

**FEATURES:**

- Ultra Wide 4:1 input range
- Efficiency up to 88%
- Soft start
- Continuous Short Circuit Protection
- Operating temperature -40°C to + 85°C
- Remote on/off control
- Input/Output Isolation 1600VDC
- Over voltage & Over Load Protection

### Models

#### Single output



Model	Input Voltage (V)	Input Current NL   FL (mA)	Output Voltage (Vdc)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM10TW-2403SZ	9-36	15   440	3.3	2700	1600	1330	85
AM10TW-2405SZ	9-36	15   480	5	2000	1600	1330	87
AM10TW-2412SZ	9-36	15   475	12	833	1600	288	88
AM10TW-2415SZ	9-36	15   475	15	667	1600	200	88
AM10TW-4803SZ	18-75	15   225	3.3	2700	1600	1330	84
AM10TW-4805SZ	18-75	15   240	5	2000	1600	1330	87
AM10TW-4812SZ	18-75	15   240	12	833	1600	288	87
AM10TW-4815SZ	18-75	15   240	15	667	1600	200	87

### Models

#### Dual output

Model	Input Voltage (V)	Input Current NL   FL (mA)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load(uF)	Efficiency (%)
AM10TW-2405DZ	9-36	15   495	±5	±1000	1600	±900	85
AM10TW-2412DZ	9-36	15   480	±12	±417	1600	±133	87
AM10TW-2415DZ	9-36	15   480	±15	±330	1600	±90	87
AM10TW-4805DZ	18-75	15   250	±5	±1000	1600	±900	85
AM10TW-4812DZ	18-75	15   240	±12	±417	1600	±133	88
AM10TW-4815DZ	18-75	15   240	±15	±330	1600	±90	88

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.

**Input Specifications**

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24	9-36		VDC
	48	18-75		
Filter	$\pi$ (Pi) Network			
Start up time	Nominal Vin and constant resistive load		20	ms
Absolute Maximum Rating	24 Vin	-0.7-50		VDC
	48 Vin	-0.7-100		
Peak Input Voltage time			100	ms
On/Off control	ON – High (3.0 ... 12Vdc) or open circuit; OFF – Low (0 ... 1.2Vdc) or Short circuit pin1 and pin 2/3 OFF idle current: 5.0 mA typical			
Input reflected ripple current		20		mA pk-pk

**Isolation Specifications**

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1600	VDC
Tested metal case to Input and Output	60 sec		1600	VDC
Resistance		>1000		MOhm
Capacitance		1500		pF

## Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1.2		%
Cross Regulation (Dual Output)	25% load on one output, 100% load on second	±5		%
Over voltage protection	Zener diode clamp			
Over load protection		170		% of FL
Short Circuit protection	Continuous, hiccup			
Short circuit restart	Auto recovery			
Line voltage regulation	HL-LL		±0.2	%
Load voltage regulation	0% Load to Full Load	3.3V output models	±0.5	%
		Others	±0.2	%
Temperature coefficient		±0.02		%/°C
Ripple & Noise *	20MHz Bandwidth		85	mV p-p

\* Measured with 1µF CC.

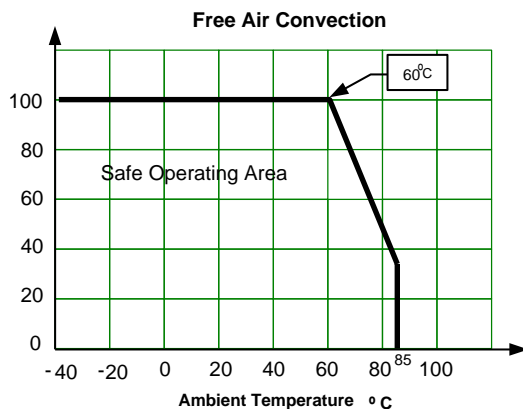
## General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	270		KHz
Operating temperature	Full Load with derating above 60°C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Maximum case temperature			105	°C
Derating	Above 60°C	2.5		%/°C
Cooling	Free air convection			
Humidity			95	% RH
Case material	Nickel-coated Copper			
Potting material	UL94V-0 rated			
Weight		18		g
Dimensions (L x W x H)	1.25 x 0.80 x 0.40 inches 31.75 x 20.32 x 10.16 mm			
MTBF	>1 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			
Manual soldering temperature	1.5mm from case for 10 sec		260	°C
Transient recovery time	25% load step (75-50-25% of Iout)	250		µS
Transient recovery deviation	25% load step (75-50-25% of Iout)		±3	%

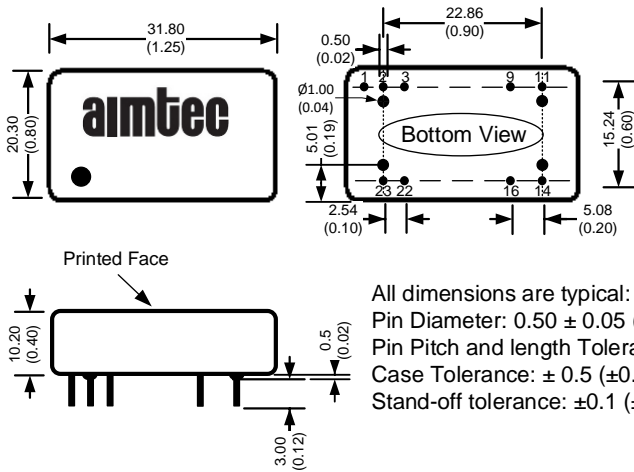
## Safety Specifications

Parameters	
Agency approvals	CE, UL
Standards	EN55032 Class A, with recommended circuit
	IEC61000-4-2, Perf. Criteria A
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria A (external 330µF/100V cap required)
	IEC61000-4-5, Perf. Criteria A (external 330µF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A
	IEC/EN/UL 60950-1:2001 & IEC/EN/UL 62368-1

## Derating



## Dimensions



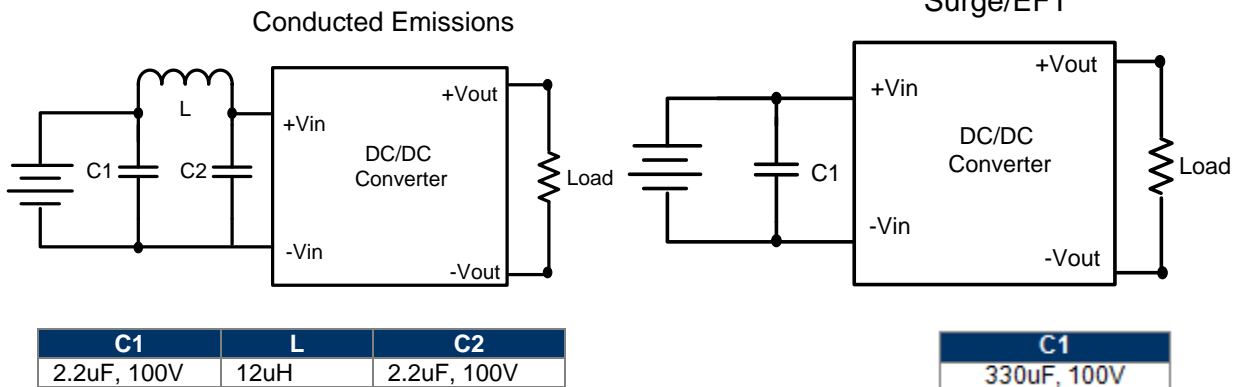
All dimensions are typical: millimeters (inches)  
 Pin Diameter:  $0.50 \pm 0.05$  ( $0.02 \pm 0.002$ )  
 Pin Pitch and length Tolerance:  $\pm 0.35$  ( $\pm 0.014$ )  
 Case Tolerance:  $\pm 0.5$  ( $\pm 0.02$ )  
 Stand-off tolerance:  $\pm 0.1$  ( $\pm 0.004$ )

## Pin Out Specifications

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-V Input	-V Input
3	-V Input	-V Input
9	No Pin	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

N.C.: Not Connected

## Recommended Circuit



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