



### FEATURES:

- Ultra Compact Footprint 1"x1"
- Ultra-Wide Input Range 4:1
- Soft start feature
- Remote ON / OFF Function
- Output Short Circuit Protection
- Operating Temperature -40°C to +85°C
- Over Voltage, Over Load Protection
- Efficiency up to 91%



### Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current Max (A)	Isolation (VDC)	Input Current Full   No Load (mA)		Max Capacitive Load (uF)	Efficiency (%)
AM20CW-2403S-FZ-K	9-36	3.3	4.5	1500	755	63	24700	86
AM20CW-2405S-FZ-K	9-36	5	4	1500	992	63	14700	88
AM20CW-2412S-FZ-K	9-36	12	1.67	1500	970	83	4700	90
AM20CW-2415S-FZ-K	9-36	15	1.33	1500	967	70	2200	90
AM20CW-4803S-FZ-K	18-75	3.3	4.5	1500	373	29	32200	87
AM20CW-4805S-FZ-K	18-75	5	4	1500	490	30	23300	89
AM20CW-4812S-FZ-K	18-75	12	1.67	1500	486	38	3300	90
AM20CW-4815S-FZ-K	18-75	15	1.33	1500	477	32	1000	91

### Models Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current Max (A)	Isolation (VDC)	Input Current Full   No Load (mA)		Max Capacitive Load (uF)	Efficiency (%)
AM20CW-2405D-FZ-K	9-36	±5	±2	1500	990	59	±7000	86
AM20CW-2412D-FZ-K	9-36	±12	±0.833	1500	992	60	±2200	88
AM20CW-2415D-FZ-K	9-36	±15	±0.667	1500	981	83	±1000	89
AM20CW-4805D-FZ-K	18-75	±5	±2	1500	490	35	±7000	86
AM20CW-4812D-FZ-K	18-75	±12	±0.833	1500	490	35	±680	89
AM20CW-4815D-FZ-K	18-75	±15	±0.667	1500	490	35	±470	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 48	9-36 18-75		VDC
Filter	π			
Start Up Time	Nominal Vin with constant resistive load		76	ms
Absolute Maximum Rating	24 Vin 48 Vin		50 100	VDC
On/Off Control	ON 3.5 to 12VDC (or open) ; OFF 0 to 0.7 VDC or short to Vin pin 2 On source current <0.2mA, OFF idle current <12mA			
Input Reflected Ripple Current		60		mA p-p

### Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O Voltage	3 sec		1500	VDC
Resistance		>1000		MOhm
Capacitance		450		pF

## Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage Accuracy		±1		%
Over Voltage Protection	Zener Diode Clamp	120		%
Over Load Protection	% of Full Load at Nominal Input	110		%
Short Circuit Protection		Continuous		
Short Circuit Restart		Auto-Recovery		
Line Voltage Regulation	HL-LL	±1.0		%
Load Voltage Regulation (Single)	25% to 100% load	±1.0		%
Load Voltage Regulation (Dual)	balanced load	±0.5		%
	Unbalanced 25% to 100%	±5.0		
Temperature Coefficient		±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	80		mV p-p
Voltage Adjustment Range	Trim - Single output models only	10		%
Transient Recovery Time	Load step change 50%	700		µS
Transient Recovery Deviation	Others	±5		%of Vo
	3.3V models	±6		

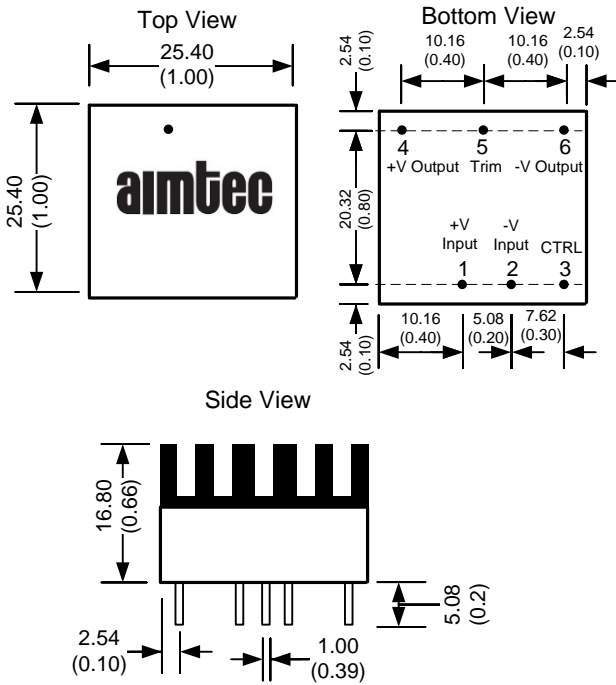
## General Specifications

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		°C
Maximum Case Temperature			105	°C
Cooling		Free air convection		
Humidity			95	% RH
Case Material		Nickel-coated copper		
Potting Material		Silicon Rubber (UL94V-0)		
Weight		23.4		g
Dimensions (L X W X H)		1.00 x 1.00 x 0.66 inches	25.40 x 25.40 x 16.80 mm	
MTBF		> 350,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Maximum Soldering Temperature	1.5mm from case for 10 sec		260	°C

## Pin Out Specifications

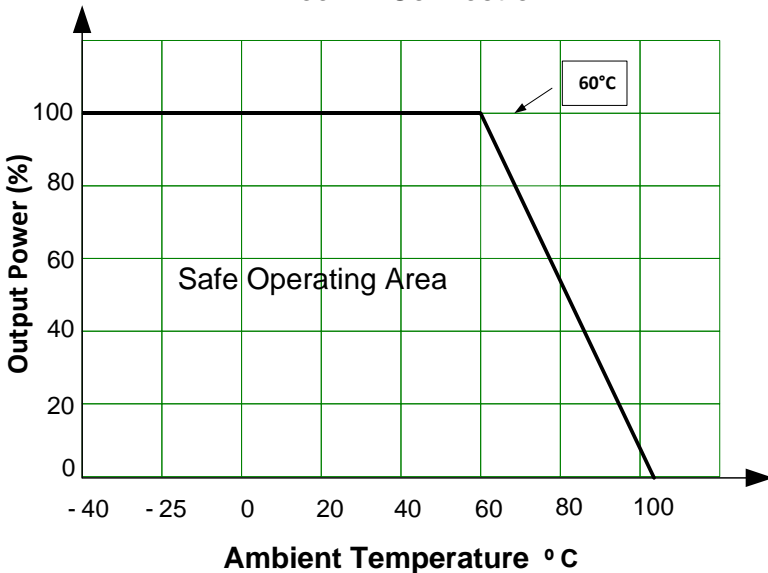
Pin	Single	Dual
1	+ V input	+ V input
2	- V input	- V input
3	On/Off Control	On/Off Control
4	+ V output	+ V output
5	Trim	Common
6	- V output	- V output

**Dimensions**

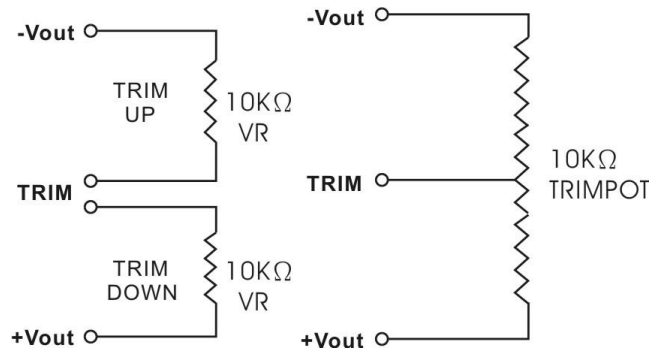


**Derating**

**Free Air Convection**



**Trimming**



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