

Series AM3T-NZ

3 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Shielded metal package
- High efficiency up to 83%
- Wide 2:1 input range
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1500VDC
- Pin compatible with multiple manufacturers
- Continuous short circuit protection



Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM3T-0505S-NZ	4.5-9	5	600	1500	68
AM3T-0512S-NZ	4.5-9	12	250	1500	72
AM3T-0515S-NZ	4.5-9	15	200	1500	73

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM3T-0505D-NZ	4.5-9	±5	±300	1500	68
AM3T-0512D-NZ	4.5-9	±12	±125	1500	72
AM3T-0515D-NZ	4.5-9	±15	±100	1500	73

NOTE: All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-9		VDC
Filter	π (Pi) Network			

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec	1500		VDC
Resistance		> 1000		MOhm
Capacitance		100		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance		±3p and ±5 n.		%
Short Circuit protection	Continuous			
Short circuit restart	Auto-recovery			
Line voltage regulation (Single)		±0.2		%
Line voltage regulation (Dual)		±0.5		%
Load voltage regulation (Single)		±0.5		%
Load voltage regulation (Dual)		±1		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	20MHz bandwidth	80		mV p-p

General Specifications

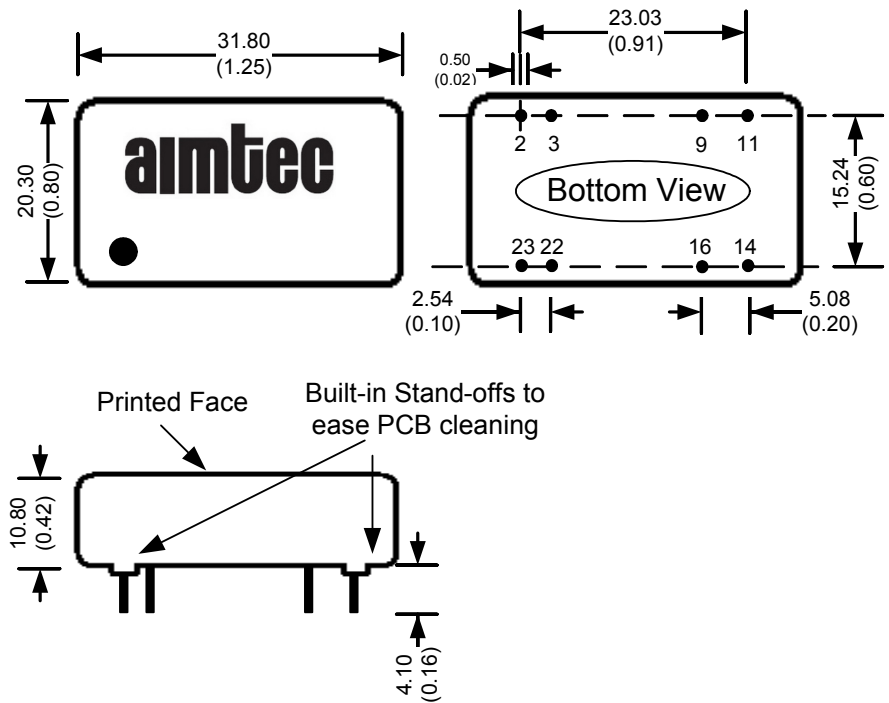
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	With derating above +71°C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Max Case temperature			100	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Black Anodized Aluminum			
Weight		15		g
Dimensions (L x W x H)	1.25 x 0.80 x 0.42 inches 31.80 x 20.30 x 10.80 mm			
MTBF	>1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

Pin Out Specifications

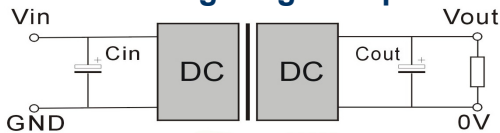
Pin	1500VDC	
	Single	Dual
1	No pin	No pin
2	-V Input	-V Input
3	-V Input	-V Input
9	No pin	Common
10	No pin	No pin
11	N.C.	-V Output
12/13	No pin	No pin
14	+V Output	+V Output
15	No pin	No pin
16	-V Output	Common
22	V+ Input	+V Input
23	V+ Input	+V Input
24	No pin	No pin

N.C.: not connected

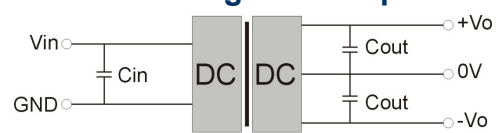
Dimensions



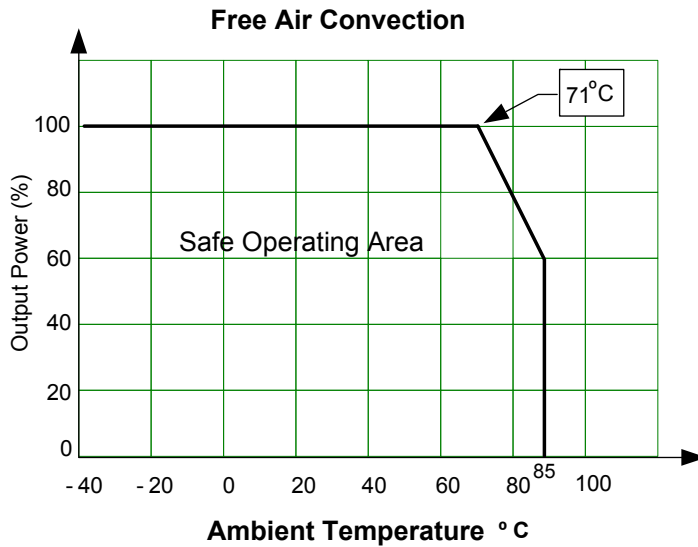
Filtering Single output



Filtering Dual output



Derating



External capacitors

Vin (VDC)	Cin) (uF)	Vout (VDC)	Cout (uF)
5	100	3.3	2200
		5	1000
		12	470
		15	330

NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.