

FEATURES:



- RoHS compliant
- 24 Pin DIP Package
- Low ripple and noise
- High efficiency up to 80%
- Low profile packaging
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1000, 3000 and 5200VDC
- Pin compatible with multiple manufacturers
- Continuous short circuit protection
- Dual regulated output

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM3N-0503D-RZ	4.5-5.5	±3.3	±400	1000	64
AM3N-0505D-RZ	4.5-5.5	±5	±300	1000	66
AM3N-0507D-RZ	4.5-5.5	±7.2	±208	1000	55
AM3N-0509D-RZ	4.5-5.5	±9	±167	1000	68
AM3N-0512D-RZ	4.5-5.5	±12	±125	1000	70
AM3N-0515D-RZ	4.5-5.5	±15	±100	1000	70
AM3N-0518D-RZ	4.5-5.5	±18	±84	1000	57
AM3N-0524D-RZ	4.5-5.5	±24	±63	1000	69
AM3N-1203D-RZ	10.8-13.2	±3.3	±400	1000	52
AM3N-1205D-RZ	10.8-13.2	±5	±300	1000	75
AM3N-1207D-RZ	10.8-13.2	±7.2	±208	1000	55
AM3N-1209D-RZ	10.8-13.2	±9	±167	1000	78
AM3N-1212D-RZ	10.8-13.2	±12	±125	1000	80
AM3N-1215D-RZ	10.8-13.2	±15	±100	1000	78
AM3N-1218D-RZ	10.8-13.2	±18	±84	1000	62
AM3N-1224D-RZ	10.8-13.2	±24	±63	1000	76
AM3N-2403D-RZ	21.6-26.4	±3.3	±400	1000	52
AM3N-2405D-RZ	21.6-26.4	±5	±300	1000	77
AM3N-2407D-RZ	21.6-26.4	±7.2	±208	1000	55
AM3N-2409D-RZ	21.6-26.4	±9	±167	1000	78
AM3N-2412D-RZ	21.6-26.4	±12	±125	1000	80
AM3N-2415D-RZ	21.6-26.4	±15	±100	1000	78
AM3N-2418D-RZ	21.6-26.4	±18	±84	1000	65
AM3N-2424D-RZ	21.6-26.4	±24	±63	1000	76
AM3N-0503DH30-RZ	4.5-5.5	±3.3	±400	3000	64
AM3N-0505DH30-RZ	4.5-5.5	±5	±300	3000	66
AM3N-0507DH30-RZ	4.5-5.5	±7.2	±208	3000	55
AM3N-0509DH30-RZ	4.5-5.5	±9	±167	3000	68
AM3N-0512DH30-RZ	4.5-5.5	±12	±125	3000	70
AM3N-0515DH30-RZ	4.5-5.5	±15	±100	3000	70
AM3N-0518DH30-RZ	4.5-5.5	±18	±84	3000	57
AM3N-0524DH30-RZ	4.5-5.5	±24	±63	3000	69
AM3N-1203DH30-RZ	10.8-13.2	±3.3	±400	3000	64
AM3N-1205DH30-RZ	10.8-13.2	±5	±300	3000	75
AM3N-1207DH30-RZ	10.8-13.2	±7.2	±208	3000	55
AM3N-1209DH30-RZ	10.8-13.2	±9	±167	3000	78
AM3N-1212DH30-RZ	10.8-13.2	±12	±125	3000	80
AM3N-1215DH30-RZ	10.8-13.2	±15	±100	3000	78
AM3N-1218DH30-RZ	10.8-13.2	±18	±84	3000	62
AM3N-1224DH30-RZ	10.8-13.2	±24	±63	3000	76
AM3N-2403DH30-RZ	21.6-26.4	±3.3	±400	3000	64
AM3N-2405DH30-RZ	21.6-26.4	±5	±300	3000	77
AM3N-2407DH30-RZ	21.6-26.4	±7.2	±208	3000	55
AM3N-2409DH30-RZ	21.6-26.4	±9	±167	3000	78

Models
Dual output (Continue)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM3N-2412DH30-RZ	21.6-26.4	±12	±125	3000	80
AM3N-2415DH30-RZ	21.6-26.4	±15	±100	3000	78
AM3N-2418DH30-RZ	21.6-26.4	±18	±84	3000	65
AM3N-2424DH30-RZ	21.6-26.4	±24	±63	3000	76
AM3N-0503DH52-RZ	4.5-5.5	±3.3	±400	5200	64
AM3N-0505DH52-RZ	4.5-5.5	±5	±300	5200	66
AM3N-0507DH52-RZ	4.5-5.5	±7.2	±208	5200	53
AM3N-0509DH52-RZ	4.5-5.5	±9	±167	5200	68
AM3N-0512DH52-RZ	4.5-5.5	±12	±125	5200	70
AM3N-0515DH52-RZ	4.5-5.5	±15	±100	5200	70
AM3N-0518DH52-RZ	4.5-5.5	±18	±84	5200	57
AM3N-0524DH52-RZ	4.5-5.5	±24	±63	5200	69
AM3N-1203DH52-RZ	10.8-13.2	±3.3	±400	5200	64
AM3N-1205DH52-RZ	10.8-13.2	±5	±300	5200	75
AM3N-1207DH52-RZ	10.8-13.2	±7.2	±208	5200	55
AM3N-1209DH52-RZ	10.8-13.2	±9	±167	5200	78
AM3N-1212DH52-RZ	10.8-13.2	±12	±125	5200	80
AM3N-1215DH52-RZ	10.8-13.2	±15	±100	5200	78
AM3N-1218DH52-RZ	10.8-13.2	±18	±84	5200	62
AM3N-1224DH52-RZ	10.8-13.2	±24	±63	5200	76
AM3N-2403DH52-RZ	21.6-26.4	±3.3	±400	5200	64
AM3N-2405DH52-RZ	21.6-26.4	±5	±300	5200	77
AM3N-2407DH52-RZ	21.6-26.4	±7.2	±208	5200	53
AM3N-2409DH52-RZ	21.6-26.4	±9	±167	5200	78
AM3N-2412DH52-RZ	21.6-26.4	±12	±125	5200	80
AM3N-2415DH52-RZ	21.6-26.4	±15	±100	5200	78
AM3N-2418DH52-RZ	21.6-26.4	±18	±84	5200	65
AM3N-2424DH52-RZ	21.6-26.4	±24	±63	5200	76

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5 12 24	4.5-5.5 10.8-13.2 21.6-26.4		VDC
Filter	π (Pi) Network			
Turn on Transient process time			100	ms
Start up time		300		ms
Absolute Maximum Rating	5 Vin 12 Vin 24 Vin	0-7 0-15 0-28		VDC
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1000, 3000 and 5200	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Voltage balance		±1		%
Short Circuit protection	Continuous			
Short circuit restart	Auto-recovery			

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Line voltage regulation (Dual)		±0.5		%
Load voltage regulation (Dual)	0 to 100% load	±0.5		%
Load voltage regulation (Dual) 3.3V output model	0 to 100% load	±1.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	75		mV p-p
Rising time		150		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	250		KHz
Operating temperature	Full Load without Derating	-40 to +85		°C
Storage temperature		-40 to +125		°C
Max Case temperature			95	°C
Cooling	Free air convection			
Humidity			90	%
Case material	Nickel coated copper, at 5200VDC plastic			
Weight		14.5		g
Dimensions (L x W x H)	Tolerance ±0.5 mm or ±0.02 inches	1.25 x 0.80 x 0.40 inches	31.75 x 20.32 x 10.16 mm	
MTBF	>3 000 000 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

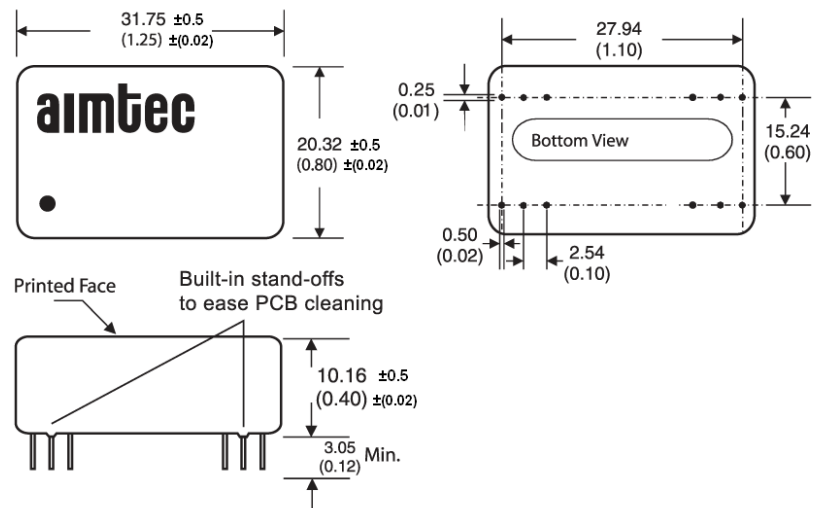
Safety Specifications

Standards	
Safety Standard	EN55022 Class A,
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B (external 220uF/100V cap required)
	IEC61000-4-5, Perf. Criteria B (external 220uF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
Agency Approval/Marking	IEC61000-4-8, Perf. Criteria A
	CE

Pin Out Specifications

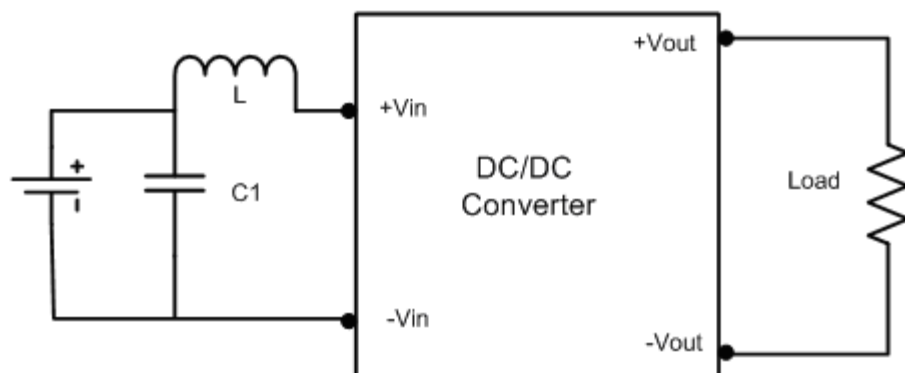
Pin	1000VDC Dual	3000 and 5200VDC Dual
1	+V Input	+V Input
2	-V Output	+V Input
3	Common	No pin
10	Common	Common
11	+V Output	Common
12	-V Input	No pin
13	-V Input	-V Output
14	+V Output	No pin
15	Common	+V Output
22	Common	No pin
23	-V Output	-V Input
24	+V Input	-V Input

Dimensions



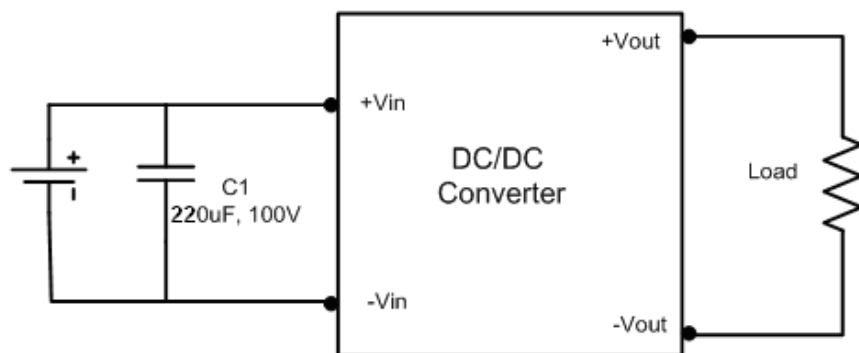
Test Circuits

Conducted Emissions:



C1	L1
220 μ F/100V	22 μ H

Surge:



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