



FEATURES:

- Wide Input Range 2:1
- 1600 Vdc Isolation
- Efficiency up to 91%
- Soft Start
- Remote On/Off Function
- No Minimum Load Required
- -40°C to +85°C Operating Temperature Range
- Short Circuit & Over Voltage Protection
- DIP 24 Package
- Low No Load Input Current



Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Maximum Capacitive load (μF)	Efficiency (%)
AM12T-1202SZ	9-18	2.5	3500	1600	2000	85
AM12T-1203SZ	9-18	3.3	3500	1600	2000	87
AM12T-1205SZ	9-18	5	2400	1600	2000	89
AM12T-1212SZ	9-18	12	1000	1600	430	90
AM12T-1215SZ	9-18	15	800	1600	300	90
AM12T-2402SZ	18-36	2.5	3500	1600	2000	85
AM12T-2403SZ	18-36	3.3	3500	1600	2000	87
AM12T-2405SZ	18-36	5	2400	1600	2000	89
AM12T-2412SZ	18-36	12	1000	1600	430	90
AM12T-2415SZ	18-36	15	800	1600	300	90
AM12T-4802SZ	36-75	2.5	3500	1600	2000	84
AM12T-4803SZ	36-75	3.3	3500	1600	2000	88
AM12T-4805SZ	36-75	5	2400	1600	2000	89
AM12T-4812SZ	36-75	12	1000	1600	430	88
AM12T-4815SZ	36-75	15	800	1600	300	89

Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Maximum Capacitive load (μF)	Efficiency (%)
AM12T-1212DZ	9-18	±12	±500	1600	±200	90
AM12T-1215DZ	9-18	±15	±400	1600	±120	91
AM12T-2412DZ	18-36	±12	±500	1600	±200	90
AM12T-2415DZ	18-36	±15	±400	1600	±120	91
AM12T-4812DZ	36-75	±12	±500	1600	±200	88
AM12T-4815DZ	36-75	±15	±400	1600	±120	89

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	12	9-18		VDC
	24	18-36		
	48	36-48		
Filter	π (Pi) Network			
Turn on Transient process time		250		μs
Transient response deviation			±3	%
Start up time	Nominal Vin and constant resistive load		20	ms
Absolute Maximum Rating	12 Vin models	-0.7-36		VDC
	24 Vin models	-0.7-50		
	48 Vin models	-0.7-100		

Input Specifications (continued)

Parameters	Nominal	Typical	Maximum	Units
Peak Input Voltage time			1000	ms
Input reflected ripple current			20	mA p-p
Quiescent Current		15		mA
On/Off Control	ON – High (3.0 ... 12Vdc) or open circuit; OFF – Low (0 ... 1.2Vdc) or Short circuit pin1 and pin 2/3 OFF idle current: 5.0 mA typ			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1600	VDC
Tested Case/Input and Output		1600		VDC
Resistance		>1000		MOhm
Capacitance		1200		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1.2		%
Voltage balance	Dual output	±5		%
Line voltage regulation	HL-LL	±0.5		%
Load voltage regulation (Single)	0% Load to Full Load	±0.5		%
Load voltage regulation (Dual)	0% Load to Full Load	±1.0		%
Over voltage protection		Zener diode clamp		
Over current protection	Full Load	150		%
Short Circuit protection		Continuous		
Short circuit restart		Auto recovery		
Ripple & Noise		85		m Vp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	330		KHz
Operating temperature	Full Load with Derating above 60°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Max Case temperature			100	°C
Temperature coefficient		±0.02		%/°C
Derating	Above 60°C	2.5 % per 1°C		
Cooling		Free air convection		
Humidity			95	% RH
Case material		Nickel-coated Copper		
Potting material		UL94V-0 rated		
Weight		18.0		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		>1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		

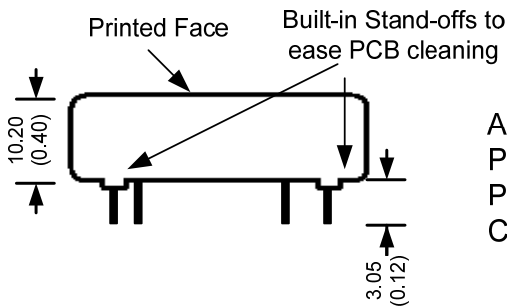
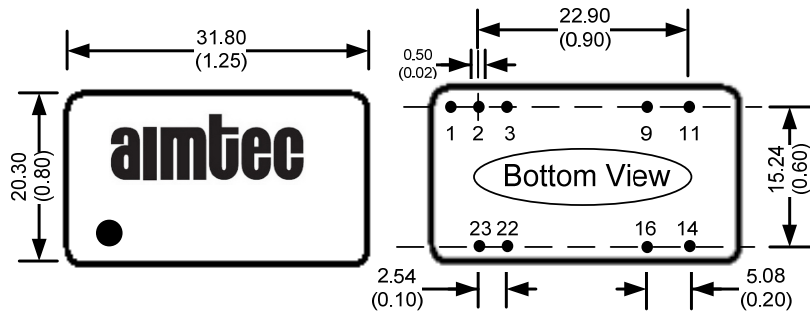
Safety Specifications

Parameters	
Agency Approval	CE
Standards	IEC 60950-1:2005 (2 nd Edition); EN 60950-1: 2006
	EN55022 Class A, EN55024
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B (external 330uF/100V cap required)
	IEC61000-4-5, Perf. Criteria B (external 330uF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A

Pin Out Specifications

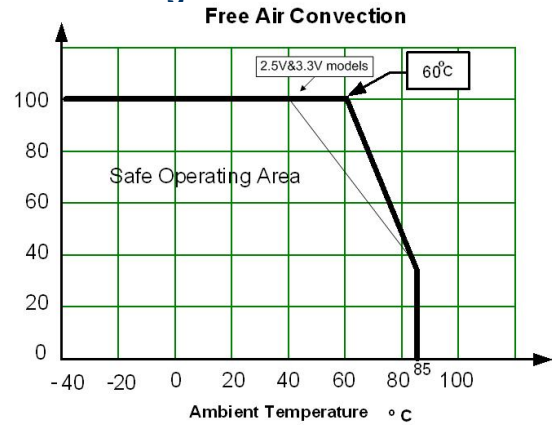
Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-V Input	-V Input
3	-V Input	-V Input
9	No Pin	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions



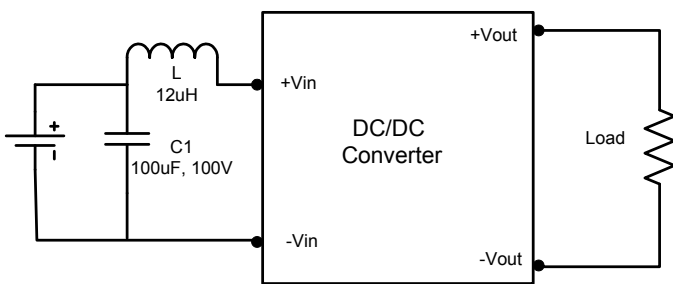
All dimensions are typical: millimeters (inches)
 Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
 Pin Pitch Tolerance: ± 0.35 (± 0.014)
 Case Tolerance: ± 0.5 (± 0.02)

Derating

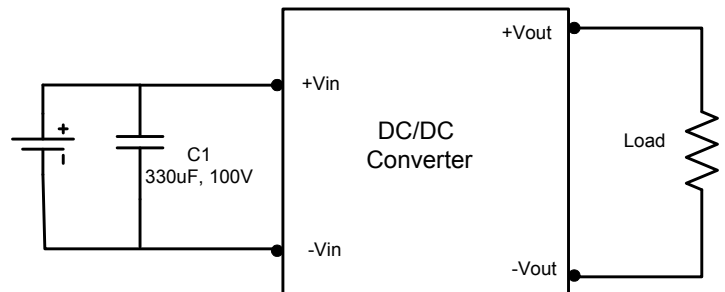


Test Circuits

Conducted Emissions :



Surge:



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