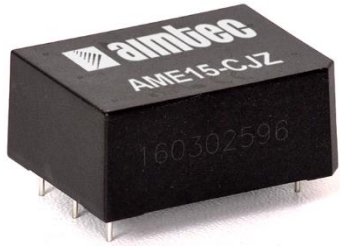


## Series AME15-CJZ

### 15 Watt | AC-DC / DC-DC Converter



#### FEATURES:

- I/O Isolation 3000VAC
- Operating Temp: -25 °C to +70 °C
- Input: 85-264VAC, 47-63Hz, or 120-370VDC
- Over current, Over Voltage Protection
- Continuous Short circuit protection
- Energy Star compliant
- Compact package
- Efficiency up to 84%

#### Models Single output



Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Output Current max (A)	Maximum capacitive Load (μF)	Efficiency 230VAC (%)
AME15-3.3SCJZ	85-264/47-63	120-370	3.3	3	72000	73
AME15-5SCJZ	85-264/47-63	120-370	5	2.8	44800	76
AME15-9SCJZ	85-264/47-63	120-370	9	1.6	13760	78
AME15-12SCJZ	85-264/47-63	120-370	12	1.25	5200	80
AME15-15SCJZ	85-264/47-63	120-370	15	1	5120	80
AME15-24SCJZ	85-264/47-63	120-370	24	0.625	880	84
AME15-48SCJZ	85-264/47-63	120-370	48	0.312	330	80

#### Models Dual output

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Output Current max (A)	Maximum capacitive Load (μF)	Efficiency 230VAC (%)
AME15-5DCJZ	85-264/47-63	120-370	±5	±1.5	±12800	76
AME15-12DCJZ	85-264/47-63	120-370	±12	±0.65	±2350	81
AME15-15DCJZ	85-264/47-63	120-370	±15	±0.5	±3120	83
AME15-24DCJZ	85-264/47-63	120-370	±24	±0.31	±400	83

#### Models Triple output

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Auxiliary Output Voltage (V)	Output Current max (A)	Maximum capacitive Load (μF)	Efficiency 230VAC (%)
AME15-505TCJZ	85-264/47-63	120-370	5	±5	2/±0.5	10800/±2160	75
AME15-512TCJZ	85-264/47-63	120-370	5	±12	2/±0.2	17280/±2160	77
AME15-515TCJZ	85-264/47-63	120-370	5	±15	1.8/±0.2	5920/±370	78
AME15-524TCJZ	85-264/47-63	120-370	5	±24	2/±0.1	1600/±130	78

#### Models Asymmetric Separated Dual output

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Output Current max (A)	Maximum capacitive Load (μF)	Efficiency 230VAC (%)
AME15-505DCJZ	85-264/47-63	120-370	5/5	2.2/0.8	10800/2960	76
AME15-512DCJZ	85-264/47-63	120-370	5/12	2/0.4	8640/1200	80
AME15-515DCJZ	85-264/47-63	120-370	5/15	2/0.3	6480/800	80
AME15-524DCJZ	85-264/47-63	120-370	5/24	2/0.2	12900/800	81
AME15-1205DCJZ	85-264/47-63	120-370	12/5	1/0.4	2200/1200	78

### Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current (full load)	115 VAC		370	mA
	230 VAC		220	mA
Inrush current <2ms (cold start)	115 VAC	10		A
	230 VAC	20		A
Leakage current	230VAC/50Hz		0.3	mA
External fuse	Recommended slow blow type	2		A

### Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Line regulation	Full load, main output	±0.5		%
	Full load, auxiliary output	±1.5		%
Load regulation (single output)	10-100% load	±1		%
Load Regulation (dual output)	10-100% Balanced load	±2		%
Load Regulation (triple & asymmetric separated output)	10-100% Balanced load, main output	±3		
	10-100% Balanced load, auxiliary output	±5		
Minimum load	Single output	0		%
	Others	10		%
Ripple & Noise *		50	150	mV p-p
Hold-up time	115VAC, 20MHz bandwidth	15		ms
	230VAC, 20MHz bandwidth	80		ms

### Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		3000	VAC
Isolation voltage between Main and Auxiliary output	60 sec		500	VDC
Isolation Resistance		>1000		MΩ

### General Specifications

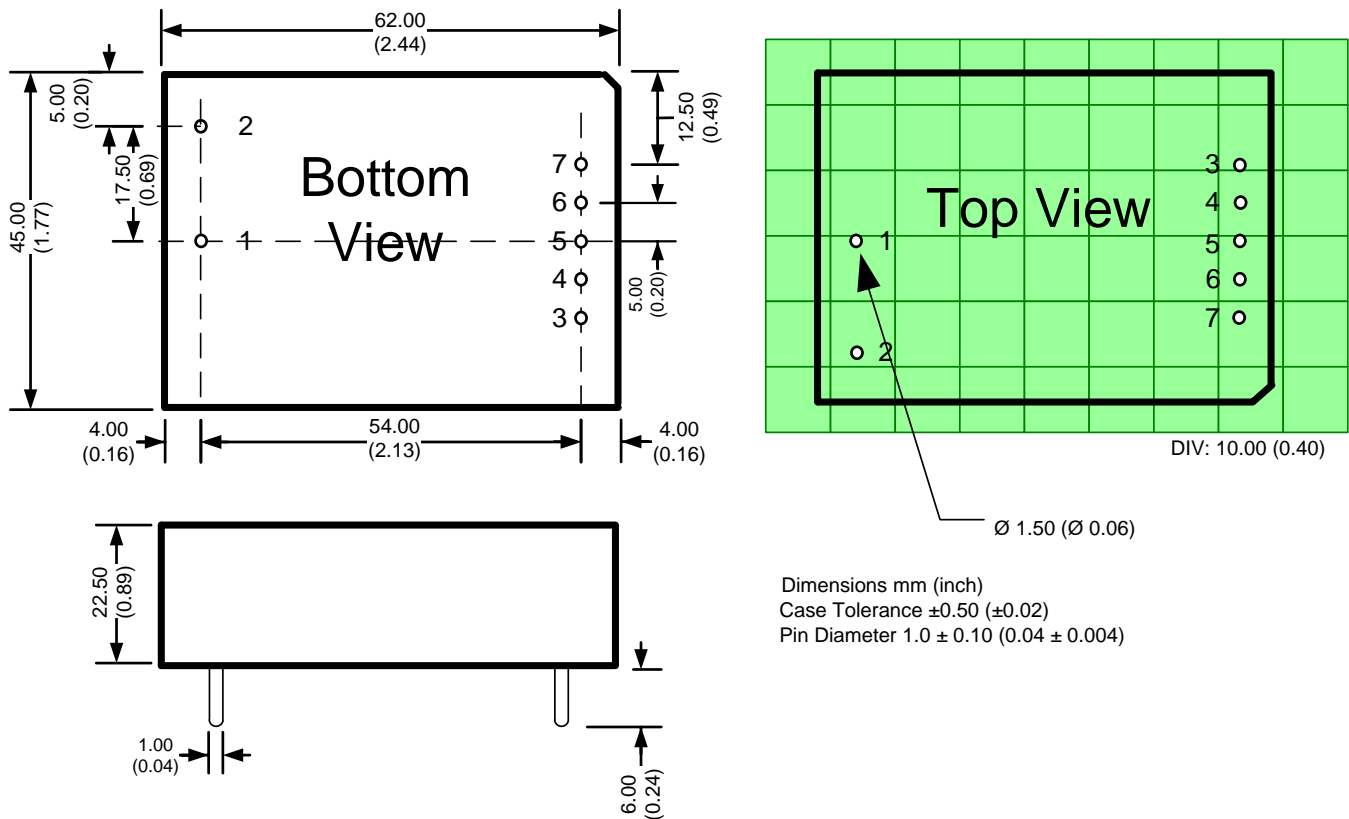
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	65		KHz
Protection class		Class II		
Over current protection		≥110		% of Iout
Over voltage protection		Zener diode clamp		
Short circuit protection		Continuous, Auto recovery		
Operating temperature	See derating curve	-25 to +70		°C
Storage temperature		-25 to +105		°C
Maximum Case temperature			100	°C
Temperature coefficient		±0.02		% / °C
Cooling	Free air convection			
Humidity	Non condensing		95	% RH
Case material		Plastic (flammability to UL 94V-0)		
Weight	Pin mountable	85		g
Dimensions (L x W x H)		Pin mountable: 2.44 x 1.77 x 0.89 inches	62.0 x 45.0 x 22.5 mm	
MTBF		> 300,000 hrs (MIL-HDBK -217F, t <sub>s</sub> =+25°C)/Full Load		

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.

### Safety Specifications

Parameters		
Agency approvals	cULus (single output models and AME15-505TCJZ, AME15-512TCJZ only), CE	
Standards	Information technology Equipment	IEC/EN/UL 60950-1
	EMI - Conducted and radiated emission	EN55022, class B
	Electrostatic Discharge Immunity	IEC 61000-4-2 Level 3
	RF, Electromagnetic Field Immunity	IEC 61000-4-3 Level 3
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 Level 3
	Surge Immunity	IEC 61000-4-5 Level 3
	RF, Conducted Disturbance Immunity	IEC 61000-4-6 Level 3
	Power frequency Magnetic Field Immunity	IEC 61000-4-8 Level 3
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11 Class 2

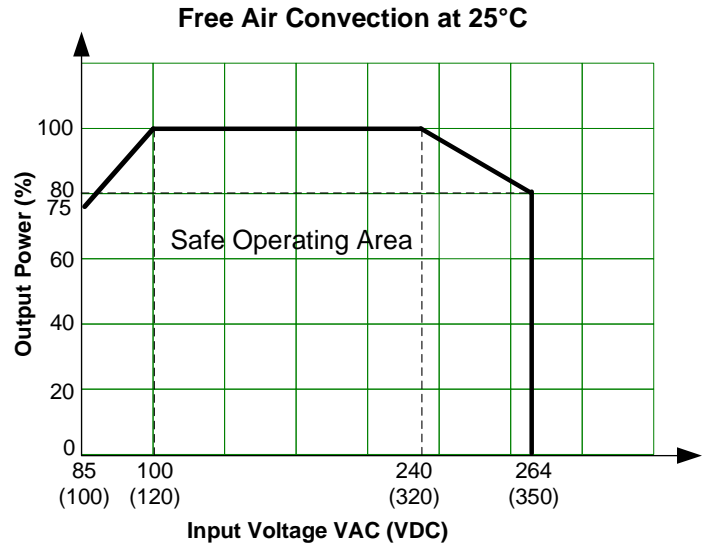
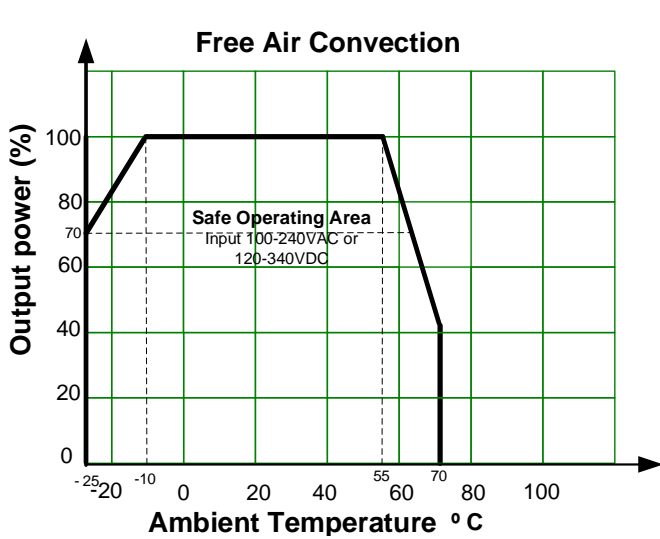
### Dimensions



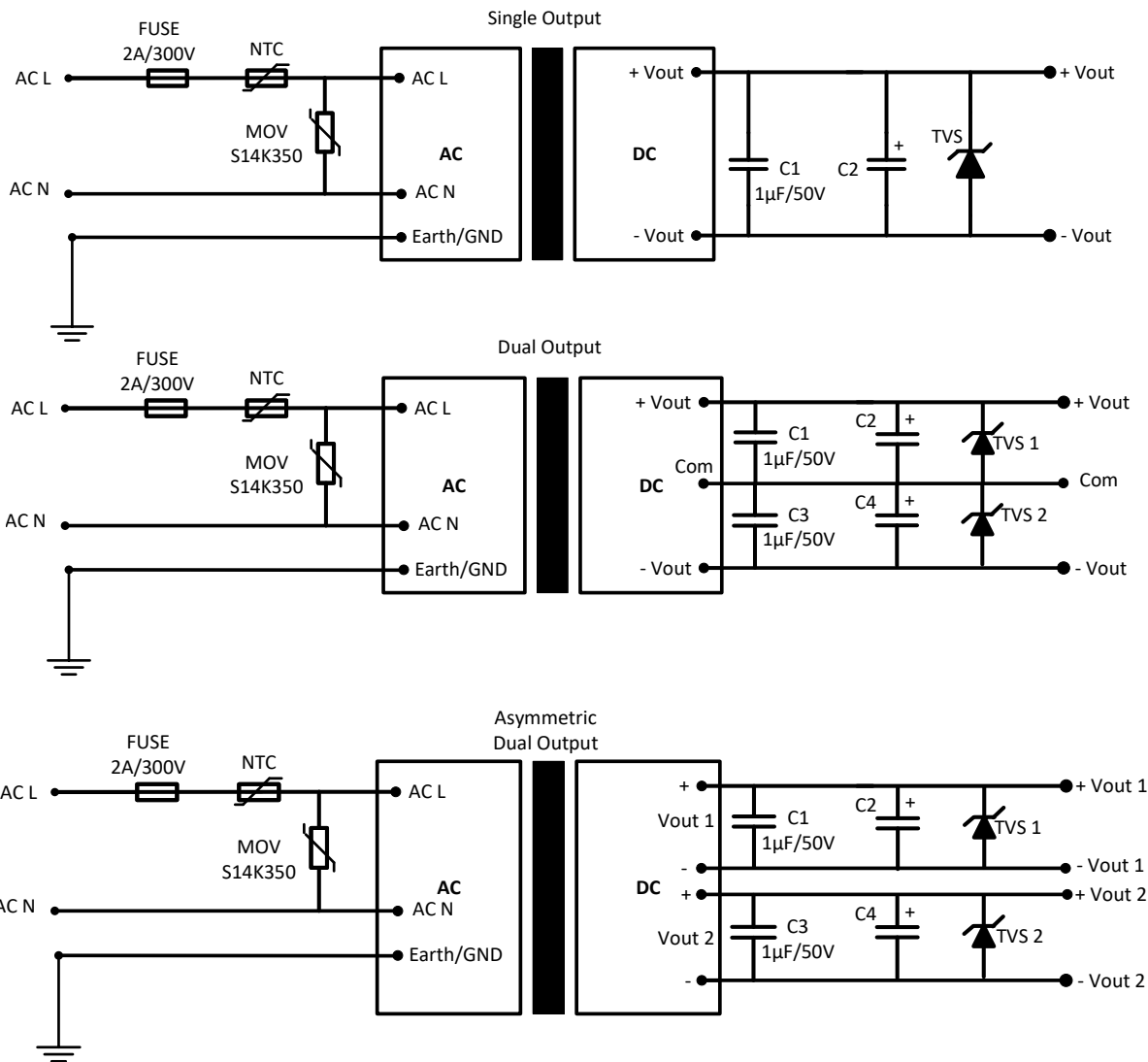
### Pin Out Specifications

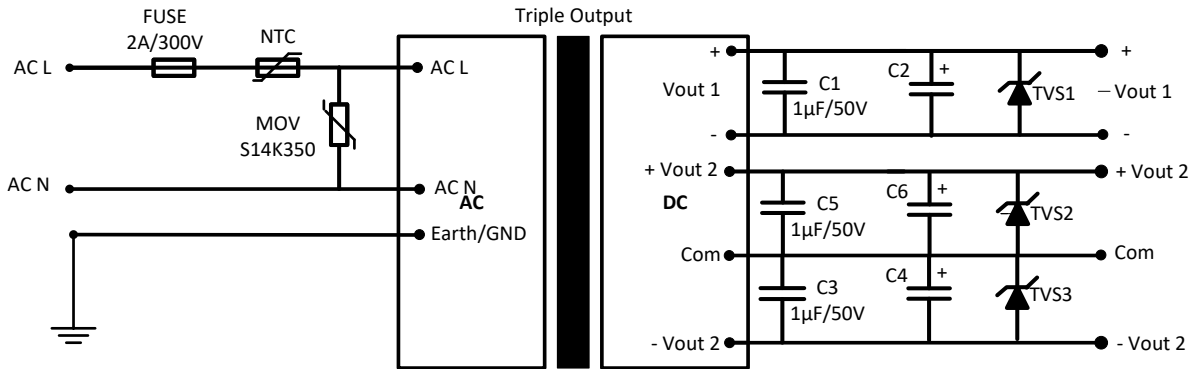
Pin	Single	Dual	Triple	Asymmetric Dual
1	AC Input (N)	AC Input (N)	AC Input (N)	AC Input (N)
2	AC Input (L)	AC Input (L)	AC Input (L)	AC Input (L)
3	-V Output	-V Output	-V Output 1	-V Output 1
4	No pin	No pin	+V Output 1	+V Output 1
5	No pin	Common	-V Output 2	No pin
6	No pin	No pin	Common	-V Output 2
7	+V Output	+V Output	+V Output 2	+V Output 2

### Derating



### Typical application circuits





Model	C2	C4	C6	TVS1	TVS2	TVS3
Single 3.3 & 5 Vout	680 $\mu$ F	-	-	7V	-	-
Single 9 Vout	470 $\mu$ F	-	-	12V	-	-
Single 12 & 15 Vout	220 $\mu$ F	-	-	20V	-	-
Single 24 Vout	68 $\mu$ F	-	-	30V	-	-
Dual $\pm$ 5 Vout	470 $\mu$ F	470 $\mu$ F	-	7V	7V	-
Dual $\pm$ 12 Vout	220 $\mu$ F	220 $\mu$ F	-	20V	20V	-
Dual $\pm$ 15 Vout	120 $\mu$ F	120 $\mu$ F	-	20V	20V	-
Dual $\pm$ 24 Vout	68 $\mu$ F	68 $\mu$ F	-	30V	30V	-
Triple 5/ $\pm$ 5 Vout	470 $\mu$ F	220 $\mu$ F	220 $\mu$ F	7V	7V	7V
Triple 5/ $\pm$ 12 Vout	470 $\mu$ F	120 $\mu$ F	120 $\mu$ F	7V	20V	20V
Triple 5/ $\pm$ 15 Vout	470 $\mu$ F	120 $\mu$ F	120 $\mu$ F	7V	20V	20V
Triple 5/ $\pm$ 24 Vout	470 $\mu$ F	120 $\mu$ F	120 $\mu$ F	7V	30V	30V
Dual 5/5 Vout	470 $\mu$ F	470 $\mu$ F	-	7V	7V	-
Dual 5/12 Vout	470 $\mu$ F	220 $\mu$ F	-	7V	20V	-
Dual 5/15 Vout	470 $\mu$ F	120 $\mu$ F	-	7V	20V	-
Dual 5/24 Vout	470 $\mu$ F	47 $\mu$ F	-	7V	30V	-

**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 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).