



FEATURES:

- Ultra compact footprint 1"x1"
- Ultra-wide Input Range 4:1
- 1600 VDC Isolation
- Remote ON/OFF Function
- No Minimum Load Required
- Adjustable Output Voltage
- Operating Temperature -40°C to +85°C
- Over Current and Over Voltage Protection
- Efficiency up to 89%
- RoHS Compliant

Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Efficiency (%)
AM15CW-2403SZ	9-36	3.3	4	1600	86
AM15CW-2405SZ	9-36	5	3	1600	87
AM15CW-2412SZ	9-36	12	1.3	1600	88
AM15CW-2415SZ	9-36	15	1	1600	89
AM15CW-4803SZ	18-75	3.3	4	1600	84
AM15CW-4805SZ	18-75	5	3	1600	86
AM15CW-4812SZ	18-75	12	1.3	1600	87
AM15CW-4815SZ	18-75	15	1	1600	88

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Efficiency (%)
AM15CW-2405DZ	9-36	±5	±1.5	1600	85
AM15CW-2412DZ	9-36	±12	±0.625	1600	88
AM15CW-2415DZ	9-36	±15	±0.5	1600	89
AM15CW-4805DZ	18-75	±5	±1.5	1600	84
AM15CW-4812DZ	18-75	±12	±0.625	1600	87
AM15CW-4815DZ	18-75	±15	±0.5	1600	88

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	24 48	9-36 18-75		VDC
Filter	π			
Start up time	Nominal Vin with constant resistive load	20		ms
Absolute Maximum Rating	24 Vin 48 Vin		50 100	VDC
Peak Input Voltage time			100	ms
On/Off control	ON –3 to 12VDC (or open) ; OFF – 0 to 1.2VDC or short pin 2 to pin 3; OFF idle current – 5mA			
No load current			15	mA
Under voltage lockout	24 Vin ON/OFF 48Vin ON/OFF	8.5 /7 17/15		VDC
Input reflected ripple current		20		mA p-p

Isolation Specifications

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

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Cross Regulation (Dual Output Models)	25% load on one output - 100% load on second load	±5		%
Over voltage protection	Zener Diode Clamp	120		%
Over current protection	Full Load	170		%
Short Circuit protection		Continuous		
Short circuit restart		Auto-Recovery		
Line voltage regulation	HL-LL	±0.2		%
Load voltage regulation (Single)	0% to 100% load	±0.5		%
Load voltage regulation (Dual)	0% to 100% balanced load	±1		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	100		mV p-p
Voltage adjustment range	Trim - Single output models only	10		%

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	375		KHz
Operating temperature	With derating above +55°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Derating		2.6		%/°C
Cooling		Free air convection		
Humidity			95	% RH
Case material		Nickel-coated copper		
Weight		18		g
Dimensions (L x W x H)		1.00 x 1.00 x 0.40 inches	25.40 x 25.40 x 10.16 mm	
MTBF		> 560,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Maximum soldering temperature	1.5mm from case for 10 sec		260	°C
Transient recovery time	Load step change 75% to 50% to 25%	250		µS
Transient recovery deviation	Load step change 75% to 50% to 25%	±3		%

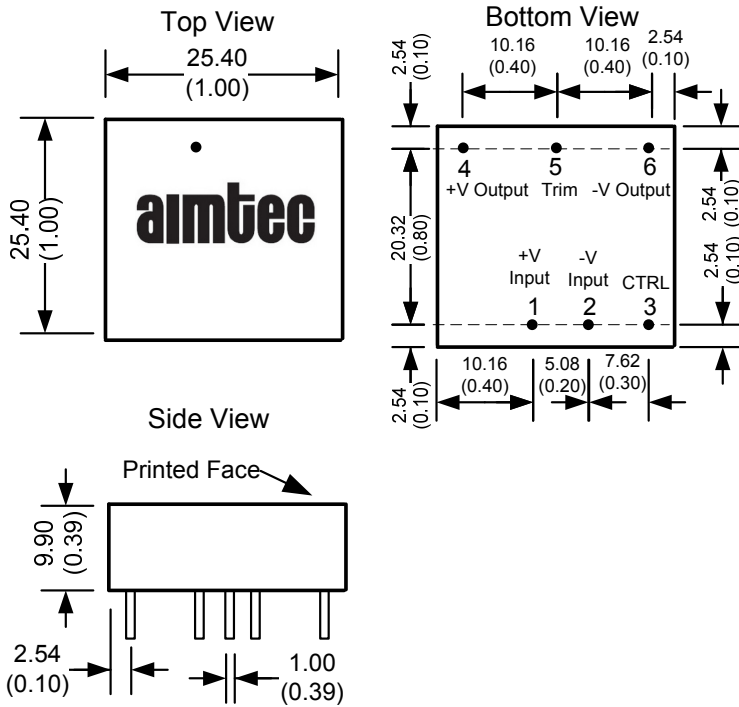
Safety Specifications

Parameters	
Agency Approvals	CE
Standards	EN 55022 Class A
	EN 61000-4-2 Perf. Criteria A
	EN 61000-4-3 Perf. Criteria A
	EN 61000-4-4 Perf. Criteria A (external 220µF/100V cap required)
	EN 61000-4-5 Perf. Criteria A (external 220µF/100V cap required)
	EN 61000-4-6 Perf. Criteria A
	EN 61000-4-8 Perf. Criteria A
	NOTE: also designed to meet IEC/EN 60950-1

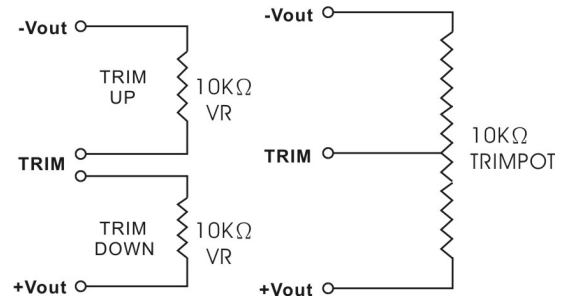
Pin Out Specifications

Pin	Single	Dual
1	+ V input	+ V input
2	- V input	- V input
3	On/Off Control	On/Off Control
4	+ V output	+ V output
5	Trim	Common
6	- V output	- V output

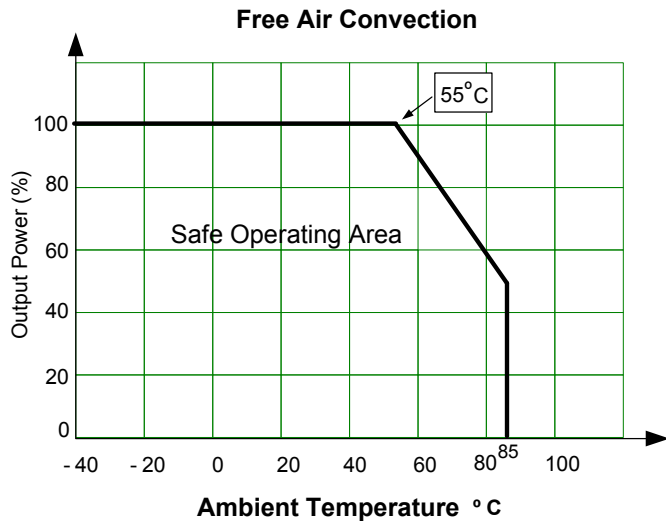
Dimensions



Trimming



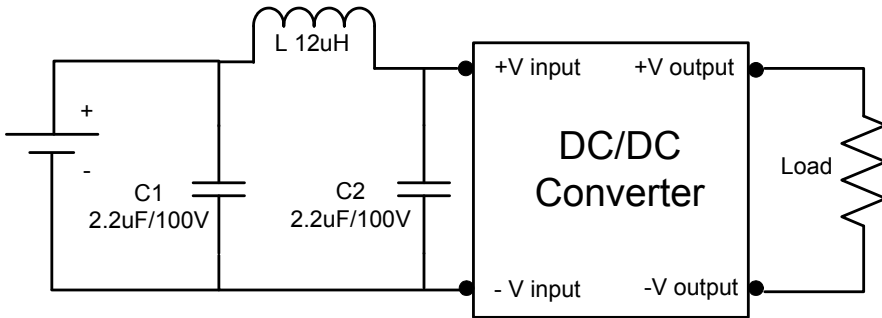
Derating



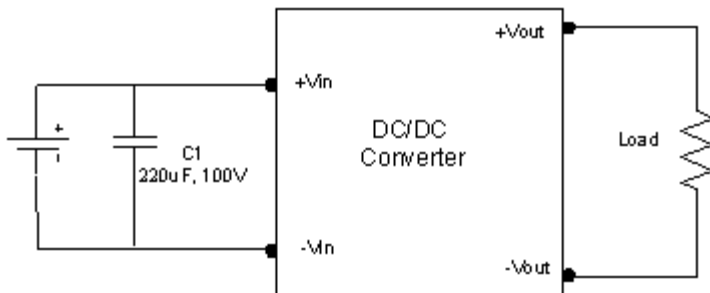
Test Circuits

Notes

1. Input filter (C1, C2, L) are needed to meet conducted emission (EN 55022 Class A) and should be mounted as close as possible to the converter.



Surge:



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