



## FEATURES:

- Wide 2:1 Input Voltage Range
- High Efficiency up to 89%
- Remote On/Off
- Standard 1"x1" Package
- 1500 VDC Isolation
- Operating Temperature -40°C to +85°C
- Over Voltage, Over load protection
- Output Short Circuit Protection



## Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load(uF)	Efficiency (%)
AM10C-1203S-FZ	9-18	3.3	2200	3300	83
AM10C-1205S-FZ	9-18	5	2000	2200	86
AM10C-1212S-FZ	9-18	12	830	680	89
AM10C-1215S-FZ	9-18	15	660	330	88
AM10C-1224S-FZ	9-18	24	410	100	88
AM10C-2403S-FZ	18-36	3.3	2200	3300	82
AM10C-2405S-FZ	18-36	5	2000	2200	86
AM10C-2412S-FZ	18-36	12	830	680	88
AM10C-2415S-FZ	18-36	15	660	330	87
AM10C-2424S-FZ	18-36	24	410	100	87
AM10C-4803S-FZ	36-75	3.3	2200	3300	80
AM10C-4805S-FZ	36-75	5	2000	2200	84
AM10C-4812S-FZ	36-75	12	830	680	86
AM10C-4815S-FZ	36-75	15	660	330	85
AM10C-4824S-FZ	36-75	24	410	100	85

## Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load(uF)	Efficiency (%)
AM10C-1205D-FZ	9-18	±5	±1000	±1000	86
AM10C-1212D-FZ	9-18	±12	±410	±470	89
AM10C-1215D-FZ	9-18	±15	±330	±220	88
AM10C-2405D-FZ	18-36	±5	±1000	±1000	85
AM10C-2412D-FZ	18-36	±12	±410	±470	88
AM10C-2415D-FZ	18-36	±15	±330	±220	87
AM10C-4805D-FZ	36-75	±5	±1000	±1000	84
AM10C-4812D-FZ	36-75	±12	±410	±470	86
AM10C-4815D-FZ	36-75	±15	±330	±220	85

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.

**NOTE: The AM10C-FZ series will be discontinued (EOL) by December 30, 2020; For new designs, please refer to AM10CW-NZ series.**

## Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	12	9-18		VDC
	24	18-36		
	48	36-75		
Filter	Pi			
Start up time		100		ms
Absolute Maximum Rating	12 Vin		25	VDC
	24 Vin		50	
	48 Vin		100	

## Input Specifications (continued)

Parameters	Nominal	Typical	Maximum	Units
Peak Input Voltage time			100	ms
On/Off control	ON –Open or 3.5 to 12V/<0.2mA OFF –Short to pin 2 (-Vin) or 0 to 0.7V			
Idle input Current	At OFF state		12	mA
Input reflected current	Nominal Vin and full load		53	mA p-p
Transient response settling time	50% load step change		1.3	ms
Transient response deviation	di/dt=0.8A/μs		≤5	%
	3.3Vou		≤6	

## Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage		1500		VDC
Resistance	500VDC		>1000	MOhm
Capacitance		1100		pF

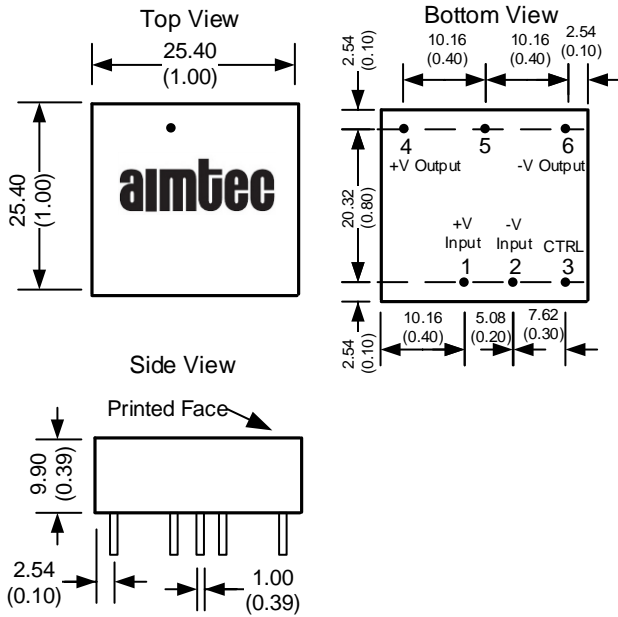
## Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Over voltage protection	3.3 Vout	3.9		V
	5 Vout	6.2		
	12 Vout	15		
	15 Vout	18		
	24 Vout	27		
Short Circuit protection	Continuous			
Short circuit restart	Auto-Recovery			
Line voltage regulation	LL to HL at full load	±1		% of Vin
Load voltage regulation (Single)	1% to 100% load	±1		%
Load voltage regulation (Dual)	Balanced Load	±0.5		%
	Unbalanced load 25% to 100% load	±5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	80		mV p-p

## General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	330		KHz
Operating temperature	With derating above 60°C	-40 to +85		°C
Storage temperature	-55 to +125			
Maximum case temperature			105	°C
Cooling	Natural convection			
Humidity			95	% RH
Case material	Nickel-coated copper			
Weight		17.4		g
Dimensions (L x W x H)	1 x 1 x 0.4 inches 25.4 x 25.4 x 10.2 mm			
MTBF	>1,580,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

## Dimensions



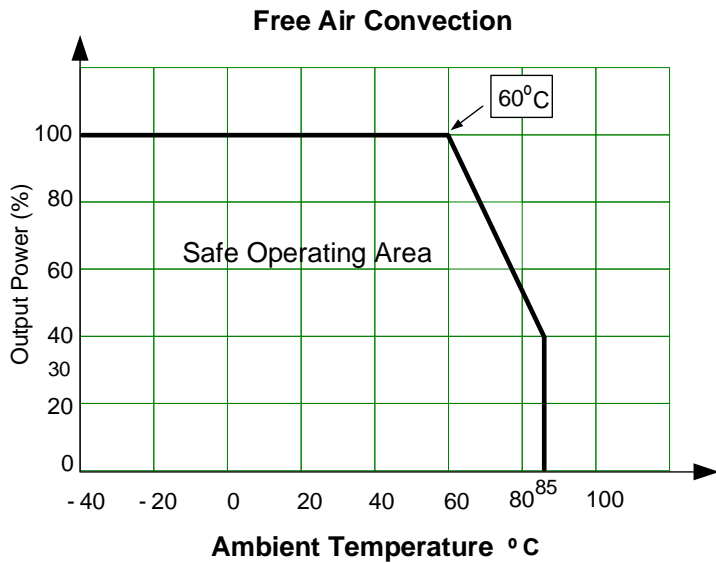
### Notes:

All dimensions are typical in millimeters (inches).

Pin Pitch Tolerance  $\pm 0.35$  ( $\pm 0.014$ )

Case Tolerance  $\pm 0.50$  ( $\pm 0.02$ )

## Derating



## 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

**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).