

Picture coming soon

FEATURES:

- Wide 4:1 Input Voltage Range
- High efficiency up to 88%
- 1500 VDC Isolation
- Over Current Protection
- No load consumption $\leq 0.12W$
- Operating Temperature $-40^{\circ}C$ to $+85^{\circ}C$
- Output Over Voltage protection
- Continuous Short Circuit Protection
- Input Under voltage Protection
- Remote On/Off control



Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM10CW-2403S-NZ	9-36	3.3	2.4	1500	2200	79
AM10CW-2405S-NZ	9-36	5	2	1500	2200	83
AM10CW-2409S-NZ	9-36	9	1.11	1500	680	86
AM10CW-2412S-NZ	9-36	12	0.83	1500	470	87
AM10CW-2415S-NZ	9-36	15	0.66	1500	330	87
AM10CW-2424S-NZ	9-36	24	0.41	1500	100	88
AM10CW-4803S-NZ	18-75	3.3	2.4	1500	2200	79
AM10CW-4805S-NZ	18-75	5	2	1500	2200	83
AM10CW-4812S-NZ	18-75	12	0.83	1500	470	87
AM10CW-4815S-NZ	18-75	15	0.66	1500	330	87
AM10CW-4824S-NZ	18-75	24	0.41	1500	100	88

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM10CW-2405D-NZ	9-36	± 5	± 1	1500	± 1000	83
AM10CW-2412D-NZ	9-36	± 12	± 0.41	1500	± 470	87
AM10CW-2415D-NZ	9-36	± 15	± 0.33	1500	± 330	87
AM10CW-2424D-NZ	9-36	± 24	± 0.2	1500	± 100	87
AM10CW-4805D-NZ	18-75	± 5	± 1	1500	± 1000	83
AM10CW-4812D-NZ	18-75	± 12	± 0.41	1500	± 470	87
AM10CW-4815D-NZ	18-75	± 15	± 0.33	1500	± 330	87
AM10CW-4824D-NZ	18-75	± 24	± 0.2	1500	± 100	87

NOTE: All specifications in this datasheet are measured at an ambient temperature of $25^{\circ}C$, humidity $< 75\%$, nominal input voltage and at rated output load unless otherwise specified.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24 Vin 48 Vin	9-36 18-75		VDC
Filter		Pi		
Absolute Maximum Rating (100ms)	24 Vin 48 Vin		-0.7 - 50 -0.7 - 100	VDC
No Load Input Current	24 Vin 48 Vin		12 8	mA
Input reflected current	24 Vin 48 Vin	40 30		mA
Input Under voltage turn off	24 Vin 48 Vin	6.5 15.5		VDC
Startup time	Nominal input, resistive load		10	ms
Remote On/Off Control	On Off	3.5-12VDC or leave open 0-1.2VDC or connect to GND, idle current 6-10mA		

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, <1mA	1500		VDC
Resistance	500VDC		>1000	MOhm
Capacitance	I/O, 100KHz/0.1V	1000		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	5% to 100% load	±2	±3	%
Voltage balance (Dual Output Models)	Balanced Load		±1.5	%
Over voltage protection		110-160		% of Vout
Over current protection		110-190		% of Iout
Short Circuit protection		Continuous		
Short circuit restart		Auto-Recovery		
Line voltage regulation (Single)	Full load, LL to HL		±0.5	% of Vin
Line voltage regulation (Dual)	Full load, LL to HL		±1	% of Vin
Load voltage regulation (Single)	5% to 100% load		±1	%
Load voltage regulation (Dual)	5% to 100% load		±1.5	%
Cross Regulation (Dual Output Models)	50% load on one output & 10-100% load on second load	±5		%
Temperature coefficient	100% load		±0.03	%/°C
Ripple & Noise	20MHz Bandwidth, 5-100% load		80	mV p-p
Transient recovery time	25% load step change		500	µs
Transient recovery deviation	25% load step change		±5	%

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	350		KHz
Operating temperature	See derating curve	-40 to +85		°C
Storage temperature		-55 to +125		°C
Maximum case temperature			100	°C
Cooling		Free air convection		
Humidity			95	% RH
Case material		Aluminum Alloy		
Weight		15		g
Dimensions (L x W x H)		1 x 1 x 0.46 inches 25.40 x 25.40 x 11.70 mm		
MTBF		>1,000,000 hours (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Maximum soldering temperature	1.5mm from case for 10 sec		300	°C

Environmental Specifications

Parameters		
Vibration	Test mode	10-55Hz
	Acceleration	10G, 30min one cycle, every axis tested

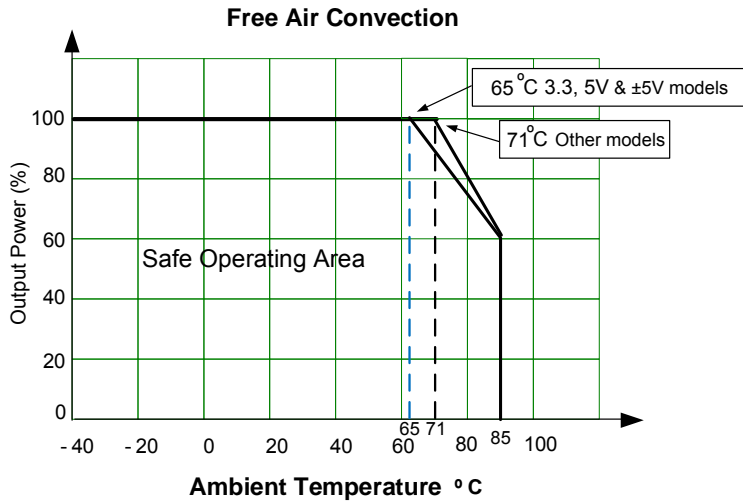
Safety Specifications

Parameters		
Approval	CE, UL, pending	
Standards	EN 55022, class B (with the recommended EMC circuit)	
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact ±4KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3, 10V/m, Criteria A
	Electrical Fast Transient / Burst Immunity	IEC 61000-4-4, ±2KV, Criteria B (with the recommended EMC circuit)
	Surge Immunity	IEC 61000-4-5, ±2KV, Criteria B (with the recommended EMC circuit)
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, 3 Vrms, Criteria A
	Voltage dips, Short Interruptions & Voltage variations Immunity	IEC 61000-4-29: 0-70%, Criteria B

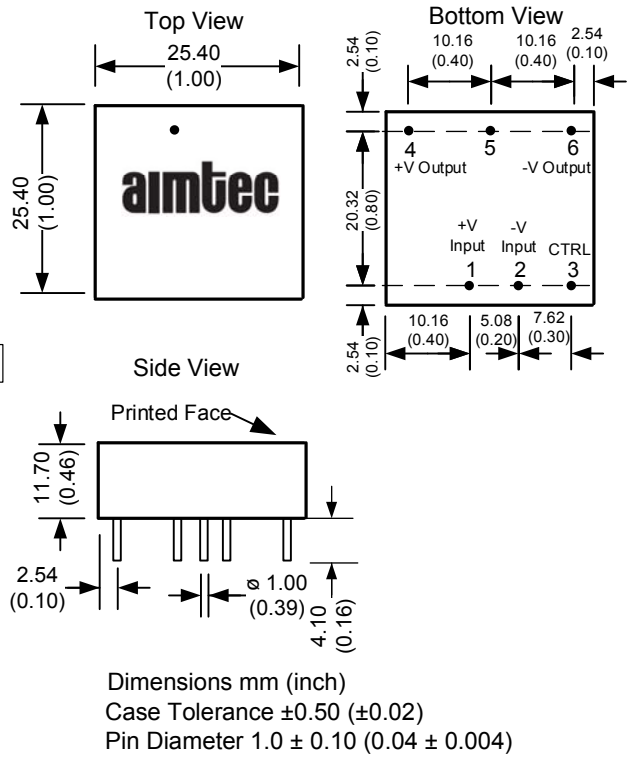
Pin Out Specifications

Pin	Single	Dual
1	+V Input	+V Input
2	-V Input	-V Input
3	On/Off Control	On/Off Control
4	+V Output	+V Output
5	No pin	Common
6	-V Output	-V Output

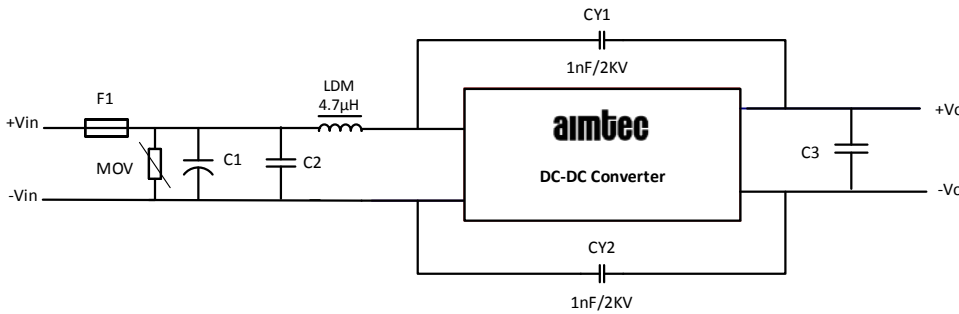
Derating



Dimensions



Recommended EMC Circuits



	24V input	48V input
MOV	S14K35	S14K60
C1	330µF/50V	330µF/100V
C2	1µF/50V	1µF/100V
C3	10µF/50V	10µF/100V

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.

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