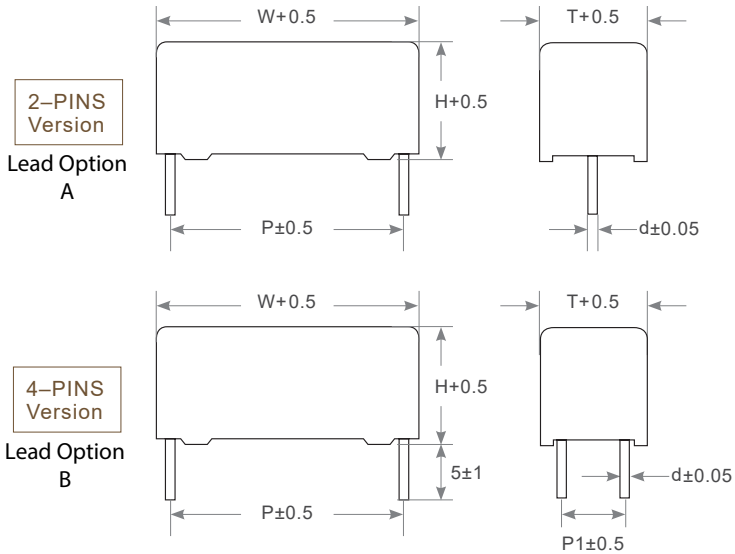
Interference Suppression Capacitors
MKX1: X-1 Class [480VAC]



INTRODUCTION

MKX1 Series are constructed with special metalized Polypropylene film dielectric, copperply lead in plastic case.

FEATURES

- Self-healing properties
- Class X1

TYPICAL APPLICATIONS

- Interference suppressors
- Across the line (Industrial power supply)
- Line-by-pass
- EMI filter

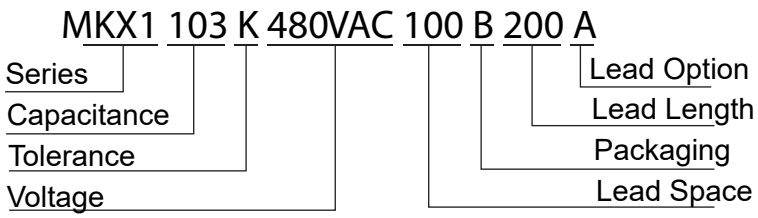
MECHANICAL DATA

- Dielectric: Metallized Polypropylene Film
- Winding: non-inductive type
- Leads: Tinned copper clad-steel wire
- Outer Coating: Flame retarding plastic case and epoxy filled

ELECTRICAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

Rated Voltage (AC) at 50/60 Hz	480VAC (maximum permissible voltage is 525VAC)	
Rated Voltage (DC)	1000VDC	
Rated Temperature	–40°C~ +110°C	
Capacitance Range	0.001μF~10μF	
Capacitance Tolerance	±10% (K), ±20% (M)	
Dissipation Factor	0.001μF≤C≤1.0μF, ≤0.15% at 1 Khz, 20± 5°C 1.0μF<C, ≤0.2% at 1 Khz, 20± 5°C	
Insulation Resistance	Terminal to Terminal: ≥15000MΩ at DC 100V (C≤0.33μF) ≥5000MΩ× μF at DC 100V (C>0.33μF)	Terminal to Enclosure: ≥30000MΩ at DC 100V ≥500MΩ at DC 500V
Withstand Voltage	[Between terminal] : Test Voltage : C<1.0μF 3400VDC, C≥ 1.0 μF 2700VDC Test Time : 2S [Between terminal and enclosure] : Nothing abnormal shall be found when applying a voltage of 2460 VAC for 1 minute.	
Climate Category	code letter G and number 40 = Minimum limit temperature.... –40°C code letter M and number 110 = Maximum limit temperature.... +110°C code letter F and number 56 = Maximum limit of Relative Humidity [The days of damp heat test 56 days] code letter B = Category of Passive flammability.	

■ PART NUMBER EXAMPLE



Capacitance

0.01µF	0.022µF	0.1µF	0.42µF	1.0µF	3.3µF	10µF
103	223	104	474	105	335	106

Tolerance

10%	20%
K	M

Lead Space (P)

10mm	15mm	22.5mm	27.5mm	37.5mm	52.5mm
100	150	225	275	375	525

Packaging

Bulk (loose)
B

Lead Length

20mm	5mm
200	050

Lead Option

2 Leads	4 Leads
A	B

■ SAFETY APPROVALS

LOGO MARK	COUNTRY	APPROVAL STANDARD	APPROVAL NO.	CLASS	CAP. RANGE	RATED VOLTAGE
UL c UL us	U.S.A CANADA	UL 60384–14:2014 CAN/CSA E60384–1/14:2014	E346827	X1	0.001µF~10µF	480 VAC
ENEC	EUROPE	EN60384–14:2013/ A1:2016 EN60384–14:2013	ENEC-04395	X1	0.001µF~10µF	480 VAC
CQC	CHINA	GB/T 6346.14–2015	CQC23001385393	X1	0.001µF~10µF	480 VAC

■ DIMENSIONS

Cap. (μF) | (Size unit): mm

R.V.	480VAC						
Size / Cap (μF)	W	H	T	P	P1	d ±0.05	Lead Option Suffix
0.001	13.0	9.0	4.0	10.0	n/a	0.6	A
0.0015	13.0	9.0	4.0	10.0	n/a	0.6	A
0.0022	13.0	9.0	4.0	10.0	n/a	0.6	A
0.0033	13.0	9.0	4.0	10.0	n/a	0.6	A
0.0047	13.0	9.0	4.0	10.0	n/a	0.6	A
0.0056	13.0	10.0	5.0	10.0	n/a	0.6	A
0.0068	13.0	10.0	5.0	10.0	n/a	0.6	A
0.0082	13.0	10.0	5.0	10.0	n/a	0.6	A
0.01	13.0	11.0	5.0	10.0	n/a	0.6	A
0.012	13.0	11.0	5.0	10.0	n/a	0.6	A
0.015	13.0	12.0	6.0	10.0	n/a	0.6	A
0.022	13.0	13.0	7.0	10.0	n/a	0.6	A
0.033	13.0	15.5	8.0	15.0	n/a	0.6	A
0.01	18.0	11.0	5.0	15.0	n/a	0.8	A
0.015	18.0	11.0	5.0	15.0	n/a	0.8	A
0.022	18.0	11.0	5.0	15.0	n/a	0.8	A
0.033	18.0	12.0	6.0	15.0	n/a	0.8	A
0.047	18.0	13.0	7.0	15.0	n/a	0.8	A
0.056	18.0	13.0	7.0	15.0	n/a	0.8	A
0.068	18.0	14.0	8.0	15.0	n/a	0.8	A
0.082	18.0	14.5	8.5	15.0	n/a	0.8	A
0.1	18.0	17.5	8.5	15.0	n/a	0.8	A
0.12	18.0	18.0	9.0	15.0	n/a	0.8	A
0.15	18.0	19.0	11.0	15.0	n/a	0.8	A
0.1	26.0	15.0	6.0	22.5	n/a	0.8	A
0.15	26.0	18.5	7.0	22.5	n/a	0.8	A
0.22	26	19	10.0	22.5	n/a	0.8	A
0.33	26	20	11.0	22.5	n/a	0.8	A

R.V.	480VAC						
Size / Cap (μF)	W	H	T	P	P1	d ±0.05	Lead Option Suffix
0.47	26.0	24.0	15.0	22.5	n/a	0.8	A
0.56	31.0	25.0	9.0	27.5	n/a	0.8	A
0.33	31.0	20.0	9.0	27.5	n/a	0.8	A
0.47	31.0	22.0	10.0	27.5	n/a	0.8	A
0.56	31.0	24.5	11.0	27.5	n/a	0.8	A
0.56(M)	31.0	23.5	13.0	27.5	n/a	0.8	A
0.68	31.0	25.5	14.0	27.5	n/a	0.8	A
0.68(M)	31.0	24.5	16.0	27.5	n/a	0.8	A
0.82	31.0	26.0	18.0	27.5	n/a	0.8	A
1	31.0	33.0	22.0	27.5	10	0.8	A or B
1.0(M)	31.0	28.0	18.5	37.5	n/a	0.8	A
1.5	41.5	37.0	20.5	37.5	10	0.8	A
1.5(M)	41.5	35.0	22.5	37.5	10	0.8	A or B
1.5	41.5	35.0	24.0	37.5	10	1.0	A or B
1.5(M)	41.5	31.5	25.0	37.5	10	1.0	A or B
2.2	41.5	35.5	27.5	37.5	10	1.0	A or B
2.2(M)	41.5	38.0	27.5	37.5	10	1.0	A or B
2.2(M)	41.5	34.0	30.0	37.5	10	1.0	A or B
3.3	41.5	41.0	30.0	37.5	10	1.0	A or B
3.3(M)	41.5	38.0	32.0	37.5	10	1.0	A or B
3.9	41.5	45.0	30.0	52.5	10	1.0	A or B
4.7(M)	41.5	45.0	35.0	52.5	20	1.0	A or B
4.7(M)	41.5	45.0	30.0	37.5	10	1.0	A or B
4.7	58.0	45.0	30.0	52.5	10	1.2	A or B
5.6	58.0	45.0	30.0	52.5	10	1.2	A or B
6.8	58.0	50.0	35.0	52.5	20	1.2	A or B
8.2(M)	58.0	50.0	35.0	52.5	20	1.2	A or B
10.0(M)	58.0	53.0	38.0	52.5	20	1.2	A or B