

Series AM8TW-IZ

8 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Wide 4:1 input range
- Power modules for PCB mounting
- Over Voltage Protection
- Operating temperature -40°C to + 75°C
- Regulated output
- Low ripple and noise
- Input/Output Isolation voltage 1500VDC
- Continuous Short Circuit Protection



Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Max. Capacitive Load (μF)	Ripple & Noise typ.	Efficiency (%)
AM8TW-2403SIZ	9-36	3.3	1400	2000	80mV p-p	76
AM8TW-2405SIZ	9-36	5	1500	2000	80mV p-p	82
AM8TW-2412SIZ	9-36	12	620	300	120mV p-p	84
AM8TW-2415SIZ	9-36	15	500	300	150mV p-p	84
AM8TW-4803SIZ	18-75	3.3	1400	2000	80mV p-p	76
AM8TW-4805SIZ	18-75	5	1500	2000	80mV p-p	82
AM8TW-4812SIZ	18-75	12	620	300	120mV p-p	84
AM8TW-4815SIZ	18-75	15	500	300	150mV p-p	84
AM8TW-11005SIZ	36-160	5	1400	2000	80mV p-p	80
AM8TW-11012SIZ	36-160	12	580	300	120mV p-p	80
AM8TW-11015SIZ	36-160	15	460	300	150mV p-p	81
AM8TW-11024SIZ	36-160	24	290	300	240mV p-p	81

Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Max. Capacitive Load (μF)	Ripple & Noise typ.	Efficiency (%)
AM8TW-2405DIZ	9-36	±5	±750	2000	80mV p-p	82
AM8TW-2412DIZ	9-36	±12	±310	300	120mV p-p	84
AM8TW-2415DIZ	9-36	±15	±250	300	150mV p-p	84
AM8TW-4805DIZ	18-75	±5	±750	2000	80mV p-p	82
AM8TW-4812DIZ	18-75	±12	±310	300	120mV p-p	84
AM8TW-4815DIZ	18-75	±15	±250	300	150mV p-p	83
AM8TW-11005DIZ	36-160	±5	±750	2000	80mV p-p	75
AM8TW-11012DIZ	36-160	±12	±310	300	120mV p-p	81
AM8TW-11015DIZ	36-160	±15	±250	300	150mV p-p	82

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage range	24 48 110	9-36 18-75 36-160		VDC
Filter	π (Pi) Network			
Absolute Maximum Rating	24 Vin 48 Vin		40 83	VDC
Permissible absolute maximum duration			2	h

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		1000		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		Over 110% full load with auto recovery		
Line voltage regulation (Single)	HL-LL	±0.5		%
Line voltage regulation (Dual)	HL-LL	±0.5		%
Load voltage regulation (Single)	10-100%	±0.5		%
Load voltage regulation (Dual)	10-100%	±2		%
Temperature coefficient		±0.05		%/°C

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	Derating above 70	-40 to +75		°C
Storage temperature		-55 to +115		°C
Max Case temperature			95	°C
Derating	Above 70			°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated copper		
Weight		16		g
Dimensions (L x W x H)	Tolerance ±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.

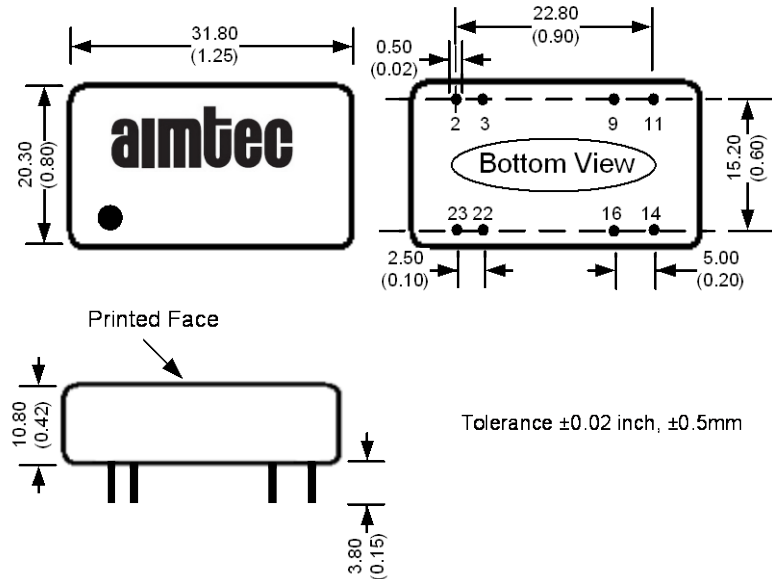
Safety Specifications

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

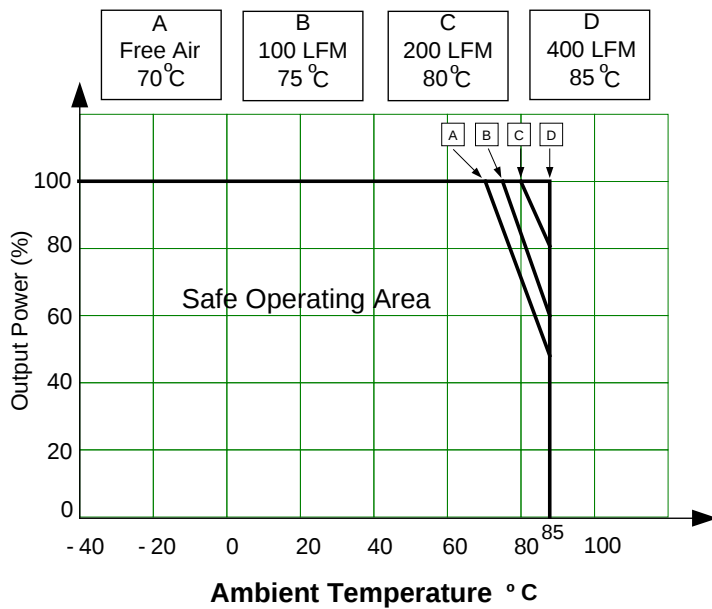
Pin Out Specifications

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

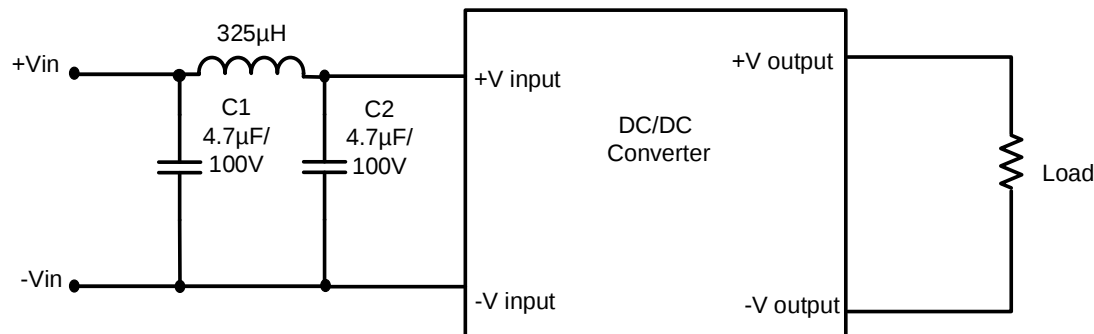
Dimensions



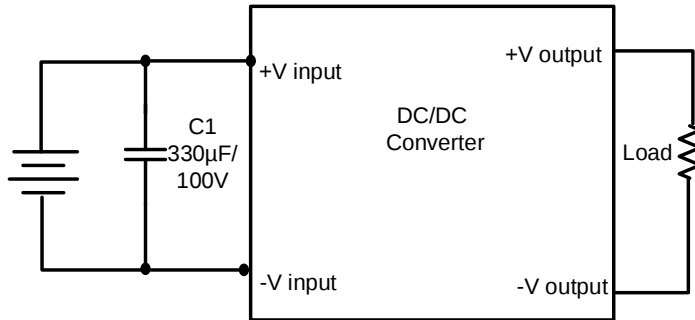
Derating



Recommended EMI external circuit:



Recommended EFT/Surge Protection circuit:



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