

# 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					

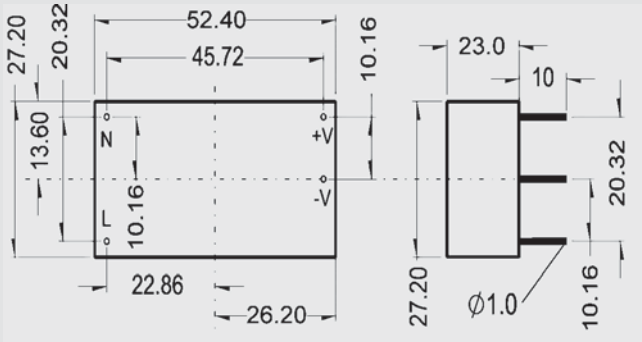
Specifications are subject to change without notification

Continued on next page

# AMEL10 Series

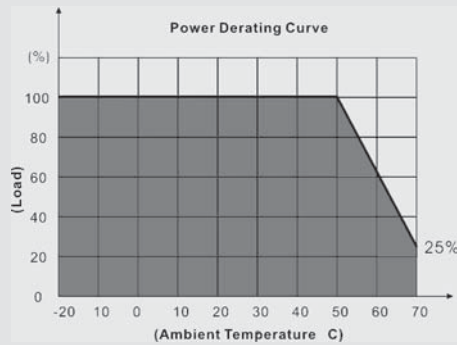
## OUTLINE DIMENSIONS & PIN CONNECTIONS

### MECHANICAL DIMENSION (Top View)



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

### DERATING



### BLOCK DIAGRAM

