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 & NOISE
- HIGH EFFICIENCY
- CE MARKING

ELECTRICAL SPECIFICATIONS

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

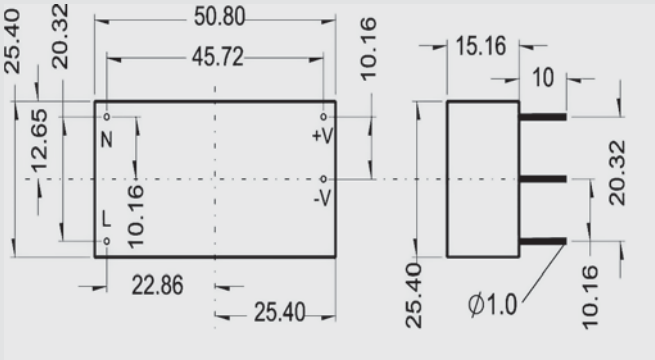
Model No. (Single Output)		AMEL05-3.3S	AMEL05-5S	AMEL05-12S	AMEL05-15S	AMEL05-24S
Max output wattage (W)		**4W**	**5W**	**5W**	**5W**	**5.5W**
Input	Voltage	90 ... 260 VAC or 120 ... 370 VDC				
	Frequency (Hz)	47 ... 440 Hz				
	Current (Full Load)	110mA max. (115 VAC) / 70mA max. (230 VAC)				
	Inrush 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)	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	470-23,000m F 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	30g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	CE				
EMC	EMI (Conducted & Radiated Emission)	EN 55022				
	EMS (Noise Immunity)	EN 55022				

Specifications are subject to change without notification

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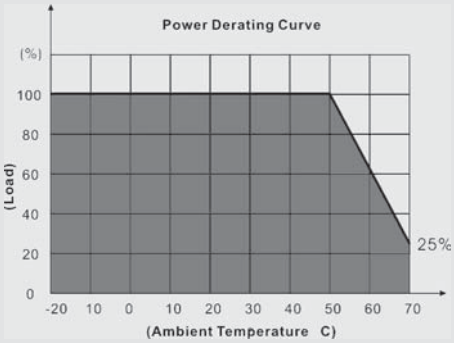
OUTLINE DIMENSIONS & PIN CONNECTIONS

MECHANICAL DIMENSION (Top View)

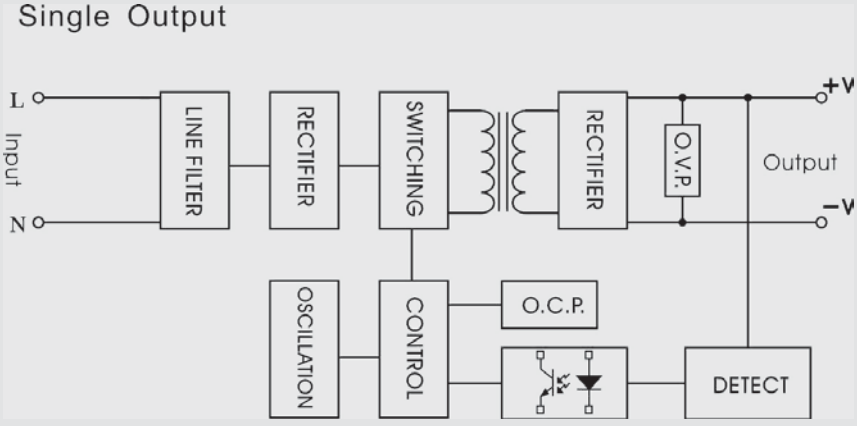


Pin	Single
N	AC Input
L	AC Input
+V	+DC Output
-V	-DC Output

DERATING



BLOCK DIAGRAM



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