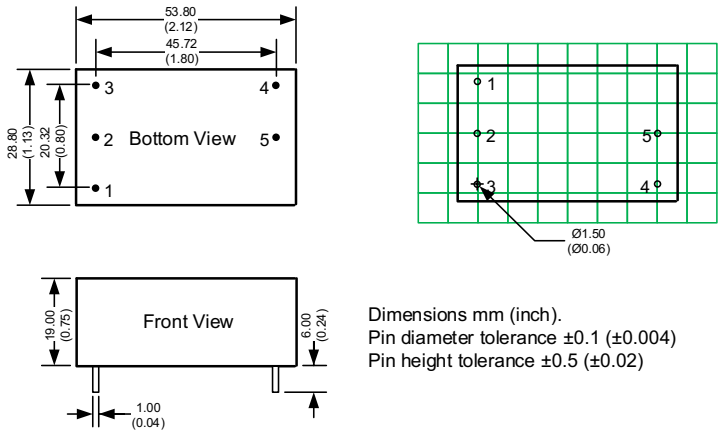
Input Specifications				
Parameters	Tested Conditions	Typical	Maximum	Units
Input Voltage		48	75	VDC
No-load Current	48VDC		10	mA

Output Specifications				
Parameters	Tested Conditions	Typical	Maximum	Units
Max Output Voltage Limit	Input voltage is not more than 100V	82		VDC
NOTE: Continuous operation of the filters at their Max. Output voltage Limit may cause failures or permanent damage.				

General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Efficiency	48VDC / 30W	98		%
Operating temperature	-40 to +85			°C
Storage temperature	-55 to +125			°C
Case temperature rise	48VDC / 30W		+40	°C
Isolation Voltage (+Vin / GND ; -Vin / GND)	1 min, < 5mA leakage current		500	VAC
Storage Humidity			95	%RH
Case material	Heat resistant black Plastic (flammability to UL 94V-0)			
Weight	PCB mountable models With optional -ST mounting plate With optional -STD mounting plate	50 70 90		g
Dimensions (L x W x H)	PCB mountable models With optional -ST mounting plate With optional -STD mounting plate	2.12 x 1.13 x 0.75 inches (53.80 x 28.80 x 19.00mm) 2.99 x 1.24 x 1.09 inches (76.00 x 31.50 x 27.80mm) 2.99 x 1.24 x 1.28 inches (76.00 x 31.50 x 32.40mm)		
MTBF	>1,000,000 hrs (MIL-HDBK -217F, t=+40°C)			
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.				

Safety Specifications		
Parameters		
Standards	EMC - Conducted and radiated emission	CISPR32 / EN55032, class B
	Electrostatic Discharge Immunity	IEC 61000-4-2 Contact ±6KV / Air ±8KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 ±4KV, Criteria B
	Surge Immunity	IEC 61000-4-5 ±2KV(2Ω internal) / ±4KV(12Ω internal), Criteria B
	RF, Conducted Disturbance Immunity	IEC 61000-4-6 10Vr.m.s, Criteria A

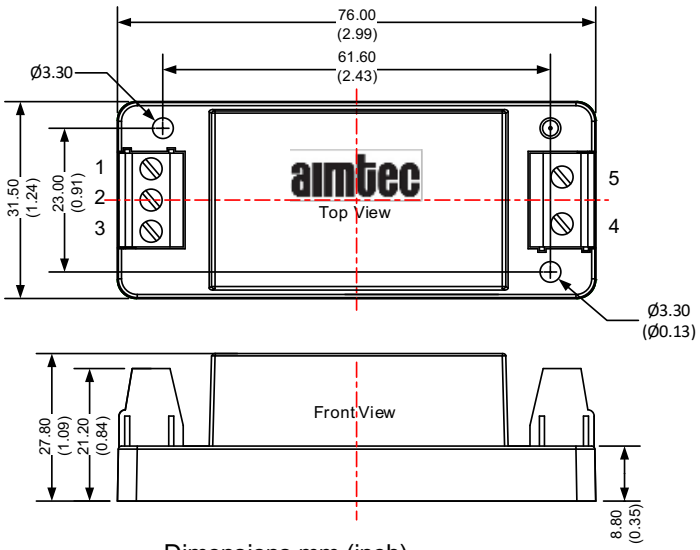
Dimensions



Dimensions mm (inch).
Pin diameter tolerance ±0.1 (±0.004)
Pin height tolerance ±0.5 (±0.02)

Pin Output Specifications	
Pin	Single
1	GND
2	-V Input
3	+V Input
4	+V Output
5	-V Output

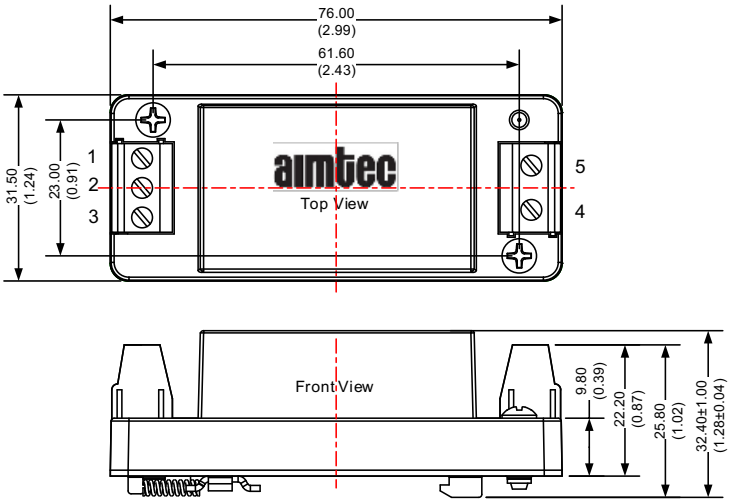
Dimensions with ST Optional



Dimensions mm (inch)
Wire range: 24-12 AWG
General tolerances ±0.50 (±0.02)

Pin Output Specifications	
Pin	Single
1	GND
2	-V Input
3	+V Input
4	+V Output
5	-V Output

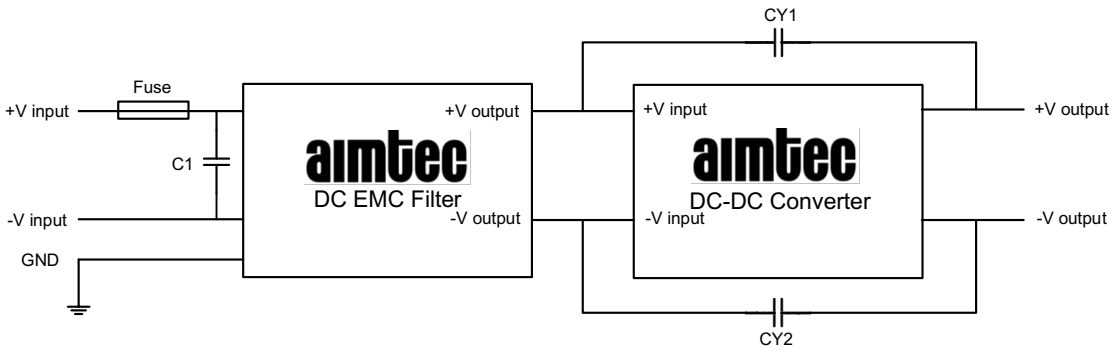
Dimensions with STD Optional



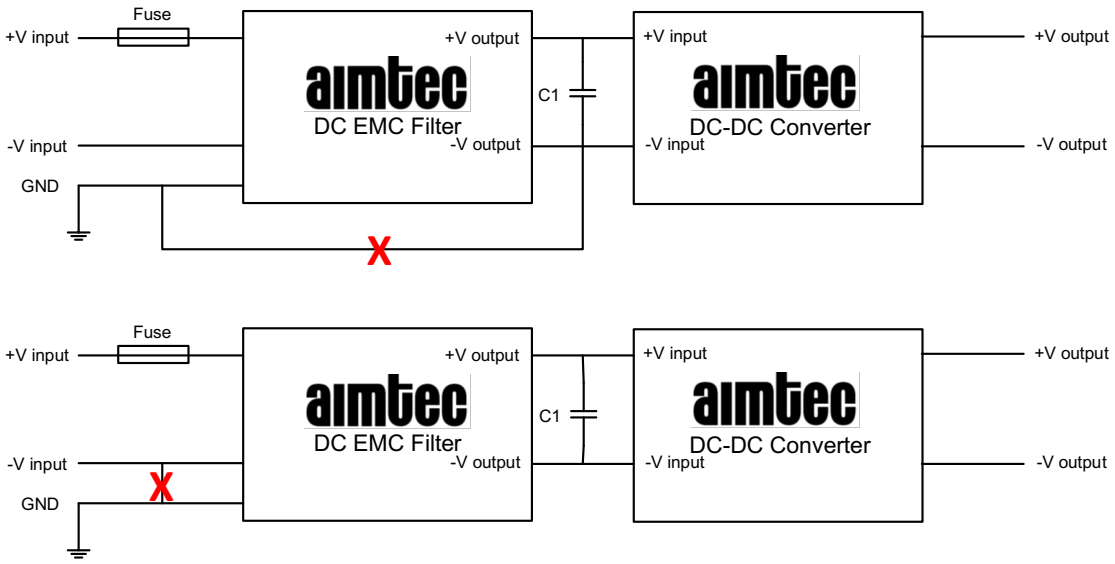
Pin Output Specifications	
Pin	Single
1	GND
2	-V Input
3	+V Input
4	+V Output
5	-V Output

Dimensions mm (inch)
Wire range: 24-12 AWG
General tolerances: ±0.50 (±0.02)

Application Circuit



Model	Recommended external circuit parameters
C1	400uF/200V electrolytic capacitor
CY1 / CY2	1nF/2000V
Fuse	The fuse value varies with different power modules and must be selected in accordance with the specified input current of the corresponding power converter, but not exceeding the filter specifications.



Note: Connections marked with X interfere with this filter modules performance and should therefore not be used