

# AME10 Series



## 10 watt encapsulated ac-dc converter

- SWITCHING POWER MODULES FOR PCB MOUNTING
- FULLY ENCAPSULATED PLASTIC CASE
- UNIVERSAL INPUT RANGE 90 ... 260 VAC, 47 ... 440 Hz
- REGULATED OUTPUT
- LOW RIPPLE & NOISE
- HIGH EFFICIENCY
- CE, cUL APPROVALS

### ELECTRICAL SPECIFICATIONS



All specifications valid at nominal Input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Single Output)		AME10-3.3S	AME10-5S	AME10-12S	AME10-15S	AME10-24S
<b>Max output wattage (W)</b>		<b>10W</b>	<b>10W</b>	<b>10W</b>	<b>10W</b>	<b>10W</b>
Input	Voltage	90 ... 260 VAC or 120 ... 370 VDC				
	Frequency (Hz)	47 ... 440 Hz				
	Current (Full Load)	200mA max. (115 VAC) / 130mA max. (230 VAC)				
	Inrush Current (<2ms)	10 A max. (115 VAC) / 20 A max. (230VAC)				
	Leakage Current	0.75mA max.				
	External Fuse (recommended)	1.5 A slow blow type				
Output	Voltage (VDC)	3.3V	5V	12V	15V	24V
	Voltage Accuracy	±2%				
	Current (mA) max.	3000	2000	833	666	416
	Line Regulation (typ.)	±0.3%				
	Load Regulation (typ.)	±0.5%				
	Minimum Load	4%	5%	5%	3%	5%
	Maximum Capacitive Load	470-23,000m F depending on model				
	Noise	<0.5% Vout +50mV max (Vp-p)				
	Ripple	<0.2% Vout +40mV max (Vp-p)				
	Efficiency	68%	71%	76%	76%	80%
	Hold-up Time	15 ms min.				
	Switching Frequency	100 kHz				
	Protection	Over Current Protection	Hiccup technique, auto-recovery			
Over Voltage Protection		Zener diode clamp				
Short Circuit Protection		Hiccup mode, indefinite (automatic recovery)				
Isolation	Input-Output (VAC)	3000V				
	Input-FG (VAC)	1500V				
	Outut-FG (VAC)	500V				
Environment	Operating Temperature	-25°C ... +71°C				
	Storage Temperature	-40°C ... +85°C				
	Temperature Coefficient	0.02% / °C				
	Humidity	95% RH				
	MTBF	>230,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	2.52 x 1.77 x 0.81 inches (64.0 x 45.0 x 20.5 mm)				
	Case Material	Plastic resin + Fiberglass (flammability to UL 94V-0)				
	Weight	100g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	cUL, CE				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B				
	EMS (Noise Immunity)	EN 50082-1				

# AME10 Series

## 10 watt encapsulated ac-dc converter

### ELECTRICAL SPECIFICATIONS

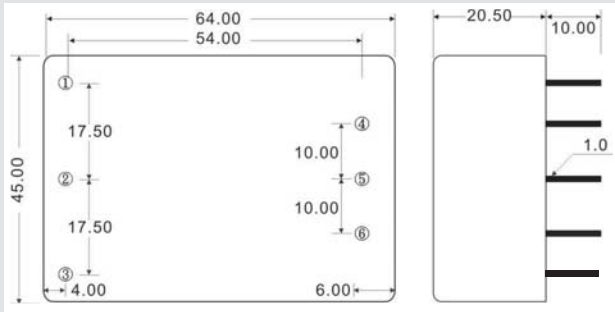
All specifications valid at nominal Input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Dual Output)		AME10-5D	AME10-12D	AME10-15D
<b>Max output wattage (W)</b>		<b>10W</b>	<b>10W</b>	<b>10W</b>
Input	Voltage	90 ... 260 VAC or 120 ... 370 VDC		
	Frequency (Hz)	47 ... 440 Hz		
	Current (Full Load)	200mA max. (115 VAC) / 130mA max. (230 VAC)		
	Inrush Current (<2ms)	10 A max. (115 VAC) / 20 A max. (230VAC)		
	Leakage Current	0.75mA max.		
	External Fuse (recommended)	1.5 A slow blow type		
Output	Voltage (VDC)	±5V	±12V	±15V
	Voltage Accuracy	±2%		
	Current (mA) max.	±800	±380	±300
	Line Regulation (typ.)	±0.3%		
	Load Regulation (typ.)	±0.5%		
	Minimum Load	1%	3%	1%
	Maximum Capacitive Load	470-23,000m F depending on model		
	Noise	<0.5% Vout +50mV max (Vp-p)		
	Ripple	<0.2% Vout +40mV max (Vp-p)		
	Efficiency	72%	77%	77%
	Hold-up Time	15 ms min.		
	Switching Frequency	100 kHz		
Protection	Over Current Protection	Hiccup technique, auto-recovery		
	Over Voltage Protection	Zener diode clamp		
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)		
Isolation	Input-Output (VAC)	3000V		
	Input-FG (VAC)	1500V		
	Output-FG (VAC)	500V		
Environment	Operating Temperature	-25°C ... +71°C		
	Storage Temperature	-40°C ... +85°C		
	Temperature Coefficient	0.02% / °C		
	Humidity	95% RH		
	MTBF	>230,000 h @ 25°C (MIL-HDBK-217F)		
Physical	Dimension (L x W x H)	2.52 x 1.77 x 0.81 inches (64.0 x 45.0 x 20.5 mm)		
	Case Material	Plastic resin + Fiberglass (flammability to UL 94V-0)		
	Weight	100g		
	Cooling Method	Free air convection		
Safety	Agency Approvals	cUL, CE		
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B		
	EMS (Noise Immunity)	EN 50082-1		

Specifications are subject to change without notification

## OUTLINE DIMENSIONS & PIN CONNECTIONS

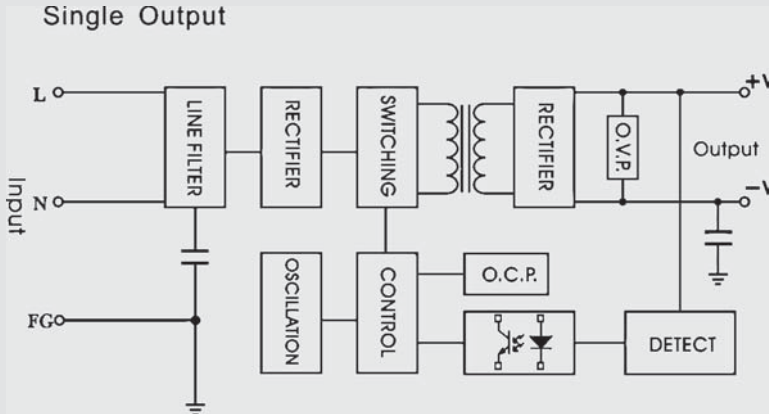
### MECHANICAL DIMENSION (Top View)



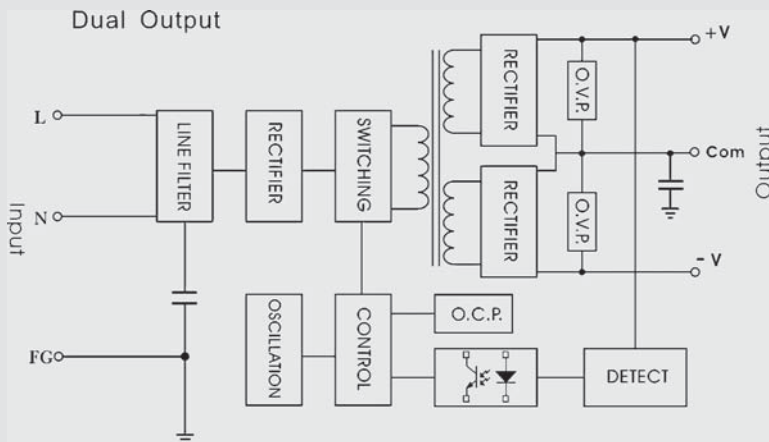
Pin	Single	Dual
1	FG	FG
2	AC Input (N)	AC Input (N)
3	AC Input (L)	AC Input (L)
4	-DC Output	-DC Output
5	Do not connect	Common
6	+DC Output	+DC Output

### BLOCK DIAGRAM

#### Single Output



#### Dual Output



### DERATING

