aimtec
Your Power Partner

Series AM10EW-Z
10 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- Efficiency up to 85%
- Wide 4:1 input range
- Continuous Short Circuit Protection
- Low ripple and noise
- Remote on/off control
- Input/Output Isolation 1500VDC
- Operating temperature -40°C to + 85°C

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load max (µF)	Efficiency (%)
AM10EW-2403SZ	9-36	3.3	2	3300	79
AM10EW-2405SZ	9-36	5	2	3300	82
AM10EW-2412SZ	9-36	12	0.83	680	85
AM10EW-2415SZ	9-36	15	0.67	470	85
AM10EW-4803SZ	18-72	3.3	2	3300	79
AM10EW-4805SZ	18-72	5	2	3300	82
AM10EW-4812SZ	18-72	12	0.83	680	85
AM10EW-4815SZ	18-72	15	0.67	470	85

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load (µF)	Efficiency (%)
AM10EW-2405DZ	9-36	±5	±1	±2200	82
AM10EW-2412DZ	9-36	±12	±0.416	±470	85
AM10EW-2415DZ	9-36	±15	±0.333	±330	85
AM10EW-4805DZ	18-72	±5	±1	±2200	82
AM10EW-4812DZ	18-72	±12	±0.416	±470	85
AM10EW-4815DZ	18-72	±15	±0.333	±330	85

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24	9-36		VDC
	48	18-72		
Filter		π (Pi) Network		
Remote ON/OFF Control	ON	2.5~5.5 or open circuit		VDC
	OFF	-0.7~ 0.8 or short circuit b/n pin 2 & 1		
Turn on Transient process time			350	ms
Start up time		20		ms
Absolute Maximum Rating	24 Vin	-0.7-40		VDC
	48 Vin	-0.7-80		
Peak Input Voltage time			100	ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1500	VDC
Case/ Input & Output		1000		VDC
Resistance		> 1000		MOhm
Capacitance		1200		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance (Dual output)	Balance Load	±1		%
Short Circuit protection		Continuous		
Short Circuit restart		Auto Recovery		
Current limiting			140	% of Iout max
Line voltage regulation	HL-LL	±0.5		%
Load voltage regulation	10-100% load	±0.5		%
Load voltage regulation	10% load	±1.0		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	20Mhz bandwidth	75		mV p-p
Rising time		10		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature		-40 to +85		°C
Storage temperature		-40 to +125		°C
Max case temperature			100	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated copper		
Weight		30		g
Dimensions (L x W x H)	Tolerance ±0.5mm	2.00 x 1.00 x 0.40 inches 50.80 x 25.00 x 10.16 mm		
MTBF		>1 121 000 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.

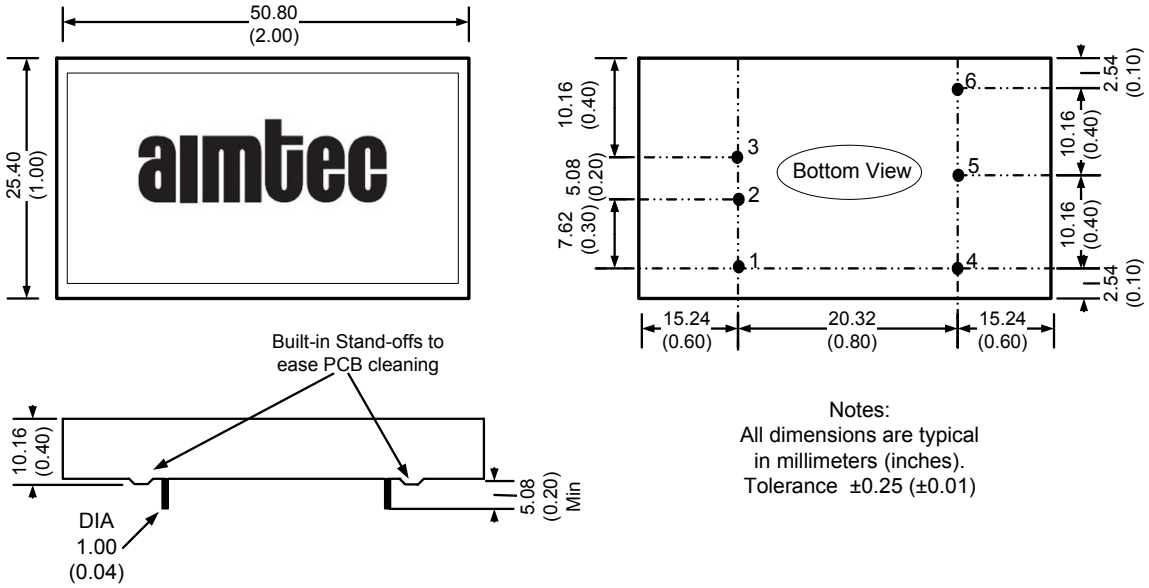
Safety Specifications

Parameters	
Agency Approvals	CE, meets IEC 60950 1:2001
Standards	EN55022 Class A, EN55024
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A

Pin Out Specifications

Pin	Single	Dual
1	On/Off Control	On/Off Control
2	-V Input	-V Input
3	+V Input	+V Input
4	-V Output	-V Output
5	No Pin	Common
6	+V Output	+V Output

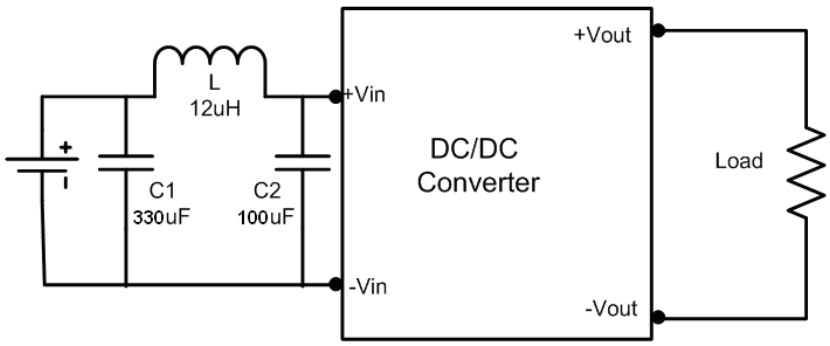
Dimensions



Notes:
All dimensions are typical
in millimeters (inches).
Tolerance ±0.25 (±0.01)

Test Circuit

Conducted Emissions



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