



2"L x 1"W x 0.9"H

- Single 10 Watt Outputs
- 3.3VDC to 24VDC
- Universal 90 to 264VAC Input
- 3,000VAC Input to Output Isolation
- -25 to +70°C Operation
- High Efficiency



| Model Number | Output Voltage | Output Amps | Output Watts | Size (inches) |
|--------------|----------------|-------------|--------------|---------------|
| AFC-3.3S     | 3.3 VDC        | 2.5         | 8W           | 1 x 2 x 0.9   |
| AFC-5S       | 5 VDC          | 2           | 10W          | 1 x 2 x 0.9   |
| AFC-12S      | 12 VDC         | 0.83        | 10W          | 1 x 2 x 0.9   |
| AFC-15S      | 15 VDC         | 0.66        | 10W          | 1 x 2 x 0.9   |
| AFC-24S      | 24 VDC         | 0.42        | 10W          | 1 x 2 x 0.9   |

Fully Approved  
IEC60950  
EN60950  
UL60950-1  
CSA22.2-60950-1

**INPUT SPECIFICATIONS**

|                        |                        |
|------------------------|------------------------|
| Input Voltage, Nominal | 90-264VAC              |
|                        | Nominal: 100-240VAC    |
| Input Frequency        | 47-63 Hz, 50-60Hz Nom. |
| Inrush Current         | 20A @ 100VAC, typ      |
|                        | 40A @ 200VAC, typ      |

**OUTPUT SPECIFICATIONS**

|                          |                               |
|--------------------------|-------------------------------|
| Output Voltage/Current   | See Specific Model            |
| Initial Accuracy         | +/-1%, typ                    |
| Load Regulation          | 3.3V & 5V: +/-1%, typ         |
| 20%-FL                   | 12V, 15V, & 24V: +/-0.5%, typ |
| Line Regulation          | 3.3V & 5V: +/-1%, typ         |
|                          | 12V, 15V, & 24V: +/-0.5%, typ |
| Temperature Coefficient  | +/-0.03%/°C                   |
| Ripple/Noise(20Mhz BW)   | 200-250mV Pk-Pk, typ          |
| Overvoltage Protection   | Clamp, 130-150% *             |
| Hold Up Time             | 30mS, typ                     |
| Short Circuit Protection | Continuous *                  |
| OverTemp Protection      | Latching, Recovering          |
| Current Limit            | 130% typ, Self-Reset Foldback |

**GENERAL SPECIFICATIONS**

|                          |                                  |
|--------------------------|----------------------------------|
| Input-Out Isolation      | 3000VAC                          |
| Output-Ground Isolation  | 1000VAC                          |
| Input-Ground Isolation   | 2500VAC                          |
| Operating Frequency      | 100 Khz, fixed, typ              |
| Efficiency (@ Full Load) | 75 - 80%, typ                    |
| Safety                   | EN60950, TUV File# B050122749064 |
|                          | IEC60950, CB File# DE 3-51024    |
|                          | UL60950-1, UL File# E167432      |

**ENVIRONMENTAL SPECIFICATIONS**

|                     |                                   |
|---------------------|-----------------------------------|
| Oper. Temperature   | -25 to +50°C FL                   |
|                     | Derate Linearly to 25%L @ 70°C    |
| Relative Humidity   | 0-95%, Non-Condensing             |
| Storage Temperature | -25 to +71°C *                    |
| MTBF                | 466,553 Hrs                       |
|                     | MIL-HDBK 217, Parts Count Method, |
|                     | 25°C, Ground Benign               |

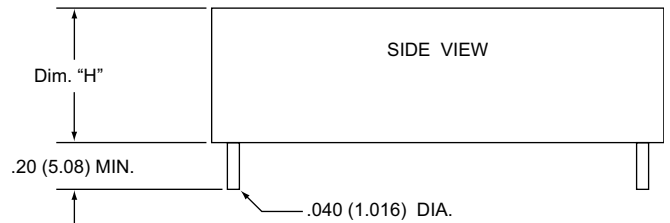
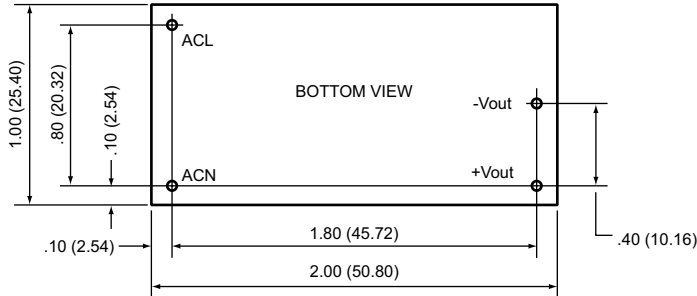
**PHYSICAL SPECIFICATIONS**

|               |                        |
|---------------|------------------------|
| Case Material | Rynite, 94V-0 Rated    |
| Construction  | Encapsulated, Soft Pot |
| Weight        | 1.5 oz (42g)           |

\* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

All specifications are typical at nominal input, full load, and 25DegC unless otherwise noted

**MECHANICAL SPECIFICATIONS**

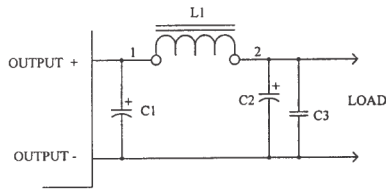


NOTES: DIMENSIONS ARE IN INCH (mm)  
TOLERANCES: .XXX +/- .02(.508)  
.XX +/- .05(1.27)  
Dimension "H"  
0.9 (22.86)

**POWER BLOCK APPLICATION NOTES**

**Output Noise**

The figure below is a sample diagram to reduce Output Ripple and Noise.



C1 = Electrolytic Capacitor  
Capacitance = 22uF - 220uF  
Voltage = Two times rated output voltage

L1 = 3uH - 10uH

C2 = Electrolytic Capacitor  
Capacitance = 22uF - 47uF  
Voltage = Two times rated output voltage

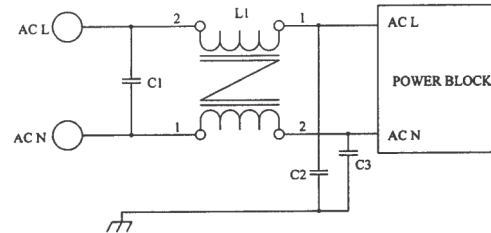
C3 = Ceramic Capacitor  
Capacitance = 0.01uF - 0.1uF  
Voltage = 50 volt

Notes:

1. The use of C1 alone may reduce noise to desired levels, if not use L1, C2 and C3 in addition to C1.
2. The figure above is a suggested circuit. Only by trying true application can levels be tested.

**EMI**

The figure below is a suggested diagram to reduce Electromagnetic Interference (EMI).



C1 = 0.22uF X Capacitor

L1 = 10mH - 30mH Common Mode, Choke

C2, C3 = 220pF Y Capacitors

Notes:

The diagram above is a recommended circuit, only by trying true application can levels be measured.

**Inrush Current**

If desired, the use of a Choke, NTC or Inrush Current Limiter may be used to reduce the Inrush Current