Wall Industries, Inc.

PSAHC Series
5 Watt Single Output
Encapsulated PCB Mount
AC/DC Switching Power Supply

FEATURES

- High Efficiency
- 2 Year Warranty
- CE, UL Approval
- Regulated Output
- Low Ripple and Noise
- Fully Encapsulated Plastic Case
- Universal Input Range: 90~264VAC
- Switching Power Module for PCB Mounting



E199779
LEVEL3

SPECIFICATIONS: *PSAHC Series*	
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.	
INPUT SPECIFICATIONS	
Input Voltage Range	90 ~ 264VAC or 120 ~ 370 VDC
Input Frequency	47 ~ 440Hz
Input Current (Full Load)	110mA max @ 115VAC, 70mA max @ 230VAC
Inrush Current (< 2ms)	10A max @ 115VAC, 20A max @ 230VAC
Leakage Current	0.75mA max
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power Range	See Table
Voltage Accuracy	±2%
Line Regulation (LL – HL)	±0.3% typical
Load Regulation (5% to 100%)	±0.5% typical
Output Current	See Table
Ripple (Vp-p)	< 0.2% Vout +40mV max.
Noise (Vp-p)	< 0.5% Vout +50mV max.
Minimum Load	0%
Maximum Capacitive Load	470-23,000µF depending on model.
Hold Up Time	15ms min.
Temperature Coefficient	±0.02%/°C
PROTECTION	
Over Power Protection	Hiccup technique, auto-recovery
Over Voltage Protection	Zener diode clamp
Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)
External Fuse Recommendation for Input	1.5A slow blow type
GENERAL SPECIFICATIONS	
Switching Frequency	132KHz
Efficiency	See Table
Isolation Voltage (Input to Output)	3000VAC
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-25°C to +70°C (with derating)
Storage Temperature	-40°C to +85°C
Humidity	95% RH
Cooling	Free air convection
MTBF	> 360,000 hours @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)
Weight	30g
Dimensions	2.0(L) x 1.0(W) x 0.597(H) inches (50.8(L) x 25.4(W) x 15.16(H) mm) Tolerance ±0.5mm
SAFETY & EMC	
Agency Approvals	UL/cUL, CE
EMI (Conducted & Radiated Emission)	EN 55022 class B
EMS (Noise Immunity)	EN 55024

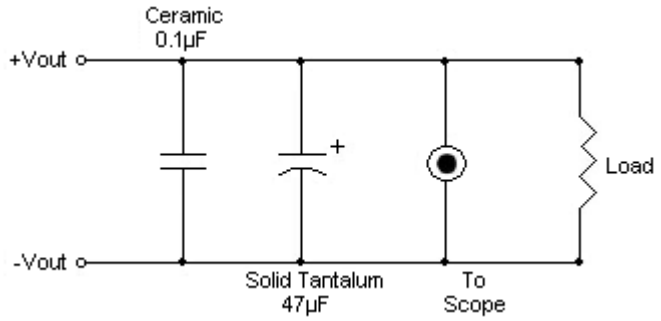
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603-778-2300 www.wallindustries.com Fax 603-778-9797

OUTPUT VOLTAGE / CURRENT RATING CHART

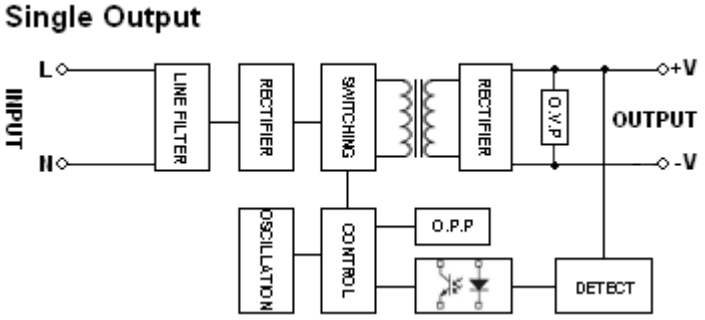
Model Number	Input Voltage	Output Voltage	Output Current	Output Power	Efficiency
PSAHC-3.3S	90 –264 VAC	3.3 VDC	1250mA	4W	64%
PSAHC-5S	90 –264 VAC	5 VDC	1000mA	5W	67%
PSAHC-12S	90 –264 VAC	12 VDC	420mA	5W	73%
PSAHC-15S	90 –264 VAC	15 VDC	333mA	5W	73%
PSAHC-24S	90 –264 VAC	24 VDC	230mA	5.5W	75%

NOTES

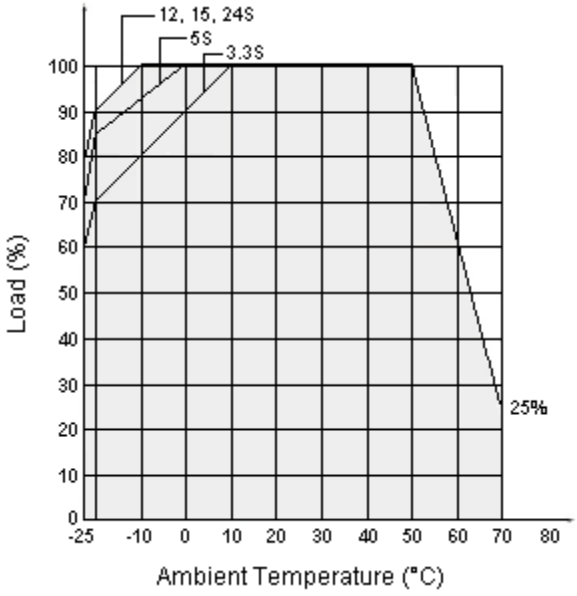
1. Dimensions of the mechanical drawing are shown in millimeters.
2. Weight of the unit is 30 grams.
3. Output Noise is measured with a 47µF tantalum capacitor and a 0.1µF ceramic capacitor across the output.
4. Mechanical Version Options Available (see pages 4-6). Please call factory for ordering details.



BLOCK DIAGRAM

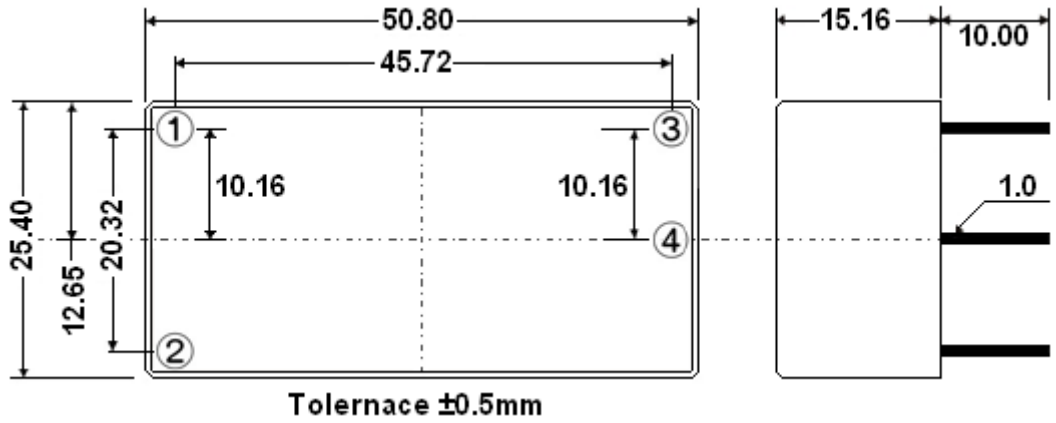


DERATING CURVE



MECHANICAL DRAWING

Unit: mm



PIN CONNECTION	
PIN #	**SINGLE**
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

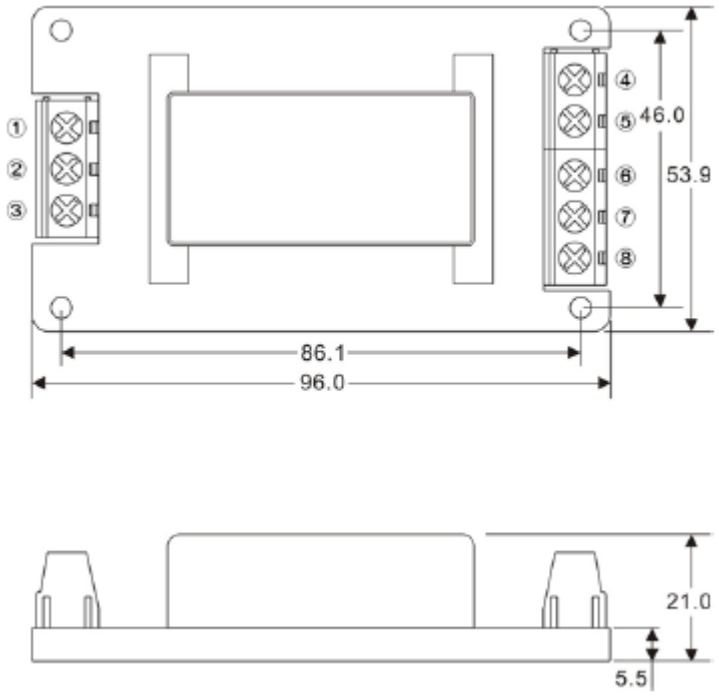
SCREW TERMINAL

(To order call factory)

PSAHC-A2



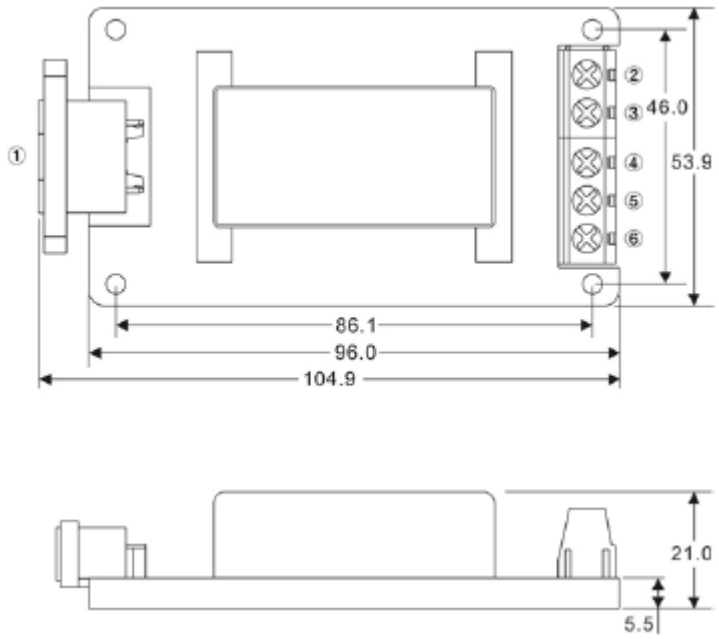
PIN#	SINGLE
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT



PSAHC-A3



PIN#	SINGLE
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT



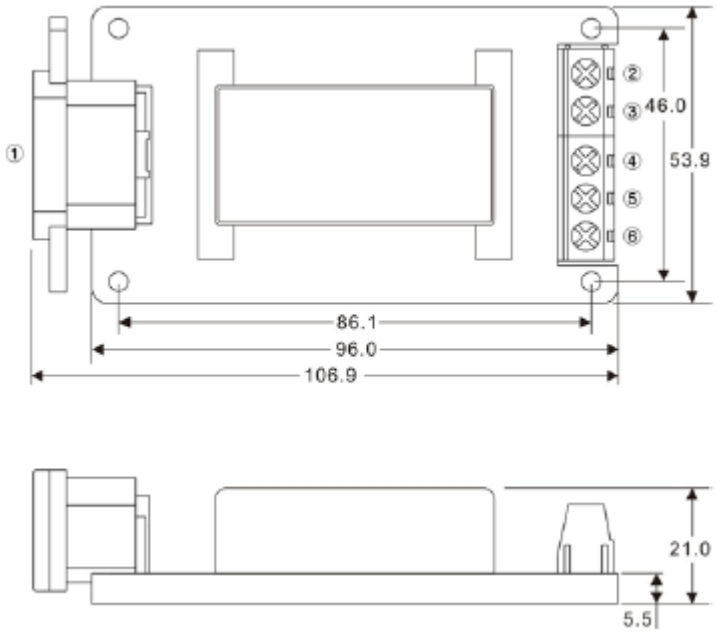
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PSAHC-A4



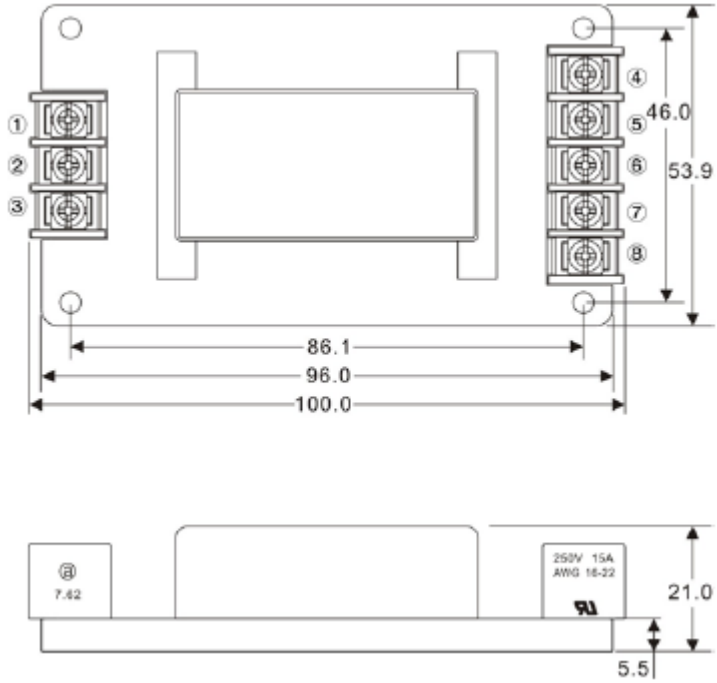
PIN#	SINGLE
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT



PSAHC-A5



PIN#	SINGLE
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT



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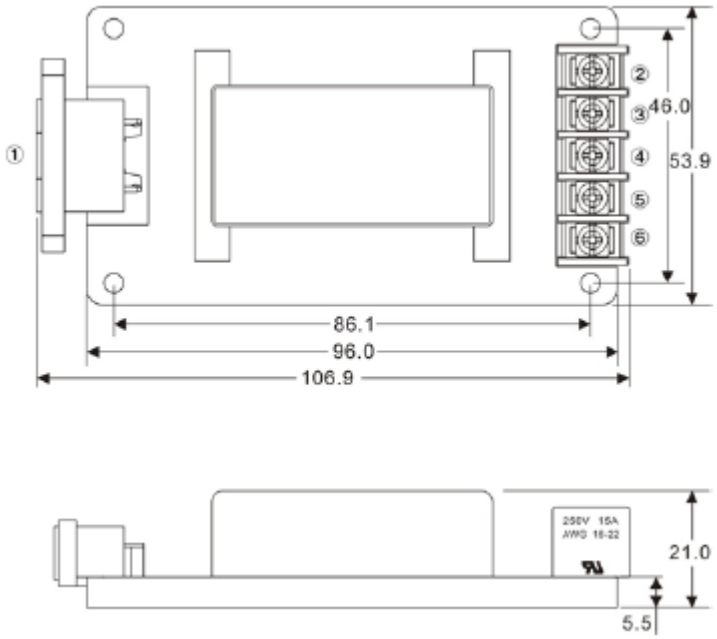
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PSAHC-A6



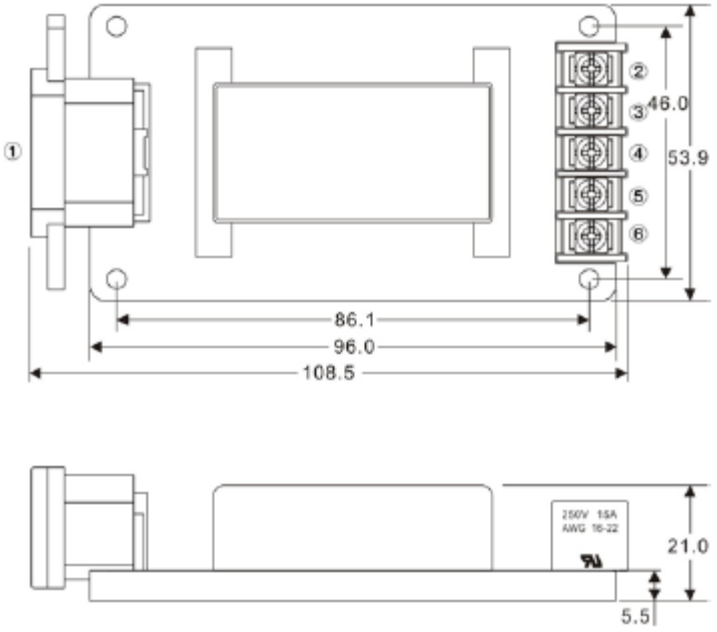
PIN#	SINGLE
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT



PSAHC-A7



PIN#	SINGLE
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT



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