

# AME15 Series



## 15 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)		AME15-5S	AME15-12S	AME15-15S	AME15-24S
Max output wattage (W)		15W	15W	15W	15W
Input	Voltage	90 ... 260 VAC or 120 ... 370 VDC			
	Frequency (Hz)	47 ... 440 Hz			
	Current (Full Load)	280mA max. (115 VAC) / 170mA 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	24V
	Voltage Accuracy	±2%			
	Current (mA) max.	3000	1250	1000	625
	Line Regulation (typ.)	±0.5%			
	Load Regulation (typ.)	±0.5%			
	Minimum Load	0%			
	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	75%	80%	80%	84%
	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	>210,000 h @ 25°C (MIL-HDBK-217F)			
Physical	Dimension (L x W x H)	2.91 x 2.13 x 0.87 inches (74.0 x 54.0 x 22.0 mm)			
	Case Material	Plastic resin + Fiberglass (flammability to UL 94V-0)			
	Weight	140g			
	Cooling Method	Free air convection			
Safety	Agency Approvals	cUL, CE			
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B			
	EMS (Noise Immunity)	EN 55024			

Specifications are subject to change without notification

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## 15 watt encapsulated ac-dc converter

### ELECTRICAL SPECIFICATIONS

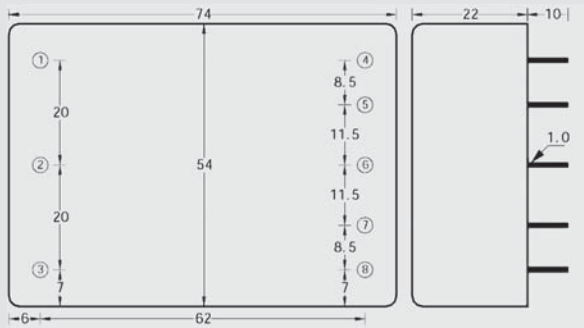
All specifications valid at nominal Input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Dual & Triple Output)		AME15-5D	AME15-12D	AME15-15D	AME15-512T	AME15-515T
<b>Max output wattage (W)</b>		<b>15W</b>	<b>15W</b>	<b>15W</b>	<b>15W</b>	<b>10W</b>
Input	Voltage	90 ... 260 VAC or 120 ... 370 VDC				
	Frequency (Hz)	47 ... 440 Hz				
	Current (Full Load)	280mA max. (115 VAC) / 170mA 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	5/±12V	5/±15V
	Voltage Accuracy	±2%				
	Current (mA) max.	±1500	±650	±500	2000/±200	2000/±150
	Line Regulation (typ.)	±0.5%	±0.5%	±0.5%	±1%/±5%	±1%/±5%
	Load Regulation (typ.)	±3%	±3%	±3%	±2%/±5%	±2%/±5%
	Minimum Load	0%	0%	0%	5V 10% (200mA)	5V 10% (200mA)
	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	75%	79%	79%	75%	75%
	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	>210,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	2.91 x 2.13 x 0.87 inches (74.0 x 54.0 x 22.0 mm)				
	Case Material	Plastic resin + Fiberglass (flammability to UL 94V-0)				
	Weight	140g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	cUL, CE				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B				
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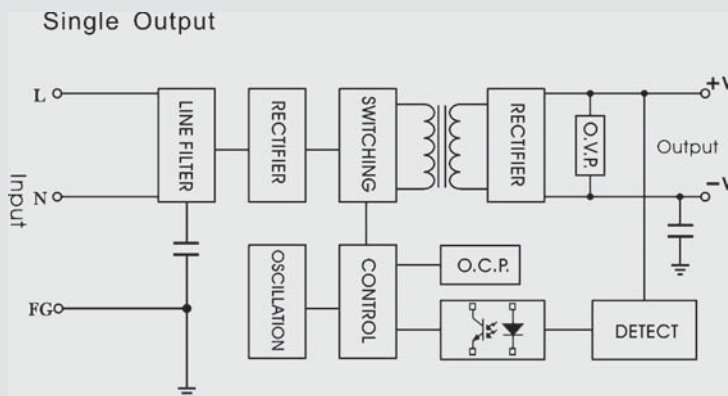
## OUTLINE DIMENSIONS & PIN CONNECTIONS

### MECHANICAL DIMENSION (Top View)



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

### BLOCK DIAGRAM



### DERATING

