

WRAP-AND-FILL POLYESTER DIELECTRIC FILM / FOIL CONSTRUCTION



FEATURES

- Extended Foil Construction
- Moisture Resistant

PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Non-inductive wound polyester film and foil.

CASE: Flame retardant tape wrap and epoxy endfill.

LEAD MATERIAL: Solder coated solid wire.

LEAD WIRE SIZES:

| Case Dia. | Lead AWG |
|-----------|----------------|
| ≤ 0.437 | 0.025 (No. 22) |
| > 0.437 | 0.032 (No. 20) |

LEAD STRENGTH:

Capable of withstanding a five pound pull force on lead axis.

MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

ELECTRICAL SPECIFICATIONS

CAPACITANCE RANGE: 0.001 μ F to 5.0 μ F

VOLTAGE RATING:

- 50 VDC to 600 VDC
- 32 VAC to 220 VAC

CAPACITANCE TOLERANCE: \pm 20%, \pm 10%, \pm 5%

OPERATING TEMPERATURE: -55°C to +125°C

DISSIPATION FACTOR: 1.0%, maximum

VOLTAGE DERATING:

- At +105°C, 70% of the 85°C rating
- At +125°C, 50% of the 85°C rating

VOLTAGE TEST: 200% of rated voltage for 1 minute

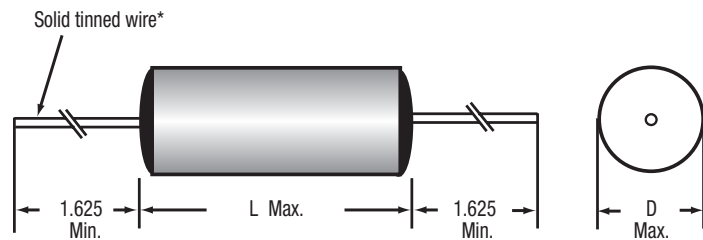
INSULATION RESISTANCE:

- At +25°C, 50,000 Megaohm-Microfarads, need not exceed 100,000 Megaohms
- At +85°C, 2,500 Megaohm-Microfarads, need not exceed 5,000 Megaohms
- At +105°C, 1,000 Megaohm-Microfarads, need not exceed 2,000 Megaohms
- At +125°C, 10 Megaohm-Microfarads, need not exceed 150 Megaohms

MAXIMUM PULSE RISE TIME

| Capacitor Length (inch) | Rise Time dv / dt (V / μ s) | | | | |
|-------------------------|-----------------------------------|---------|---------|---------|---------|
| | 50 VDC | 100 VDC | 200 VDC | 400 VDC | 600 VDC |
| 0.450 | - | 1000 | - | - | - |
| 0.531 | 735 | - | - | - | - |
| 0.594 | 540 | - | - | - | - |
| 0.656 | 360 | - | - | - | - |
| 0.718 | 288 | 288 | 413 | 875 | 1563 |
| 0.750 | 275 | - | - | - | - |
| 0.812 | 252 | - | - | - | - |
| 0.844 | - | 219 | 268 | 620 | 1050 |
| 0.875 | - | - | - | - | 1018 |
| 0.969 | - | - | 217 | - | - |
| 1.000 | - | - | 180 | 475 | 764 |
| 1.062 | 161 | - | - | - | - |
| 1.250 | - | 127 | 160 | 329 | 515 |
| 1.375 | 124 | - | - | - | - |
| 1.562 | - | 114 | 137 | 310 | 359 |
| 1.625 | 110 | - | - | - | - |
| 1.750 | - | - | 124 | 290 | - |
| 1.875 | 100 | - | 110 | - | - |
| 1.937 | - | 100 | - | 250 | 344 |
| 2.125 | 75 | - | - | - | 316 |
| 2.375 | - | 90 | 100 | 185 | 261 |
| 2.625 | - | 74 | 90 | - | 234 |
| 3.062 | - | - | 83 | - | - |

DIMENSIONS (in inches)



* Leads to be within \pm 0.062" of center line at egress, but not less than 0.031" from edge.

WRAP-AND-FILL POLYESTER DIELECTRIC FILM / FOIL CONSTRUCTION

TYPE 410P

STANDARD RATINGS

| Capacitance | | Voltage Code 050 50 VDC / 32 VAC* | | Voltage Code 100 100 VDC / 63 VAC* | | Voltage Code 200 200 VDC / 126 VAC* | | Voltage Code 400 400 VDC / 200 VAC* | | Voltage Code 600 600 VDC / 220 VAC* | |
|-------------|------|--------------------------------------|-------|---------------------------------------|-------|--|-------|--|-------|--|--------|
| µF | Code | D | L | D | L | D | L | D | L | D | L |
| 0.0010 | 102 | - | - | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.190 | 0.718 |
| 0.0015 | 152 | - | - | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.190 | 0.718 |
| 0.0022 | 222 | - | - | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.190 | 0.718 |
| 0.0033 | 332 | - | - | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.205 | 0.718 |
| 0.0047 | 472 | - | - | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.235 | 0.718 |
| 0.0068 | 682 | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.190 | 0.718 | 0.240 | 0.844 |
| 0.010 | 103 | - | - | 0.190 | 0.450 | 0.190 | 0.718 | 0.200 | 0.844 | 0.270 | 0.844 |
| 0.015 | 153 | 0.190 | 0.531 | 0.190 | 0.718 | 0.190 | 0.718 | 0.230 | 0.844 | 0.315 | 0.875 |
| 0.022 | 223 | 0.200 | 0.594 | 0.190 | 0.718 | 0.190 | 0.718 | 0.265 | 0.844 | 0.375 | 0t.875 |
| 0.033 | 333 | 0.210 | 0.656 | 0.190 | 0.718 | 0.190 | 0.844 | 0.315 | 0.875 | 0.395 | 1.000 |
| 0.047 | 413 | 0.215 | 0.718 | 0.215 | 0.718 | 0.210 | 0.844 | 0.325 | 1.000 | 0.400 | 1.250 |
| 0.068 | 683 | 0.250 | 0.718 | 0.215 | 0.844 | 0.240 | 0.844 | 0.340 | 1.250 | 0.455 | 1.250 |
| 0.10 | 104 | 0.290 | 0.750 | 0.245 | 0.844 | 0.275 | 0.969 | 0.400 | 1.250 | 0.470 | 1.562 |
| 0.15 | 154 | 0.312 | 0.812 | 0.285 | 0.844 | 0.345 | 1.000 | 0.405 | 1.562 | 0.545 | 1.562 |
| 0.22 | 224 | 0.315 | 1.062 | 0.290 | 1.250 | 0.355 | 1.250 | 0.480 | 1.562 | 0.590 | 1.937 |
| 0.33 | 334 | 0.375 | 1.062 | 0.325 | 1.250 | 0.425 | 1.250 | 0.650 | 1.750 | 0.800 | 1.937 |
| 0.47 | 474 | 0.430 | 1.062 | 0.380 | 1.250 | 0.440 | 1.562 | 0.725 | 1.937 | 0.890 | 2.125 |
| 0.68 | 689 | 0.450 | 1.375 | 0.455 | 1.562 | 0.610 | 1.750 | 0.750 | 2.375 | 0.980 | 2.375 |
| 1.00 | 105 | 0.500 | 1.375 | 0.535 | 1.562 | 0.710 | 1.875 | 0.900 | 2.375 | - | - |
| 1.50 | 155 | 0.640 | 1.625 | 0.645 | 1.937 | 0.730 | 2.375 | - | - | - | - |
| 2.00 | 205 | 0.730 | 1.625 | 0.715 | 1.937 | 0.800 | 2.375 | - | - | - | - |
| 2.50 | 255 | 0.750 | 1.875 | 0.715 | 2.375 | 0.834 | 2.625 | - | - | - | - |
| 3.00 | 305 | 0.830 | 1.875 | 0.770 | 2.375 | 0.905 | 2.625 | - | - | - | - |
| 4.00 | 405 | 0.850 | 2.125 | 0.830 | 2.625 | 0.945 | 3.062 | - | - | - | - |
| 5.00 | 505 | 0.940 | 2.125 | 0.915 | 2.625 | - | - | - | - | - | - |

Additional capacitance values, voltages, and tolerances are available upon request.

* AC voltage rating is at 60Hz 1.4 x VRMS + VDC should not exceed the rated VDC.