

**FEATURES:**

- RoHS compliant
- Full SMD internal technology
- Wide 2:1 input range
- High efficiency up to 88%
- Pin compatible with multiple manufacturers
- Operating temperature -40°C to + 85°C
- Input/Output Isolation 1500VDC
- Continuous short circuit protection
- Low profile metal package

Models

Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load, max (µF)	Efficiency (%)
AM15E-1203SZ	9-18	3.3	3	3300	79
AM15E-1205SZ	9-18	5	3	3300	83
AM15E-1207SZ	9-18	7.2	2	2200	83
AM15E-1209SZ	9-18	9	1.66	1000	83
AM15E-1212SZ	9-18	12	1.25	1000	85
AM15E-1215SZ	9-18	15	1	680	85
AM15E-1218SZ	9-18	18	0.8	470	83
AM15E-1224SZ	9-18	24	0.62	470	85
AM15E-2403SZ	18-36	3.3	3	3300	80
AM15E-2405SZ	18-36	5	3	3300	85
AM15E-2407SZ	18-36	7.2	2	2200	84
AM15E-2409SZ	18-36	9	1.66	1000	85
AM15E-2412SZ	18-36	12	1.25	1000	86
AM15E-2415SZ	18-36	15	1	680	88
AM15E-2418SZ	18-36	18	0.8	470	86
AM15E-2424SZ	18-36	24	0.62	470	86
AM15E-4803SZ	36-72	3.3	3	3300	80
AM15E-4805SZ	36-72	5	3	3300	85
AM15E-4807SZ	36-72	7.2	2	2200	85
AM15E-4809SZ	36-72	9	1.66	1000	85
AM15E-4812SZ	36-72	12	1.25	1000	88
AM15E-4815SZ	36-72	15	1	680	87
AM15E-4818SZ	36-72	18	0.8	470	86
AM15E-4824SZ	36-72	24	0.62	470	85

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load, max (µF)	Efficiency (%)
AM15E-1203DZ	9-18	±3.3	±2	±1000	79
AM15E-1205DZ	9-18	±5	±1.5	±1000	83
AM15E-1207DZ	9-18	±7.2	±1	±680	82
AM15E-1209DZ	9-18	±9	±0.83	±470	82
AM15E-1212DZ	9-18	±12	±0.62	±470	85
AM15E-1215DZ	9-18	±15	±0.5	±330	85
AM15E-1218DZ	9-18	±18	±0.4	±220	82
AM15E-1224DZ	9-18	±24	±0.31	±220	85
AM15E-2403DZ	18-36	±3.3	±2	±1000	80
AM15E-2405DZ	18-36	±5	±1.5	±1000	85
AM15E-2407DZ	18-36	±7.2	±1	±680	82
AM15E-2409DZ	18-36	±9	±0.83	±470	82

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Capacitive load, max (μF)	Efficiency (%)
AM15E-2412DZ	18-36	±12	±0.62	±470	86
AM15E-2415DZ	18-36	±15	±0.5	±330	87
AM15E-2418DZ	18-36	±18	±0.4	±220	82
AM15E-2424DZ	18-36	±24	±0.31	±220	86
AM15E-4803DZ	36-72	±3.3	±2	±1000	80
AM15E-4805DZ	36-72	±5	±1.5	±1000	85
AM15E-4807DZ	36-72	±7.2	±1	±680	85
AM15E-4809DZ	36-72	±9	±0.83	±470	85
AM15E-4812DZ	36-72	±12	±0.62	±470	86
AM15E-4815DZ	36-72	±15	±0.5	±330	85
AM15E-4818DZ	36-72	±18	±0.4	±220	84
AM15E-4824DZ	36-72	±24	±0.31	±220	85

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	36-72		
Filter	π (Pi) Network			
Start up time		20		ms
Absolute Maximum Rating	12 Vin	-0.7-24		VDC
	24 Vin	-0.7-40		
	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
Resistance		> 1000		MOhm
Capacitance		470		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance (Dual output model)	Balanced load	±1		%
Short Circuit protection	Continuous			
Short circuit restart	Auto Recovery			
Current limiting		120		%
Line voltage regulation (Single)	HL-LL	±0.5		%
Line voltage regulation (Dual)	HL-LL	±0.5		%
Load voltage regulation (Single)	10-100% load	±0.5		%
Load voltage regulation (Dual)	10-100% load	±0.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	100		mV p-p
Rising time		10		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	200		KHz
Operating temperature	derating above 71°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Nickel coated copper		
Potting material		UL94V-0 rated		
Weight		30		g
Dimensions (L x W x H)	Tolerance ±0.5mm	2.00 x 1.00 x 0.40 inches	50.80 x 25.40 x 10.16 mm	
MTBF		> 1,121,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Transient recovery time	At nominal input, 25% load step change (75% - 50% -25% of Iout)	350		mS

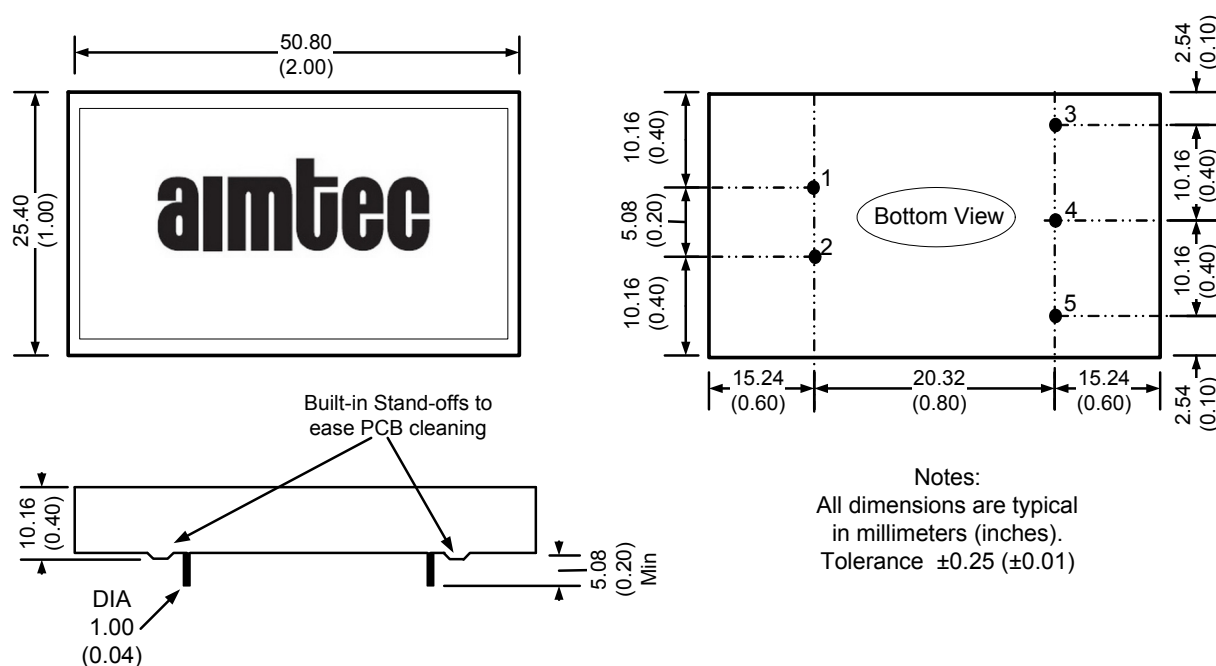
Safety Specifications

Parameters	
Agency approvals	CE
Standards	EN 55022 (Radiated) – Class A; EN 55024 – Class A; IEC61000-4-2 ; IEC61000-4-3 NOTE: Also designed to meet IEC60950-1:2001

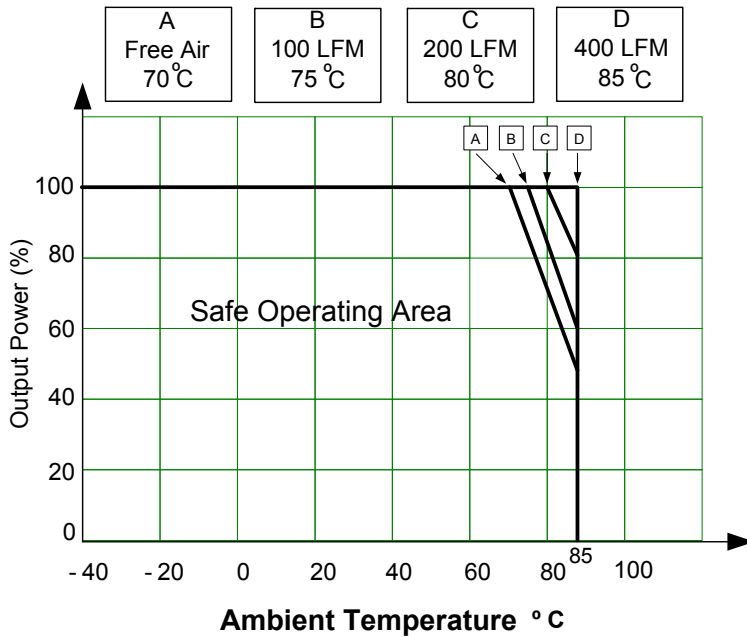
Pin Out Specifications

Pin	1500VDC	
	Single	Dual
1	+V Input	+V Input
2	-V Input	-V Input
3	+V Output	+V Output
4	No Pin	Common
5	-V Output	-V Output

Dimensions:



Derating



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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