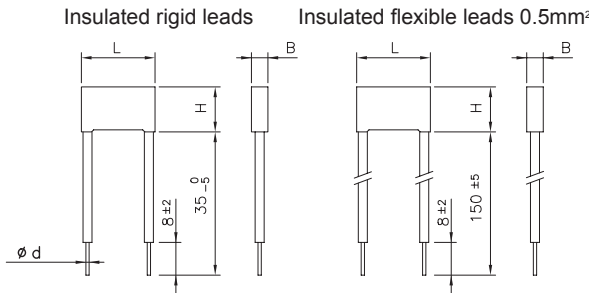
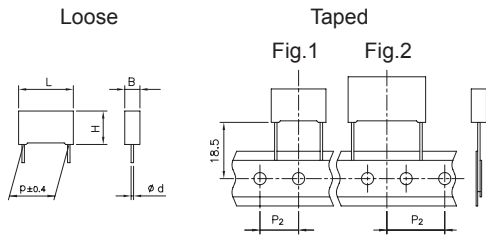


X2 CLASS (EN132400) - MKP Series
METALLIZED POLYPROPYLENE FILM CAPACITOR
 SELF-HEALING PROPERTIES

Typical applications: interference suppression and «cross-the-line» applications. Suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

PRODUCT CODE: **R46**

Note: R.46 series has replaced the 1.40 series and 1.47 series. For new design we suggest the use of the R.46 series.



$\phi d \pm 0.05$	$p \leq 15$	$22.5 \leq p \leq 27.5$	$p = 37.5$
	0.6 or 0.8*	0.8	1

*See size table.
 All dimensions are in mm.

GENERAL TECHNICAL DATA

- Dielectric:** polypropylene film.
- Plates:** metal layer deposited by evaporation under vacuum.
- Winding:** non-inductive type.
- Leads:** tinned wire.
- Protection:** plastic case, thermosetting resin filled.
- Box material is solvent resistant and flame retardant according to UL94 V0.
- Marking:** Manufacturer's logo, series, capacitance, tolerance, rated voltage, capacitor class, dielectric code, climatic category, passive flammability category, manufacturing date code, approvals, manufacturing plant.
- Climatic category:** 40/110/56 IEC 60068-1

Operating temperature range: -40 to +110°C
Related documents: IEC 60384-14, EN 132400.

ELECTRICAL CHARACTERISTICS

Rated voltage (V_R): 275Vac (50/60Hz) / 560 Vdc
 300Vac (50/60Hz) / 630 Vdc

Capacitance range: 0.01µF to 10µF
Capacitance values: E6 series (IEC 60063 Norm).
Capacitance tolerances (measured at 1 kHz):
 ±10% (K); ±20% (M).

Dissipation factor (DF):
 $tg\delta 10^{-4}$ at +25°C ±5°C: ≤10 (6)* at 1kHz
 * Typical value

Insulation resistance:
Test conditions
 Temperature: +25°C±5°C
 Voltage charge time: 1 min
 Voltage charge: 100 Vdc
Performance
 $\geq 1 \times 10^5 M\Omega (5 \times 10^5 M\Omega)^*$ for $C \leq 0.33\mu F$
 $\geq 30000 s (150000 s)^*$ for $C > 0.33\mu F$
 * Typical value

Test voltage between terminations (on all pieces):
 1500Vac for 1 s + 2200Vdc for 1 s at +25°C±5°C

TEST METHOD AND PERFORMANCE

Damp heat, steady state:

Test conditions 1st

Temperature: +40°C ± 2°C
 Relative humidity (RH): 93% ±2%
 Test duration: 56 days

Test conditions 2nd

Temperature: +60°C ± 2°C
 Relative humidity (RH): 95% ±2%
 Test duration: 500 hours

Performance

Dielectric strength: no dielectric breakdown or flashover at $4.3 \times V_R$ (d.c.)/1 min
 Capacitance change $|\Delta C/C|$: ≤5%
 Insulation resistance: ≥50% of initial limit.

Endurance:

Test conditions

Temperature: +110°C ± 2°C
 Test duration: 1000 h
 Voltage applied: $1.25 \times V_R + 1000Vac$ 0.1 s/h

Performance

Dielectric strength: no dielectric breakdown or flashover at $4.3 \times V_R$ (d.c.)/1 min
 Capacitance change $|\Delta C/C|$: ≤10%
 Insulation resistance: ≥50% of initial limit.

Resistance to soldering heat:

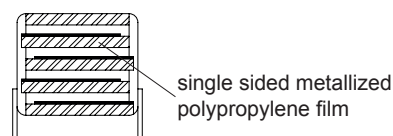
Test conditions

Solder bath temperature: +260°C ± 5°C
 Dipping time (with heat screen): 10 s ± 1 s

Performance

Capacitance change $|\Delta C/C|$: ≤2%

Winding scheme



X2 CLASS (EN132400) - MKP Series
METALLIZED POLYPROPYLENE FILM CAPACITOR
 SELF-HEALING PROPERTIES

APPROVALS

	ENEC IEC 60384-14	Class X2	File No.V4413
	CSA E 384-14-95 (up to 5.6µF)	Across-the-line	File No.154612 (LR 83890)
	UL 1414 (up to 1µF)	Across-the-line	File No.E97797
	UL 1283 (310 Vac)	Class X2	File No.E85238
	GB/T 14472-1998 (275Vac)	Class X2	File CQC3001008199 CQC3001008842

UL 1414 for 250Vac only.

Approved according to IEC 60384-14:1993+ A1:1995 (EN132400:1994+A2:1998+A3:1998+A4:2001).

According to IEC 60065.

(**) ENEC mark has replaced all the following European National marks:



Table 1

Standard packaging style	Lead length (mm)	Taping style			Ordering code (Digit 10 to 11)
		P ₂ (mm)	Fig. (No.)	Pitch (mm)	
AMMO-PACK		12.70	1	10.0/15.0	DQ
AMMO-PACK		19.05	2	22.5	DQ
REEL Ø355mm		12.70	1	10.0/15.0	CK
REEL Ø500mm		19.05	2	22.5/27.5	CK
Loose, short leads	4 ⁺²				00
Loose, long leads	25 ^{-1/+2}				50
Loose, long leads	30 ⁺⁵				40
Loose, insulated rigid leads	30 ⁺⁵				51
Loose, insulated flexible leads	150 ⁺⁵				52

Note: Ammo-pack is the preferred packaging for taped version.

For "capacitor connected in series with main line" (two-phase and three-phase net) application, please contact our Technical Service for choosing the safest solution.

Rated Cap. (*)	275 Vac / 560 Vdc Std dimensions				Ø d	Max dv/dt at 390Vdc (V/µs)	Part Number			
	B	H	L	p						
0.010 µF	4.0	9.0	13.0	10.0	0.6	500	R46 KF	2100	-- N0	-
0.015 µF	4.0	9.0	13.0	10.0	0.6	500	R46 KF	2150	-- N0	-
0.022 µF	4.0	9.0	13.0	10.0	0.6	500	R46 KF	2220	-- N0	-
0.033 µF	5.0	11.0	13.0	10.0	0.6	500	R46 KF	2330	-- M1	-
0.047 µF	5.0	11.0	13.0	10.0	0.6	500	R46 KF	2470	-- N0	-
0.068 µF	6.0	12.0	13.0	10.0	0.6	500	R46 KF	2680	-- M1	-
0.1 µF	6.0	12.0	13.0	10.0	0.6	500	R46 KF	3100	-- M1	M
#0.010 µF	4.0	10.0	18.0	15.0	0.6	400	R46 KI	2100	-- N0	-
0.010 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	2100	-- 01	-
#0.015 µF	4.0	10.0	18.0	15.0	0.6	400	R46 KI	2150	-- N0	-
0.015 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	2150	-- 01	-
#0.022 µF	4.0	10.0	18.0	15.0	0.6	400	R46 KI	2220	-- N0	-
0.022 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	2220	-- 01	-
#0.033 µF	4.0	10.0	18.0	15.0	0.6	400	R46 KI	2330	-- N0	-
0.033 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	2330	-- 01	-
#0.047 µF	4.0	10.0	18.0	15.0	0.6	400	R46 KI	2470	-- N0	-
0.047 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	2470	-- 01	-
#0.068 µF	4.0	10.0	18.0	15.0	0.6	400	R46 KI	2680	-- N0	-
0.068 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	2680	-- 01	-
0.10 µF	5.0	11.0	18.0	15.0	0.6	400	R46 KI	3100	-- M1	-
0.15 µF	6.0	12.0	18.0	15.0	0.6	400	R46 KI	3150	-- M2	-
0.15 µF	9.0	12.5	18.0	15.0	0.6	400	R46 KI	3150	-- L2	-
0.22 µF	7.5	13.5	18.0	15.0	0.6	400	R46 KI	3220	-- M2	-
0.22 µF	9.0	12.5	18.0	15.0	0.6	400	R46 KI	3220	-- L2	-
0.22 µF	6.0	17.5	18.0	15.0	0.6	400	R46 KI	3220	-- 02	-
0.33 µF	8.5	14.5	18.0	15.0	0.6	400	R46 KI	3330	-- N0	-
0.33 µF	10.0	16.0	18.0	15.0	0.8	400	R46 KI	3330	-- M1	-
0.33 µF	9.0	12.5	18.0	15.0	0.6	400	R46 KI	3330	-- N1	M
0.33 µF	7.5	18.5	18.0	15.0	0.8	400	R46 KI	3330	-- 02	-
0.33 µF	13.0	12.0	18.0	15.0	0.8	400	R46 KI	3330	-- 01	-
#0.47 µF	7.5	18.5	18.0	15.0	0.8	400	R46 KI	3470	-- 02	M
0.47 µF	10.0	16.0	18.0	15.0	0.8	400	R46 KI	3470	-- N0	M
0.47 µF	11.0	19.0	18.0	15.0	0.8	400	R46 KI	3470	-- M1	-
0.56 µF	11.0	19.0	18.0	15.0	0.8	400	R46 KI	3560	-- N0	-
0.60 µF	11.0	19.0	18.0	15.0	0.8	400	R46 KI	3600	-- N0	M
0.15 µF	6.0	15.0	26.5	22.5	0.8	200	R46 KN	3150	-- 01	-
0.22 µF	6.0	15.0	26.5	22.5	0.8	200	R46 KN	3220	-- M1	-
0.33 µF	6.0	15.0	26.5	22.5	0.8	200	R46 KN	3330	-- N0	-
0.47 µF	7.0	16.0	26.5	22.5	0.8	200	R46 KN	3470	-- N0	-
0.68 µF	10.0	18.5	26.5	22.5	0.8	200	R46 KN	3680	-- M2	-
1.0 µF	10.0	18.5	26.5	22.5	0.8	200	R46 KN	4100	-- N2	M
1.0 µF	11.0	20.0	26.5	22.5	0.8	200	R46 KN	4100	-- N1	-
0.47 µF	9.0	17.0	32.0	27.5	0.8	150	R46 KR	3470	-- 01	-
0.68 µF	9.0	17.0	32.0	27.5	0.8	150	R46 KR	3680	-- M1	-
0.68 µF	10.0	20.0	32.0	27.5	0.8	150	R46 KR	3680	-- 01	-
1.0 µF	11.0	20.0	32.0	27.5	0.8	150	R46 KR	4100	-- M1	-
1.5 µF	13.0	22.0	32.0	27.5	0.8	150	R46 KR	4150	-- M1	-
2.2 µF	14.0	28.0	32.0	27.5	0.8	150	R46 KR	4220	-- M1	-
3.3 µF	18.0	33.0	32.0	27.5	0.8	150	R46 KR	4330	-- M2	-
4.7 µF	22.0	37.0	32.0	27.5	0.8	150	R46 KR	4470	-- M1	-
2.2 µF	13.0	24.0	41.5	37.5	1.0	100	R46 KW	4220	-- M1	-
3.3 µF	16.0	28.5	41.5	37.5	1.0	100	R46 KW	4330	-- M1	-
4.7 µF	19.0	32.0	41.5	37.5	1.0	100	R46 KW	4470	-- M1	-
5.6 µF	20.0	40.0	41.5	37.5	1.0	100	R46 KW	4560	-- M1	M
6.8 µF	24.0	44.0	41.5	37.5	1.0	100	R46 KW	4680	-- M1	-
10.0 µF	30.0	45.0	41.5	37.5	1.0	100	R46 KW	5100	-- M1	-

Rated voltage (K=275Vac)
 Mechanical version and packaging (Table 1)
 Tolerance: K (±10%); M (±20%)

All dimensions are in mm
 # UL, CSA and CQC approvals are in progress.
 E12 Series available upon request

X2 CLASS (EN132400) - MKP Series
METALLIZED POLYPROPYLENE FILM CAPACITOR
 SELF-HEALING PROPERTIES

APPROVALS

Rated Cap. (*)	300 Vac / 630 Vdc Std dimensions				Ø d	Max dv/dt at 390Vdc (V/µs)	Part Number			
	B	H	L	p						
0.010 µF	5.0	11.0	13.0	10.0	0.6	500	R46 3F	2100	-- M1	-
0.015 µF	5.0	11.0	13.0	10.0	0.6	500	R46 3F	2150	-- M1	-
0.022 µF	5.0	11.0	13.0	10.0	0.6	500	R46 3F	2220	-- M1	-
0.033 µF	5.0	11.0	13.0	10.0	0.6	500	R46 3F	2330	-- M1	-
0.047 µF	6.0	12.0	13.0	10.0	0.6	500	R46 3F	2470	-- M1	-
0.068 µF	6.0	12.0	13.0	10.0	0.6	500	R46 3F	2680	-- M1	-
0.1 µF	6.0	12.0	13.0	10.0	0.6	500	R46 3F	3100	-- M1	M
0.010 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	2100	-- 01	-
0.015 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	2150	-- 01	-
0.022 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	2220	-- 01	-
0.033 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	2330	-- 01	-
0.047 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	2470	-- 01	-
0.068 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	2680	-- 01	-
0.10 µF	5.0	11.0	18.0	15.0	0.6	400	R46 3I	3100	-- M1	M
0.10 µF	6.0	12.0	18.0	15.0	0.6	400	R46 3I	3100	-- 01	-
0.15 µF	6.0	12.0	18.0	15.0	0.6	400	R46 3I	3150	-- M2	M
0.15 µF	7.5	13.5	18.0	15.0	0.6	400	R46 3I	3150	-- M1	-
0.22 µF	7.5	13.5	18.0	15.0	0.6	400	R46 3I	3220	-- M2	M
0.22 µF	8.5	14.5	18.0	15.0	0.6	400	R46 3I	3220	-- M1	-
0.22 µF	9.0	12.5	18.0	15.0	0.6	400	R46 3I	3220	-- L2	-
0.33 µF	10.0	16.0	18.0	15.0	0.8	400	R46 3I	3330	-- M1	-
0.33 µF	13.0	12.0	18.0	15.0	0.8	400	R46 3I	3330	-- 01	-
0.47 µF	11.0	19.0	18.0	15.0	0.8	400	R46 3I	3470	-- M1	-
0.15 µF	6.0	15.0	26.5	22.5	0.8	200	R46 3N	3150	-- 01	-
0.22 µF	6.0	15.0	26.5	22.5	0.8	200	R46 3N	3220	-- M1	-
0.33 µF	7.0	16.0	26.5	22.5	0.8	200	R46 3N	3330	-- M1	-
0.47 µF	8.5	17.0	26.5	22.5	0.8	200	R46 3N	3470	-- M1	-
0.68 µF	10.0	18.5	26.5	22.5	0.8	200	R46 3N	3680	-- M2	-
1.0 µF	13.0	22.0	26.5	22.5	0.8	200	R46 3N	4100	-- M1	-
0.47 µF	9.0	17.0	32.0	27.5	0.8	150	R46 3R	3470	-- 01	-
0.68 µF	9.0	17.0	32.0	27.5	0.8	150	R46 3R	3680	-- M1	-
0.68 µF	10.0	20.0	32.0	27.5	0.8	150	R46 3R	3680	-- 01	-
1.0 µF	11.0	20.0	32.0	27.5	0.8	150	R46 3R	4100	-- M1	-
1.5 µF	13.0	22.0	32.0	27.5	0.8	150	R46 3R	4150	-- M1	-
1.5 µF	15.0	24.5	32.0	27.5	0.8	150	R46 3R	4150	-- 01	-
2.2 µF	14.0	28.0	32.0	27.5	0.8	150	R46 3R	4220	-- M1	-
2.2 µF	18.0	33.0	32.0	27.5	0.8	150	R46 3R	4220	-- 01	-
3.3 µF	18.0	33.0	32.0	27.5	0.8	150	R46 3R	4330	-- M2	-
3.3 µF	22.0	37.0	32.0	27.5	0.8	150	R46 3R	4330	-- M1	-
4.7 µF	22.0	37.0	32.0	27.5	0.8	150	R46 3R	4470	-- M1	-
2.2 µF	13.0	24.0	41.5	37.5	1.0	100	R46 3W	4220	-- M1	-
3.3 µF	16.0	28.5	41.5	37.5	1.0	100	R46 3W	4330	-- M1	-
4.7 µF	19.0	32.0	41.5	37.5	1.0	100	R46 3W	4470	-- M1	-
5.6 µF	20.0	40.0	41.5	37.5	1.0	100	R46 3W	4560	-- M1	M
6.8 µF	24.0	44.0	41.5	37.5	1.0	100	R46 3W	4680	-- M1	-
10.0 µF	30.0	45.0	41.5	37.5	1.0	100	R46 3W	5100	-- M1	-

Rated voltage (3=300Vac) _____
 Mechanical version and packaging (Table 1) _____
 Tolerance: K (±10%); M (±20%) _____

	ENEC IEC 60384-14	Class X2	File No.V4413
	CSA E 384-14-95 (up to 5.6µF)	Across-the-line	File No.154612 (LR 83890)
	UL 1414 (up to 1µF)	Across-the-line	File No.E97797
	UL 1283 (310 Vac)	Class X2	File No.E85238
	GB/T 14472-1998 (275Vac)	Class X2	File CQC3001008199 CQC3001008842

UL 1414 for 250Vac only.
 Approved according to IEC 60384-14:1993+ A1:1995
 (EN132400:1994+A2:1998+A3:1998+A4:2001).
 According to IEC 60065.

(**) ENEC mark has replaced all the following European National marks:

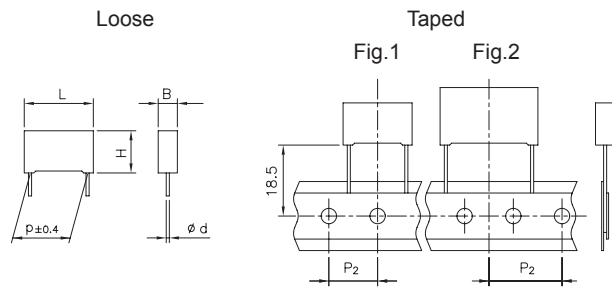


Table 1

Standard packaging style	Lead length (mm)	Taping style			Ordering code (Digit 10 to 11)
		P ₂ (mm)	Fig. (No.)	Pitch (mm)	
AMMO-PACK		12.70	1	10.0/15.0	DQ
AMMO-PACK		19.05	2	22.5	DQ
REEL Ø500mm		12.70	1	10.0/15.0	CK
REEL Ø500mm		19.05	2	22.5/27.5	CK
Loose, short leads	4 ⁺²				00
Loose, long leads	25 ^{-1/+2}				50
Loose, long leads	30 ⁺⁵				40
Loose, insulated rigid leads	30 ⁺⁵				51
Loose, insulated flexible leads	150 ⁺⁵				52

Note: Ammo-pack is the preferred packaging for taped version.

For "capacitor connected in series with main line" (two-phase and three-phase net) application, please contact our Technical Service for choosing the safest solution.



Ø d ±0.05	p ≤15	p = 22.5
	0.6 or 0.8*	0.8

*See size table.
All dimensions are in mm.

GENERAL TECHNICAL DATA

Dielectric: polypropylene film.
Plates: metal layer deposited by evaporation under vacuum.
Winding: non-inductive type.
Leads: tinned wire.
Protection: plastic case, thermosetting resin filled.
 Box material is solvent resistant and flame retardant according to UL94 V0.
Marking: Manufacturer's logo, series, capacitance, tolerance, rated voltage, capacitor class, dielectric code, climatic category, passive flammability category, manufacturing date code, approvals, manufacturing plant.
Climatic category: 40/125/56 IEC 60068-1
Operating temperature range: -40 to +125°C
Related documents: IEC 60384-14 2nd edition '93; EN 132400.

ELECTRICAL CHARACTERISTICS

Rated voltage (V_R): 275 Vac (50/60Hz) / 560 Vdc
Capacitance range: 0.01µF to 1µF

TEST METHOD AND PERFORMANCE

Endurance:
Test conditions
 Temperature: +125°C±2°C
 Test duration: 1000 h
 Voltage applied: 1.25 x V_R +1000Vac 0.1 s/h
Performance
 Dielectric strength: no dielectric breakdown or flashover at 4.3 x V_R (d.c.)/1 min
 Capacitance change |ΔC/C|: ≤ 10%
 Insulation resistance: ≥ 50% of initial limit.

APPROVALS

	ENEC IEC 60384-14	Class X2	File No.CA08.00063
	CSA E 384-14-95	Across-the-line	File No.154612 (LR83890)
	UL 1414 (up to 1µF)	Across-the-line	File No.E97797
	UL 1283 (310 Vac)	Class X2	File No.E85238

UL 1414 for 250Vac only.
 Approved according to IEC 60384-14:1993+ A1:1995 (EN132400:1994+A2:1998+A3:1998+A4:2001).
 According to IEC 60065.

(**) ENEC mark has replaced all the following European National marks:



X2 CLASS (EN132400) - MKP METALLIZED POLYPROPYLENE FILM CAPACITOR SELF-HEALING PROPERTIES

Typical applications: interference suppression and «across-the-line» applications. Suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

PRODUCT CODE: R46

NEW 125°C

Rated Cap.	275 Vac / 560 Vdc Std dimensions				Ø d	Max dv/dt at 390Vdc (V/µs)	Part Number
	B	H	L	p			
0.010 µF	5.0	11.0	13.0	10.0	0.6	500	R46 K F 2100 - - H1 -
0.015 µF	5.0	11.0	13.0	10.0	0.6	500	R46 K F 2150 - - H1 -
0.022 µF	5.0	11.0	13.0	10.0	0.6	500	R46 K F 2220 - - H1 -
0.033 µF	5.0	11.0	13.0	10.0	0.6	500	R46 K F 2330 - - H1 -
0.047 µF	6.0	12.0	13.0	10.0	0.6	500	R46 K F 2470 - - H1 -
0.068 µF	6.0	12.0	13.0	10.0	0.6	500	R46 K F 2680 - - H1 M
0.010 µF	5.0	11.0	18.0	15.0	0.6	400	R46 K I 2100 - - H1 -
0.015 µF	5.0	11.0	18.0	15.0	0.6	400	R46 K I 2150 - - H1 -
0.022 µF	5.0	11.0	18.0	15.0	0.6	400	R46 K I 2220 - - H1 -
0.033 µF	5.0	11.0	18.0	15.0	0.6	400	R46 K I 2330 - - H1 -
0.047 µF	5.0	11.0	18.0	15.0	0.6	400	R46 K I 2470 - - H1 -
0.068 µF	5.0	11.0	18.0	15.0	0.6	400	R46 K I 2680 - - H1 -
0.10 µF	6.0	12.0	18.0	15.0	0.6	400	R46 K I 3100 - - H1 -
0.15 µF	6.0	17.5	18.0	15.0	0.6	400	R46 K I 3150 - - H2 -
0.15 µF	9.0	12.5	18.0	15.0	0.6	400	R46 K I 3150 - - H3 -
0.15 µF	7.5	13.5	18.0	15.0	0.6	400	R46 K I 3150 - - H1 -
0.22 µF	8.5	14.5	18.0	15.0	0.6	400	R46 K I 3220 - - H1 -
0.22 µF	6.0	17.5	18.0	15.0	0.6	400	R46 K I 3220 - - H2 M
0.22 µF	9.0	12.5	18.0	15.0	0.6	400	R46 K I 3220 - - H3 M
0.22 µF	7.5	18.5	18.0	15.0	0.8	400	R46 K I 3220 - - H4 -
0.33 µF	10.0	16.0	18.0	15.0	0.8	400	R46 K I 3330 - - H1 M
0.33 µF	7.5	18.5	18.0	15.0	0.8	400	R46 K I 3330 - - H2 M
0.33 µF	13.0	12.0	18.0	15.0	0.8	400	R46 K I 3330 - - H3 M
0.47 µF	11.0	19.0	18.0	15.0	0.8	400	R46 K I 3470 - - H1 M
0.15 µF	6.0	15.0	26.5	22.5	0.8	200	R46 K N 3150 - - H1 -
0.22 µF	6.0	15.0	26.5	22.5	0.8	200	R46 K N 3220 - - H1 -
0.33 µF	7.0	16.0	26.5	22.5	0.8	200	R46 K N 3330 - - H1 -
0.47 µF	10.0	18.5	26.5	22.5	0.8	200	R46 K N 3470 - - H1 -
0.68 µF	11.0	20.0	26.5	22.5	0.8	200	R46 K N 3680 - - H1 -
1.0 µF	13.0	22.0	26.5	22.5	0.8	200	R46 K N 4100 - - H1 -

Rated voltage (K=275Vdc)
 Mechanical version and packaging (Table 1)
 Tolerance: K (±10%); M (±20%)

E12 Series available upon request

All dimensions are in mm

For “capacitor connected in series with main line” (two-phase and three-phase net) application, please contact our Technical Service for choosing the safest solution.