



FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Wide 4:1 input range
- High efficiency up to 85%
- Operating temperature -40°C to + 85°C
- Input / output isolation 1500 and 3500VDC
- 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 (%)
AM6TW-2403SZ	9-36	3.3	1400	1500	75
AM6TW-2405SZ	9-36	5	1200	1500	81
AM6TW-2407SZ	9-36	7.2	830	1500	78
AM6TW-2409SZ	9-36	9	660	1500	82
AM6TW-2412SZ	9-36	12	500	1500	83
AM6TW-2415SZ	9-36	15	400	1500	83
AM6TW-2418SZ	9-36	18	330	1500	83
AM6TW-2424SZ	9-36	24	250	1500	82
AM6TW-4803SZ	18-72	3.3	1400	1500	75
AM6TW-4805SZ	18-72	5	1200	1500	81
AM6TW-4807SZ	18-72	7.2	830	1500	81
AM6TW-4809SZ	18-72	9	660	1500	82
AM6TW-4812SZ	18-72	12	500	1500	82
AM6TW-4815SZ	18-72	15	400	1500	85
AM6TW-4818SZ	18-72	18	330	1500	83
AM6TW-4824SZ	18-72	24	250	1500	83
AM6TW-2403SH35Z	9-36	3.3	1400	3500	75
AM6TW-2405SH35Z	9-36	5	1200	3500	81
AM6TW-2407SH35Z	9-36	7.2	830	3500	78
AM6TW-2409SH35Z	9-36	9	660	3500	82
AM6TW-2412SH35Z	9-36	12	500	3500	83
AM6TW-2415SH35Z	9-36	15	400	3500	83
AM6TW-2418SH35Z	9-36	18	330	3500	83
AM6TW-2424SH35Z	9-36	24	250	3500	82
AM6TW-4803SH35Z	18-72	3.3	1400	3500	75
AM6TW-4805SH35Z	18-72	5	1200	3500	81
AM6TW-4807SH35Z	18-72	7.2	830	3500	81
AM6TW-4809SH35Z	18-72	9	660	3500	82
AM6TW-4812SH35Z	18-72	12	500	3500	82
AM6TW-4815SH35Z	18-72	15	400	3500	85
AM6TW-4818SH35Z	18-72	18	330	3500	83
AM6TW-4824SH35Z	18-72	24	250	3500	83

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM6TW-2403DZ	9-36	±3.3	±700	1500	80
AM6TW-2405DZ	9-36	±5	±600	1500	82
AM6TW-2407DZ	9-36	±7.2	±410	1500	80
AM6TW-2409DZ	9-36	±9	±330	1500	82
AM6TW-2412DZ	9-36	±12	±250	1500	84
AM6TW-2415DZ	9-36	±15	±200	1500	80
AM6TW-2418DZ	9-36	±18	±160	1500	80

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM6TW-2424DZ	9-36	±24	±125	1500	81
AM6TW-4803DZ	18-72	±3.3	±700	1500	79
AM6TW-4805DZ	18-72	±5	±600	1500	82
AM6TW-4807DZ	18-72	±7.2	±410	1500	81
AM6TW-4809DZ	18-72	±9	±330	1500	81
AM6TW-4812DZ	18-72	±12	±250	1500	83
AM6TW-4815DZ	18-72	±15	±200	1500	81
AM6TW-4818DZ	18-72	±18	±160	1500	81
AM6TW-4824DZ	18-72	±24	±125	1500	81
AM6TW-2403DH35Z	9-36	±3.3	±700	3500	80
AM6TW-2405DH35Z	9-36	±5	±600	3500	82
AM6TW-2407DH35Z	9-36	±7.2	±410	3500	80
AM6TW-2409DH35Z	9-36	±9	±330	3500	82
AM6TW-2412DH35Z	9-36	±12	±250	3500	84
AM6TW-2415DH35Z	9-36	±15	±200	3500	80
AM6TW-2418DH35Z	9-36	±18	±160	3500	80
AM6TW-2424DH35Z	9-36	±24	±125	3500	81
AM6TW-4803DH35Z	18-72	±3.3	±700	3500	79
AM6TW-4805DH35Z	18-72	±5	±600	3500	82
AM6TW-4807DH35Z	18-72	±7.2	±410	3500	81
AM6TW-4809DH35Z	18-72	±9	±330	3500	81
AM6TW-4812DH35Z	18-72	±12	±250	3500	83
AM6TW-4815DH35Z	18-72	±15	±200	3500	81
AM6TW-4818DH35Z	18-72	±18	±160	3500	81
AM6TW-4824DH35Z	18-72	±24	±125	3500	81

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24 48	9-36 18-72		VDC
Filter	π (Pi) Network			
Turn on Transient process time			350	ms
Start up time		500		ms
Absolute Maximum Rating	24 Vin 48 Vin	-0.7-40 -0.7-80		VDC
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	3 sec	1500 or 3500		VDC
Resistance		> 1000		MOhm
Capacitance		470		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance	Dual Output	±1		%
Short Circuit protection	Continuous			
Short circuit restart	Auto-recovery			
Over current protection		120% I _{out}		
Line voltage regulation (Single)		±0.5		%
Line voltage regulation (Dual)		±0.5		%

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Load voltage regulation (Single)		±0.5		%
Load voltage regulation (Single) 3,3V output model		±1.5		%
Load voltage regulation (Dual)		±0.5		%
Load voltage regulation (Dual) ±3.3V output model		±1.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	60		mV p-p
Rising time		10		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	260		KHz
Operating temperature	Full Load without Derating		-40 to +85	°C
Storage temperature			-40 to +125	°C
Max Case temperature			+100	°C
Derating		Not-Required		
Cooling		Free air convection		
Humidity			90	%
Case material		Nickel coated copper		
Weight		26		g
Dimensions (L x W x H)	Tolerance ±0.5 mm or ±0.02 inches	1.28 x 0.84 x 0.41 inches	32.25 x 21.35 x 10.50 mm	
MTBF		>960 000 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

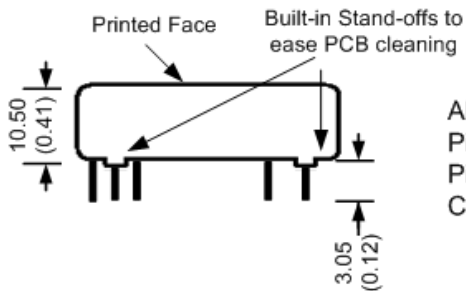
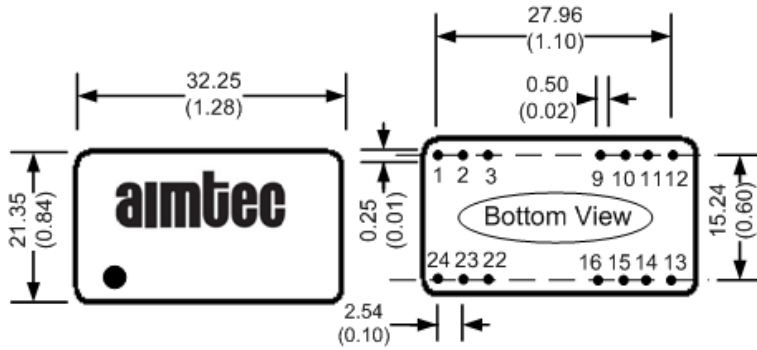
Safety Specifications

Parameters	
Agency Approval	CE
Standards	EN55022 Class A, EN55024
	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
	IEC61000-4-8, Perf. Criteria A
	NOTE: Also designed to meet IEC60950-1:2001

Pin Out Specifications

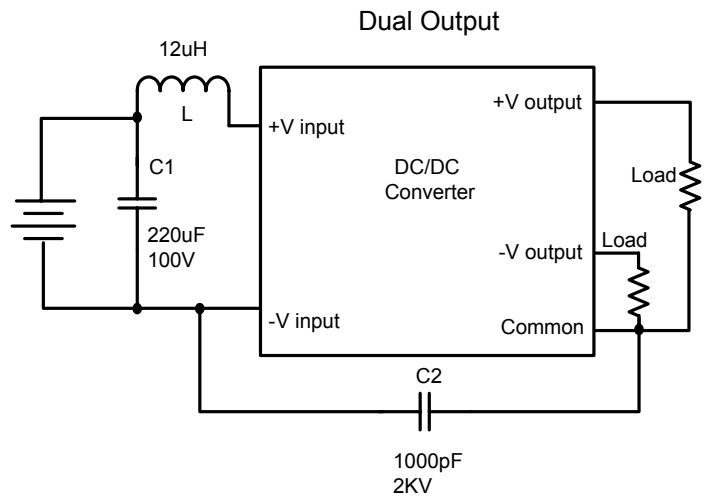
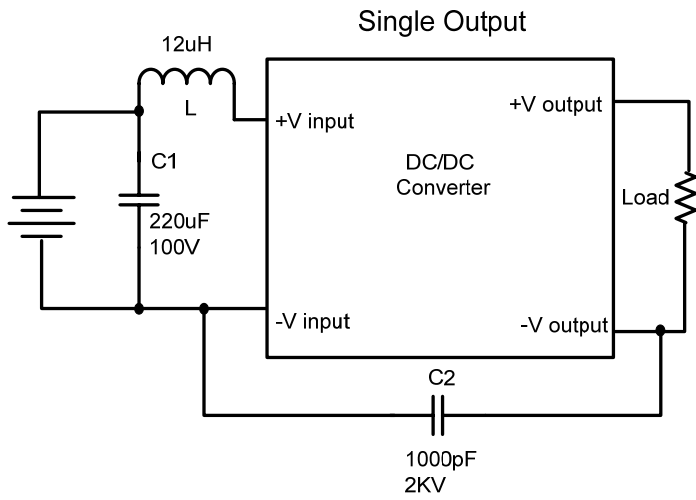
Pin	1500VDC		3500VDC	
	Single	Dual	Single	Dual
1	+V Input	+V Input	Omitted	Omitted
2	N. C.	-V Output	-V Input	-V Input
3	N. C.	Common	-V Input	-V Input
9	Omitted	Omitted	Omitted	Common
10	-V Output	Common	Omitted	Omitted
11	+V Output	+V Output	N.C.	-V Output
12/13	-V Input	-V Input	Omitted	Omitted
14	+V Output	+V Output	+V Output	+V Output
15	-V Output	Common	Omitted	Omitted
16	Omitted	Omitted	-V Output	Common
22	N. C.	Common	+V Input	+V Input
23	N. C.	-V Output	+V Input	+V Input
24	+V Input	+V Input	Omitted	Omitted

Dimensions

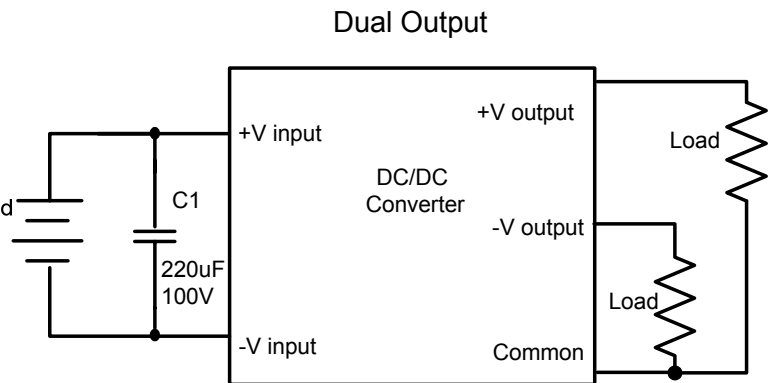
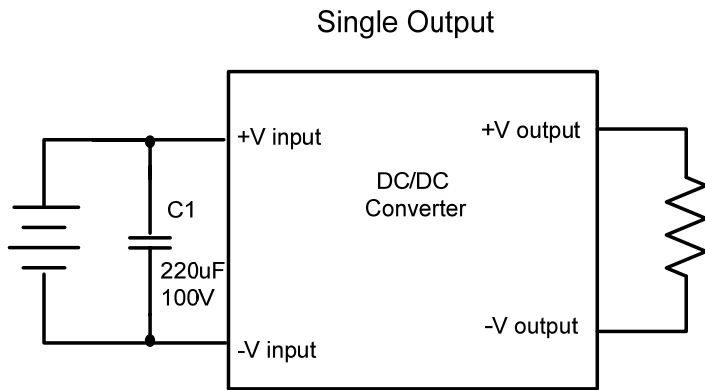


All dimensions are typical: millimeters (inches)
 Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
 Pin Pitch Tolerance: ± 0.35 (± 0.014)
 Case Tolerance: ± 0.5 (± 0.02)

Conducted Emissions:



Surge:



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. 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. 5. 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 than the ones listed in this datasheet.