



**FEATURES:**

- RoHS compliant
- 24 Pin DIP Package
- High efficiency up to 83%
- Wide 4:1 input range
- Operating temperature -40 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 (%)
AM4TW-2403S-RZ	9-36	3.3	1200	1500	1000	77
AM4TW-2405S-RZ	9-36	5	800	1500	1000	80
AM4TW-2407S-RZ	9-36	7.2	550	1500	100	80
AM4TW-2409S-RZ	9-36	9	440	1500	220	80
AM4TW-2412S-RZ	9-36	12	330	1500	100	83
AM4TW-2415S-RZ	9-36	15	265	1500	220	83
AM4TW-2418S-RZ	9-36	18	220	1500	10	80
AM4TW-2424S-RZ	9-36	24	165	1500	220	81
AM4TW-4803S-RZ	18-72	3.3	1200	1500	1000	77
AM4TW-4805S-RZ	18-72	5	800	1500	470	80
AM4TW-4807S-RZ	18-72	7.2	550	1500	470	78
AM4TW-4809S-RZ	18-72	9	440	1500	330	82
AM4TW-4812S-RZ	18-72	12	330	1500	1000	81
AM4TW-4815S-RZ	18-72	15	265	1500	47	81
AM4TW-4818S-RZ	18-72	18	220	1500	10	81
AM4TW-4824S-RZ	18-72	24	165	1500	22	82

**Models**  
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM4TW-2403D-RZ	9-36	±3.3	±600	1500	±470	76
AM4TW-2405D-RZ	9-36	±5	±400	1500	±100	78
AM4TW-2407D-RZ	9-36	±7.2	±275	1500	±47	80
AM4TW-2409D-RZ	9-36	±9	±220	1500	±47	80
AM4TW-2412D-RZ	9-36	±12	±165	1500	±47	82
AM4TW-2415D-RZ	9-36	±15	±125	1500	±10	80
AM4TW-2418D-RZ	9-36	±18	±100	1500	±100	80
AM4TW-2424D-RZ	9-36	±24	±84	1500	±22	80
AM4TW-4803D-RZ	18-72	±3.3	±600	1500	±680	75
AM4TW-4805D-RZ	18-72	±5	±400	1500	±330	79
AM4TW-4807D-RZ	18-72	±7.2	±275	1500	±47	80
AM4TW-4809D-RZ	18-72	±9	±220	1500	±47	81
AM4TW-4812D-RZ	18-72	±12	±165	1500	±100	82
AM4TW-4815D-RZ	18-72	±15	±125	1500	±100	81
AM4TW-4818D-RZ	18-72	±18	±100	1500	±33	80
AM4TW-4824D-RZ	18-72	±24	±84	1500	±10	80

**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	
Over current protection			120% Iout	
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)		

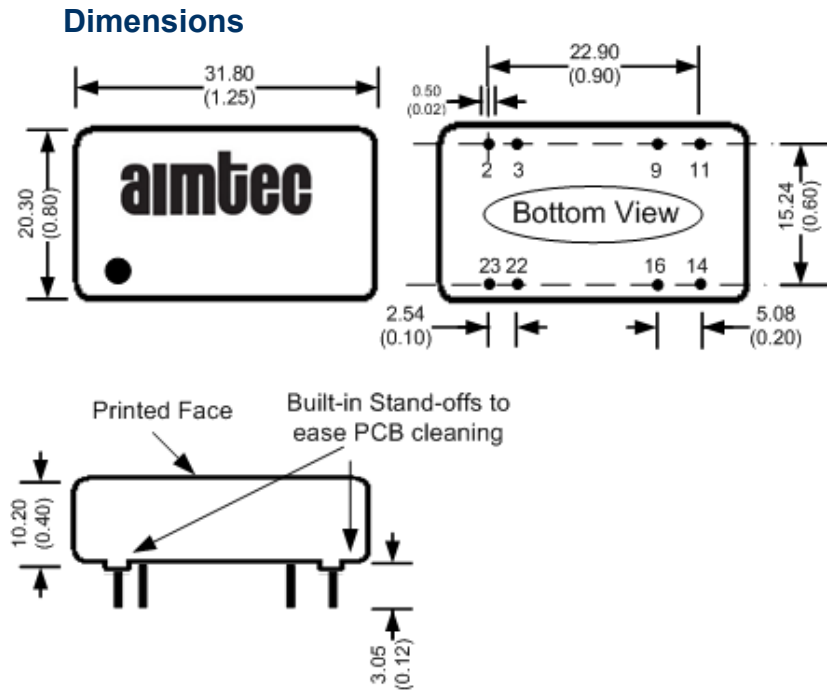
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

### Safety Specifications

Parameters	
Agency Approval	CE
Safety	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	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	Omitted	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



**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).