

# AMEL10 Series



## 10 watt encapsulated ac-dc converter

- SWITCHING POWER MODULES FOR PCB MOUNTING
- FULLY ENCAPSULATED PLASTIC CASE
- UNIVERSAL INPUT RANGE 90 ... 260VAC , 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.

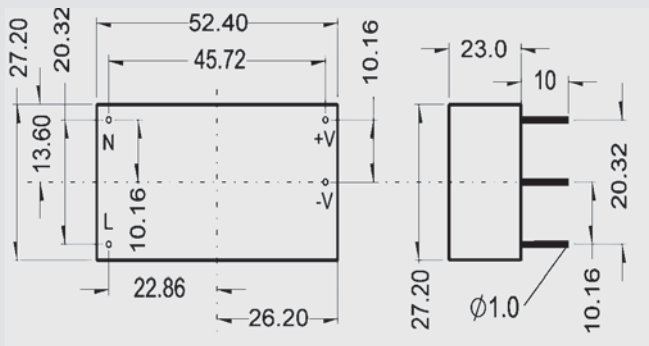
Model No. (Single Output)	AMEL10-3.3S	AMEL10-5S	AMEL10-12S	AMEL10-15S	AMEL10-24S	
<b>Max output wattage (W)</b>	<b>10W</b>	<b>10W</b>	<b>10W</b>	<b>10W</b>	<b>10W</b>	
Input	Voltage					
	90 ... 260 VAC					
	Frequency (Hz)					
	47 ... 440 Hz					
	Current (Full Load)					
	220mA max. (115 VAC) / 150mA max. (230 VAC)					
Current (No Load)						
12mA max. (115 VAC) / 14mA max. (230 VAC)						
Inrush Current (<2ms)						
10 A max. (115 VAC) / 20 A max. 230 VAC)						
External Fuse (recommended)						
1.5 A slow blow type						
Output	Voltage (VDC)	3.3V	5V	12V	15V	24V
	Voltage Accuracy	±2%				
	Current (mA) max.	2500	2000	833	667	417
	Line Regulation (typ.)	±0.3%				
	Load Regulation (5%-100%)(typ.)	±0.5%				
	Minimum Load	0%				
	Maximum Capacitive Load	470-23,000m F depending on model				
	Ripple	<0.2% Vout +40mV max (Vp-p)				
	Noise	<0.5% Vout +50mV max (Vp-p)				
	Efficiency	70%	72%	79%	79%	79%
	Hold-up Time	15 ms min.				
	Switching Frequency	125 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				
Environment	Operating Temperature	-25°C ... +71°C				
	Storage Temperature	-40°C ... +85°C				
	Temperature Coefficient	0.02% / °C				
	Humidity	20-85% RH				
	MTBF	>310,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	2.05 x 1.06 x 0.91 inches (52 x 27 x 23 mm)				
	Case Material	Plastic resin + Fiberglass (flammability to UL 94V-0)				
	Weight	54g				
	Cooling Method	Free air convection				
General	Vibration	10-55 Hz 0.5 mm width / 1 minute cycle				
	Shock	20 G (3 directions each 3 times)				
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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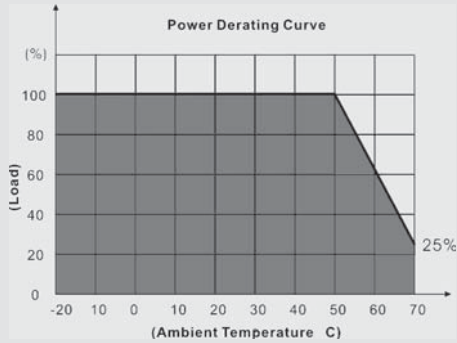
## OUTLINE DIMENSIONS & PIN CONNECTIONS

### MECHANICAL DIMENSION (Top View)



Pin	Single
N	AC Input
L	AC Input
+V	+DC Output
-V	-DC Output

### DERATING



### BLOCK DIAGRAM

