



FEATURES:

- Regulated Single Output
- Continuous Short Circuit Protection
- RoHS Compliant
- MTBF>3,500,000 hours
- 1000VDC Isolation
- Operating temperature: -40°C to +85°C
- Industry Standard Pinout
- 14 Pin DIP Package

Models Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Input Current FL No Load (mA)		Efficiency (%)
AM1MR-0503SZ	4.5-5.5	3.3	303	1000	220	363	30	55
AM1MR-0505SZ	4.5-5.5	5	200	1000	220	313	30	64
AM1MR-0507SZ	4.5-5.5	7.2	139	1000	220	312	30	64
AM1MR-0509SZ	4.5-5.5	9	111	1000	220	307	35	65
AM1MR-0512SZ	4.5-5.5	12	83	1000	220	303	35	66
AM1MR-0515SZ	4.5-5.5	15	67	1000	220	303	35	66
AM1MR-1203SZ	10.8-13.2	3.3	303	1000	220	148	20	56
AM1MR-1205SZ	10.8-13.2	5	200	1000	220	130	20	64
AM1MR-1207SZ	10.8-13.2	7.2	139	1000	220	128	20	65
AM1MR-1209SZ	10.8-13.2	9	111	1000	220	126	20	66
AM1MR-1212SZ	10.8-13.2	12	83	1000	220	126	20	66
AM1MR-1215SZ	10.8-13.2	15	67	1000	220	122	20	68
AM1MR-2403SZ	21.6- 26.4	3.3	303	1000	220	74	10	56
AM1MR-2405SZ	21.6- 26.4	5	200	1000	220	66	10	63
AM1MR-2407SZ	21.6- 26.4	7.2	139	1000	220	64	10	65
AM1MR-2409SZ	21.6- 26.4	9	111	1000	220	63	10	66
AM1MR-2412SZ	21.6- 26.4	12	83	1000	220	62	10	67
AM1MR-2415SZ	21.6- 26.4	15	67	1000	220	62	10	67

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	5	4.5- 5.5		VDC
	12	10.8-13.2		
	24	21.6- 26.4		
Filter	Capacitor			
Absolute Maximum Rating (100 ms)	5		7	VDC
	12		15	
	24		28	
Input reflected current		20		mA

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1000	VDC
Resistance	At 500VDC	>1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Short Circuit protection		Continuous		
Short circuit restart		Auto-Recovery		
Line voltage regulation	LL ~ HL	±0.5		% of Vin

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Load voltage regulation	From 0% to 100% Load	±0.5		%
Load voltage regulation (3.3V output)	From 0% to 100% Load	±1		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	50		mVp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		50		KHz
Operating temperature	Full Load		-40 to +85	°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Cooling		Free Air Convection		
Humidity			95	% RH
Case material		Non-Conductive Plastic (UL94V-0)		
Weight		2.7		g
Dimensions (L x W x H)		20.30 x 10.16 x 6.90mm (0.80 x 0.40 x 0.27 inches)		
MTBF		>3,500,000hrs dual (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Maximum soldering temperature	1.5mm from case for 10 sec		260	°C

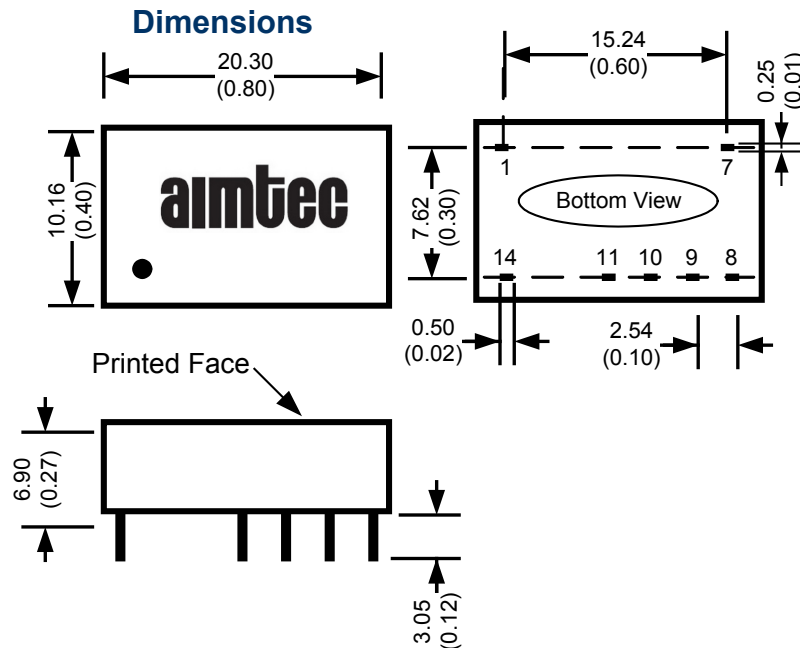
Safety Specifications

Parameters	
Agency Approvals	CE
Safety Standards	EN 55022, Class B IEC61000-4-2 IEC61000-4-3 IEC61000-4-4 IEC61000-4-6 IEC61000-4-8 Also designed to meet IEC 60950-1

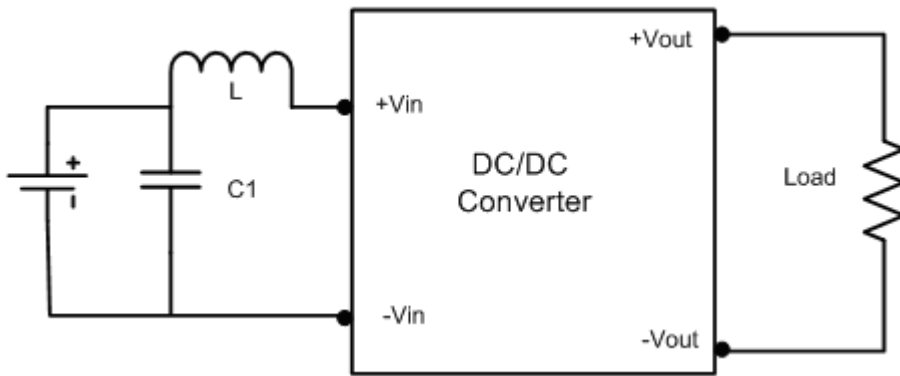
Pin Out Specifications

Pin	Single
1	- V input
7	NC
8	No Pin
9	+ V output
10	No Pin
11	- V output
14	+ V input

NC: No Connection

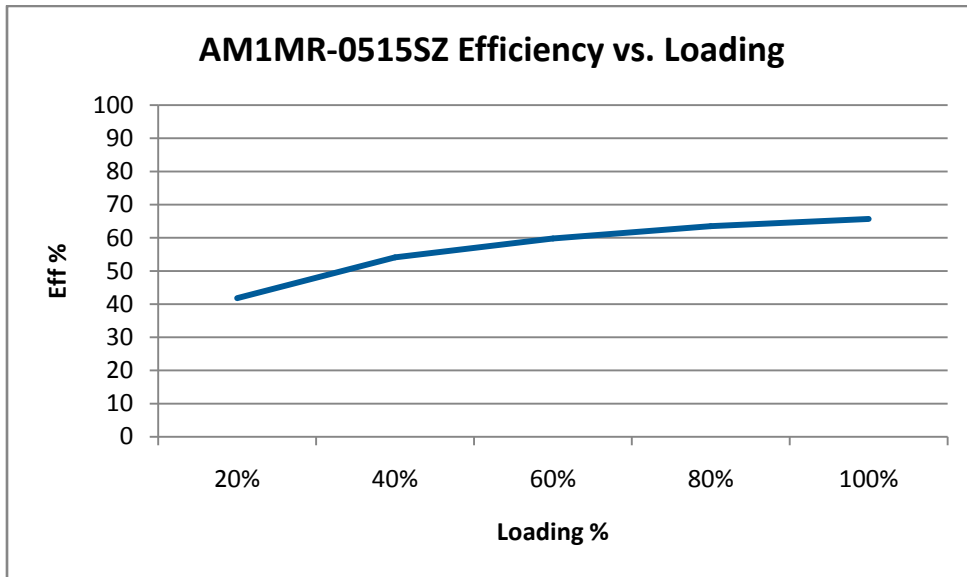


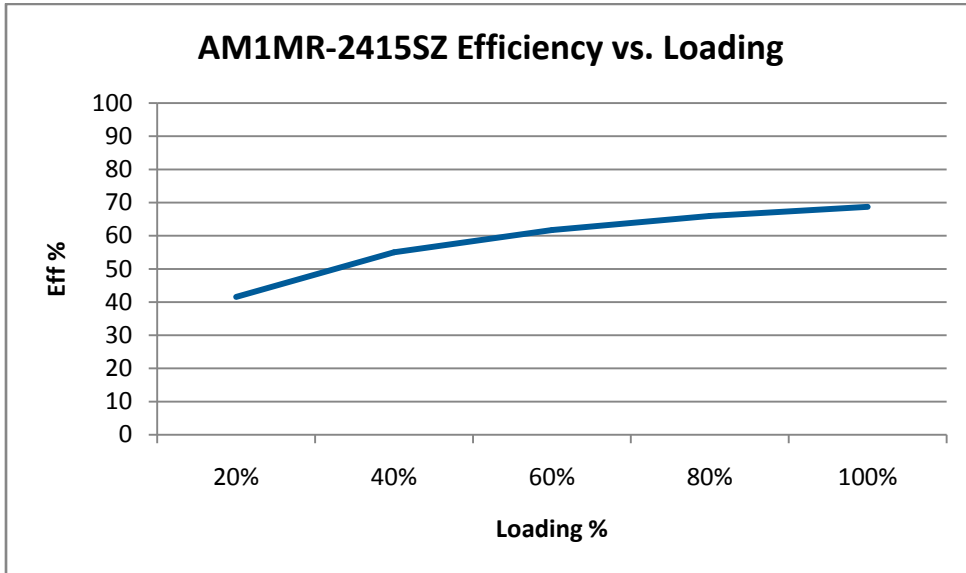
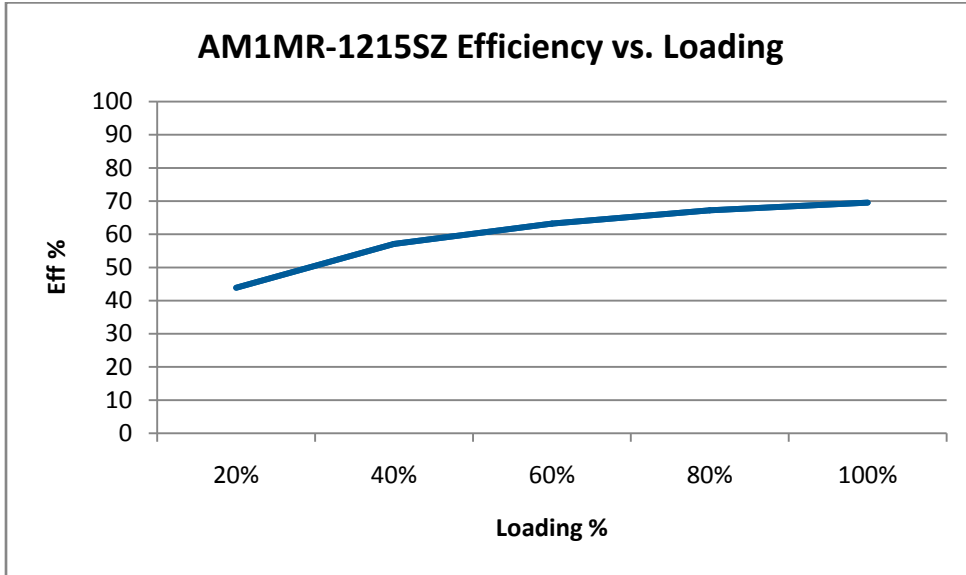
Radiated and Conducted Emissions Application circuit:



C1	L1
470μF/100V	12 μH

Typical Efficiency Chart Examples





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 than 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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