



**FEATURES:**

- RoHS compliant
- 24 Pin DIP Package
- High efficiency up to 84%
- 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 (%)
AM5TW-2403S-RZ	9-36	3.3	1300	1500	1000	75
AM5TW-2405S-RZ	9-36	5	1000	1500	680	80
AM5TW-2407S-RZ	9-36	7.2	690	1500	4700	78
AM5TW-2409S-RZ	9-36	9	556	1500	220	80
AM5TW-2412S-RZ	9-36	12	417	1500	100	81
AM5TW-2415S-RZ	9-36	15	333	1500	100	84
AM5TW-2418S-RZ	9-36	18	278	1500	68	82
AM5TW-2424S-RZ	9-36	24	209	1500	47	82
AM5TW-4803S-RZ	18-72	3.3	1300	1500	1000	75
AM5TW-4805S-RZ	18-72	5	1000	1500	680	81
AM5TW-4807S-RZ	18-72	7.2	690	1500	4700	80
AM5TW-4809S-RZ	18-72	9	556	1500	220	82
AM5TW-4812S-RZ	18-72	12	417	1500	100	83
AM5TW-4815S-RZ	18-72	15	333	1500	100	84
AM5TW-4818S-RZ	18-72	18	278	1500	68	83
AM5TW-4824S-RZ	18-72	24	209	1500	47	83

**Models**  
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM5TW-2403D-RZ	9-36	±3.3	±758	1500	±470	79
AM5TW-2405D-RZ	9-36	±5	±500	1500	±330	81
AM5TW-2407D-RZ	9-36	±7.2	±347	1500	±100	80
AM5TW-2409D-RZ	9-36	±9	±278	1500	±68	82
AM5TW-2412D-RZ	9-36	±12	±208	1500	±47	83
AM5TW-2415D-RZ	9-36	±15	±167	1500	±47	83
AM5TW-2418D-RZ	9-36	±18	±139	1500	±22	83
AM5TW-2424D-RZ	9-36	±24	±104	1500	±22	83
AM5TW-4803D-RZ	18-72	±3.3	±600	1500	±470	80
AM5TW-4805D-RZ	18-72	±5	±500	1500	±330	81
AM5TW-4807D-RZ	18-72	±7.2	±347	1500	±100	80
AM5TW-4809D-RZ	18-72	±9	±278	1500	±68	82
AM5TW-4812D-RZ	18-72	±12	±209	1500	±47	82
AM5TW-4815D-RZ	18-72	±15	±167	1500	±47	83
AM5TW-4818D-RZ	18-72	±18	±139	1500	±22	82
AM5TW-4824D-RZ	18-72	±24	±104	1500	±22	82

**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

### Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
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)		±0.5		%
Line voltage regulation (Dual)		±0.5		%
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
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	1.25 x 0.80 x 0.40 inches	31.80 x 20.30 x 10.20 mm	
MTBF		>1 050 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		

NOTE: All specifications noted 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.

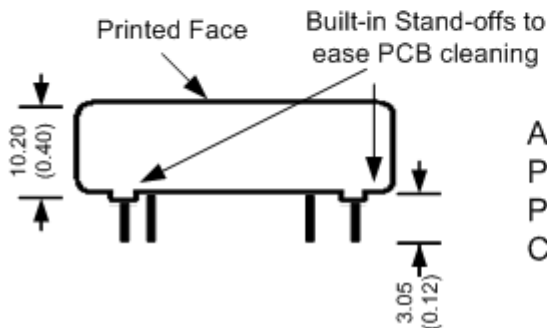
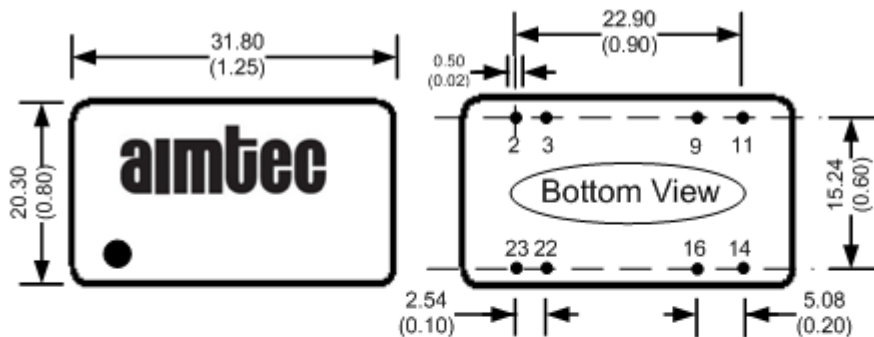
### Safety Specifications

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
	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



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

**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).