



### FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- Low profile plastic package
- High efficiency up to 75%
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 6000VDC
- Pin compatible with multiple manufacturers
- UL94-VO Package

### Models Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1N-0505SH60-NZ	4.5-5.5	5	200	6000	68
AM1N-0509SH60-NZ	4.5-5.5	9	111	6000	72
AM1N-0512SH60-NZ	4.5-5.5	12	84	6000	74
AM1N-0515SH60-NZ	4.5-5.5	15	67	6000	74
AM1N-1205SH60-NZ	10.8-13.2	5	200	6000	69
AM1N-1209SH60-NZ	10.8-13.2	9	111	6000	72
AM1N-1212SH60-NZ	10.8-13.2	12	84	6000	74
AM1N-1215SH60-NZ	10.8-13.2	15	67	6000	75

### Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1N-0505DH60-NZ	4.5-5.5	±5	±100	6000	68
AM1N-0509DH60-NZ	4.5-5.5	±9	±55	6000	72
AM1N-0512DH60-NZ	4.5-5.5	±12	±42	6000	74
AM1N-0515DH60-NZ	4.5-5.5	±15	±33	6000	74
AM1N-1205DH60-NZ	10.8-13.2	±5	±100	6000	69
AM1N-1209DH60-NZ	10.8-13.2	±9	±55	6000	72
AM1N-1212DH60-NZ	10.8-13.2	±12	±42	6000	74
AM1N-1215DH60-NZ	10.8-13.2	±15	±33	6000	75

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.

### Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5 12	4.5-5.5 10.8-13.2		VDC
Filter	Capacitor			

### Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		6000	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

### Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	See tolerance envelope graph			
Short Circuit protection	Momentary (1sec)			
Line voltage regulation (Single)	For 1.0% of Vin	±1.2		%
Line voltage regulation (Dual)	For 1.0% of Vin	±1.2		%
Load voltage regulation (Single)	Load 10 – 100%	10		%
Load voltage regulation (Dual)	Load 10 – 100%	10		%

### Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Temperature coefficient		±0.03		%/°C
Ripple & Noise	At 20MHz Bandwidth	75		mV p-p

### General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	250		KHz
Operating temperature	Without derating	-40 to +85		°C
Storage temperature		-55 to +125		°C
Max Case temperature			95	°C
Cooling	Free air convection			
Humidity			90	%
Case material	Plastic UL94-V0			
Weight		16		g
Dimensions (L x W x H)		1.27 x 0.58 x 0.37 inches 32.30 x 14.70 x 9.40mm		
MTBF	>1 211 000 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.

### Safety Specifications

Parameters	
Agency approvals	cULus
Standards	UL60950-1

### Pin Out Specifications

Pin	Single	Dual
1	+ V Input	+ V Input
2	- V Input	- V Input
8,17	N.C.	-V Output
10,15	-V Output	Common
12,13	+V Output	+V Output

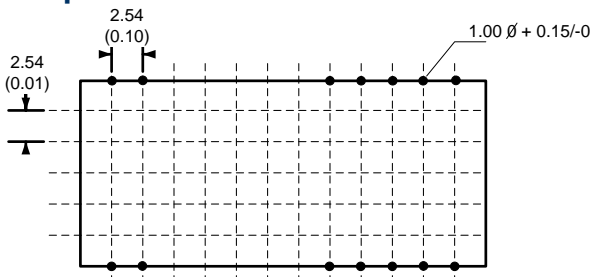
### External capacitor – Single output

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

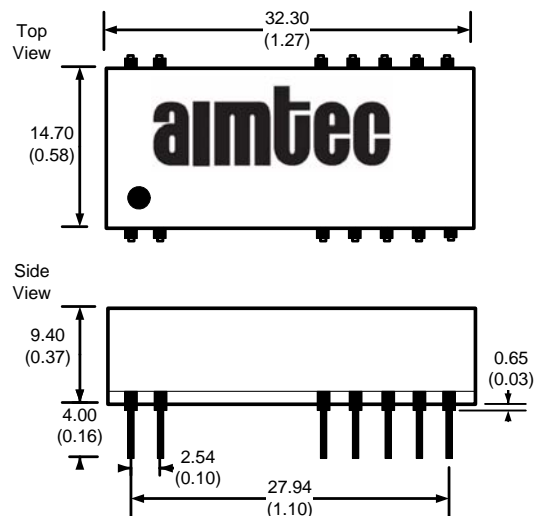
### External capacitor – Dual output

Vin (VDC)	External capacitor (µF)	Vout (VDC)	External capacitor (µF)
5	4.7	5	4.7
12	2.2	9	2.2
24	1	12	1
-	-	15	0.47

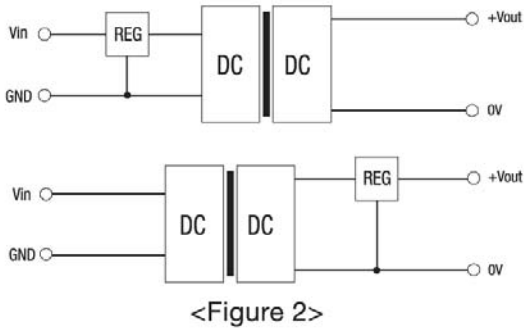
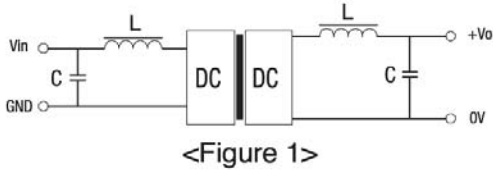
### Footprint



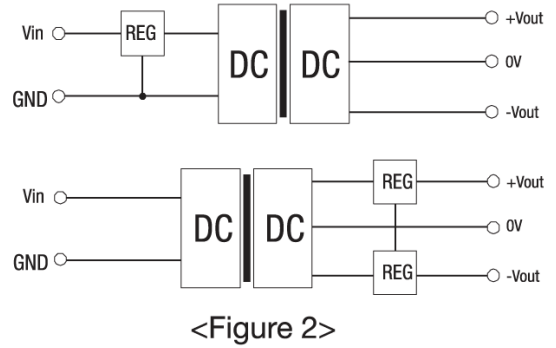
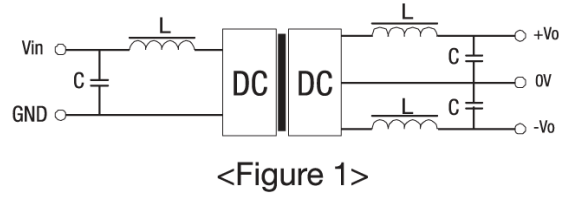
### Dimensions



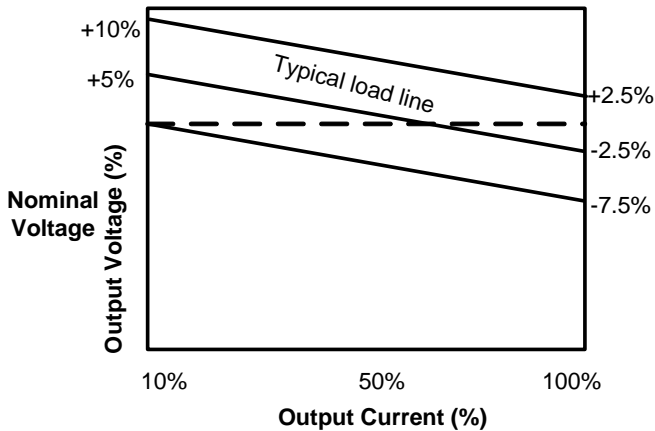
### Block diagram single output



### Block diagram dual output



### Tolerance Envelope Graph



**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](http://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](http://www.aimtec.com).