

# METALLIZED POLYESTER FILM CAPACITORS .....MEC

## SPECIFICATIONS:

### 1. OPERATING TEMPERATURE

-40 to +85°C

### 2. RATED VOLTAGE

63, 100, 250, 400, 630 V DC      50 ~ 60 Hz

### 3. CAPACITANCE RANGE

0.0047 to 6.8  $\mu$ F

### 4. DIELECTRIC STRENGTH

175% of rated voltage for 5 sec.

### 5. CAPACITANCE TOLERANCE

$\pm 5\%$  (J)       $\pm 10\%$  (K)

### 6. INSULATION RESISTANCE

$C \leq 0.33 \mu\text{F}$  and  $\leq 100\text{VDC}$      $IR \geq 15,000 \text{ M}\Omega$   
 $C > 0.33 \mu\text{F}$  and  $\leq 100\text{VDC}$      $IR \geq 5,000 \text{ M}\Omega/\mu\text{F}$   
 $C \leq 0.33 \mu\text{F}$  and  $> 100\text{VDC}$      $IR \geq 30,000 \text{ M}\Omega$   
 $C > 0.33 \mu\text{F}$  and  $> 100\text{VDC}$      $IR \geq 10,000 \text{ M}\Omega/\mu\text{F}$

### 7. DISSIPATION FACTOR

Max. 1% when measured at 1 kHz & 25°C

### 8. TENSILE STRANGTH OF ELECTRODES:

#### TEST CONDITION

Load force : 1.0kg

Holding Times: 10 $\pm$ 1 sec.

#### TEST CRITERIA

No wire breakage and no damage of the capacitor.

### 9. BENDING STRENGTH OF ELECTRODES:

#### TEST CONDITION

Load Force : 0.5kg

Bending Times: Two consecutive bends(4X90°C)in 5 sec.

#### TEST CRITERIA

No wire breakage and no damage of the capacitor.

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#### 10. VIBRATION RESISTANCE:

##### TEST CONDITION

Frequency cycle : 1 minute per cycles 10-55-10Hz  
Test Duration : Perpendicular direction with the same method for 45 minutes esth,  
total of 90 minutes.

##### TEST CRITERIA

(1) Appearance : No visible damage  
(2) Contact : Normal

#### 11. SOLDERABILITY:

##### TEST CONDITION

Solder Bath Temperature :  $260 \pm 5^\circ\text{C}$   
Solder Time :  $2 \pm 0.5$  sec.

##### TEST CRITERIA

3/4 of the surface tinning

#### 12. HEAT SHOCK TEST:

##### TEST CONDITION

The Electrodes of capacitor shall be immersed in the emitting solder.

Solder Bath Temperature :  $260 \pm 5^\circ\text{C}$

Solder Time :  $3 \pm 0.5$  sec.

Testing Voltage : 175% of the rated voltage for 1 minute

##### TEST CRITERIA

(1) Appearance : No visible damage  
(2) Withstand Voltage : Normal  
(3) Capacitance Change :  $\leq \pm 3\%$  of the initial value.

#### 13. COLD RESISTANCE:

##### TEST CONDITION

Test Temperature :  $-40 \pm 2^\circ\text{C}$

Test Duration : 2 hrs

##### TEST CRITERIA

(1) Appearance : No visible damage  
(2) Capacitance Change :  $\leq +0\%$ ,  $-5\%$ ( $-40^\circ\text{C}$ ) of the initial value.

#### 14. DRY HEAT RESISTANCE:

##### TEST CONDITION

Test Temperature :  $85 \pm 2^\circ\text{C}$

Test Duration : 2 hrs

##### TEST CRITERIA(at $85^\circ\text{C}$ )

Capacitance Change :  $\leq +5\%$ ,  $-2\%$  of the initial value

#### 15. HUMIDITY RESISTANCE:

##### TEST CONDITION

Test Temperature :  $40 \pm 2^\circ\text{C}$

Relative Humidity: 90 to 95%

Test Duration :  $240 \pm 8$  hrs than condition at standard state 16 hrs.

Test Voltage : 175% of the rated voltage for 5 sec

##### TEST CRITERIA

(1) Appearance : No visible damage  
(2) Capacitance Change :  $\leq \pm 5\%$  of the initial value  
(3) IR : Over  $3000\text{M}\Omega/\mu\text{F}$   
(4) Withstand Voltage : Normal