

# Metallized Polypropylene High Capacitance Stability Axial Film Capacitors

Series Code  
119, 135

## MPP-AC-Series Construction Axial Series

### Main Application

This series is specially designed for energy meter applications, voltage dropper, capacitive power supply, etc. for long stability of capacitance value.

### Construction

Series constructed metallized polypropylene film and normal metallized polypropylene film as internal electrodes. Wrapped with polyester tape filled with resin.

### Climatic Category

40/100/21

### Rated and Maximum Operating Temperature

85°C and 100°C

### Applicable Specification

IEC 384-17

### Capacitance Value

0.022μF - 4.7μF

### Rated Voltage

250VAC-500VAC

### Capacitance Tolerance

±5%, ±10%, ±20%

### Insulation Resistance

Minimum Insulation Resistance  $R_{IS}$   
(or) time constant  $T = C_R \times R_{IS}$   
(at 100VDC temp 20°C, relative humidity 70%)

$C_R \leq 0.33 \mu F$   
100000 MΩ

$C_R > 0.33 \mu F$   
30000s

### Voltage Proof

Between terminals: 1250VDC for 2 sec.

### Tan δ

Frequency	$C_R < 0.1 \mu F$	$0.1 \mu F < C_R \leq 1 \mu F$	$C_R > 1 \mu F$
1 kHz	0.08%	0.10%	0.1%
10 kHz	0.10%	0.15%	-

### 1. Damp Heat Test (Steady State)

Temperature: 40°C  
Relative humidity: 93% RH  
Duration: 1000 hours

### 2. THB Test Conditions

Loaded at 240VAC at 85°C temperature with 85% relative humidity for 500 hours.

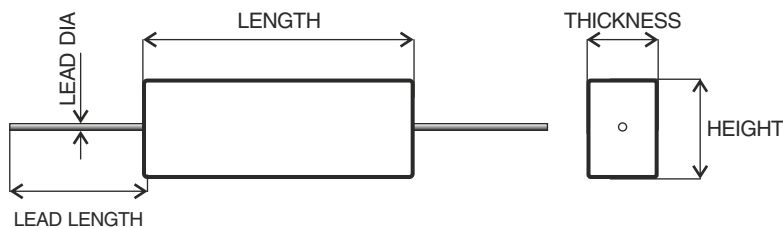
### 3. Life Test Conditions

(Loading at elevated temperature)  
Loaded at 1.25 times of rated voltage at 70°C for 500 hours.

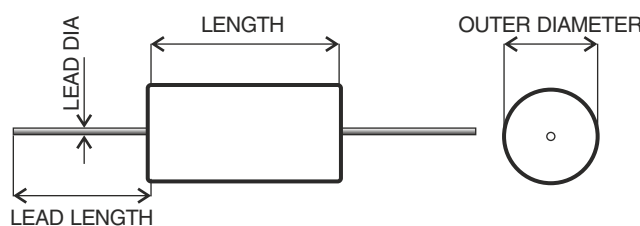
### After the Test

$\Delta C/C \leq 10\%$  of initial value.  
Increase of Tan δ:  $\leq 0.005$ ;  $C_R \leq 1 \mu F$   
Insulation resistance:  $\geq 50\%$  of the value mentioned in IR chart.

### Metallized Polypropylene Flat Axial Film Capacitors (Series Code - 119)



### Metallized Polypropylene Round Axial Film Capacitors (Series Code - 135)



# Metallized Polypropylene High Capacitance Stability Axial Film Capacitors



## MPP-AC-Series Construction Axial Series • Series Code 119, 135

Ordering code and packing units: Metallized Polypropylene High Capacitance Stability Axial Film Capacitors  
MPP-AC-Series Construction Flat Axial Series • Series Code 119

Rated Voltage	Rated Cap. (µF)	Dimensions (mm)				Lead Length (min)	Ordering code
		W (max)	H (max)	L (max)	d (±0.05)		
305VAC	0.068	7.0	13.0	21	0.8	30	119 683 + 04 *^
	0.100	8.0	14.0	21	0.8	30	119 104 + 04 *^
	0.100	6.0	11.0	29	0.8	30	119 104 + 04 *^
	0.330	10.0	16.0	29	0.8	30	119 334 + 04 *^
	0.680	14.0	20.0	29	0.8	30	119 684 + 04 *^
	0.220	8.0	12.5	35	0.8	30	119 224 + 04 *^
	0.470	10.0	16.5	35	0.8	30	119 474 + 04 *^
	1.000	14.0	22.0	35	0.8	30	119 105 + 04 *^
	2.200	23.0	27.5	35	0.8	30	119 225 + 04 *^
310VAC	0.047	6.0	11.0	21	0.8	30	119 473 + 05 *^
	0.068	7.0	13.0	21	0.8	30	119 683 + 05 *^
	0.100	8.0	14.0	21	0.8	30	119 105 + 05 *^
	0.100	6.0	11.0	29	0.8	30	119 105 + 05 *^
	0.330	10.0	16.0	29	0.8	30	119 334 + 05 *^
	0.680	14.0	20.0	29	0.8	30	119 684 + 05 *^
	0.220	8.0	12.5	35	0.8	30	119 224 + 05 *^
	0.470	10.0	16.5	35	0.8	30	119 474 + 05 *^
	1.000	14.0	22.0	35	0.8	30	119 105 + 05 *^
440VAC	2.200	23.0	27.5	35	0.8	30	119 225 + 05 *^
	0.033	6.5	11.0	21	0.8	30	119 333 + 06 *^
	0.047	7.5	12.0	21	0.8	30	119 473 + 06 *^
	0.068	8.0	14.5	21	0.8	30	119 683 + 06 *^
	0.100	10.5	15.0	21	0.8	30	119 104 + 06 *^
	0.068	6.5	11.0	29	0.8	30	119 683 + 06 *^
	0.100	7.5	12.0	29	0.8	30	119 104 + 06 *^
	0.470	14.5	21.0	29	0.8	30	119 474 + 06 *^
	0.680	18.0	23.0	29	0.8	30	119 684 + 06 *^
500VAC	0.068	6.0	10.5	35	0.8	30	119 683 + 06 *^
	0.100	7.5	11.5	35	0.8	30	119 104 + 06 *^
	0.470	12.0	20.0	35	0.8	30	119 474 + 06 *^
	1.000	19.0	24.0	35	0.8	30	119 105 + 06 *^
	0.022	6.5	11.0	21	0.8	30	119 223 + 07 *^
	0.033	7.0	13.0	21	0.8	30	119 333 + 07 *^
	0.047	8.0	14.5	21	0.8	30	119 473 + 07 *^
	0.068	10.5	15.0	29	0.8	30	119 683 + 07 *^
	0.100	8.0	14.5	29	0.8	30	119 104 + 07 *^
500VAC	0.330	14.0	22.0	29	0.8	30	119 334 + 07 *^
	0.047	6.0	10.5	35	0.8	30	119 473 + 07 *^
	0.100	7.0	13.5	35	0.8	30	119 104 + 07 *^
	0.470	15.0	21.5	35	0.8	30	119 474 + 07 *^
	1.000	23.0	28.0	35	0.8	30	119 105 + 07 *^

# Metallized Polypropylene High Capacitance Stability Axial Film Capacitors



## MPP-AC-Series Construction Axial Series • Series Code 119, 135

Ordering code and packing units: Metallized Polypropylene High Capacitance Stability Axial Film Capacitors  
MPP-AC-Series Construction Round Axial Series • Series Code 135

Rated Voltage	Rated Cap. (µF)	Outer Diameter (max)	Length (max)	Dimensions (mm)		Wt. (g)	Ordering code
				d (±0.5)	Lead Length (min)		
250VAC	0.047	10.0	15	0.6	30	1.88	135 473 + 02 *^
	0.068	10.0	15	0.6	30	1.87	135 683 + 02 *^
	0.100	10.5	15	0.6	30	2.02	135 104 + 02 *^
	0.100	10.0	21	0.8	30	2.25	135 104 + 02 *^
	0.470	11.5	21	0.8	30	3.11	135 474 + 02 *^
	1.000	15.5	21	0.8	30	5.47	135 105 + 02 *^
	0.470	10.0	29	0.8	30	2.77	135 474 + 02 *^
	1.000	13.0	29	0.8	30	4.72	135 105 + 02 *^
	1.500	15.0	29	0.8	30	6.45	135 155 + 02 *^
	0.220	10.0	35	0.8	30	3.21	135 224 + 02 *^
	1.000	11.5	35	0.8	30	4.52	135 105 + 02 *^
	3.300	18.5	35	0.8	30	11.53	135 335 + 02 *^
	1.000	10.0	45	0.8	30	4.40	135 105 + 02 *^
	2.200	13.5	45	0.8	30	7.81	135 225 + 02 *^
	4.700	18.5	45	0.8	30	14.41	135 475 + 02 *^
275VAC	0.047	10.0	15	0.6	30	1.88	135 473 + 03 *^
	0.100	10.5	15	0.6	30	2.03	135 104 + 03 *^
	0.100	10.0	21	0.8	30	2.25	135 104 + 03 *^
	0.470	11.5	21	0.8	30	3.11	135 474 + 03 *^
	1.000	15.5	21	0.8	30	5.47	135 105 + 03 *^
	0.470	10.0	29	0.8	30	2.77	135 474 + 03 *^
	1.000	13.0	29	0.8	30	4.72	135 105 + 03 *^
	1.500	15.0	29	0.8	30	6.45	135 155 + 03 *^
	0.220	10.0	35	0.8	30	3.21	135 224 + 03 *^
	1.000	11.5	35	0.8	30	4.52	135 105 + 03 *^
	3.300	18.5	35	0.8	30	11.53	135 335 + 03 *^
	1.000	10.0	45	0.8	30	4.40	135 105 + 03 *^
	2.200	13.5	45	0.8	30	7.81	135 225 + 03 *^
	4.700	18.5	45	0.8	30	14.41	135 475 + 03 *^
	305VAC	0.047	10.0	15	0.6	30	1.88
0.100		10.5	15	0.6	30	2.04	135 104 + 04 *^
0.100		10.0	21	0.8	30	2.25	135 104 + 04 *^
0.470		11.5	21	0.8	30	3.11	135 474 + 04 *^
1.000		15.5	21	0.8	30	5.47	135 105 + 04 *^
0.470		10.0	29	0.8	30	2.77	135 474 + 04 *^
1.000		13.0	29	0.8	30	4.72	135 105 + 04 *^
1.500		15.0	29	0.8	30	6.45	135 155 + 04 *^
0.220		10.0	35	0.8	30	3.21	135 224 + 04 *^
1.000		11.5	35	0.8	30	4.52	135 105 + 04 *^
3.300		18.5	35	0.8	30	11.53	135 335 + 04 *^
1.000		10.0	45	0.8	30	4.40	135 105 + 04 *^
2.200		13.5	45	0.8	30	7.81	135 225 + 04 *^
4.700		18.5	45	0.8	30	14.41	135 475 + 04 *^

# Metallized Polypropylene High Capacitance Stability Axial Film Capacitors



## MPP-AC Axial Series • Series Code 119, 135

Ordering code and packing units: Metallized Polypropylene High Capacitance Stability Axial Film Capacitors  
MPP-AC-Series Construction Round Axial Series • Series Code 135

Rated Voltage	Rated Cap. (µF)	Outer Diameter (max)	Length (max)	Dimensions (mm)		Wt. (g)	Ordering code
				d (±0.5)	Lead Length (min)		
310VAC	0.047	10.0	15	0.6	30	1.88	135 473 + 05 *^
	0.100	10.0	15	0.6	30	2.42	135 104 + 05 *^
	0.220	10.0	21	0.8	30	2.39	135 224 + 05 *^
	0.470	13.0	21	0.8	30	4.08	135 474 + 05 *^
	0.470	11.0	29	0.8	30	3.60	135 474 + 05 *^
	1.000	15.0	29	0.8	30	6.28	135 105 + 05 *^
	2.200	20.0	29	0.8	30	11.99	135 225 + 05 *^
	0.220	10.0	35	0.8	30	3.21	135 224 + 05 *^
	1.000	13.5	35	0.8	30	5.97	135 105 + 05 *^
	3.300	21.5	35	0.8	30	15.79	135 335 + 05 *^
	1.000	12.0	45	0.8	30	5.73	135 105 + 05 *^
	2.200	16.0	45	0.8	30	10.48	135 225 + 05 *^
	4.700	21.5	45	0.8	30	19.71	135 475 + 05 *^
	440VAC	0.047	10.5	15	0.6	30	1.87
0.068		12.0	15	0.6	30	2.39	135 683 + 06 *^
0.100		12.5	21	0.8	30	2.25	135 104 + 06 *^
0.220		13.0	21	0.8	30	3.87	135 224 + 06 *^
0.220		11.0	29	0.8	30	3.32	135 474 + 06 *^
0.470		14.0	29	0.8	30	5.72	135 224 + 06 *^
1.000		19.0	29	0.8	30	10.5	135 684 + 06 *^
1.000		17.0	35	0.8	30	9.75	135 105 + 06 *^
1.500		20.5	35	0.8	30	13.67	135 155 + 06 *^
1.000		15.0	45	0.8	30	9.18	135 105 + 06 *^
2.200		20.5	45	0.8	30	17.47	135 225 + 06 *^

Note: For more details please contact [info@dekielectronics.com](mailto:info@dekielectronics.com)