

# MPRP

## Metallized Polypropylene Motor Run/AC Film Capacitors in Round Tubes



### APPLICATIONS

- Motor Run
- General Purpose AC
- UL/CSA 810 Approved
- Motor Speed Controls
- Switching Capacitor for Industrial Controls

### FEATURES

- Safety Agency Approved
- Self Healing
- Multiple Case Sizes
- Multiple Lead Styles
- Flame retardant Construction

### SPECIFICATIONS

Operating Temperature Range		-40°C to +85°C (UL P2, EN60252 VDE P0 class C) -40°C to +105°C					
Capacitance Tolerance		±10% at 1kHz, 20°C ±5%, +10%/-5% optional					
AC Voltage	VAC	250	350	400	450	500	600
Note VAC must be de-rated by 1.25% per °C exceeding 85°C							
Dissipation Factor (tan δ)@ 1 kHz and 20°C	Freq	C≤2.2uF	2.2uF<C≤15uF	15uF<C≤22uF	C>22uF		
	1 kHz	.06	.01	0.12	0.14		
Insulation Resistance @20°C (<70% RH) for 1 minute at 100VDC applied		1000MΩxμF					
Dielectric Strength	Terminal to Terminal			Terminal to Case			
	160% VAC for 60 Seconds and 20°C applied between terminals (200% VAC for EN 60252)			3KV at 60Hz for 60 Seconds applied between terminals and case			
Load Life	125% of rated VAC at 85°C & 105°C						
	6000 hours for class A (30000 hours of continuous service life) 2000 hours for class B (10000 hours of continuous service life) 600 hours for class C (3000 hours of continuous service life)						
Construction	Metallized Polypropylene film Segmented Metallized Polypropylene film (Safety Mechanism Capacitors)						
Electrodes	Vacuum deposited metal layers						
Coating	Solvent resistant plastic case (UL 94V-0) with epoxy end fill (UL 94V-0)						
Certification	UL E311560						

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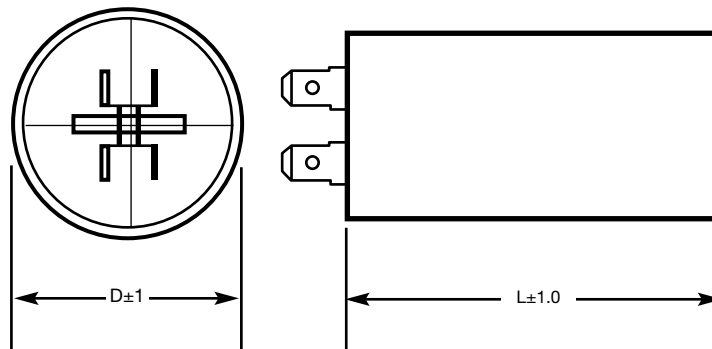
## PHYSICAL DIMENSIONS

VAC ( $\mu$ F)	250	350	400	450	500	600
1	→	18X30			→	25X40
3	→	25X30	25X50	→	30X40	40X40
5	→	28X40	30X50	→	35X50	45X50
7	30X40	32X40	35X50	→	40X50	45X60
10	30X40	35X40	40X50	40X60	45X60	50X60
15	→	34X50	→	45X60	50X60	50X70
20	35X60	38X50	45X60	50X60	50X70	55X85
25	→	37X60	→	→	50X70	60X85
30	→	40X60	→	→	55X70	60X85
35	→	39X70	→	55X70	55X85	
40	→	42X70	55X75	55X85	55X120	
45	→	44X70	→	60X85		
50	→	45X70	55X85	60X120		
60	45X85	40X120	55X85			
70	→	45X120	55X100			
80	45X120	45X130	55X120			
90	45X130	47X140	55X120			
100	48X130	47X140	55X120			

Convert to inches, divide by 25.4

D x L (mm)

**Additional case styles and lead terminations available.  
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## STANDARD PART LISTING

Capacitance (µF)	VAC	IC® PART NUMBER	DxL (mm)
1	350	105MPR350KP##	18X30
1	600	105MPR600KP##	25X40
3	350	305MPR350KP##	25X30
3	400	305MPR400KP##	25X50
3	500	305MPR500KP##	30X40
3	600	305MPR600KP##	40X40
5	350	505MPR350KP##	28X40
5	400	505MPR400KP##	30X50
5	500	505MPR500KP##	35X50
5	600	505MPR600KP##	45X50
7	250	705MPR250KP##	30X40
7	350	705MPR350KP##	32X40
7	400	705MPR400KP##	35X50
7	500	705MPR500KP##	40X50
7	600	705MPR600KP##	45X60
10	250	106MPR250KP##	30X40
10	350	106MPR350KP##	35X40
10	400	106MPR400KP##	40X50
10	450	106MPR450KP##	40X60
10	500	106MPR500KP##	45X60
10	600	106MPR600KP##	50X60
15	350	156MPR350KP##	34X50
15	450	156MPR450KP##	45X60
15	500	156MPR500KP##	50X60
15	600	156MPR600KP##	50X70
20	250	206MPR250KP##	35X60
20	350	206MPR350KP##	38X50
20	400	206MPR400KP##	45X60
20	450	206MPR450KP##	50X60
20	500	206MPR500KP##	50X70
20	600	206MPR600KP##	55X85
25	350	256MPR350KP##	37X60

Capacitance (µF)	VAC	IC® PART NUMBER	DxL (mm)
25	500	256MPR500KP##	50X70
25	600	256MPR600KP##	60X85
30	350	306MPR350KP##	40X60
30	500	306MPR500KP##	55X70
30	600	306MPR600KP##	60X85
35	350	356MPR350KP##	39X70
35	450	356MPR450KP##	55X70
35	500	356MPR500KP##	55X85
40	350	406MPR350KP##	42X70
40	400	406MPR400KP##	55X75
40	450	406MPR450KP##	55X85
40	500	406MPR500KP##	55X120
45	350	456MPR350KP##	44X70
45	450	456MPR450KP##	60X85
50	350	506MPR350KP##	45X70
50	400	506MPR400KP##	55X85
50	450	506MPR450KP##	60X120
60	250	606MPR250KP##	45X85
60	350	606MPR350KP##	40X120
60	400	606MPR400KP##	55X85
70	350	706MPR350KP##	45X120
70	400	706MPR400KP##	55X100
80	250	806MPR250KP##	45X120
80	350	806MPR350KP##	45X130
80	400	806MPR400KP##	55X120
90	250	906MPR250KP##	45X130
90	350	906MPR350KP##	47X140
90	400	906MPR400KP##	55X120
100	250	107MPR250KP##	48X130
100	350	107MPR350KP##	47X140
100	400	107MPR400KP##	55X120

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## PHYSICAL DIMENSIONS

### UL P2 Safety Mechanism Capacitors

VAC ( $\mu$ F)	250	400	450
	1	20x35	20x40
3	25x35	25x40	30x50
5	28x40	35x40	30x50
7	30x50	→	35x50
10	30x50	→	40x50
15	28x60	45x50	50x60
20	35x60	45x60	50x70
25	38x60	45x70	50x70
30	40x60	50x75	55x70
35	42x70	50x85	55x75
40	42x70	50x85	55x85
50	44x85	→	55x120
60	46x85	50x120	55x140
70	50x85	50x140	

Convert to inches, divide by 25.4

D x L (mm)

## STANDARD PART LISTING

Capacitance ( $\mu$ F)	VAC	IC <sup>®</sup> PART NUMBER	DxL (mm)
1	250	105MPR250KP2##	20x35
1	400	105MPR400KP2##	20x40
1	450	105MPR450KP2##	25x40
3	250	305MPR250KP2##	25x35
3	400	305MPR400KP2##	25x40
3	450	305MPR450KP2##	30x50
5	250	505MPR250KP2##	28x40
5	400	505MPR400KP2##	35x40
5	450	505MPR450KP2##	30x50
7	250	705MPR250KP2##	30x50
7	450	705MPR450KP2##	35x50
10	250	106MPR250KP2##	30x50
10	450	106MPR450KP2##	40x50
15	250	156MPR250KP2##	28x60
15	400	156MPR400KP2##	45x50
15	450	156MPR450KP2##	50x60
20	250	206MPR250KP2##	35x60
20	400	206MPR400KP2##	45x60
20	450	206MPR450KP2##	50x70

Capacitance ( $\mu$ F)	VAC	IC <sup>®</sup> PART NUMBER	DxL (mm)
25	250	256MPR250KP2##	38x60
25	400	256MPR400KP2##	45x70
25	450	256MPR450KP2##	50x70
30	250	306MPR250KP2##	40x60
30	400	306MPR400KP2##	50x75
30	450	306MPR450KP2##	55x70
35	250	356MPR250KP2##	42x70
35	400	356MPR400KP2##	50x85
35	450	356MPR450KP2##	55x75
40	250	406MPR250KP2##	42x70
40	400	406MPR400KP2##	50x85
40	450	406MPR450KP2##	55x85
50	250	506MPR250KP2##	44x85
50	450	506MPR450KP2##	55x120
60	250	606MPR250KP2##	46x85
60	400	606MPR400KP2##	50x120
60	450	606MPR450KP2##	55x140
70	250	706MPR250KP2##	50x85
70	400	706MPR400KP2##	50x140

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## PHYSICAL DIMENSIONS

### VDE P0 Class A/B

VAC ( $\mu$ F)	250	400	450
	1	25x30	25x40
3	30x30	30x40	35x40
5	30x40	35x50	42x50
7	35x40	40x50	42x50
10	40x40	40x60	50x60
20	40x60	50x70	55x85
30	42x70	55x85	60x120
40	50x100	→	60x120
50	50x120	60x140	70x140
60	60x130	60x140	70x160
70	60x130	70x140	
80	60x140	70x140	

Convert to inches, divide by 25.4

D x L (mm)

## STANDARD PART LISTING

Capacitance ( $\mu$ F)	VAC	IC <sup>®</sup> PART NUMBER	DxL (mm)
1	250	105MPR250KP0##	25x30
1	400	105MPR400KP0##	25x40
1	450	105MPR450KP0##	30x40
3	250	305MPR250KP0##	30x30
3	400	305MPR400KP0##	30x40
3	450	305MPR450KP0##	35x40
5	250	505MPR250KP0##	30x40
5	400	505MPR400KP0##	35x50
5	450	505MPR450KP0##	42x50
7	250	705MPR250KP0##	35x40
7	400	705MPR400KP0##	40x50
7	450	705MPR450KP0##	42x50
10	250	106MPR250KP0##	40x40
10	400	106MPR400KP0##	40x60
10	450	106MPR450KP0##	50x60
20	250	206MPR250KP0##	40x60
20	400	206MPR400KP0##	50x70
20	450	206MPR450KP0##	55x85

Capacitance ( $\mu$ F)	VAC	IC <sup>®</sup> PART NUMBER	DxL (mm)
20	450	206MPR450KP0##	55x85
30	250	306MPR250KP0##	42x70
30	400	306MPR400KP0##	55x85
30	450	306MPR450KP0##	60x120
40	250	406MPR250KP0##	50x100
40	400	406MPR400KP0##	60x120
40	450	406MPR450KP0##	60x120
50	250	506MPR250KP0##	50x120
50	400	506MPR400KP0##	60x140
50	450	506MPR450KP0##	70x140
60	250	606MPR250KP0##	60x130
60	400	606MPR400KP0##	60x140
60	450	606MPR450KP0##	70x160
70	250	706MPR250KP0##	60x130
70	400	706MPR400KP0##	70x140
80	250	806MPR250KP0##	60x140
80	400	806MPR400KP0##	70x140

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## PHYSICAL DIMENSIONS

### VDE P0 Class C

VAC ( $\mu$ F)	250/275	400/420/425	450/470/475	500
1	25x30	→	25x40	30x40
3	25x30	25x50	30x40	35x40
5	25x40	30x50	35x50	42x50
7	30x40	35x50	40x50	42x50
10	35x40	40x50	40x60	50x60
15	35x50	50x60	→	50x70
20	35x60	→	50x70	50x85
30	40x70	55x70	55x85	60x120
40	45x70	60x85	60x120	
50	45x70	60x120	60x140	
60	45x85	→	60x140	
70	50x120	60x140		
80	50x120	60x140		

Convert to inches, divide by 25.4

D x L (mm)

## STANDARD PART LISTING

Capacitance ( $\mu$ F)	VAC	IC PART NUMBER	DxL (mm)
1	250/275	105MPR275KPOC##	25x30
1	450/470/475	105MPR475KPOC##	25x40
1	500	105MPR500KPOC##	30x40
3	250/275	305MPR275KPOC##	25x30
3	400/420/425	305MPR425KPOC##	25x50
3	450/470/475	305MPR475KPOC##	30x40
3	500	305MPR500KPOC##	35x40
5	250/275	505MPR275KPOC##	25x40
5	400/420/425	505MPR425KPOC##	30x50
5	450/470/475	505MPR475KPOC##	35x50
5	500	505MPR500KPOC##	42x50
7	250/275	705MPR275KPOC##	30x40
7	400/420/425	705MPR425KPOC##	35x50
7	450/470/475	705MPR475KPOC##	40x50
7	500	705MPR500KPOC##	42x50
10	250/275	106MPR275KPOC##	35x40
10	400/420/425	106MPR425KPOC##	40x50
10	450/470/475	106MPR475KPOC##	40x60
10	500	106MPR500KPOC##	50x60
15	250/275	156MPR275KPOC##	35x50
15	400/420/425	156MPR425KPOC##	50x60

Capacitance ( $\mu$ F)	VAC	IC PART NUMBER	DxL (mm)
15	500	156MPR500KPOC##	50x70
20	250/275	206MPR275KPOC##	35x60
20	450/470/475	206MPR475KPOC##	50x70
20	500	206MPR500KPOC##	50x85
30	250/275	306MPR275KPOC##	40x70
30	400/420/425	306MPR425KPOC##	55x70
30	450/470/475	306MPR475KPOC##	55x85
30	500	306MPR500KPOC##	60x120
40	250/275	406MPR275KPOC##	45x70
40	400/420/425	406MPR425KPOC##	60x85
40	450/470/475	406MPR475KPOC##	60x120
50	250/275	506MPR275KPOC##	45x70
50	400/420/425	506MPR425KPOC##	60x120
50	450/470/475	506MPR475KPOC##	60x140
60	250/275	606MPR275KPOC##	45x85
60	450/470/475	606MPR475KPOC##	60x140
70	250/275	706MPR275KPOC##	50x120
70	400/420/425	706MPR425KPOC##	60x140
80	250/275	806MPR275KPOC##	50x120
80	400/420/425	806MPR425KPOC##	60x140

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