

AHC Series

5 W AC/DC Power Module

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Solutions

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output
- Low Ripple and Noise
- High Efficiency
- CE, UL Approval
- 2-Years Product Warranty



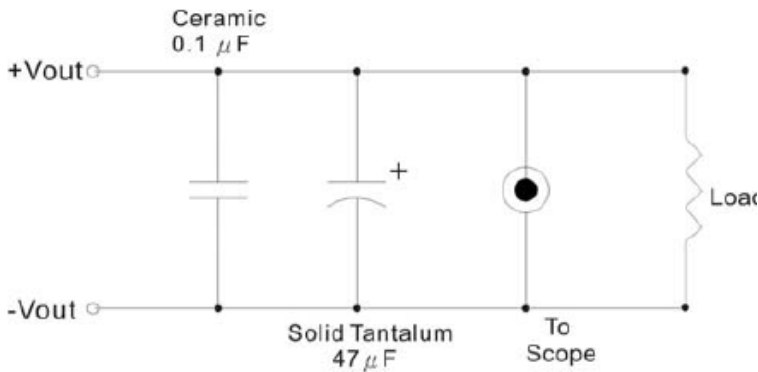
Electrical specifications

Model No.	AHC-3.3S	AHC-5S	AHC-12S	AHC-15S	AHC-24S					
Max Output Wattage (W)	4W	5W	5W	5W	5.5W					
Input	Voltage					90-264 VAC or 120-370 VDC				
	Frequency (Hz)					47-440 Hz				
	Current (Full load)					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 (V.DC.)		3.3V	5V	12V	15V	24V			
	Voltage Accuracy		±2%							
	Current (mA) max		1250	1000	420	333	230			
	Line Regulation		±0.3% (LL-HL) (typ.)							
	Load Regulation		±0.5% (5-100%) (typ.)							
	Minimum Load		0%							
	Max Capacitive Load		470-23,000µF depending on model							
	Ripple		<0.2% Vout +40mV max (Vp-p)							
	Noise		<0.5% Vout +50mV max (Vp-p)							
	Efficiency		64%	67%	73%	73%	75%			
	Hold-up Time		15 ms min.							
	Switching Frequency		132 kHz							
Protection	Over Power Protection		Hiccup technique, auto-recovery							
	Over Voltage Protectio		Zener diode clamp							
	Short Circuit Protection		Hiccup mode, indefinite (automatic recovery)							
Isolation	Input-Output (V.AC)		3000V							
Environment	Operating Temperature		-25°C...+70°C (with derating)							
	Storage Temperature		-40°C...+85°C							
	Temperature Coefficient		±0.02%/°C							
	Humidity		95% RH							
	MTBF		>360,000 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) Tolerance ±0.5 mm							
	Case Material		Plastic resin with Fiberglass (flammability to UL 94V-0)							
	Weight		30 g							
	Cooling Method		Free air convection							
Safety	Agency Approvals		UL/cUL, CE							
EMC	EMI		EN 55022 class B (Conducted & Radiated Emission)							
	EMS (Noise Immunity)		EN 55024							

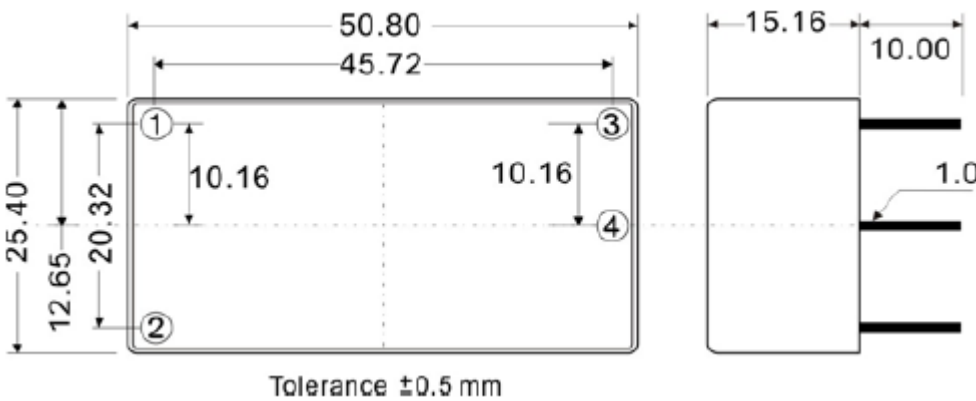
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Output noise

The output noise is measured with 47 μ F tantalum capacitor and 0.1 μ F ceramic capacitor across output.

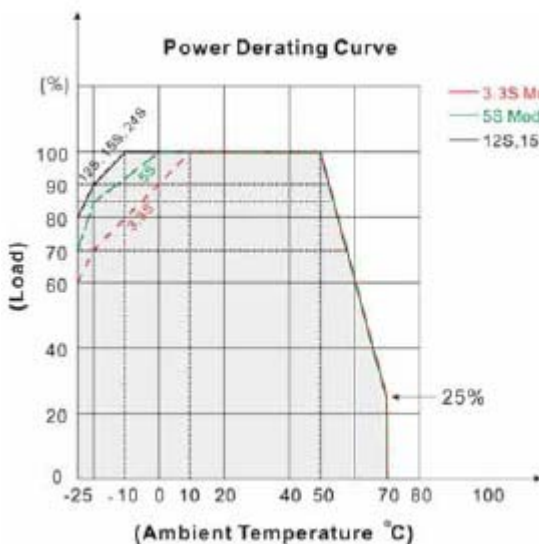


Mechanical Specifications (top view)

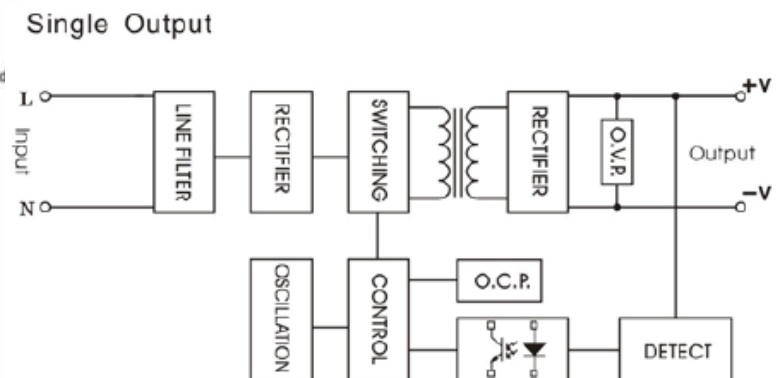


Pin no:	Single
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

Derating

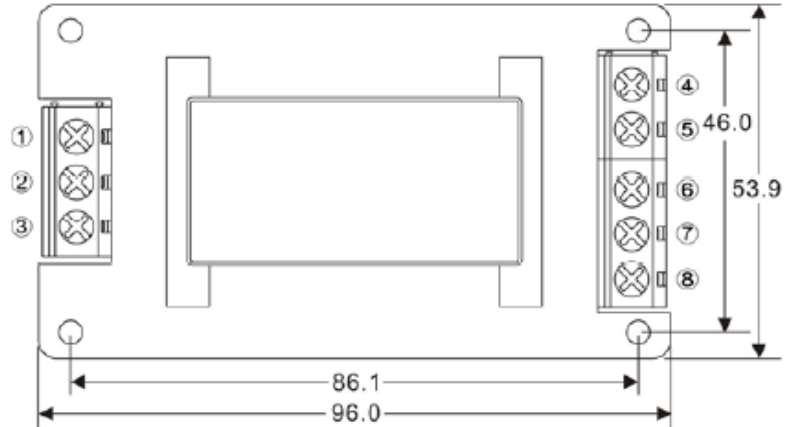


Block Diagram

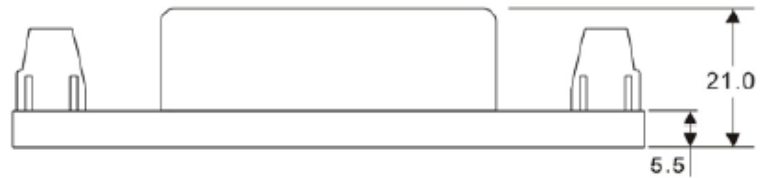


SCREW TERMINALS

AHC-A2

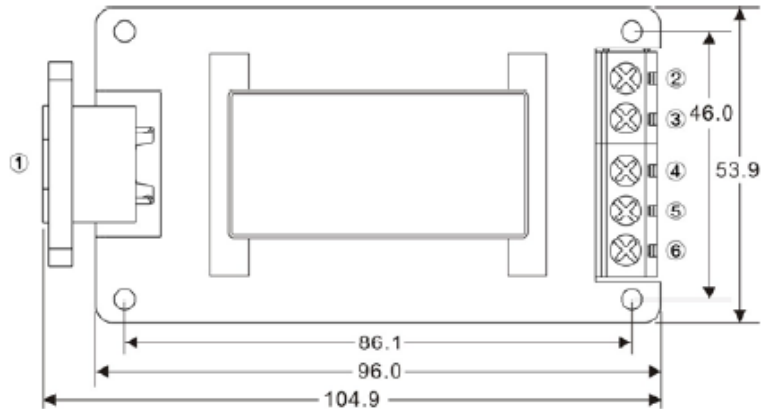


Pin no:	Single
1	NO CONN
2	AC IN (N)
3	AC IN (L)
4	NO CONN
5	+DC OUT
6	-DC OUT
7	NO CONN
8	NO CONN

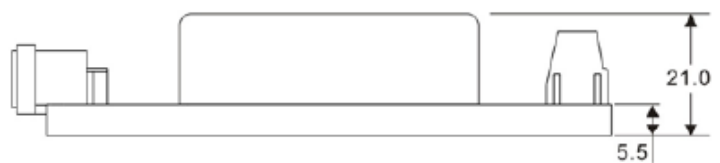


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AHC-A3



Pin no:	Single
1	AC IN
2	NO CONN
3	+DC OUT
4	-DC OUT
5	NO CONN
6	NO CONN



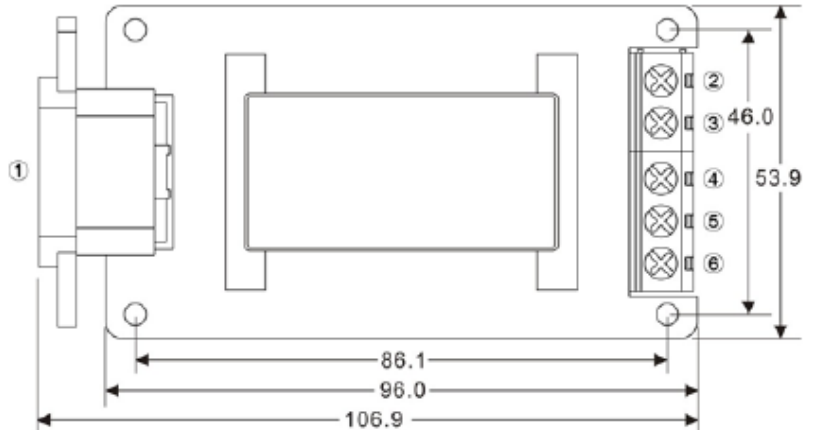
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5 W AC/DC Power Module

AHC-A4



Pin no:	Single
1	AC IN
2	NO CONN
3	+DC OUT
4	-DC OUT
5	NO CONN
6	NO CONN

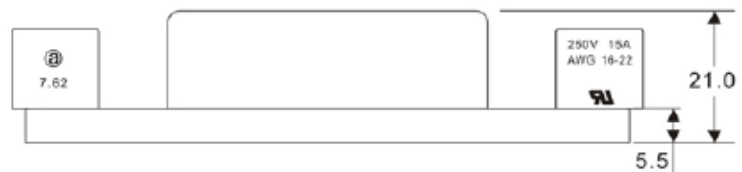
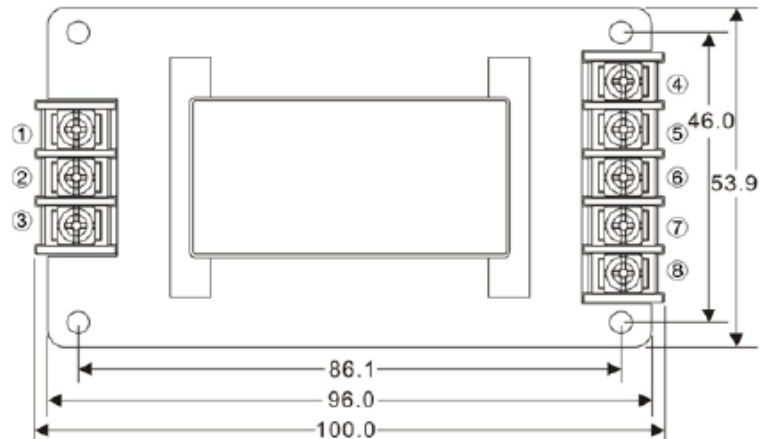


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AHC-A5



Pin no:	Single
1	NO CONN
2	AC IN (N)
3	AC IN (L)
4	NO CONN
5	+DC OUT
6	-DC OUT
7	NO CONN
8	NO CONN



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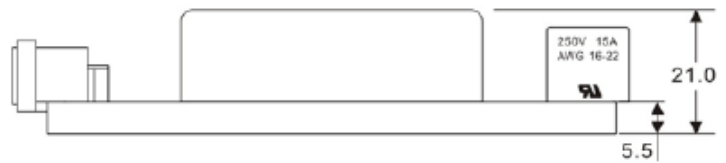
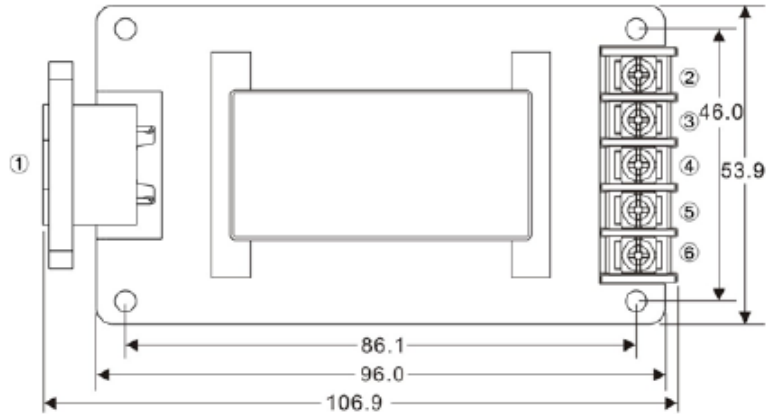
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Pin no:	Single
1	AC IN
2	NO CONN
3	+DC OUT
4	-DC OUT
5	NO CONN
6	NO CONN



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AHC-A7



Pin no:	Single
1	AC IN
2	NO CONN
3	+DC OUT
4	-DC OUT
5	NO CONN
6	NO CONN

