

KEY FEATURES

- Ultra Compact Size: 2.1" x 1.1"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +85°C
- No Load Power Consumption < 0.1W
- High Efficiency up to 86%
- Operating attitude 5000m (UL / IEC / EN 62368-1)
- Screw Terminal for Option
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1, IEC / EN 60950-1
- Meet IEC / EN 60335-1, IEC / EN 61558-2-16
- 3-Year Product Warranty

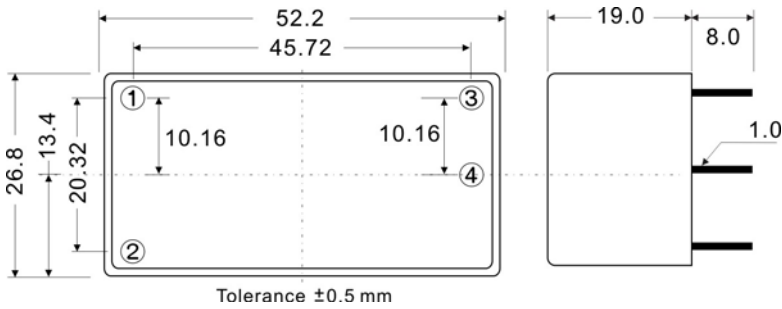

ELECTRICAL SPECIFICATIONS

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

| Model No. (Single Output) | AHCH10-5S | AHCH10-12S | AHCH10-15S | AHCH10-24S | |
|-----------------------------|---|---|------------|------------|-------|
| Max Output Wattage (W) | 10W | | | | |
| Input | Voltage | 90-305 VAC or 120-430 VDC (L Connect +Vin ;N Connect -Vin) | | | |
| | Frequency (Hz) | 47-440 Hz | | | |
| | Current (Full load) | 230 mA max. (115 VAC) / 140 mA max. (230 VAC) | | | |
| | Inrush Current | 30 A max. (115 VAC) / 60 A max. (230 VAC) | | | |
| | Leakage Current | 0.25 mA max. | | | |
| Output | Voltage (V.DC.) | 5V | 12V | 15V | 24V |
| | Voltage Accuracy | ±2% | | | |
| | Current (mA) max | 2000 | 833 | 667 | 417 |
| | Line Regulation (LL-HL) (typ.) | ±0.2% | | | |
| | Load Regulation (0-100%) (typ.) | ±1% | | ±0.5% | |
| | Maximum Capacitive Load | 3,500uF | 630uF | 470uF | 180uF |
| | Ripple & Noise (Vp-p) (max.) | <100mV | | <150mV | |
| | Efficiency (at 230VAC) | 80.5% | 85% | 86% | 85.5% |
| Hold-up Time (at 230VAC) | 30 ms min. | | | | |
| Protection | Over Power Protection | Hiccup technique, auto-recovery | | | |
| | Over Voltage Protection | Zener diode clamp | | | |
| | Short Circuit Protection | Hiccup mode, indefinite (automatic recovery) | | | |
| Isolation | Input-Output (V.AC) | | | | |
| Environment | Operating Temperature | -40°C...+85°C (with derating) | | | |
| | Storage Temperature | -40°C...+85°C | | | |
| | Temperature Coefficient | ±0.02%/°C | | | |
| | Altitude During Operation (UL / IEC / EN 62368-1) | 5000m | | | |
| | Humidity | 95% RH | | | |
| | MTBF | >450,000 h @ 25°C (MIL-HDBK-217F) | | | |
| | Vibration | IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) | | | |
| | Shock | IEC60068-2-27 | | | |
| Physical | Dimensions (L x W x H) | 2.055 x 1.055 x 0.75 Inches (52.2 x 26.8 x 19.0 mm) Tolerance ±0.5 mm | | | |
| | Case Material | Plastic resin (flammability to UL 94V-0) | | | |
| | Weight | 37 g | | | |
| | Cooling Method | Free air convection | | | |
| Safety | Agency Approvals | UL / IEC / EN 62368-1, IEC / EN 60950-1 | | | |
| | Meet | IEC / EN 60335-1, IEC / EN 61558-2-16 | | | |
| EMC | EMI (Conducted & Radiated Emission) | EN 55032 class B | | | |
| | EMS (Noise Immunity) | EN 55035 | | | |

NOTE

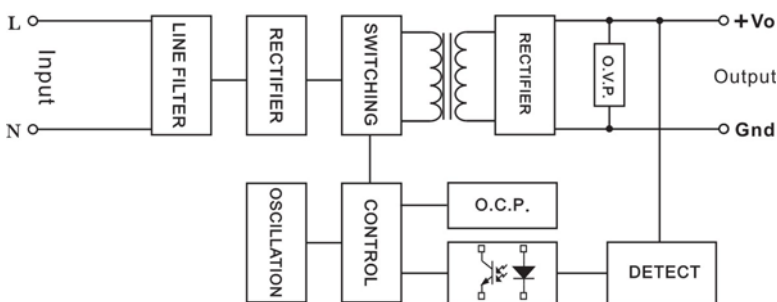
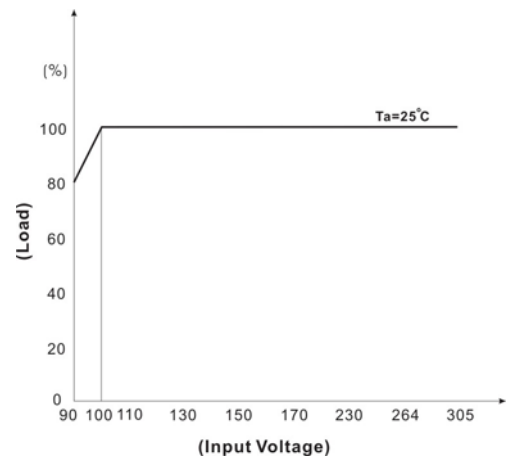
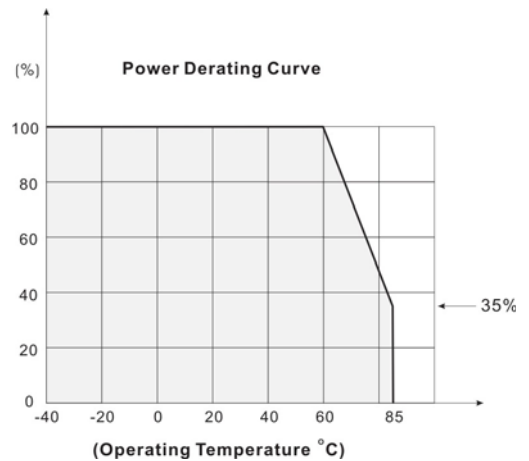
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

MECHANICAL DIMENSIONS (Top View)


| PIN# | Single |
|------|-----------|
| 1 | AC IN (N) |
| 2 | AC IN (L) |
| 3 | +DC OUT |
| 4 | -DC OUT |

BLOCK DIAGRAM

Single Output


DERATING


SCREW TERMINAL
AHCH10-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 |

