

## ARCF20 SERIES

20 Watts

### KEY FEATURES

- Universal Input Range 85-530VAC, 47-63Hz
- I/O Isolation 4300VAC
- Operating Ambient Temperature Range -40°C to +90°C
- No Load Power Consumption < 0.3W
- Over-Voltage Category OVC III
- Isolation Class II
- Safety Approval to UL / IEC / EN 62368-1
- 3-Year Product Warranty



### ELECTRICAL SPECIFICATIONS

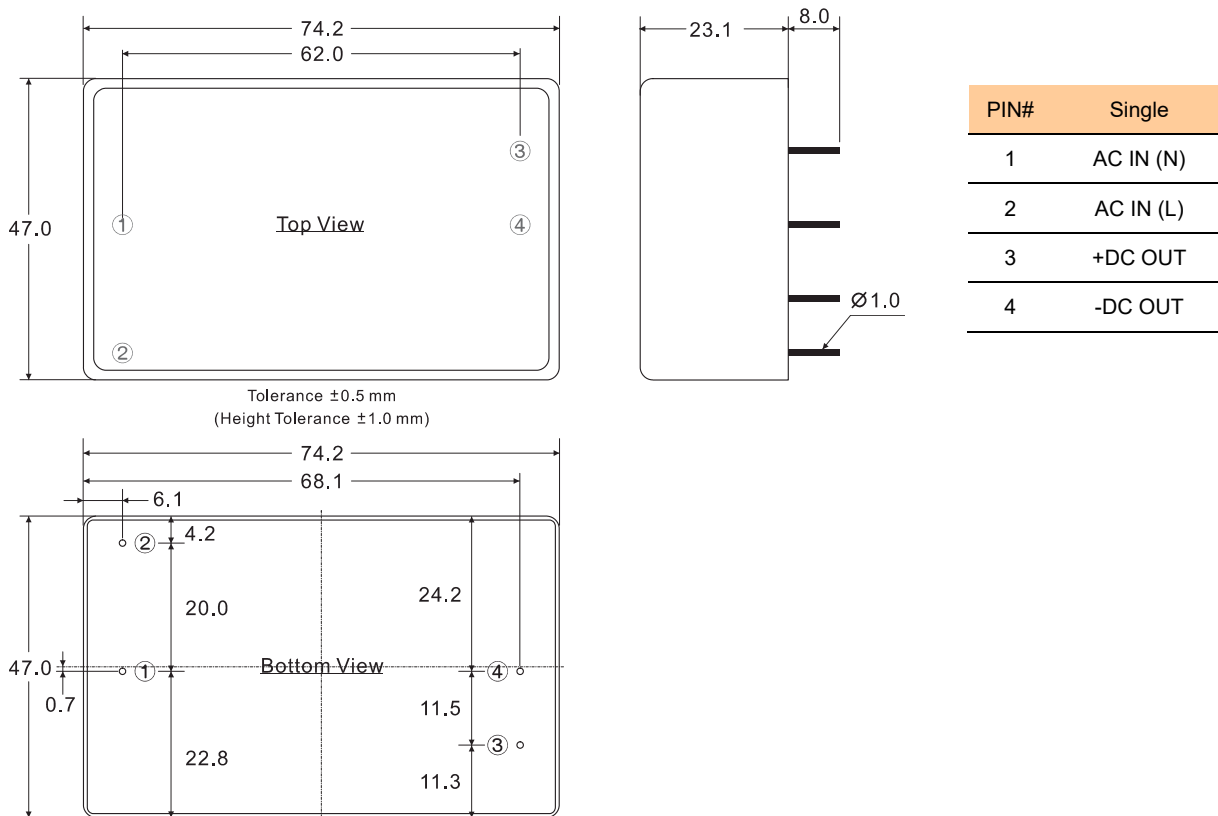
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No.              |                                     | ARCF20-5S                                                                                        | ARCF20-12S | ARCF20-15S | ARCF20-24S |
|------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------|------------|------------|------------|
| Max Output Wattage (W) |                                     | 20W                                                                                              |            |            |            |
| Input                  | Voltage                             | 85-530 VAC or 120-750 VDC                                                                        |            |            |            |
|                        | Frequency (Hz)                      | 47-63 Hz                                                                                         |            |            |            |
|                        | Current (Full load)                 | 500 mA max. (115 VAC) / 300 mA max. (230 VAC)                                                    |            |            |            |
|                        | Inrush Current (<2ms)               | 40 A max. (230 VAC)                                                                              |            |            |            |
|                        | No Load Power Consumption           | < 0.3W (115/230 VAC)                                                                             |            |            |            |
|                        | External Fuse (mandatory)           | 2 A slow blow type                                                                               |            |            |            |
| Output                 | Voltage (V.DC.)                     | 5V                                                                                               | 12V        | 15V        | 24V        |
|                        | Voltage Accuracy                    | ±2%                                                                                              |            |            |            |
|                        | Current (mA) max                    | 4000                                                                                             | 1666       | 1333       | 833        |
|                        | Maximum Capacitive Load (at 230VAC) | 15000 uF                                                                                         | 3000 uF    | 2000 uF    | 1000 uF    |
|                        | Minimum Load                        | 0%                                                                                               |            |            |            |
|                        | Line Regulation (LL-HL) (typ.)      | ±1%                                                                                              |            |            |            |
|                        | Load Regulation (5-100%) (typ.)     | ±1%                                                                                              |            |            |            |
|                        | Ripple & Noise (Full Load)          | 120mV                                                                                            | 120mV      | 150mV      | 240mV      |
|                        | Efficiency (at 230 VAC)             | 86%                                                                                              | 85%        | 85%        | 86%        |
| Protection             | Hold-up Time(typ)                   | 30ms (230VAC)                                                                                    |            |            |            |
|                        | Over Power Protection               | Auto recovery                                                                                    |            |            |            |
|                        | Over Voltage Protection             | Zener diode clamp                                                                                |            |            |            |
| Isolation              | Short Circuit Protection            | Hiccup mode, indefinite (automatic recovery)                                                     |            |            |            |
|                        | Input-Output (V.AC)                 | 4300V                                                                                            |            |            |            |
| Environment            | Operating Temperature (Note 2)      | -40°C...+90°C (with derating)                                                                    |            |            |            |
|                        | Storage Temperature                 | -40°C...+90°C                                                                                    |            |            |            |
|                        | Temperature Coefficient             | ±0.05%/°C                                                                                        |            |            |            |
|                        | Altitude During Operation           | 5000m (UL / IEC / EN 62368-1)                                                                    |            |            |            |
|                        | Humidity                            | 95% RH                                                                                           |            |            |            |
|                        | MTBF                                | >250,000 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)              | 2.92 x 1.85 x 0.91 Inches ( 74.2 x 47.0 x 23.1 mm )<br>Tolerance ±0.5 mm, Height Tolerance ±1 mm |            |            |            |
|                        | Case Material                       | Plastic resin (flammability to UL 94V-0)                                                         |            |            |            |
|                        | Weight                              | 175 g                                                                                            |            |            |            |
|                        | Cooling Method                      | Free air convection                                                                              |            |            |            |
| Safety                 | Approval                            | UL / IEC / EN 62368-1                                                                            |            |            |            |
| 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. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.
3. Please refer to our PDF file "AC-DC Application" on our website: [www.archcorp.com.tw](http://www.archcorp.com.tw)

## MECHANICAL DIMENSIONS ( Top View )



## DERATING

