



**FEATURES:**

- RoHS compliant
- 24 Pin DIP Package
- High efficiency up to 82%
- Wide 4:1 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)	Max Capacitive Load (uF)	Efficiency (%)
AM3TW-2403S-RZ	9-36	3.3	900	1500	680	75
AM3TW-2405S-RZ	9-36	5	600	1500	470	78
AM3TW-2407S-RZ	9-36	7.2	417	1500	100	78
AM3TW-2409S-RZ	9-36	9	334	1500	100	79
AM3TW-2412S-RZ	9-36	12	250	1500	68	81
AM3TW-2415S-RZ	9-36	15	200	1500	47	81
AM3TW-2418S-RZ	9-36	18	167	1500	47	81
AM3TW-2424S-RZ	9-36	24	125	1500	22	81
AM3TW-4803S-RZ	18-72	3.3	900	1500	680	76
AM3TW-4805S-RZ	18-72	5	600	1500	470	80
AM3TW-4807S-RZ	18-72	7.2	417	1500	100	78
AM3TW-4809S-RZ	18-72	9	334	1500	100	82
AM3TW-4812S-RZ	18-72	12	250	1500	68	80
AM3TW-4815S-RZ	18-72	15	200	1500	47	80
AM3TW-4818S-RZ	18-72	18	167	1500	47	80
AM3TW-4824S-RZ	18-72	24	125	1500	22	81

**Models**  
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM3TW-2403D-RZ	9-36	±3.3	±450	1500	±330	76
AM3TW-2405D-RZ	9-36	±5	±300	1500	±220	79
AM3TW-2407D-RZ	9-36	±7.2	±208	1500	±47	78
AM3TW-2409D-RZ	9-36	±9	±167	1500	±47	79
AM3TW-2412D-RZ	9-36	±12	±125	1500	±33	80
AM3TW-2415D-RZ	9-36	±15	±100	1500	±22	80
AM3TW-2418D-RZ	9-36	±18	±84	1500	±22	81
AM3TW-2424D-RZ	9-36	±24	±63	1500	±10	80
AM3TW-4803D-RZ	18-72	±3.3	±400	1500	±330	76
AM3TW-4805D-RZ	18-72	±5	±300	1500	±220	81
AM3TW-4807D-RZ	18-72	±7.2	±208	1500	±47	78
AM3TW-4809D-RZ	18-72	±9	±167	1500	±47	82
AM3TW-4812D-RZ	18-72	±12	±125	1500	±33	81
AM3TW-4815D-RZ	18-72	±15	±100	1500	±22	82
AM3TW-4818D-RZ	18-72	±18	±84	1500	±22	81
AM3TW-4824D-RZ	18-72	±24	±63	1500	±10	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

### Input Specifications (continued)

Parameters	Nominal	Typical	Maximum	Units
Absolute Maximum Rating	24 Vin 48 Vin	-0.7-40 -0.7-80		VDC
Peak Input Voltage time		100		ms
Tested I/O voltage	3 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		500		pF

### Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance (Dual Output Model)	Balanced Load	±1		%
Short Circuit protection		Continuous		
Short circuit restart		Auto Recovery		
Line voltage regulation (Single)	LL-HL	±0.5		%
Line voltage regulation (Dual)	LL-HL	±0.5		%
Load voltage regulation (Single)	Load: 10...100%	±0.5		%
Load voltage regulation (Single) 3.3V output model	Load: 10...100%	±1.5		%
Load voltage regulation (Dual)	Load: 10...100%	±0.5		%
Load voltage regulation (Dual) ±3.3V output model	Load: 10...100%	±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
Cooling		Free air convection		
Humidity			90	%
Case material		Nickel coated copper		
Weight		21		g
Dimensions (L x W x H)	Tolerance ±0.5 mm or ±0.02 inches	1.25 x 0.80 x 0.40 inches	31.8 x 20.30 x 10.20 mm	
MTBF		>1 050 000 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.

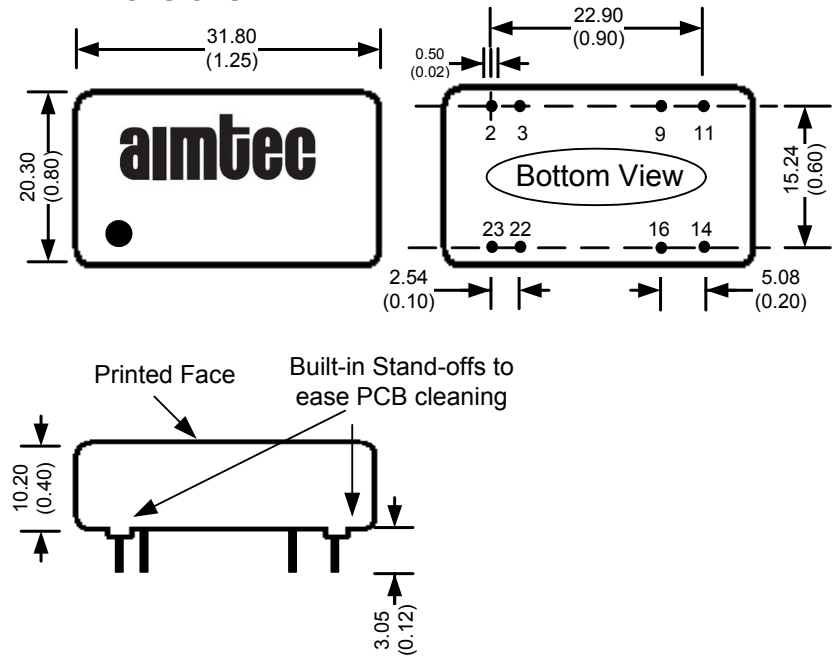
### Safety Specifications

Parameters	
Agency Approval	CE
Safety Standards	EN55022 Class A, EN55024
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B
	IEC61000-4-5, Perf. Criteria B
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A
	NOTE: also designed to meet IEC 60950-1:2001

### Pin Out Specifications

Pin	1500VDC	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	No pin	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

### Dimensions



**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](http://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 than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at [www.aimtec.com](http://www.aimtec.com).