

FEATURES:

- Short Circuit, OC & OVP Protection
- DIP 24 Package
- output short circuit protection
- Wide 2:1 input range
- Meets EN55032 Class A without external circuit
- Operating temperature -40°C to + 85°
- Input under-voltage protection
- over-current, over-voltage protection
- Low ripple and noise
- Input/output Isolation voltage 1500VDC

Picture coming soon



Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive Load, max(uf)	Efficiency (%)
AM10T-1212SNZ	9-18	12	833	470	87
AM10T-1215SNZ	9-18	15	667	330	87
AM10T-1224SNZ	9-18	24	416	100	88
AM10T-2412SNZ	18-36	12	833	470	87
AM10T-2415SNZ	18-36	15	667	330	87
AM10T-2424SNZ	18-36	24	416	100	88
AM10T-4812SNZ	36-75	12	833	470	87
AM10T-4815SNZ	36-75	15	667	330	87
AM10T-4824SNZ	36-75	24	416	100	88

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive Load, max(uf)	Efficiency (%)
AM10T-1205DNZ	9-18	±5	±1000	1000	83
AM10T-1212DNZ	9-18	±12	±416	470	87
AM10T-1215DNZ	9-18	±15	±333	330	87
AM10T-2405DNZ	18-36	±5	±1000	1000	83
AM10T-2412DNZ	18-36	±12	±416	470	87
AM10T-2415DNZ	18-36	±15	±333	330	87
AM10T-4805DNZ	36-75	±5	±1000	1000	83
AM10T-4812DNZ	36-75	±12	±416	470	87
AM10T-4815DNZ	36-75	±15	±333	330	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	12	9-18		VDC
	24	18-36		
	48	36-75		
Input current (Full load/No load)	12		1028/15	
	24		515/12	
	48		258/8	
Filter	Capacitor			
Input reflected ripple Current	12	50		
	24	40		
	48	30		
Absolute Maximum Rating	12 Vin		25	VDC
	24 Vin		50	
	48 Vin		100	
Permissible absolute maximum duration			1	S

Input Specifications(Continued)

Parameters	Nominal	Typical	Maximum	Units
Remote On/Off Control	On	3.5-12VDC or leave open		
	Off	0-1.2VDC or connect to GND, idle current 6-10mA		
	Input Current when Off	6	10	mA

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		2000		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Positive Output	±0.5		%
	Negative Output	±1		
Short Circuit protection		Continuous		
Short Circuit restart		Auto recovery		
Over voltage protection	Zener diode clamp	>110%		VDC
Line voltage regulation	Positive Output	±0.2		%
	Negative Output	±0.5		
Load voltage regulation	5% – 100% full load	±0.5		%
	0% – 5% load	±5		
Temperature coefficient	Full load	±0.03		%/°C
Transient recovery time	25% load step change,	0.3	0.5	mS
Transient recovery deviation	25% load step change	±3	±5	%
Ripple & Noise	20Mhz bandwidth, 5%-100% load	40		mV p-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	350		KHz
Operating temperature	Derating above +71 °C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Cooling		Free air convection		
Humidity			95	%
Case material		Aluminum Alloy		
Weight		14		g
Dimensions (L x W x H)	Tolerance ±0.02 inch, ±0.5mm	1.26 x 0.78 x 0.42 inches	32.00 x 20.00 x 10.80 mm	
MTBF		1000 K 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.

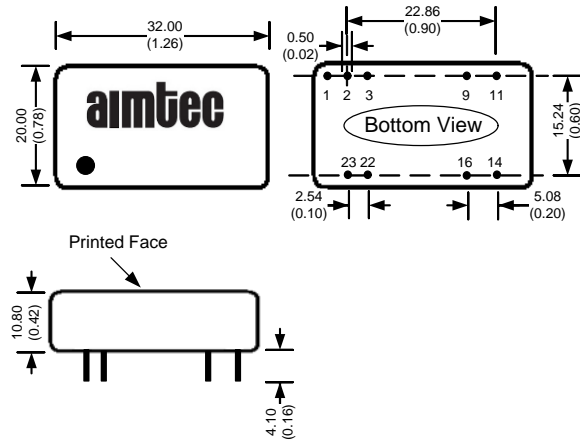
Safety Specifications

Parameters		
Standards	Designed to meet IEC/EN/UL60950-1	
	EN 55032, class A (without external circuit), EN55032 Class B with EMC recommended circuit	
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact ±4KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3, 10V/m, Criteria A
	Electrical Fast Transient / Burst Immunity	IEC 61000-4-4, ±2KV, Criteria B (with the recommended EMC circuit)
	Surge Immunity	IEC 61000-4-5, ±2KV, Criteria B (with the recommended EMC circuit)
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, 10 Vrms, Criteria A
Voltage dips, Short Interruptions & Voltage variations Immunity	IEC 61000-4-29: 0-70%, Criteria B	

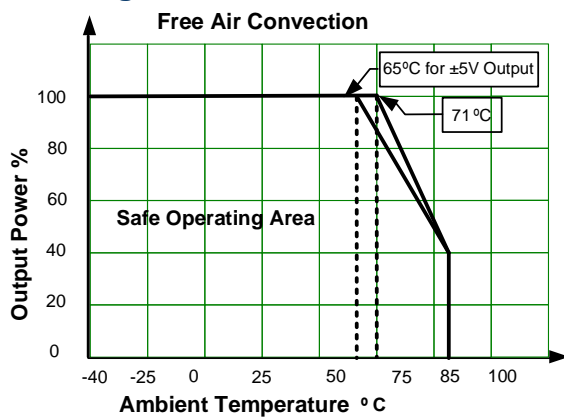
Pin Out Specifications

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

Dimensions

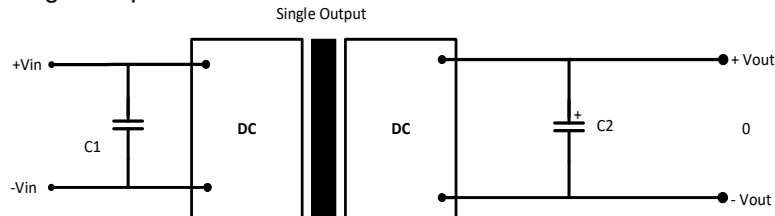


Derating



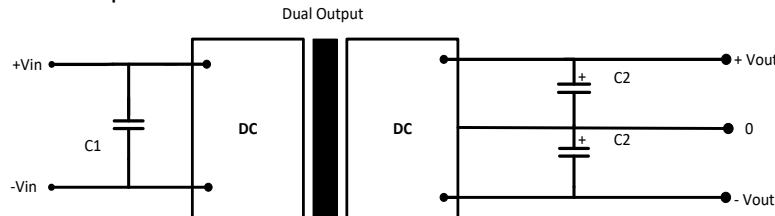
Typical Application Circuit Single Output

Single Output

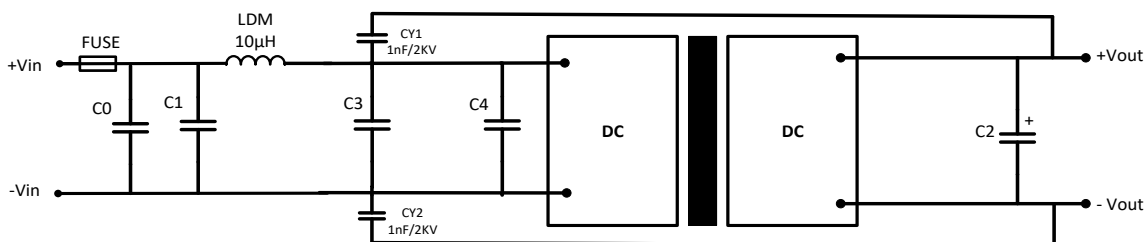


Vin (VDC)	C1	C2
12/24	100μF	10μF
48	10μF~47μF	10μF

Dual Output



EMC Recommended circuit



Vin (VDC)	C0 & C4	C1 & C3	C2	FUSE
12	470 μ F/35V	10 μ F/50V	10 μ F	Choose as per input current
24	330 μ F/50V	10 μ F/50V	10 μ F	
48	330 μ F/50V	10 μ F/100V	10 μ F	

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.

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