



FEATURES:

- RoHS compliant
- 4 Pin SIP Package
- Ultra miniature package
- High efficiency up to 84%
- Operating temperature -40°C to + 70°C
- Input / Output Isolation 1000 and 3000VDC
- Pin compatible with multiple manufacturers

Models
Single Output
Input/Output Isolation 1000VDC

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM2S-0503SZ	4.5-5.5	3.3	400	470	71
AM2S-0505SZ	4.5-5.5	5	400	470	77
AM2S-0507SZ	4.5-5.5	7.2	270	470	77
AM2S-0509SZ	4.5-5.5	9	220	470	80
AM2S-0512SZ	4.5-5.5	12	160	470	82
AM2S-0515SZ	4.5-5.5	15	130	470	82
AM2S-0518SZ	4.5-5.5	18	110	470	82
AM2S-0524SZ	4.5-5.5	24	80	470	82
AM2S-1203SZ	10.8-13.2	3.3	400	470	72
AM2S-1205SZ	10.8-13.2	5	400	470	78
AM2S-1207SZ	10.8-13.2	7.2	270	470	80
AM2S-1209SZ	10.8-13.2	9	220	470	82
AM2S-1212SZ	10.8-13.2	12	160	470	84
AM2S-1215SZ	10.8-13.2	15	130	470	84
AM2S-1218SZ	10.8-13.2	18	110	470	84
AM2S-1224SZ	10.8-13.2	24	80	470	82
AM2S-2403SZ	21.6-26.4	3.3	400	470	74
AM2S-2405SZ	21.6-26.4	5	400	470	80
AM2S-2407SZ	21.6-26.4	7.2	270	470	80
AM2S-2409SZ	21.6-26.4	9	220	470	84
AM2S-2412SZ	21.6-26.4	12	160	470	84
AM2S-2415SZ	21.6-26.4	15	130	470	84
AM2S-2418SZ	21.6-26.4	18	110	470	84
AM2S-2424SZ	21.6-26.4	24	80	470	84

Input/Output Isolation 3000VDC					
Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM2S-0503SH30Z	4.5-5.5	3.3	400	470	71
AM2S-0505SH30Z	4.5-5.5	5	400	470	77
AM2S-0507SH30Z	4.5-5.5	7.2	270	470	77
AM2S-0509SH30Z	4.5-5.5	9	220	470	80
AM2S-0512SH30Z	4.5-5.5	12	160	470	82
AM2S-0515SH30Z	4.5-5.5	15	130	470	82
AM2S-0518SH30Z	4.5-5.5	18	110	470	82
AM2S-0524SH30Z	4.5-5.5	24	80	470	82
AM2S-1203SH30Z	10.8-13.2	3.3	400	470	72
AM2S-1205SH30Z	10.8-13.2	5	400	470	78
AM2S-1207SH30Z	10.8-13.2	7.2	270	470	80
AM2S-1209SH30Z	10.8-13.2	9	220	470	82
AM2S-1212SH30Z	10.8-13.2	12	160	470	84
AM2S-1215SH30Z	10.8-13.2	15	130	470	84
AM2S-1218SH30Z	10.8-13.2	18	110	470	84
AM2S-1224SH30Z	10.8-13.2	24	80	470	82
AM2S-2403SH30Z	21.6-26.4	3.3	400	470	74
AM2S-2405SH30Z	21.6-26.4	5	400	470	80
AM2S-2407SH30Z	21.6-26.4	7.2	270	470	80
AM2S-2409SH30Z	21.6-26.4	9	220	470	84
AM2S-2412SH30Z	21.6-26.4	12	160	470	84

Models

Single Output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (μF)	Efficiency (%)
AM2S-2415SH30Z	21.6-26.4	15	130	470	84
AM2S-2418SH30Z	21.6-26.4	18	110	470	84
AM2S-2424SH30Z	21.6-26.4	24	80	470	84

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-5.5	-0.7 - 7	VDC
	12	10.8-13.2	-0.7 - 15	
	24	21.6-25.4	-0.7 - 28	
Filter	Capacitor			
Turn on Transient process time			25	ms
Start up time		200		ms
Absolute Maximum Rating	5 Vin	0-7		VDC
	12 Vin	0-28		
	24 Vin	0-15		
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1000 or 3000	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Short Circuit protection		Momentary (1sec)		
Over current protection		110% Iout max		
Line voltage regulation (Single)	For 1.0% of Vin	±1.2		%
Load voltage regulation (Single)	20...100% load	±10		%
Load voltage regulation (Single) 3.3V output model	20...100% load	±20		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	150		mV p-p
Rising time		100		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	50		KHz
Operating temperature		-40 to +70		°C
Storage temperature		-40 to +125		°C
Max Case temperature			100	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Plastic UL94-VO			
Weight		1.8		g
Dimensions (L x W x H)		0.46 x 0.29 x 0.38 inches 11.68 x 7.50 x 9.65 mm		
MTBF	>668 000hrs (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

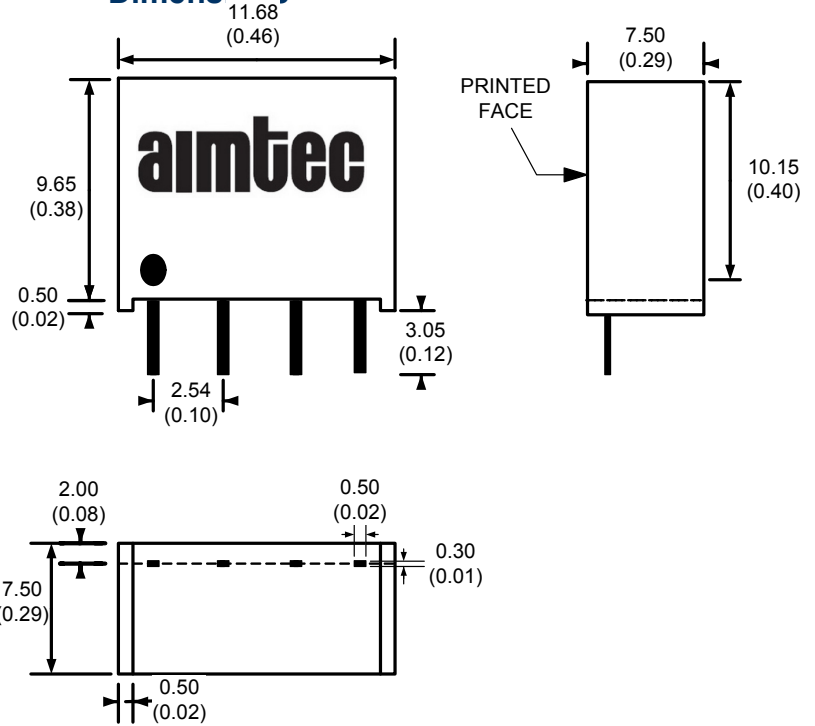
Parameters

Agency approval	CE (for 1000VDC Isolated models)
Standards	EN55022 (Radiated Emissions) class B
	EN55024 (Noise Immunity)
	IEC61000-4-2(ESD)
	IEC61000-4-3(Radiated immunity)

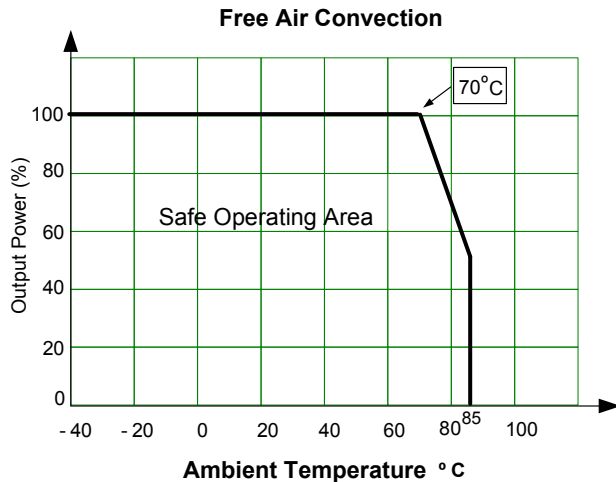
Pin Out Specifications

Pin	1000 and 3000VDC
1	-V Input
2	+V Input
3	-V Output
4	+V Output

Dimensions



Derating



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.