



FEATURES:

- RoHS compliant
- 8 Pin DIP Package
- Low ripple and noise
- High efficiency up to 81%
- Operating temperature -40°C to + 85°C
- Input / Output isolation 1000 VDC
- 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 (%)
AM1P-0505S-NZ	4.5-5.5	5	200	1000	78
AM1P-0509S-NZ	4.5-5.5	9	110	1000	79
AM1P-0512S-NZ	4.5-5.5	12	83	1000	80
AM1P-0515S-NZ	4.5-5.5	15	67	1000	78
AM1P-1205S-NZ	10.8-13.2	5	200	1000	78
AM1P-1209S-NZ	10.8-13.2	9	110	1000	80
AM1P-1212S-NZ	10.8-13.2	12	83	1000	81
AM1P-1215S-NZ	10.8-13.2	15	67	1000	79
AM1P-2405S-NZ	21.6-26.4	5	200	1000	79
AM1P-2409S-NZ	21.6-26.4	9	110	1000	80
AM1P-2412S-NZ	21.6-26.4	12	83	1000	81
AM1P-2415S-NZ	21.6-26.4	15	67	1000	79

Models Dual separated output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1P-050505D-NZ	4.5-5.5	5 / 5	100 / 100	1000	72
AM1P-050909D-NZ	4.5-5.5	9 / 9	55 / 55	1000	75
AM1P-051212D-NZ	4.5-5.5	12 / 12	42 / 42	1000	78
AM1P-051515D-NZ	4.5-5.5	15 / 15	34 / 34	1000	79
AM1P-120505D-NZ	10.8-13.2	5 / 5	100 / 100	1000	74
AM1P-120909D-NZ	10.8-13.2	9 / 9	55 / 55	1000	76
AM1P-121212D-NZ	10.8-13.2	12 / 12	42 / 42	1000	79
AM1P-121515D-NZ	10.8-13.2	15 / 15	34 / 34	1000	80
AM1P-240505D-NZ	21.6-26.4	5 / 5	100 / 100	1000	74
AM1P-240909D-NZ	21.6-26.4	9 / 9	55 / 55	1000	76
AM1P-241212D-NZ	21.6-26.4	12 / 12	42 / 42	1000	80
AM1P-241515D-NZ	21.6-26.4	15 / 15	34 / 34	1000	81

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 24	4.5-5.5 10.8-13.2 21.6-26.4		VDC
Filter	Capacitor			

Isolation Specifications

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

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		See tolerance graph		
Short Circuit protection		Momentary (1 sec)		
Line voltage regulation (Single)	For 1.0% Vin	±1.2		% of Vin
Line voltage regulation (Dual)	For 1.0% Vin	±1.2		% of Vin
Load voltage regulation (Single)	Load 10 – 100%	10		%
Load voltage regulation (Dual)	Load 10 – 100%	10		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	At 20 MHz Bandwidth	75		m Vp-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	150		KHz
Operating temperature	Without derating	-40 to +85		°C
Storage temperature		-55 to +125		°C
Maximum Case temperature			90	°C
Cooling		Free air convection		
Humidity			90	%
Case material		Plastic UL94-VO		
Weight		1.8		g
Dimensions (L x W x H)		0.46 x 0.39 x 0.30 inches	11.70 x 9.80 x 7.70 mm	
MTBF		>1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		

Safety Specifications

Standards

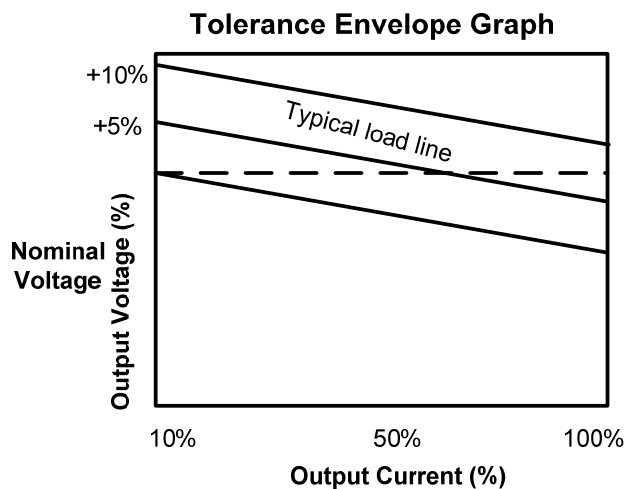
Agency approvals	UL, CE for single output models
Safety	IEC60950-1 :2001

Pin Out Specifications

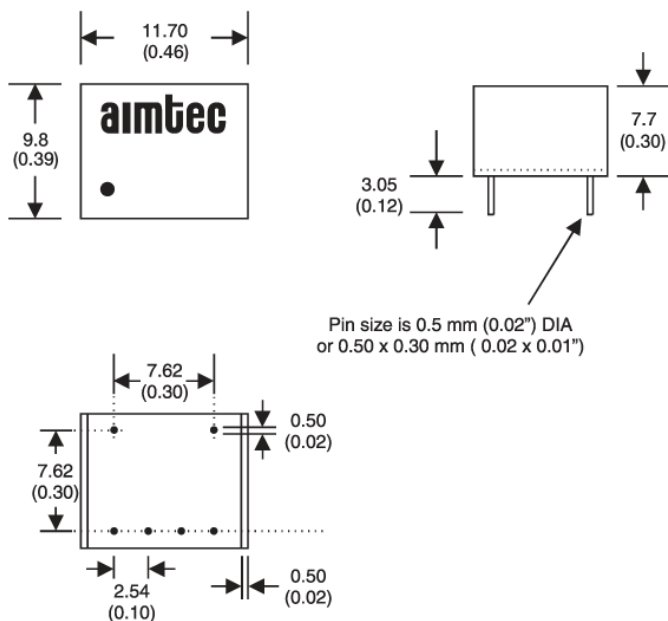
Pin	Single	Dual Separated
1	- V Input	-V Input
4	+V Input	+V Input
5	+V Output	+V1 Output
6	No pin	-V1 Output
7	-V Output	+V2 Output
8	No pin	-V2 Output

External capacitor

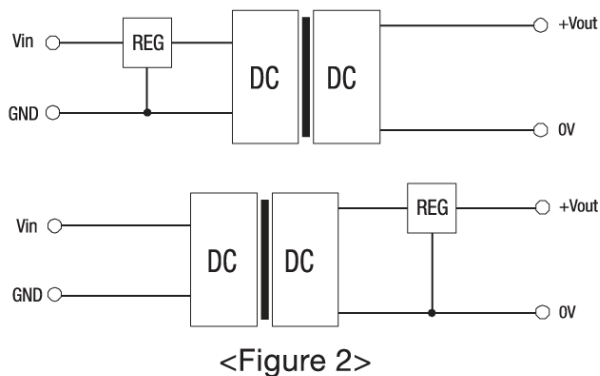
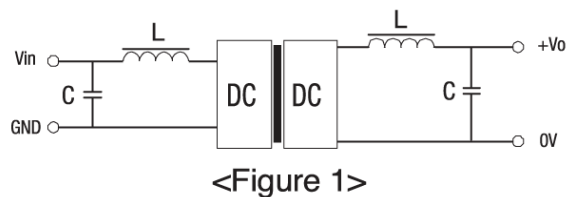
Vin (VDC)	External capacitor (uF)	Vout (VDC)	External capacitor (uF)
5	4.7	5	10
12	2.2	9	4.7
24	1	12	2.2
-	-	15	1



Dimensions



Filtering



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. 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. 5. 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.