

Series AM3G-NZ

3 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- Very low no load consumption
- Remote On/Off Control
- 8 pin SIP package
- Operating temperature -40°C to + 85°C
- Continuous Short circuit protection
- Wide 2:1 input range
- High efficiency up to 81%



Models

Single output

Model	Input Voltage (V)	Output Voltage(V)	Output Current max (mA)	Isolation (VDC)	Capacitor Load (μF)	Efficiency (%)
AM3G-1205S-NZ	9-18	5	600	1500	2200	78
AM3G-1209S-NZ	9-18	9	333	1500	1000	79
AM3G-1212S-NZ	9-18	12	250	1500	820	80
AM3G-1215S-NZ	9-18	15	200	1500	680	80
AM3G-2405S-NZ	18-36	5	600	1500	2200	78
AM3G-2409S-NZ	18-36	9	333	1500	1000	79
AM3G-2412S-NZ	18-36	12	250	1500	820	80
AM3G-2415S-NZ	18-36	15	200	1500	680	81

Models

Dual output

Model	Input Voltage (V)	Output Voltage(V)	Output Current max (mA)	Isolation (VDC)	Capacitor Load (μF)	Efficiency (%)
AM3G-1205D-NZ	9-18	±5	±300	1500	±560	78
AM3G-1209D-NZ	9-18	±9	±167	1500	±470	79
AM3G-1212D-NZ	9-18	±12	±125	1500	±330	80
AM3G-1215D-NZ	9-18	±15	±100	1500	±220	80
AM3G-2405D-NZ	18-36	±5	±300	1500	±560	78
AM3G-2409D-NZ	18-36	±9	±167	1500	±470	79
AM3G-2412D-NZ	18-36	±12	±125	1500	±330	80
AM3G-2415D-NZ	18-36	±15	±100	1500	±220	81

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	12 24	9-18 18-36		VDC
Filter	Capacitor			
Maximum Rating	12 Vin 24 Vin	22 40		VDC
Peak Input Voltage time			100	ms
On/Off Control	ON – low or open; OFF - high			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance	100kHz, 1V	80		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Voltage balance	Dual Output 25~100% load	±5		%
Short Circuit protection		Continuous		
Short Circuit restart		Auto recovery		

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Line voltage regulation	LL~HL	±0.5		%
Load voltage regulation	load 10~100%	±1		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	At 20MHz Bandwidth	100		mV p-p

General Specifications

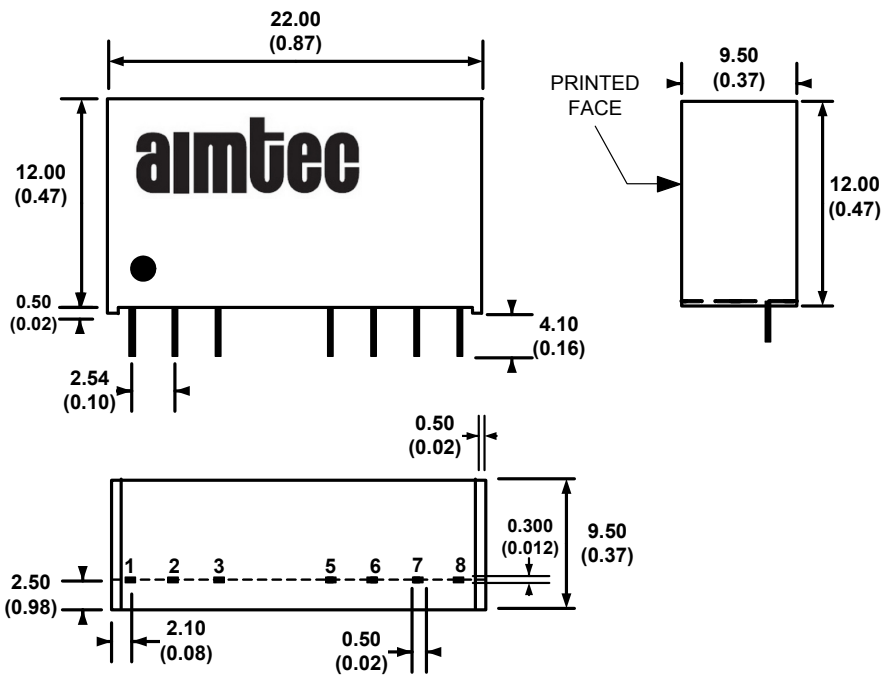
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	>200	500	KHz
Operating temperature	With derating above 71°C	-40 to +85		°C
Storage temperature		-50 to +125		°C
No load power consumption		100		mW
Cooling	Free air convection			
Humidity			95	%
Case material	Non-conductive black plastic (UL94V-0 rated)			
Weight		6		g
Dimensions (L x H x W)		0.87 x 0.37 x 0.47 inch	22 x 9.5 x 12 mm	
MTBF	>1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°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.

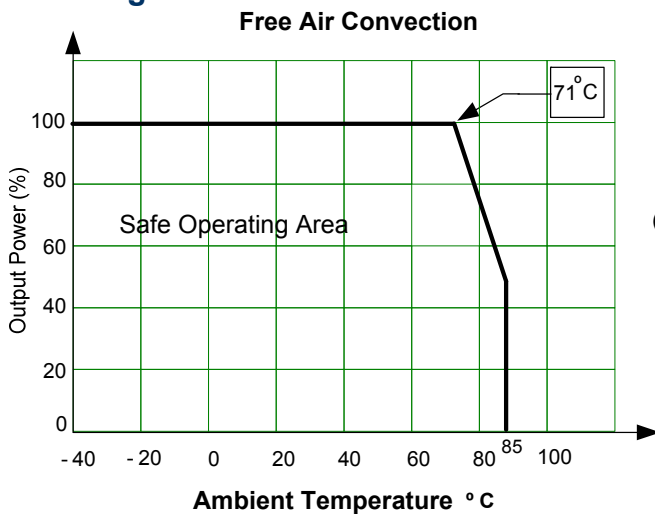
Pin Out Specifications

Pin	Single	Dual
1	- V Input	- V Input
2	+ V Input	+ V Input
3	On/Off Control	On/Off Control
5	N.C.	N.C.
6	+ V Output	+ V Output
7	- V Output	Common
8	CS	- V Output

Dimensions



Derating



CS Capacitor Table

Vout	5V	9V	12V	15V	24V
CS	47uF – 100uF		10uF – 47uF		

Control ON/OFF pin connection example:



The voltage could be applied through a limiting resistor and a switching diode. The converter is in a low power mode during high level phase.

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.