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			
	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	>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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ELECTRICAL SPECIFICATIONS

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

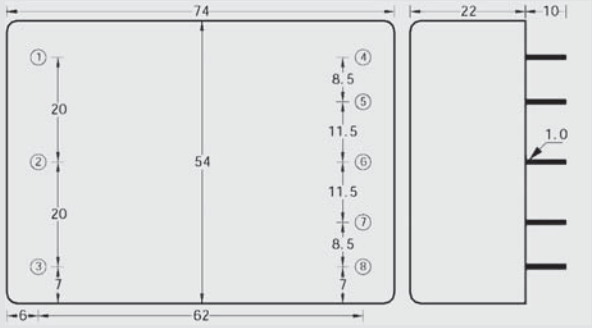
Model No. (Dual & Triple Output)		AME15-5D	AME15-12D	AME15-15D	AME15-512T	AME15-515T
Max output wattage (W)		**15W**	**15W**	**15W**	**15W**	**10W**
Input	Voltage	90 ... 260 VAC or 120 ... 370 VDC				
	Frequency (Hz)	47 ... 440 Hz				
	Current (Full Load)	280mA max. (115 VAC) / 170mA max. (230 VAC)				
	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				
	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	>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				
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TO ORDER CALL 1-888-9-AIMTEC

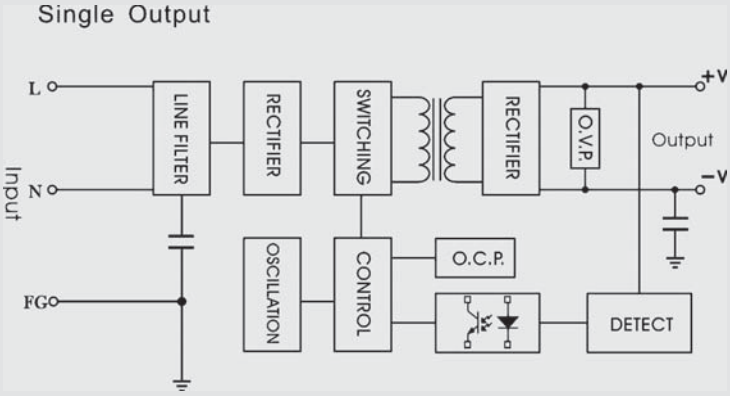
OUTLINE DIMENSIONS & PIN CONNECTIONS

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

