



FEATURES:

- Wide 4:1 input range
- 24 Pin DIP Package
- High efficiency up to 87%
- Over Voltage/Overload Protection
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1600 VDC
- Continuous short circuit protection
- RoHS compliant



Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load(uF)	Efficiency (%)
AM8TW-2403SZ	9-36	3.3	2000	1600	1330	83
AM8TW-2405SZ	9-36	5	1500	1600	1330	86
AM8TW-2412SZ	9-36	12	665	1600	288	87
AM8TW-2415SZ	9-36	15	535	1600	200	87
AM8TW-4803SZ	18-75	3.3	2000	1600	1330	82
AM8TW-4805SZ	18-75	5	1500	1600	1330	86
AM8TW-4812SZ	18-75	12	665	1600	288	87
AM8TW-4815SZ	18-75	15	535	1600	200	87

Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load(uF)	Efficiency (%)
AM8TW-2405DZ	9-36	±5	±800	1600	±900	84
AM8TW-2412DZ	9-36	±12	±335	1600	±133	86
AM8TW-2415DZ	9-36	±15	±265	1600	±90	87
AM8TW-4805DZ	18-75	±5	±800	1600	±900	84
AM8TW-4812DZ	18-75	±12	±335	1600	±133	87
AM8TW-4815DZ	18-75	±15	±265	1600	±90	87

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.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24	9-36		VDC
	48	18-75		
Filter	π (Pi) Network			
Start up time		20		ms
Absolute Maximum Rating	24		-0.7-50	VDC
	48		-0.7-100	
Peak Input Voltage time			100	ms
On/Off control	ON – 3.0 ~ 12VDC (or open)			
	OFF -0~1.2VDC (or short between pin 1 and 2/3)			
No Load Input Current		15		mA
Input reflected current		20		mA _{p-p}

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1600	VDC
Resistance		>1000		MOhm
Capacitance		1500		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Over voltage protection	Zener Diode Clamp			%
Over current protection		150		%
Short Circuit protection		Continuous		
Short circuit restart		Auto-Recovery		
Line voltage regulation	HL-LL	±0.2		% of Vin
Load voltage regulation (Single)	0 – 100% load	±0.5		%
Load voltage regulation (Dual)	0 – 100% load	±1		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	75		mV p-p
Minimum Load Current		0		% of Max

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	270		KHz
Operating temperature	Derating above +70	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			105	°C
Cooling		Free air convection		
Humidity			95	% RH
Case material		Nickel plated Cooper		
Weight		18		g
Dimensions (L x W x H)		1.25 x 0.80 x 0.12 inches	31.80 x 20.30 x 10.20 mm	
MTBF		> 1,000,100 hours(MIL-HDBK-217F , Ground Benign, t=+25°C)		
Maximum soldering temperature	1.5mm from case for 10sec		260	°C
Transient recovery time		250		µS
Transient recovery deviation		±3		%

Safety Specifications

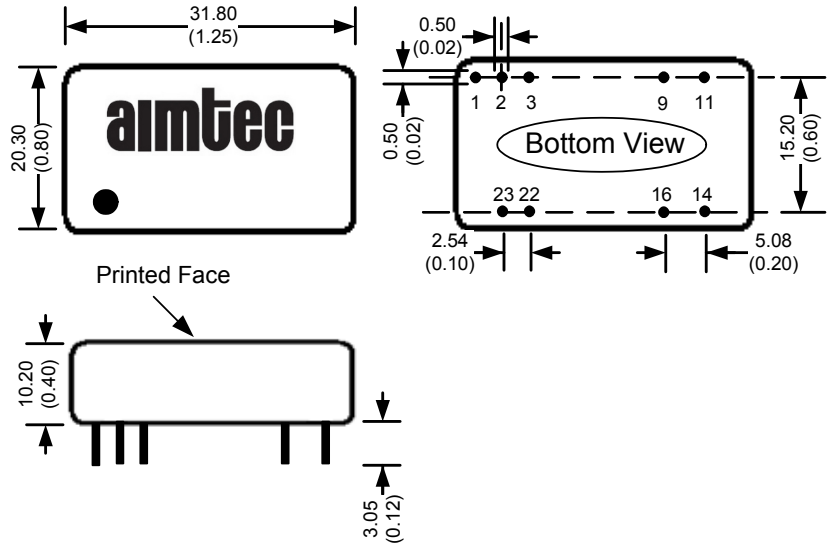
Parameters	
Agency Approval	CE
Standards	EN55022 Class A, EN55024
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B (external 330µF/100V cap required)
	IEC61000-4-5, Perf. Criteria B (external 330µF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A

Pin Out Specifications

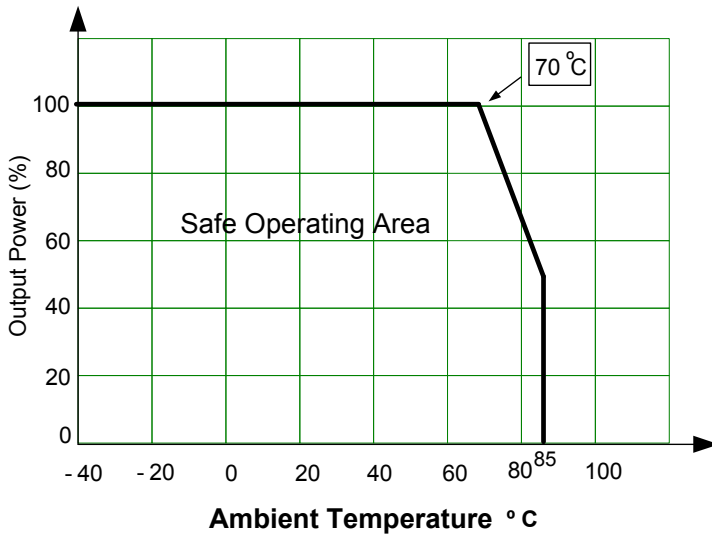
Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-V Input	-V Input
3	-V Input	-V Input
9	No Pin	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

N.C.: Not Connected

Dimensions

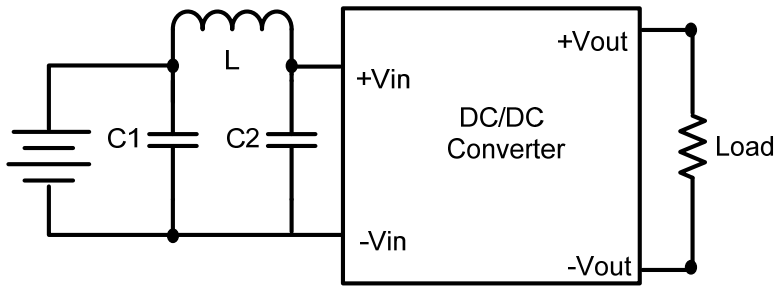


Derating



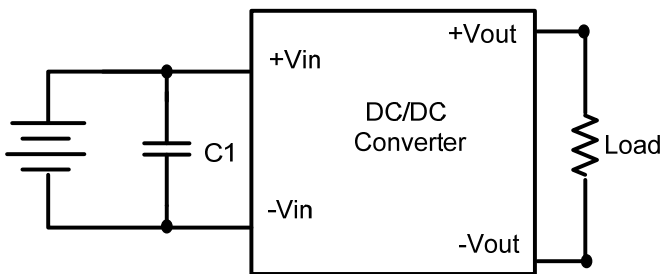
Recommended Circuits

Conducted Emissions



C1	L	C2
2.2uF, 100V	12uH	2.2uF, 100V

Surge/EFT



C1
330uF, 100V

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.