

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	57
AM1MR-0505SZ	4.5-5.5	5	200	1000	220	313 35	65
AM1MR-0507SZ	4.5-5.5	7.2	139	1000	220	312 30	66
AM1MR-0509SZ	4.5-5.5	9	111	1000	220	307 35	67
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	64
AM1MR-1203SZ	10.8-13.2	3.3	303	1000	220	148 20	60
AM1MR-1205SZ	10.8-13.2	5	200	1000	220	130 20	63
AM1MR-1207SZ	10.8-13.2	7.2	139	1000	220	128 20	66
AM1MR-1209SZ	10.8-13.2	9	111	1000	220	126 20	67
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	63
AM1MR-2405SZ	21.6- 26.4	5	200	1000	220	66 10	68
AM1MR-2407SZ	21.6- 26.4	7.2	139	1000	220	64 10	68
AM1MR-2409SZ	21.6- 26.4	9	111	1000	220	63 10	69
AM1MR-2412SZ	21.6- 26.4	12	83	1000	220	62 10	68
AM1MR-2415SZ	21.6- 26.4	15	67	1000	220	62 10	66

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

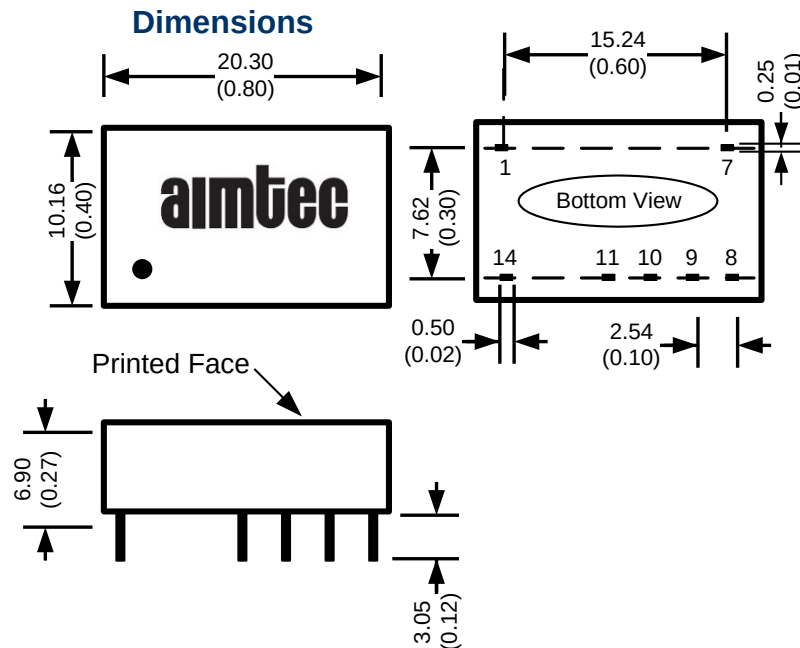
Safety Specifications

Parameters	
Agency Approvals	CE
Safety Standards	EN 55032, Class B IEC61000-4-2 IEC61000-4-3 IEC61000-4-4 IEC61000-4-6 IEC61000-4-8 Also designed to meet IEC 60950-1

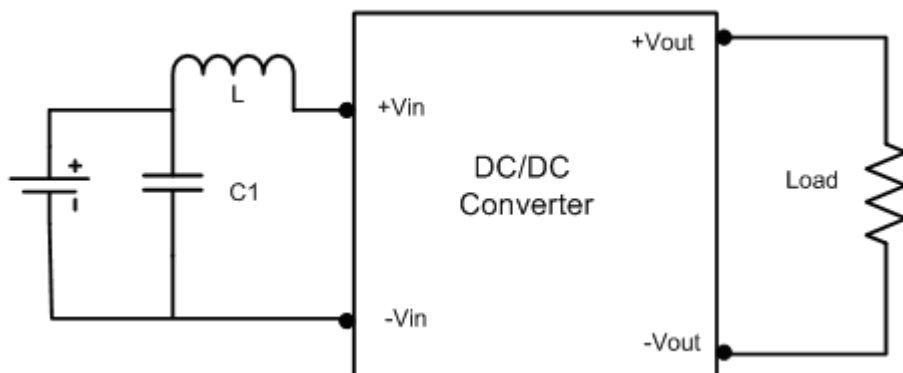
Pin Out Specifications

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

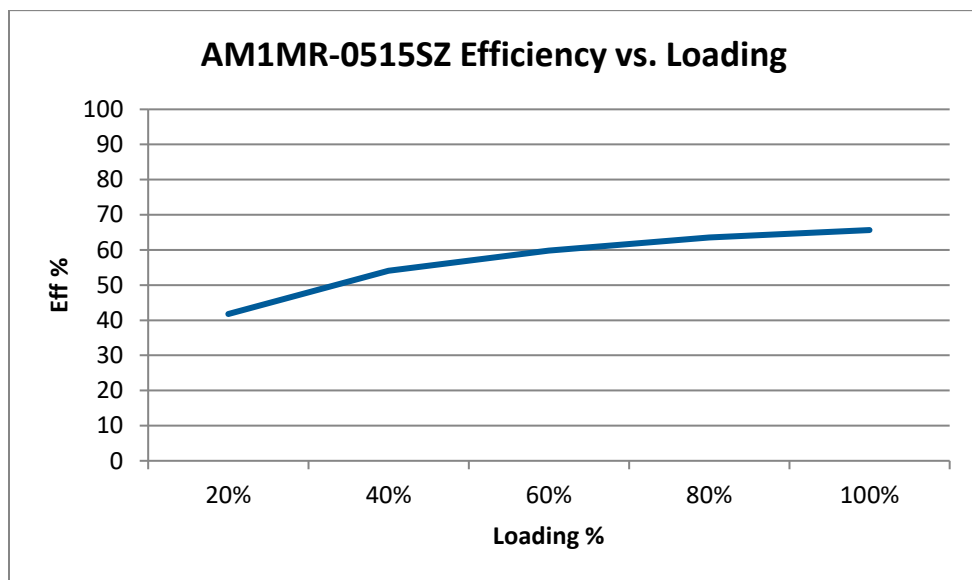


Radiated and Conducted Emissions Application circuit:

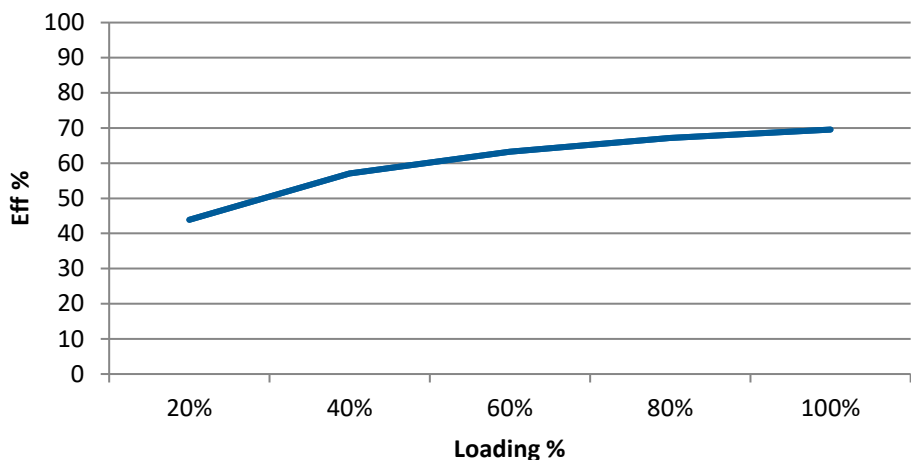


C1	L1
470μF/100V	12 μH

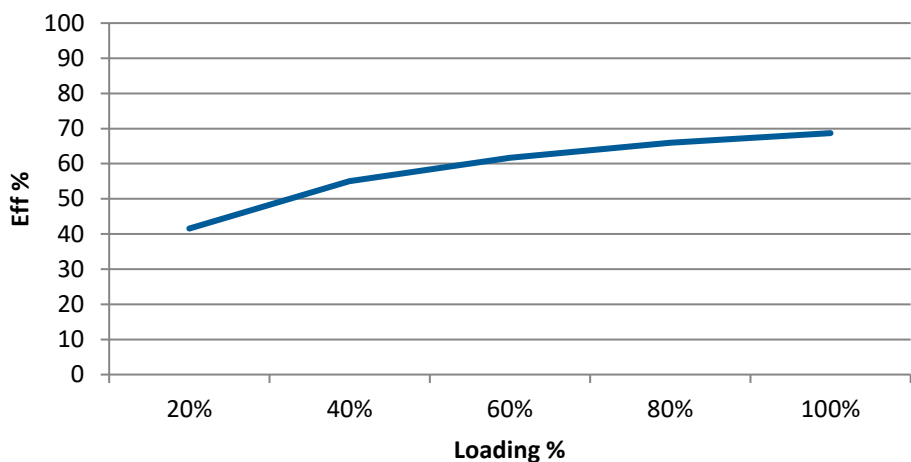
Typical Efficiency Chart Examples



AM1MR-1215SZ Efficiency vs. Loading



AM1MR-2415SZ Efficiency vs. Loading



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