

# **AMEL05 Series**

### 5 Watt Encapsulated AC-DC Converter



- Switching Power Modules for PCB Mounting
- Low Standby Power
- Fully Encapsulated Plastic Case
- Universal Input Range 90...260VAC, 47...440 Hz
- Regulated Output

- Low Ripple and Noise
- High Efficiency
- CE, cUL Approvals
- 2-Year Product Warranty



### **ELECTRICAL SPECIFICATIONS**

Model No.		AMEL05-3.3S	AMEL05-5S	AMEL05-12S	AMEL05-15S	AMEL05-24S	
Max output wattage (W)		4W	5W	5W	5W	5.5W	
	Voltage		90260 VAC or 120370 VDC				
Input	Frequency (Hz)		47440 Hz				
	Current (Fullload)		110 mA max. (115 VAC) / 70 mA max. (230 VAC)				
	Inrush current (<2ms)		10 A max. (115 VAC) /20 A max. (230 VAC)				
	Leakage Current		0.75 mA max.				
	External fuse (recommend)		1.5 A slow blow type				
Output	Voltage (VDC)	3.3V	5V	12V	15V	24V	
	Voltage accuracy		±2%				
	Current (mA) max	1250	1000	420	333	230	
	Line regulation		±0.3% max.				
	Load regulation (5-100%)		±0.5% max.				
	Minimum load		0%				
	Maximum capacitive load		470-23,000μF depending on model				
	Ripple & Noise		<0.5% Vout +50mV max (Vp-p)				
	Efficiency	65%	73%	75%	77%	78%	
	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		95% RH				
	MTBF		>340,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)		2.0 x 1.0 x 0.597 Inches (50.8 x 25.4 x 15.16 mm)				
	Case Material		Plastic resin + Fiberglass (flammability to UL 94V-0)				
	Weight		30 g				
	Cooling method		Free air convection				
Safety	Agency approvals		cUL, CE				
EMC	EMI (Conducted Emission)		EN 55022				
	EMS (Radiated Emission)		EN 55022				

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

tel.: 1-450-688-2722

fax: 1-450-687-2722

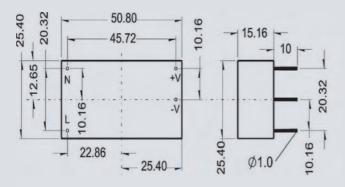




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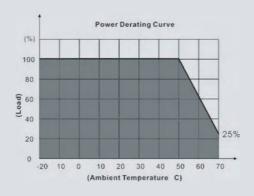
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### **MECHANICAL DIMENSION (Top View)**



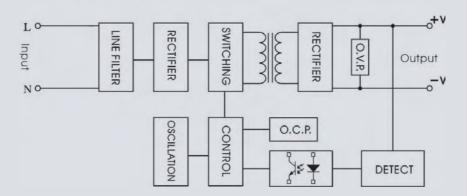
PIN#	SINGLE		
N	AC IN		
L	AC IN		
+V	+DC OUT		
-V	-DC OUT		

### **DERATING**



### **BLOCK DIAGRAM**

Single Output



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