

# Series AM6CW-FZ 6 Watt | DC-DC Converter

#### Picture coming soon

#### **FEATURES:**

- Wide 4:1 Input Voltage Range
- High efficiency up to 80%
- Remote On/Off
- Standard 1"x1" Package
- 1500 VDC Isolation
- Operating Temperature -40°C to +85°C
- Over Voltage protection
- Output Short Circuit Protection

## Models

Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load(uF)	Efficiency (%)
AM6CW-2405S-FZ	9-36	5	1200	680	80
AM6CW-4805S-FZ	18-75	5	1200	680	80

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	
\/altaga vanga	24	9-36		VDC	
Voltage range	48	18-75		VDC	
Filter		Pi			
Ctart up time	24 Vin	220			
Start up time	48 Vin	264		ms	
Absolute Maximum Dating	24		50	VDC	
Absolute Maximum Rating	48		100		
Peak Input Voltage time			100	ms	
On/Off control	ON -Open or 3.5 to 12V/<0.2mA				
On/Off control	OFF –Short to pin 2 (-Vin) or 0 to 0.7V				
Idle Input Current	At OFF state		2.5	mA	
Transient response settling time	50% load step change		300	μs	
Transient response deviation	di/dt=0.8A/µs		≤5	%	

**Isolation Specifications** 

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Parameters	Conditions	Typical	Maximum	Units	
Tested I/O voltage		1500		VDC	
Resistance	500VDC		>1000	MOhm	
Capacitance		270		pF	

**Output Specifications** 

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Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Over voltage protection	5 Vout	6.2		V
Short Circuit protection		Continuous		
Short circuit restart		Auto-Recovery		
Line voltage regulation	LL to HL at full load	LL to HL at full load ±0.5 % of V		
Load voltage regulation	0% to Full load	±1		%
Temperature coefficient			±0.02	%/°C
Ripple & Noise	20MHz Bandwidth	80		mV p-p

**General Specifications** 

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300kHz		KHz
Operating temperature	With derating above 60°C	-40 to +	-85	°C
Storage temperature	-55 to +105		°C	
Maximum case temperature			100	°C

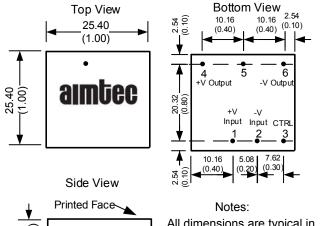
**General Specifications (continued)** 

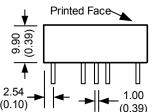
Parameters	Conditions	Typical	Maximum	Units
Cooling		Natural convection		
Humidity			95	% RH
Case material		Nickel-coated copper		
Weight	17			g
Dimensions (L x W x H)	1 x 1 x 0.4 inches 25.4 x 25.4 x 10.2 mm			
MTBF	>2,400,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			
Soldering temperature	1.5mm from case for 10 sec.		260	°C

#### **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	

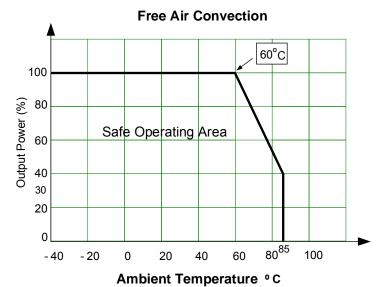
#### **Dimensions**





Notes:
All dimensions are typical in millimeters (inches).
Pin Pitch Tolerance ±0.35 (±0.014)
Case Tolerance ±0.50 (±0.02)

### **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 <a href="https://www.aimtec.com">www.aimtec.com</a>.

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