



**FEATURES:**

- RoHS compliant
- 8 Pin DIP Package
- Low ripple and noise
- High efficiency up to 82%
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1000 & 3000VDC
- Pin compatible with multiple manufacturers

**Models**  
**Single output**



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM1P-0503SZ	4.5-5.5	3.3	300	1000	220	72
AM1P-0505SZ	4.5-5.5	5	200	1000	220	75
AM1P-0507SZ	4.5-5.5	7.2	140	1000	220	76
AM1P-0509SZ	4.5-5.5	9	110	1000	220	77
AM1P-0512SZ	4.5-5.5	12	83	1000	220	78
AM1P-0515SZ	4.5-5.5	15	67	1000	220	78
AM1P-0518SZ	4.5-5.5	18	56	1000	220	78
AM1P-0524SZ	4.5-5.5	24	42	1000	220	78
AM1P-1203SZ	10.8-13.2	3.3	300	1000	220	72
AM1P-1205SZ	10.8-13.2	5	200	1000	220	75
AM1P-1207SZ	10.8-13.2	7.2	140	1000	220	76
AM1P-1209SZ	10.8-13.2	9	110	1000	220	77
AM1P-1212SZ	10.8-13.2	12	83	1000	220	78
AM1P-1215SZ	10.8-13.2	15	67	1000	220	78
AM1P-1218SZ	10.8-13.2	18	56	1000	220	78
AM1P-1224SZ	10.8-13.2	24	42	1000	220	78
AM1P-2403SZ	21.6-26.4	3.3	300	1000	220	72
AM1P-2405SZ	21.6-26.4	5	200	1000	220	75
AM1P-2407SZ	21.6-26.4	7.2	140	1000	220	76
AM1P-2409SZ	21.6-26.4	9	110	1000	220	77
AM1P-2412SZ	21.6-26.4	12	83	1000	220	78
AM1P-2415SZ	21.6-26.4	15	67	1000	220	78
AM1P-2418SZ	21.6-26.4	18	56	1000	220	78
AM1P-2424SZ	21.6-26.4	24	42	1000	220	78
AM1P-0503SH30Z	4.5-5.5	3.3	300	3000	220	72
AM1P-0505SH30Z	4.5-5.5	5	200	3000	220	75
AM1P-0507SH30Z	4.5-5.5	7.2	140	3000	220	76
AM1P-0509SH30Z	4.5-5.5	9	110	3000	220	77
AM1P-0512SH30Z	4.5-5.5	12	83	3000	220	78
AM1P-0515SH30Z	4.5-5.5	15	67	3000	220	78
AM1P-0518SH30Z	4.5-5.5	18	56	3000	220	78
AM1P-0524SH30Z	4.5-5.5	24	42	3000	220	78
AM1P-1203SH30Z	10.8-13.2	3.3	300	3000	220	72
AM1P-1205SH30Z	10.8-13.2	5	200	3000	220	75
AM1P-1207SH30Z	10.8-13.2	7.2	140	3000	220	76
AM1P-1209SH30Z	10.8-13.2	9	110	3000	220	77
AM1P-1212SH30Z	10.8-13.2	12	83	3000	220	78
AM1P-1215SH30Z	10.8-13.2	15	67	3000	220	78
AM1P-1218SH30Z	10.8-13.2	18	56	3000	220	78
AM1P-1224SH30Z	10.8-13.2	24	42	3000	220	78
AM1P-2403SH30Z	21.6-26.4	3.3	300	3000	220	72
AM1P-2405SH30Z	21.6-26.4	5	200	3000	220	75
AM1P-2407SH30Z	21.6-26.4	7.2	140	3000	220	76
AM1P-2409SH30Z	21.6-26.4	9	110	3000	220	77
AM1P-2412SH30Z	21.6-26.4	12	83	3000	220	78
AM1P-2415SH30Z	21.6-26.4	15	67	3000	220	78
AM1P-2418SH30Z	21.6-26.4	18	56	3000	220	78
AM1P-2424SH30Z	21.6-26.4	24	42	3000	220	78

**Models**  
**Dual output**

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load	Efficiency (%)
AM1P-0503DZ	4.5-5.5	±3.3	±150	1000	±100	63
AM1P-0505DZ	4.5-5.5	±5	±100	1000	±100	72
AM1P-0507DZ	4.5-5.5	±7.2	±70	1000	±100	75
AM1P-0509DZ	4.5-5.5	±9	±55	1000	±100	78
AM1P-0512DZ	4.5-5.5	±12	±42	1000	±100	80
AM1P-0515DZ	4.5-5.5	±15	±34	1000	±100	80
AM1P-0518DZ	4.5-5.5	±18	±28	1000	±100	78
AM1P-0524DZ	4.5-5.5	±24	±21	1000	±100	78
AM1P-1203DZ	10.8-13.2	±3.3	±150	1000	±100	70
AM1P-1205DZ	10.8-13.2	±5	±100	1000	±100	72
AM1P-1207DZ	10.8-13.2	±7.2	±70	1000	±100	71
AM1P-1209DZ	10.8-13.2	±9	±55	1000	±100	76
AM1P-1212DZ	10.8-13.2	±12	±42	1000	±100	80
AM1P-1215DZ	10.8-13.2	±15	±34	1000	±100	80
AM1P-1218DZ	10.8-13.2	±18	±28	1000	±100	76
AM1P-1224DZ	10.8-13.2	±24	±21	1000	±100	78
AM1P-2403DZ	21.6-26.4	±3.3	±150	1000	±100	76
AM1P-2405DZ	21.6-26.4	±5	±100	1000	±100	72
AM1P-2407DZ	21.6-26.4	±7.2	±70	1000	±100	73
AM1P-2409DZ	21.6-26.4	±9	±55	1000	±100	77
AM1P-2412DZ	21.6-26.4	±12	±42	1000	±100	82
AM1P-2415DZ	21.6-26.4	±15	±34	1000	±100	82
AM1P-2418DZ	21.6-26.4	±18	±28	1000	±100	75
AM1P-2424DZ	21.6-26.4	±24	±21	1000	±100	80

**Models**  
**Dual Separated Output**

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM1P-050303DZ	4.5-5.5	3.3 / 3.3	150 / 150	1000	220	63
AM1P-050505DZ	4.5-5.5	5 / 5	100 / 100	1000	220	72
AM1P-050707DZ	4.5-5.5	7.2 / 7.2	70 / 70	1000	220	75
AM1P-050909DZ	4.5-5.5	9 / 9	55 / 55	1000	220	78
AM1P-051212DZ	4.5-5.5	12 / 12	42 / 42	1000	220	80
AM1P-051515DZ	4.5-5.5	15 / 15	34 / 34	1000	220	80
AM1P-051818DZ	4.5-5.5	18 / 18	28 / 28	1000	220	78
AM1P-052424DZ	4.5-5.5	24 / 24	21 / 21	1000	220	78
AM1P-120303DZ	10.8-13.2	3.3 / 3.3	150 / 150	1000	220	70
AM1P-120305DZ	10.8-13.2	5 / 5	100 / 100	1000	220	72
AM1P-120707DZ	10.8-13.2	7.2 / 7.2	70 / 70	1000	220	71
AM1P-120909DZ	10.8-13.2	9 / 9	55 / 55	1000	220	76
AM1P-121212DZ	10.8-13.2	12 / 12	42 / 42	1000	220	80
AM1P-121515DZ	10.8-13.2	15 / 15	34 / 34	1000	220	80
AM1P-121818DZ	10.8-13.2	18 / 18	28 / 28	1000	220	76
AM1P-122424DZ	10.8-13.2	24 / 24	21 / 21	1000	220	78
AM1P-240303DZ	21.6-26.4	3.3 / 3.3	150 / 150	1000	220	76
AM1P-240305DZ	21.6-26.4	5 / 5	100 / 100	1000	220	72
AM1P-240707DZ	21.6-26.4	7.2 / 7.2	70 / 70	1000	220	73
AM1P-240909DZ	21.6-26.4	9 / 9	55 / 55	1000	220	77
AM1P-241212DZ	21.6-26.4	12 / 12	42 / 42	1000	220	82
AM1P-241515DZ	21.6-26.4	15 / 15	34 / 34	1000	220	82
AM1P-241818DZ	21.6-26.4	18 / 18	28 / 28	1000	220	75
AM1P-242424DZ	21.6-26.4	24 / 24	21 / 21	1000	220	80

## 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			
Turn on Transient process time			25	ms
Start up time		200		ms
Absolute Maximum Rating	5 Vin	0-7		VDC
	12 Vin	0-15		
	24 Vin	0-28		
Peak Input Voltage time		100		ms

## Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1000 all models, 3000 (single output)	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

## Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Short Circuit protection		Momentary (1 sec)		
Line voltage regulation (Single)	For 1% change of Vin	±1.2		%
Line voltage regulation (Dual)	For 1% change of Vin	±1.2		%
Load voltage regulation (Single)	Load 20 – 100%	±10		%
Load voltage regulation (Single) 3.3V output model	Load 20 – 100%	±20		%
Load voltage regulation (Dual)	Load 20 – 100%	±10		%
Load voltage regulation (Dual) 3.3V output model	Load 20 – 100%	±20		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	100		mV p-p
Rising time		50		ms

## General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	80		KHz
Operating temperature	Full Load without Derating	-40 to+85		°C
Storage temperature		-55 to +125		°C
Max Case temperature			90	°C
Cooling	Free air convection			
Humidity			90	%
Case material	Non-conductive black plastic			
Weight		1.8		g
Dimensions (L x W x H)	0.50 x 0.40 x 0.27 inches		12.70 x 10.16 x 6.85 mm	
MTBF	>1 191 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

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

## Safety Specifications

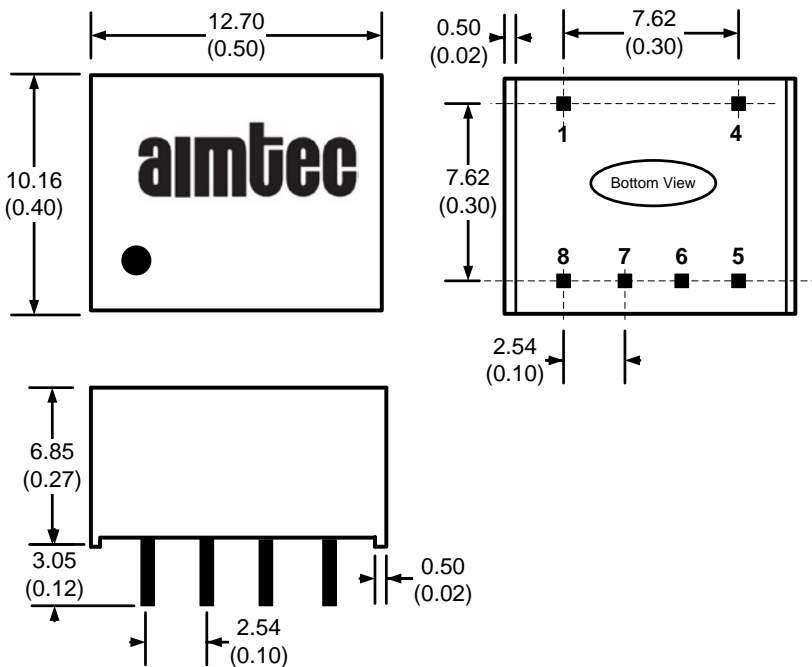
Parameters	
Agency approvals	CE
Standards	EN55022 (Radiated Emissions) class B
	EN55024 (Noise Immunity), IEC61000-4-2(ESD)

IEC61000-4-3(Radiated immunity)

## Pin Out Specifications

Pin	1000 and 3000 VDC		1000 VDC
	Single	Dual	Dual Separated
1	- V Input	- V Input	- V Input
4	+ V Input	+ V Input	+ V Input
5	+ V Output	+ V Output	+ V1 Output
6	No pin	No pin	- V1 Output
7	- V Output	Common	+ V2 Output
8	No pin	- V Output	- V2 Output

## Dimensions



**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 than 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).