

1 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- Regulated output voltage
- Low ripple and noise
- High efficiency up to 73%
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1000 & 3000VDC
- Pin computable with multiple manufacturers
- UL94-VO Package



Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1DR-0505S-NZ	4.75-5.25	5	150	1000	69
AM1DR-0509S-NZ	4.75-5.25	9	111	1000	70
AM1DR-0512S-NZ	4.75-5.25	12	84	1000	71
AM1DR-0515S-NZ	4.75-5.25	15	67	1000	72
AM1DR-1205S-NZ	11.4-12.6	5	150	1000	69
AM1DR-1209S-NZ	11.4-12.6	9	111	1000	71
AM1DR-1212S-NZ	11.4-12.6	12	84	1000	72
AM1DR-1215S-NZ	11.4-12.6	15	67	1000	72
AM1DR-2405S-NZ	22.8-25.2	5	150	1000	70
AM1DR-2409S-NZ	22.8-25.2	9	111	1000	72
AM1DR-2412S-NZ	22.8-25.2	12	84	1000	73
AM1DR-2415S-NZ	22.8-25.2	15	67	1000	73
AM1DR-0505SH30-NZ	4.75-5.25	5	150	3000	68

Input Specifications

input opcomouncies				
Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.75-5.25		VDC
	12	11.4-12.6		
	24	22.8-25.2		
Filter	Capacitor			

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1000 & 3000	VDC
Resistance		>1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Short Circuit protection		Moment	ary (1sec)	
Line voltage regulation (Single)	Input voltage: ±5%	±0.25		%
Load voltage regulation (Single)	10-100%	±1		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise		50		mV p-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100		KHz
Operating temperature	Derating above 71 °C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Cooling		Free air convection		
Humidity			95	%



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General Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Case material	Plastic UL94-VO			
Weight		2.7		g
Dimensions (L x W x H)	0.77 x 0.24 x 0.37 inch 19.60 x 6.00 x 9.50 mm			
MTBF	>900 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

NOTE: All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Pin Out Specification

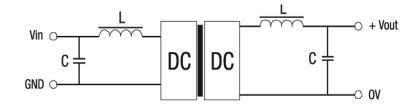
Pin	Single 1000 & 3000VDC
1	+ V Input
2	- V Input
4	- V Output
5	No pin
6	+ V Output
7	No pin

External capacitor

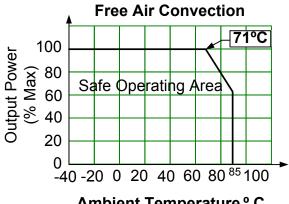
Vin (VDC)	External capacitor (uF)	Vout (VDC)	External capacitor (uF)
5	4.7	5	10
12	2.2	9	4.7
24	1	12	2.2
-	-	15	1

Dimensions 6.00 (0.24)PRINTED 10.0 9.50 (0.39) (0.37)0.50 4.10 (0.02)2.54 (0.16) 15.20 (0.60)0.50 (0.02) 6.00 0.50 (0.02)(0.05)

Filtering



Derating



Ambient Temperature ° C

North America only

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.