



FEATURES:

- Short Circuit & OVP Protection
- 24 Pin DIP Package
- Wide 4:1 input range
- Power modules for PCB mounting
- No minimum load
- Operating temperature -40°C to + 75°C
- Regulated output
- Low ripple and noise
- Input/output Isolation voltage 1500VDC



Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive Load, max(uf)	Ripple & Noise max, (% mV p-p)	Efficiency (%)
AM10TW-2403SIZ	9-36	3.3	2000	4200	80	71
AM10TW-2405SIZ	9-36	5	2000	3200	80	75
AM10TW-2412SIZ	9-36	12	830	600	120	78
AM10TW-2415SIZ	9-36	15	660	390	150	78
AM10TW-4803SIZ	18-75	3.3	2000	3300	80	73
AM10TW-4805SIZ	18-75	5	2000	2200	80	83
AM10TW-4812SIZ	18-75	12	830	600	120	81
AM10TW-4815SIZ	18-75	15	660	330	150	81

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive Load, max(uf)	Ripple & Noise max, (%)	Efficiency (%)
AM10TW-2405DIZ	9-36	±5	±1000	±330	80	75
AM10TW-2412DIZ	9-36	±12	±410	±220	120	79
AM10TW-2415DIZ	9-36	±15	±330	±200	150	80
AM10TW-4805DIZ	18-75	±5	±1000	±330	80	77
AM10TW-4812DIZ	18-75	±12	±410	±220	120	80
AM10TW-4815DIZ	18-75	±15	±330	±200	150	80

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24 48	9-36 18-75		VDC
Filter	Capacitor			
Absolute Maximum Rating	24 Vin 48 Vin		50 100	VDC
Permissible absolute maximum duration			100	ms
Transient Voltage Deviation			5	VDC

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		470		pF

Output Specifications

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

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Over voltage protection	Zener diode clamp	>110%		VDC
Over load protection	Auto recovery	Over 110% full load		
Line voltage regulation	HL-LL	±0.5		%
Load voltage regulation (Single)	0 – 100% full load	±0.5		%
Load voltage regulation (Dual)	0 – 100% full load	±2		%
Temperature coefficient		±0.05		%/°C
Ripple & Noise	3.3 & 5V models 12 & 15V models	80 mV p-p 1% Vout p-p		mV

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	Derating above +50 °C	-40 to +75		°C
Storage temperature		-55 to +115		°C
Case Temperature			+95	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated cooper		
Weight		18		g
Dimensions (L x W x H)	Tolerance ±0.02 inch, ±0.5mm	1.25 x 0.80 x 0.40 inches	31.80 x 20.30 x 10.20 mm	
MTBF		> 700 000 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.

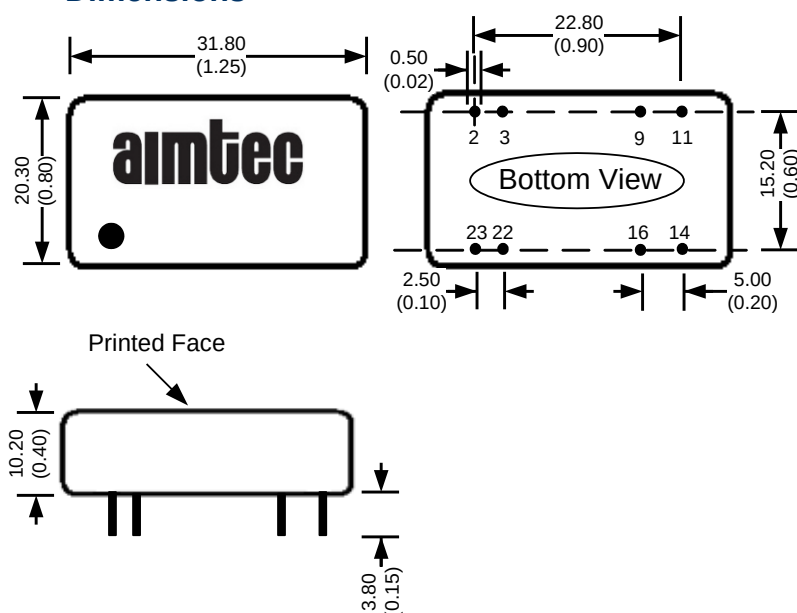
Safety Specifications

Standards	
Agency approvals	UL (pending)
Safety	EN 55022, class A EN 55024

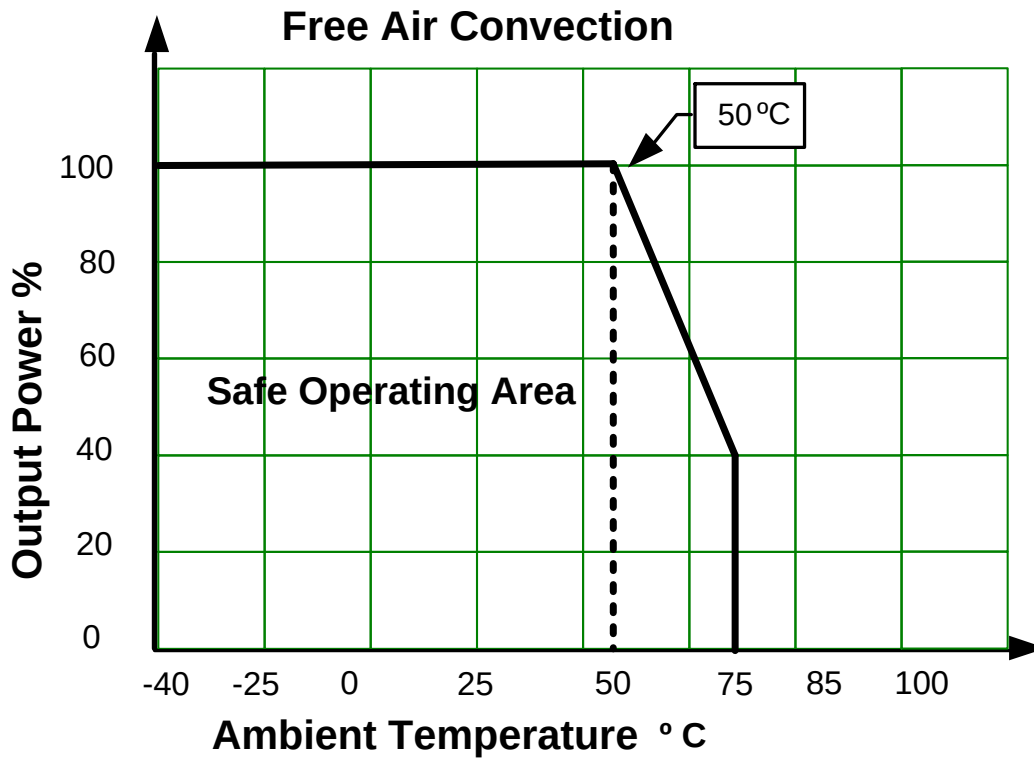
Pin Out Specifications

Pin	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	N.C.	Common
10	Omitted	Omitted
11	N.C.	-V Output
14	+V Output	+ V Output
15	Omitted	Omitted
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions



Derating



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. 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 the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.