

Series AM8T-IZ

8 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Wide 2:1 input range
- Power modules for PCB mounting
- 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)	Input Current FL NL (mA)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (uF)	Ripple & Noise max (mV p-p)	Efficiency (%)
AM8T-0503SIZ	4.5-9	1427 50	3.3	1600	2200	80	74
AM8T-0505SIZ	4.5-9	2133 50	5	1600	1000	80	75
AM8T-0512SIZ	4.5-9	2084 30	12	660	330	120	76
AM8T-0515SIZ	4.5-9	2092 30	15	530	220	150	76
AM8T-1203SIZ	9-18	579 50	3.3	1600	2200	80	76
AM8T-1205SIZ	9-18	833 50	5	1600	1000	80	80
AM8T-1212SIZ	9-18	805 30	12	660	330	120	82
AM8T-1215SIZ	9-18	808 30	15	530	220	150	82
AM8T-2403SIZ	18-36	278 40	3.3	1600	2200	80	79
AM8T-2405SIZ	18-36	407 40	5	1600	1000	80	82
AM8T-2412SIZ	18-36	388 30	12	660	330	120	85
AM8T-2415SIZ	18-36	399 30	15	530	220	150	83
AM8T-4803SIZ	36-75	141 30	3.3	1600	2200	80	78
AM8T-4805SIZ	36-75	203 30	5	1600	1000	80	82
AM8T-4812SIZ	36-75	201 20	12	660	330	120	82
AM8T-4815SIZ	36-75	200 20	15	530	220	150	83

Models

Dual output

Model	Input Voltage (V)	Input Current FL NL (mA)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (uF)	Ripple & Noise max (mV p-p)	Efficiency (%)
AM8T-0505DIZ	4.5-9	2162 30	±5	±800	±680	80	74
AM8T-0512DIZ	4.5-9	2057 30	±12	±330	±220	120	77
AM8T-0515DIZ	4.5-9	1975 30	±15	±260	±100	150	79
AM8T-1205DIZ	9-18	844 30	±5	±800	±680	80	79
AM8T-1212DIZ	9-18	795 30	±12	±330	±220	120	83
AM8T-1215DIZ	9-18	802 30	±15	±260	±100	150	81
AM8T-2405DIZ	18-36	422 30	±5	±800	±680	80	79
AM8T-2412DIZ	18-36	398 30	±12	±330	±220	120	83
AM8T-2415DIZ	18-36	392 30	±15	±260	±100	150	83
AM8T-4805DIZ	36-75	216 20	±5	±800	±680	80	77
AM8T-4812DIZ	36-75	201 20	±12	±330	±220	120	82
AM8T-4815DIZ	36-75	203 20	±15	±260	±100	150	80

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5 12 24 48	4.5-9 9-18 18-36 36-75		VDC
Filter	π (Pi) Network			

Absolute Maximum Rating	5 Vin 12 Vin 24 Vin 48 Vin		16 25 50 100	VDC
Permissible absolute maximum duration			100	ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		256		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Short Circuit protection		Continuous		
Short Circuit restart		Auto recovery		
Over voltage protection		Zener diode clamp		
Over load protection	Auto recovery	Over 110% full load		
Line voltage regulation (Single)	HL-LL	±0.5		%
Line voltage regulation (Dual)	HL-LL	±0.5		%
Load voltage regulation (Single)	25 – 100% load	±0.5		%
Load voltage regulation (Dual)	25 – 100% load	±2		%
Temperature coefficient		±0.05		%/°C

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	Derating above +70 °C		-40 to +75	°C
Storage temperature			-55 to +115	°C
Maximum Case temperature			+95	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated cooper		
Weight		33		g
Dimensions (L x W x H)	Tolerance ±0.02 inch, ±0.5mm	1.25 x 0.80 x 0.42 inches	31.80 x 20.30 x 10.80 mm	
MTBF		> 800 000 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.

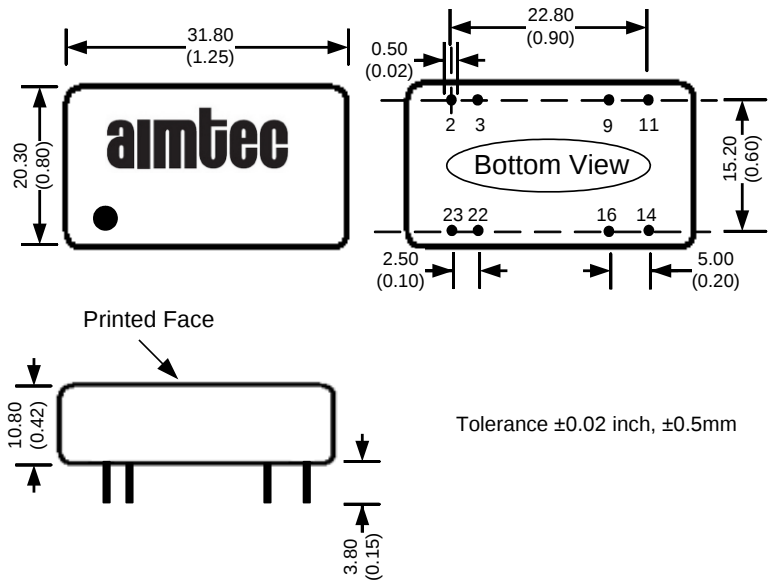
Safety Specifications

Standards	
Agency approvals	CE
Safety	EN 55022: 2006 + A1: 2007
	EN 55024: 1998 + A1:2001 + A2:2003
	IEC 61000-4-2: 2008
	IEC 61000-4-3: 2006 + A1: 2007
	IEC 61000-4-4: 2004
	IEC 61000-4-6: 2008
	IEC 61000-4-8: 2009

Pin Out Specifications

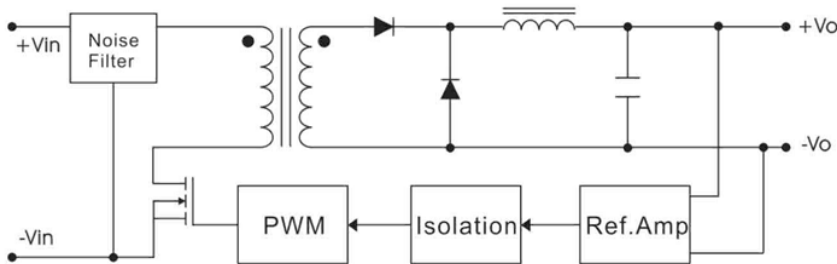
Pin	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	N.C.	Common
10	Omitted	Omitted
11	N.C.	-V Output
14	+V Output	+ V Output
15	Omitted	Omitted
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions

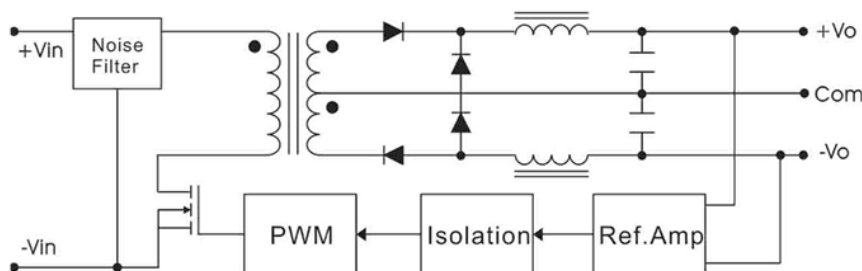


Block Diagrams

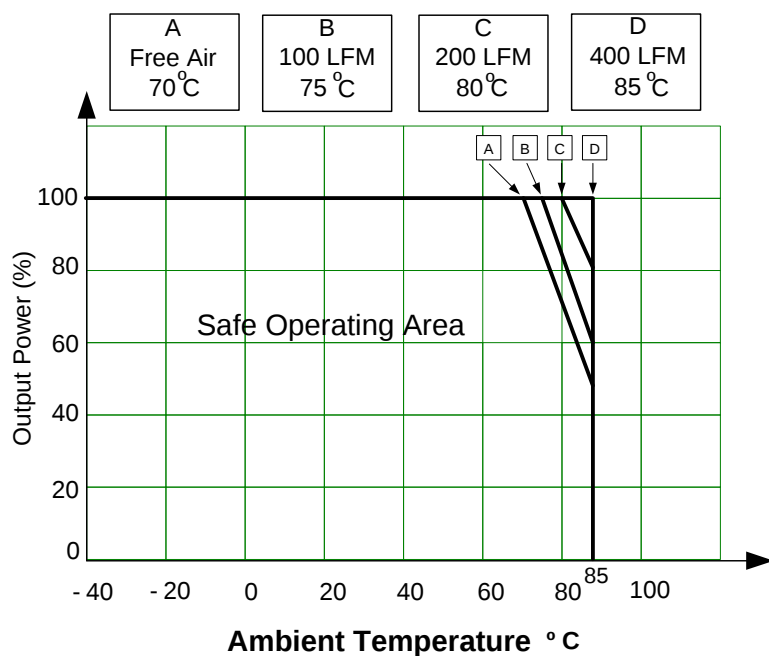
Single Output



Dual Output



Derating



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