

**KEY FEATURES**

- Ultra Compact Size: 2.92" x 1.85"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +70°C
- No Load Power Consumption < 0.1W
- High Efficiency up to 89%
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1
- Meet IEC / EN 60335-1
- 3-Year Product Warranty


**ELECTRICAL SPECIFICATIONS**

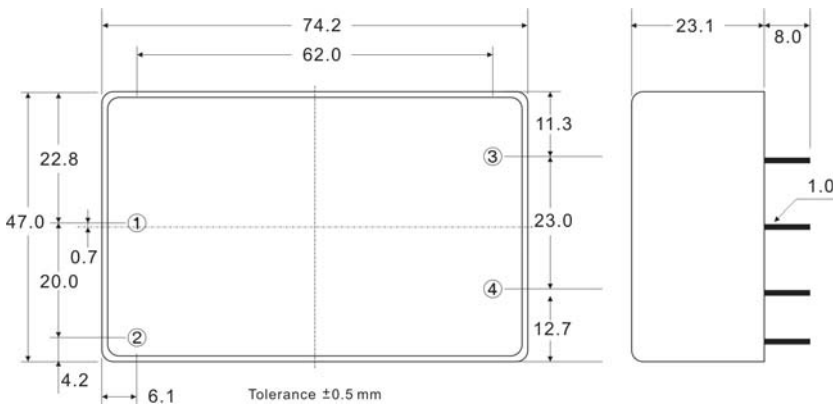
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No.              | ANCH50-12S                          | ANCH50-15S  | ANCH50-24S       |                  |
|------------------------|-------------------------------------|---|------------------|------------------|
| Max Output Wattage (W) | 50W                                 |   |                  |                  |
| Input                  | Voltage                             | 90-305 VAC or 120-430 VDC   |                  |                  |
|                        | Frequency (Hz)                      | 47-440 Hz   |                  |                  |
|                        | Current (Full load)                 | 1000 mA max. (115 VAC) / 600 mA max. (230 VAC)                        |                  |                  |
|                        | Inrush Current (Cold star)          | 45 A max. (115 VAC) / 90 A max. (230 VAC)                             |                  |                  |
|                        | Leakage Current                     | 0.25 mA max. (100-240 VAC)  |                  |                  |
| Output                 | Voltage (V.DC.)                     | 12V   | 15V              | 24V              |
|                        | Voltage Accuracy                    | ±2%   |                  |                  |
|                        | Current (mA) max                    | 4167  | 3333             | 2083             |
|                        | Line Regulation (LL-HL) (typ.)      | ±2%   |                  |                  |
|                        | Load Regulation (0-100%) (typ.)     | ±2.5%   |                  |                  |
|                        | Minimum Load                        | 0%  |                  |                  |
|                        | Maximum Capacitive Load             | 3500µF  | 3000µF           | 2200µF           |
|                        | Ripple & Noise                      | 120mV max (Vp-p)  | 150mV max (Vp-p) | 240mV max (Vp-p) |
|                        | Efficiency (at 230 VAC)             | 89%   | 88%              | 88%              |
| Hold-up Time (typ)     | 10 ms (at 230VAC)                   |   |                  |                  |
| 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)                 | 4000V   |                  |                  |
| Environment            | Operating Temperature               | -40°C...+70°C (with derating)   |                  |                  |
|                        | Storage Temperature                 | -40°C...+85°C   |                  |                  |
|                        | Temperature Coefficient             | ±0.05%/°C   |                  |                  |
|                        | Humidity                            | 95% RH  |                  |                  |
|                        | MTBF                                | >300,000 h @ 25°C (MIL-HDBK-217F)                                     |                  |                  |
| Physical               | Dimension (L x W x H)               | 2.92 x 1.85 x 0.91 Inches ( 74.2 x 47.0 x 23.1 mm ) Tolerance ±0.5 mm |                  |                  |
|                        | Case Material                       | Plastic resin (flammability to UL 94V-0)                              |                  |                  |
|                        | Weight                              | In Progress   |                  |                  |
|                        | Cooling Method                      | Free air convection   |                  |                  |
| Safety                 | Agency Approvals                    | UL / IEC / EN 62368-1 (In Progress)                                   |                  |                  |
|                        | Meet                                | IEC / EN 60335-1 (In Progress)  |                  |                  |
| EMC                    | EMI (Conducted & Radiated Emission) | EN 55032 class B (In Progress)  |                  |                  |
|                        | EMS (Noise Immunity)                | EN 55035 (In Progress)  |                  |                  |

**NOTE**

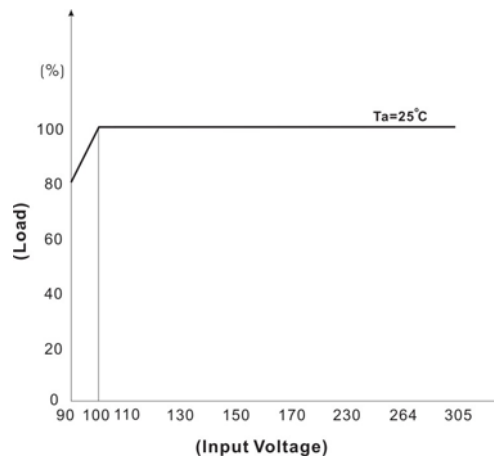
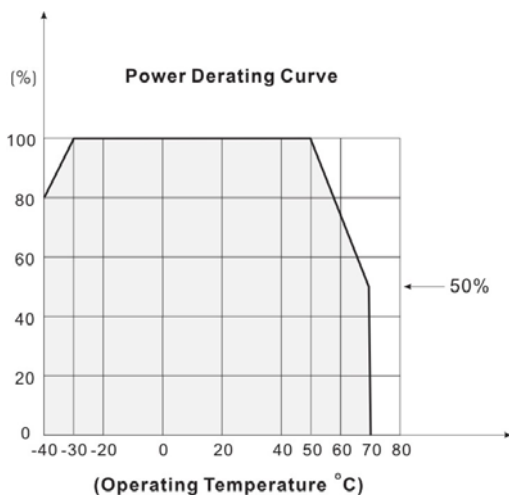
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Please refer to our PDF file "AC-DC Application" on our website: [www.archcorp.com.tw](http://www.archcorp.com.tw)

**MECHANICAL DIMENSION ( Top View )**



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

**DERATING**



**BLOCK DIAGRAM**

Single Output

