Not recommended for new designs

Discontinued

Series AME40-MZ

40 Watt | AC-DC Converter

FEATURES:

- RoHS compliant
- Switching power modules for PCB mounting
- Fully encapsulated plastic case
- Universal input: 90-260VAC, 47-440Hz, or 100-375VDC
- Low ripple and noise
- High efficiency
- Regulated output
- CE, UL, CB, TUV approvals

Models
Single output

Model	Input Voltage (VAC/Hz)	Input voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Ripple & Noise max (mV)	Minimum Load (%)	Efficiency (%)
AME40-3.3SMZ	90-260/47-440	100-375	26.4	3.3	8	50	1	75
AME40-5SMZ	90-260/47-440	100-375	40	5	8	50	1	79
AME40-9SMZ	90-260/47-440	100-375	40	9	4.45	90	1	82
AME40-12SMZ	90-260/47-440	100-375	40	12	3.33	120	1	83
AME40-15SMZ	90-260/47-440	100-375	40	15	2.67	150	1	83
AME40-24SMZ	90-260/47-440	100-375	40	24	1.67	240	1	83

Models
Dual output

Model	Input Voltage (VAC/Hz)	Input voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Ripple & Noise max (mV)	Minimum Load (%)	Efficiency (%)
AME40-5DMZ	90-260/47-440	100-375	40	±5	±4	±50	10	79
AME40-12DMZ	90-260/47-440	100-375	40	±12	±1.67	±120	10	83
AME40-15DMZ	90-260/47-440	100-375	40	±15	±1.32	±150	10	83

Models
Dual separated output

Model	Input Voltage (VAC/Hz)	Input voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Ripple & Noise max (mV)	Minimum Load (%)	Efficiency (%)
AME40-5S12SMZ	90-260/47-440	100-375	40	5/12	5/1.25	50/120	25	80
AME40-5S24SMZ	90-260/47-440	100-375	40	5/24	5/0.63	50/240	25	80

Models
Triple output

Model	Input Voltage (VAC/Hz)	Input voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Ripple & Noise max (mV)	Minimum Load (%)	Efficiency (%)
AME40-512TMZ	90-260/47-440	100-375	40	5/±12	5/±0.6	50/±120	25	80

AME40-515TMZ	90-260/47-440	100-375	40	5/±15	5/±0.5	50/±150	25	80

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current	115 VAC (full load)		0.86	A
	230 VAC (full load)		0.46	A
Inrush current <2ms	115 VAC		20	A
	230 VAC		30	A
Leakage current	115 VAC		0.1	mA
	260 VAC		0.161	mA
External fuse	Recommended slow blow type	3.15		A

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	All single output	±1		%
	All dual output	±1		%
	All dual separated & triple output	±3 / ±5		%
Line regulation (LL-HL)	All single output	±0.5		%
	All dual output	±0.5		%
	All dual separated & triple output	±0.5 / ±5		%
Load regulation (5-100%)	All single output	±1		%
	All dual output	±1		%
	All dual separated output	±2 / ±6		%
	All triple output	±3 / ±7		
Maximum capacitive load	Depending of the model	470-23 000		µF
Hold-up time (min)		18		ms
Ripple & Noise	3.3V → 50mV p-p;	5~24V → 1% of Vout		

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Input / Output		4000		VAC

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		132		KHz
Over current protection		Above 105% rated output power		
Over voltage protection		Zener diode clamp		
Short circuit protection	Auto recovery	Hiccup mode, indefinite		
OTP		Above 100°C		
Case temperature			95	°C
Operating temperature	With derating above 50ºC	-25 to +70		°C
Storage temperature		-40 to +100		°C
Temperature coefficient		0.01		%/°C
Cooling	Free air convection			
Humidity	Non condensing		95	% RH
Case material	Plastic resin + Fiberglass (flammability to UL 94V-0)			
Weight		280		g
Dimensions	3.5 x 2.5 x 1.06 inches	89.0 x 63.5 x 27.0 mm		
MTBF	Up to 400 000 hrs (MIL-HDBK -217F, t=+25°C)			

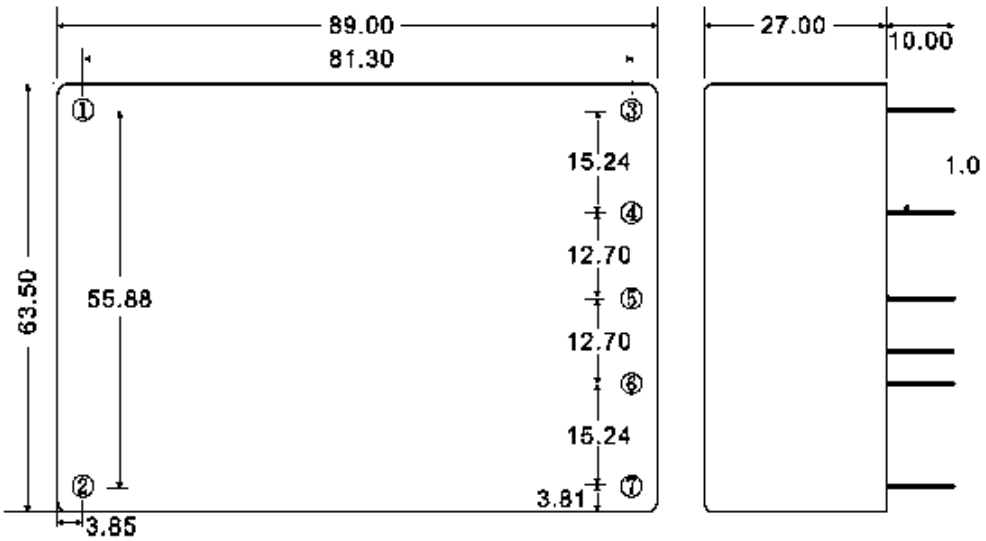
Safety Specifications

Standards	
Safety	EN60356, class II, EN55011 class B, EN60601-1, EN60601-1-2
Agency approvals	CE,UL,CB, TUV

Pin Out Specifications

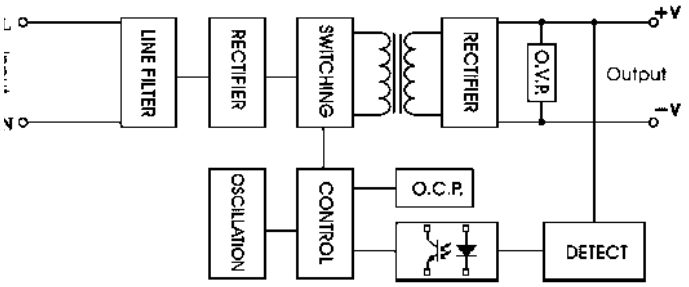
Pin	Single	Dual	Dual separated	Triple
1	AC Input (N)	AC Input (N)	AC Input (N)	AC Input (N)
2	AC Input (L)	AC Input (L)	AC Input (L)	AC Input (L)
3	+V Output	+V Output	+ V2 Output	+ V2 Output
4	No pin	No pin	+V1 Output	+ V1 Output
5	-V Output	Common	V2 Common	V2, V3 Common
6	No pin	No pin	V1 Common	V1 Common
7	N. C.	-V Output	No pin	-V3 Output

Dimensions

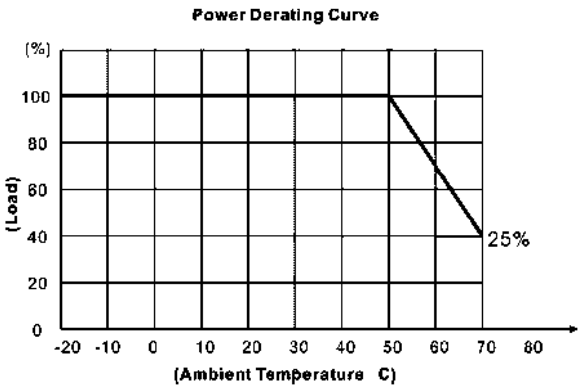


BLOCK DIAGRAM

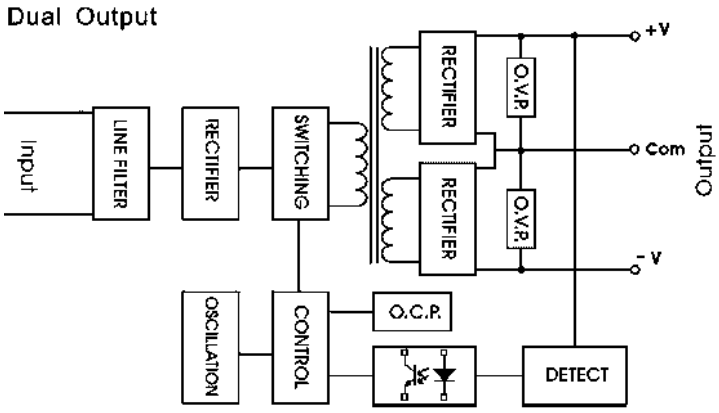
Single Output



DERATING



Dual Output



Triple Output