Polypropylene film capacitor for AC applications. Internal fuse electrically disconnects when capacitor’s hot spot reaches a defined temperature.

FEATURES
- AC rated
- Range: -40°C to +85°C
- Dry film construction
- Permanent thermal disconnect, preventing catastrophic failures
- Inverter output filtering, for Wye and Delta circuits
- UL recognized

STANDARD CONFIGURATION
- Bolt Mounting Package
**Specification Summary**

**Capacitance Range**
10μF to 250μF

**Capacitance Tolerance**
Standard tolerances are ±5% & ±3%.

**Operating Temperature Range**
-40°C to +85°C

**Enclosure/Construction**
Polypropylene film capacitor in a cylindrical aluminum housing with high current threaded terminations and mounting bolt

**Voltage Rating**
Maximum AC working voltage ratings at 85°C, 300, 600 and 900 VAC at 60Hz Maximum

**Quality Control**
Capacitors are tested 100% for:
- Capacitance
- Tolerance
- Dissipation Factor
- Dielectric withstanding voltage
- Insulation Resistance
- Equivalent Series Resistance (ESR)

Process and inspection data are maintained on file and available upon special request.

**Environmental**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Condition</th>
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<tbody>
<tr>
<td>Vibration</td>
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<tr>
<td>Shock</td>
<td>213</td>
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<tr>
<td>Humidity</td>
<td>106</td>
<td>-</td>
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<tr>
<td>Thermal Shock</td>
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<td>A</td>
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<tr>
<td>Life</td>
<td>108</td>
<td>F</td>
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</table>

Reference MIL-STD-202

**Characteristics**

**Dielectric Strength**
Capacitors withstand a DC potential of 1.5 times rated DC voltage for one (1) minute without damage or breakdown. Test voltage is applied and discharged through a minimum resistance of 1 OHM per volt, minimum.

**Dissipation Factor**
Polypropylene has an intrinsic dissipation factor of less than 2.1x 10^-4 over the operating temperature range of -55°C to +105°C and frequencies to 1MHz.
### Detail Data

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CAP (µF)</th>
<th>VAC (V)</th>
<th>VDC (V)</th>
<th>HEIGHT &quot;H&quot; (in)</th>
<th>ESR (mΩ)</th>
<th>ESL (nH)</th>
<th>Fres (kHz)</th>
<th>I PEAK (AMPS)</th>
<th>dv/dt (V/µs)</th>
<th>TEMPERATURE</th>
<th>Arms</th>
<th>Rth (°C/W)</th>
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</table>

Notes: (1) ESR is Measured at Resonant Frequency (2) Current referenced at 10kHz (3) VAC rating at 60Hz

### Style

- **M6 X 1.0 INTERNAL THREAD 9mm DEEP**
- **PLASTIC LID UL94V-0**
- **MAXIMUM HEIGHT "H"**
- **TOLERANCES: +/-0.8mm (0.031")**
- **Ø90mm Ø(3.543")**
- **Ø12.7mm Ø(0.500")**

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Rev. 5
### Additional Information

Fuseac® technology was created to provide designers of power management systems, utilizing metallized dry film capacitors, with a superior protection mechanism. Electronic Concepts, Inc. has developed a revolutionary fuse to detect the capacitor’s hot spot and electrically disconnect upon reaching a defined critical value. Metallized film capacitors, mainly due to self healing of inherent defects, are reliable and long lasting over the life of the product. Fuseac® provides added insurance against disastrous failures.

Fuseac® is a patented technology and on request can be incorporated in a host of Electronic Concepts’ products, especially into designs needing added overheating protection.

### How to Order

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Metallized Polypropylene</th>
<th>5MP</th>
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</thead>
<tbody>
<tr>
<td>STYLE/VOLTAGE</td>
<td>AC High Power, F1(300VAC)-F2(600VAC)-F3(900VAC)</td>
<td>F2</td>
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<tr>
<td>CAPACITANCE IN PICOFARADS</td>
<td>The first two digits are significant, the third represents the number of zeros (eg 506=50,000,000)</td>
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<tr>
<td>TOLERANCE</td>
<td>J=±5% Also available: E=±3%</td>
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</tbody>
</table>

### Marking And Date Code

All capacitors are marked with company initials "EC", corporate logo or EC trademark—in addition to type 5MPF, capacitance, tolerance, rated DC working voltage and date code. The first two digits of the date code represent the year, the second two digits the week, i.e., 1252 is the 52nd week of 2012, 1202 is the second week of 2012.

### Quality Assurance

Major emphasis is placed on quality assurance. EC is an ISO 9001 and AS9100 Certified Company. Raw material inspection and the use of SPC manufacturing procedures assure the highest quality standards. Procedures are fully described in the EC Quality Control Manual. Electronic Concepts will continue to advance the state-of-the-art by utilizing leading edge technology, compact capacitor designs and establishing reliability procedures.

### Sales Offices

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