

Plain Polyester Film Capacitors

Non-Inductive

Main Application

Blocking, bypassing, filtering, coupling and decoupling, interference suppression in low voltage application, low pulse application.

Construction

Film/foil inductive type construction with aluminium foil as electrode and polyester (PET) film as dielectric coated with flame retardant epoxy resin or encased in flame retardant box.

Climatic Category

40/105/56

Rated and Maximum Operating Temperature

85°C and 105°C

Applicable Specification

IEC 384-11

Capacitance Value

0.001µF-0.47µF

Capacitance Tolerance

±5%, ±10%

Insulation Resistance

Minimum Insulation Resistance R_{IS}
(or) time constant $T = C_R \times R_{IS}$
(at 25° C, relative humidity ≤70%)

V_R
≤100 V DC
≥250 V DC

Rated Voltage

100VDC-1000VDC

Voltage Proof

Between terminal 2 times of rated voltage for 2 sec.

Tan δ

0.8% (maximum) at 1 kHz.

Life Test Conditions

(Loading at elevated temperature)

Loaded at 1.5 times of rated voltage at 85° C for 1000 hours.

After the test

$\Delta c/c$: ≤ 5% of initial value.

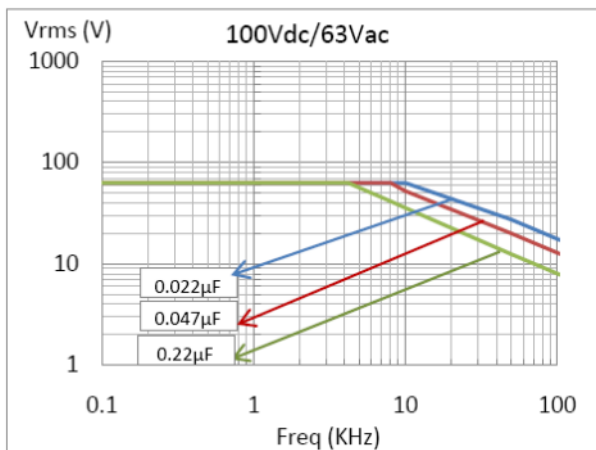
Change in Tan δ: ≤ 0.01 or 1.2 times the value measured before the test, whichever is higher.

Insulation resistance: ≥ 50% of the value mentioned in IR chart.

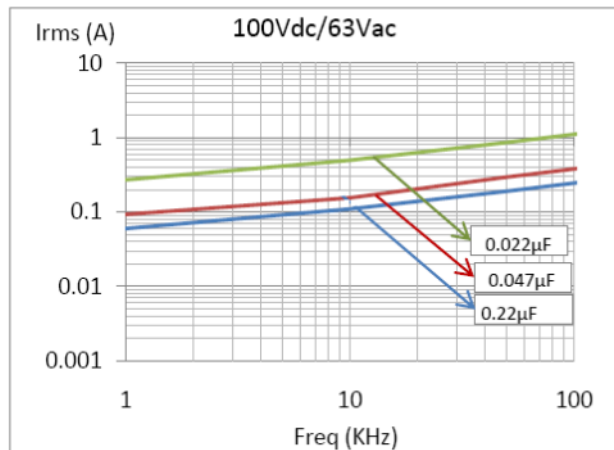
| | |
|----------------------|-------------------|
| $C_R \leq 0.1 \mu F$ | $C_R > 0.1 \mu F$ |
| 30 GΩ | 10000 s |
| 100 GΩ | 10000 s |

Derating Graph for Plain Polyester Film Capacitors (Non-Inductive)

Max. Voltage (V_{rms}) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ C$)



Max. Current (I_{rms}) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ C$)

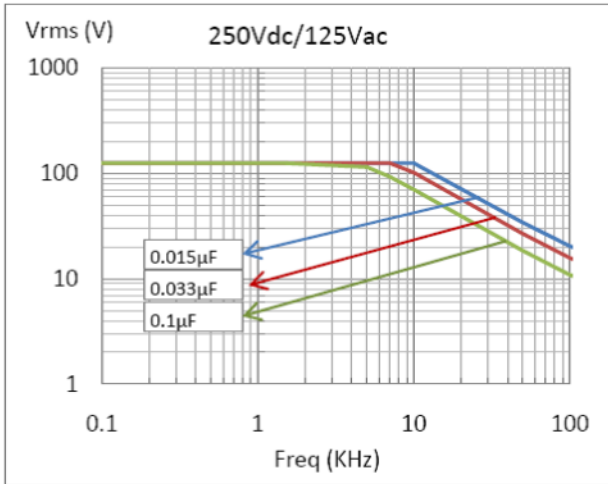


Plain Polyester Film Capacitors

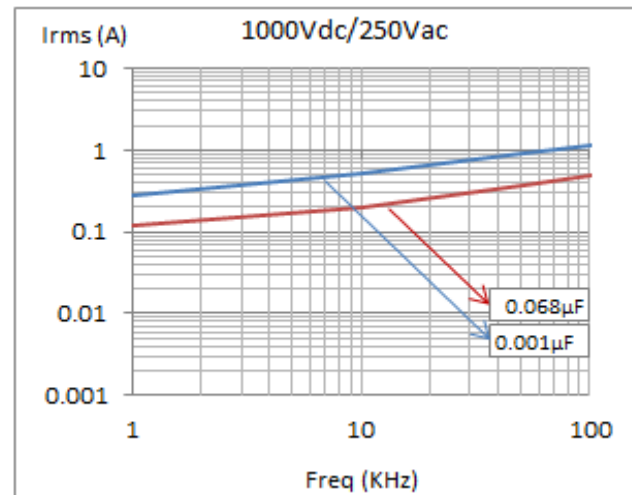
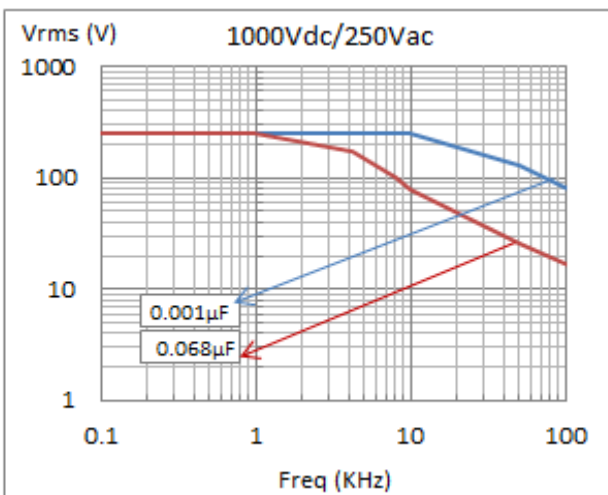
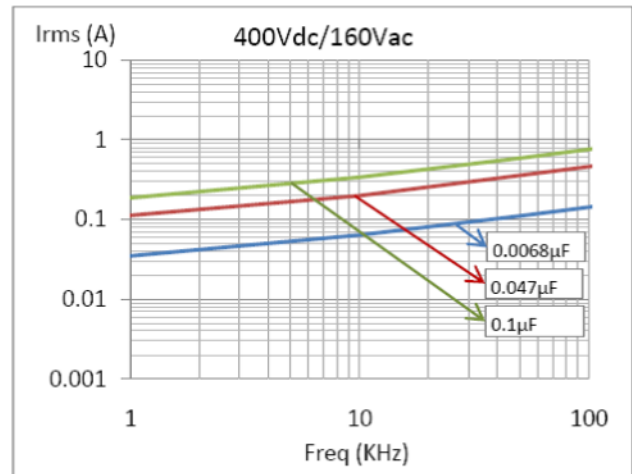
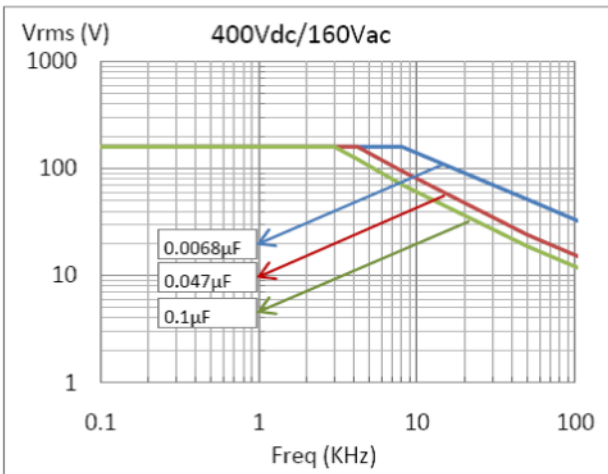
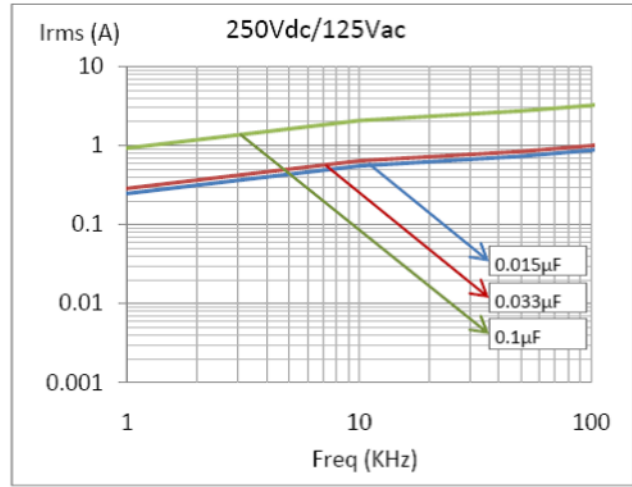
Non-Inductive • Series Code 25, 31



Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ\text{C}$)



Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ\text{C}$)



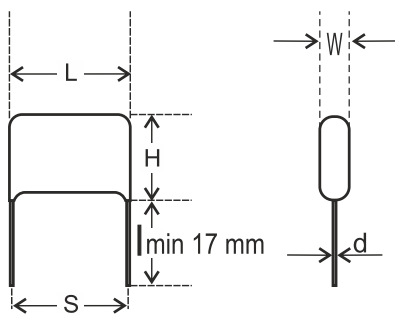
Plain Polyester Film Capacitors

Non-Inductive • Series Code 25, 31



Ordering code and packing units: Plain Polyester Film Capacitors
(Non-inductive) • Dip Type • Series Code 25

| Rated Voltage | Rated Cap. (μF) | Dimensions (mm) | | | | | | DV/DT V/μs | Wt. g | Ordering code | Packing units | |
|---------------|-----------------|-----------------|--------|--------|---------|--------|--------|------------|-------|-------------------------|---------------|------|
| | | W max. | H max. | L max. | d ±0.05 | S ±1.0 | F ±0.5 | | | | Ammo | Bulk |
| 100 VDC | 0.015 | 4.5 | 9.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.4 | 25 153 +2A [^] | 2000 | 500 |
| | 0.022 | 5.5 | 10.0 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.6 | 25 223 +2A [^] | 2000 | 500 |
| | 0.033 | 6.0 | 10.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.7 | 25 333 +2A [^] | 2000 | 500 |
| | 0.047 | 7.0 | 11.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.9 | 25 473 +2A [^] | 2000 | 500 |
| | 0.1 | 7.5 | 13.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.7 | 25 104 +2A [^] | 2000 | 500 |
| | 0.22 | 7.5 | 15.5 | 27 | 0.8 | 22.5 | - | 10000 | 3.2 | 25 224 +2A [^] | 1000 | 250 |
| | 0.33 | 9.0 | 17.0 | 27 | 0.8 | 22.5 | - | 10000 | 4.4 | 25 334 +2A [^] | 500 | 250 |
| | 0.47 | 11.0 | 19.0 | 27 | 0.8 | 22.5 | - | 10000 | 6.0 | 25 474 +2A [^] | 500 | 250 |
| 250 VDC | 0.01 | 5.0 | 9.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.5 | 25 103 +2E [^] | 2000 | 500 |
| | 0.015 | 5.5 | 10.0 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.6 | 25 153 +2E [^] | 2000 | 500 |
| | 0.022 | 6.5 | 11.0 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.8 | 25 223 +2E [^] | 2000 | 500 |
| | 0.033 | 5.5 | 11.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.1 | 25 333 +2E [^] | 2000 | 250 |
| | 0.047 | 7.0 | 12.5 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.4 | 25 473 +2E [^] | 2000 | 250 |
| | 0.1 | 7.5 | 15.0 | 27 | 0.8 | 22.5 | - | 10000 | 2.7 | 25 104 +2E [^] | 1000 | 250 |
| | 0.22 | 10 | 18.0 | 27 | 0.8 | 22.5 | - | 10000 | 4.5 | 25 224 +2E [^] | 500 | 250 |
| | 0.33 | 10.5 | 19.5 | 32 | 0.8 | 27.5 | - | 10000 | 6.3 | 25 334 +2E [^] | 500 | 250 |
| 400 VDC | 0.0068 | 6.5 | 12.0 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.5 | 25 682 +2G [^] | 2000 | 500 |
| | 0.01 | 6.0 | 10.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.7 | 25 103 +2G [^] | 2000 | 500 |
| | 0.015 | 6.5 | 12.5 | 19 | 0.6 | 15.0 | 15 | 10000 | 0.9 | 25 153 +2G [^] | 2000 | 250 |
| | 0.022 | 7.5 | 13.5 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.2 | 25 223 +2G [^] | 2000 | 250 |
| | 0.033 | 7.5 | 16.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.6 | 25 333 +2G [^] | 2000 | 250 |
| | 0.039 | 8.5 | 14.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.8 | 25 393 +2G [^] | 2000 | 250 |
| | 0.047 | 9.0 | 16.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 2.1 | 25 473 +2G [^] | 1000 | 250 |
| | 0.1 | 11.0 | 19.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 3.8 | 25 104 +2G [^] | 500 | 250 |
| 630 VDC | 0.0047 | 6.0 | 10.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.7 | 25 472 +2J [^] | 2000 | 500 |
| | 0.0068 | 7.0 | 11.5 | 14 | 0.6 | 10.0 | 10 | 10000 | 0.9 | 25 682 +2J [^] | 2000 | 500 |
| | 0.01 | 6.5 | 13.0 | 19 | 0.8 | 15.0 | 10 | 10000 | 1.2 | 25 103 +2J [^] | 2000 | 500 |
| | 0.015 | 7.5 | 13.0 | 19 | 0.8 | 15.0 | 15 | 10000 | 1.5 | 25 153 +2J [^] | 2000 | 250 |
| | 0.022 | 7.5 | 14.5 | 19 | 0.8 | 15.0 | 15 | 10000 | 2.0 | 25 223 +2J [^] | 1000 | 250 |
| | 0.033 | 7.5 | 15.5 | 27 | 0.8 | 22.5 | - | 10000 | 2.8 | 25 333 +2J [^] | 1000 | 250 |
| | 0.047 | 9.0 | 17.0 | 27 | 0.8 | 22.5 | - | 10000 | 3.5 | 25 473 +2J [^] | 500 | 250 |
| | 0.1 | 11.5 | 20.5 | 32 | 0.8 | 27.5 | - | 10000 | 6.2 | 25 104 +2J [^] | 500 | 250 |



Plain Polyester Film Capacitors

Non-Inductive • Series Code 25, 31



Ordering code and packing units: Plain Polyester Film Capacitors
(Non-inductive) • Box Type • Series Code 31

| Rated Voltage | Rated Cap. (µF) | Dimensions (mm) | | | | | | DV/DT V/µs | Wt. g | Ordering code | Packing units | |
|---------------|-----------------|-----------------|--------|--------|--------|--------|--------|------------|-------|----------------|----------------|------|
| | | W ±0.5 | H ±0.5 | L ±0.5 | d ±0.5 | S ±0.5 | F ±0.5 | | | | Ammo | Bulk |
| 100VDC | 0.001 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 102 + 2A *^ | - | 500 |
| | 0.0022 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 222 + 2A *^ | - | 500 |
| | 0.0047 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 472 + 2A *^ | - | 500 |
| | 0.01 | 6.0 | 12.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.80 | 31 103 + 2A *^ | - | 500 |
| | 0.047 | 6.0 | 12.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 2.00 | 31 473 + 2A *^ | - | 500 |
| | 0.068 | 6.0 | 12.0 | 18.0 | 0.8 | 15.0 | 15.0 | 10000 | 2.70 | 31 683 + 2A *^ | - | 250 |
| | 0.22 | 7.0 | 16.0 | 26.5 | 0.8 | 22.5 | 22.5 | 10000 | 5.89 | 31 224 + 2A *^ | - | 250 |
| | 0.47 | 9.0 | 18.0 | 32.0 | 0.8 | 27.5 | 27.5 | 10000 | 10.5 | 31 474 + 2A *^ | - | 250 |
| 250VDC | 0.001 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 102 + 2E *^ | - | 500 |
| | 0.0022 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 222 + 2E *^ | - | 500 |
| | 0.0047 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 472 + 2E *^ | - | 500 |
| | 0.01 | 6.0 | 12.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.80 | 31 103 + 2E *^ | - | 500 |
| | 0.047 | 6.0 | 12.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 2.00 | 31 473 + 2E *^ | - | 500 |
| | 0.068 | 6.0 | 12.0 | 18.0 | 0.8 | 15.0 | 15.0 | 10000 | 2.70 | 31 683 + 2E *^ | - | 250 |
| | 0.22 | 7.0 | 16.0 | 26.5 | 0.8 | 22.5 | 22.5 | 10000 | 5.89 | 31 224 + 2E *^ | - | 250 |
| | 0.47 | 9.0 | 18.0 | 32.0 | 0.8 | 27.5 | 27.5 | 10000 | 10.5 | 31 474 + 2E *^ | - | 250 |
| 400VDC | 0.001 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 102 + 2G *^ | - | 500 |
| | 0.0022 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 222 + 2G *^ | - | 500 |
| | 0.0047 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 472 + 2G *^ | - | 500 |
| | 0.068 | 6.0 | 12.0 | 18.0 | 0.8 | 15.0 | 15.0 | 10000 | 2.70 | 31 683 + 2G *^ | - | 250 |
| | 0.1 | 8.5 | 14.5 | 18.0 | 0.8 | 15.0 | 15.0 | 10000 | 6.14 | 31 104 + 2G *^ | - | 250 |
| | 0.22 | 8.5 | 17.0 | 26.5 | 0.8 | 22.5 | 22.5 | 10000 | 7.95 | 31 224 + 2G *^ | - | 250 |
| | 0.47 | 11 | 20.0 | 32.0 | 0.8 | 27.5 | 27.5 | 10000 | 14.84 | 31 474 + 2G *^ | - | 250 |
| | 630VDC | 0.001 | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 102 + 2J *^ | - |
| 0.0022 | | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 222 + 2J *^ | - | 500 |
| 0.0047 | | 5.0 | 11.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 472 + 2J *^ | - | 500 |
| 0.01 | | 6.0 | 12.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.90 | 31 103 + 2J *^ | - | 500 |
| 0.047 | | 8.5 | 14.5 | 18.0 | 0.8 | 15.0 | 15.0 | 10000 | 4.48 | 31 473 + 2J *^ | - | 250 |
| 0.1 | | 8.5 | 17.0 | 26.5 | 0.8 | 22.5 | 22.5 | 10000 | 7.60 | 31 104 + 2J *^ | - | 250 |
| 0.22 | | 11 | 20.0 | 32.0 | 0.8 | 27.5 | 27.5 | 10000 | 14.10 | 31 224 + 2J *^ | - | 250 |
| 1000VDC | 0.001 | 6.0 | 12.0 | 13.0 | 0.6 | 10.0 | 10.0 | 10000 | 1.50 | 31 102 + 3A *^ | - | 500 |
| | 0.068 | 12.0 | 22.0 | 26.0 | 0.8 | 22.5 | 22.5 | 10000 | 7.67 | 31 683 + 3A *^ | - | 250 |

