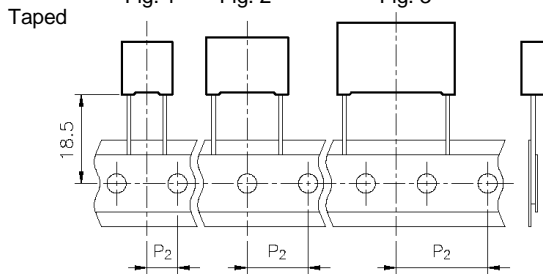
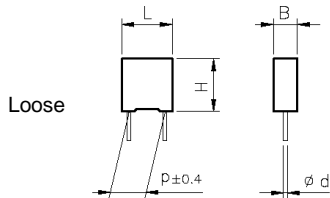


### FILM-FOIL POLYPROPYLENE CAPACITOR HIGH CURRENT APPLICATIONS



$\phi d \pm 0.05$	$p \leq 10$	$15 \leq p \leq 27.5$	$p = 37.5$
	0.6	0.8	1.0

All dimensions are in mm.

#### PRODUCT CODE SYSTEM

The part number, comprising 14 digits, is formed as follows:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
R	7	3										-	

Digit 1 to 3 Series code.

Digit 4 d.c. rated voltage:  
for 1 section

E = 100V G = 160V I = 250V  
M = 400V P = 630V

for 2 sections

P = 630V Q = 1000V R = 1250V  
T = 1600V U = 2000V

Digit 5 Pitch:

D = 7.5mm; F = 10 mm; l = 15 mm;  
N = 22.5mm; R = 27.5mm; W = 37.5mm.

Digit 6 to 9 Digits 7 - 8 - 9 indicate the first three digits of Capacitance value and the 6th digit indicates the number of zeros that must be added to obtain the Rated Capacitance in pF.

Digit 10 to 11 Mechanical version and/or packaging (table 1)

Digit 12 Identifies the dimensions and electrical characteristics.

Digit 13 Internal use.

Digit 14 Capacitance tolerance:  
H=2.5% (\*); J=5%; K=10%  
(\* ) Only for 2 sections.

#### GENERAL TECHNICAL DATA

**Dielectric:** polypropylene film.

**Plates:** metal foil for 1 section.  
metal foil + metallized film for 2 sections.

**Winding:** non-inductive type.

**Leads:** tinned wire.

**Protection:** plastic case, epoxy resin filled.  
Box material is solvent resistant and flame retardant according to UL94 V0.

**Marking:** 1 section (white colour):  
capacitance, tolerance, D.C. rated voltage.  
2 sections (black colour):  
capacitance, tolerance, D.C. rated voltage,  
manufacturer's logo, series (R73), dielectric  
code (KP), manufacturing date code.

**Climatic category:** 55/100/56 IEC 60068-1

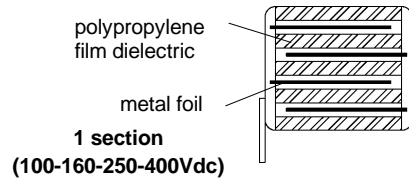
**Operating temperature range:** -55 to +105°C

**Related documents:** IEC 60384-13

Table 1 (for more detailed information, please refer to pages 14 and 15).

Standard packaging style	Lead length (mm)	Taping style			Ordering code (Digit 10 to 11)
		P <sub>2</sub> (mm)	Fig. (No.)	Pitch (mm)	
AMMO-PACK		6.35	1	7.5	DQ
AMMO-PACK		12.70	2	10.0/15.0	DQ
AMMO-PACK		19.05	3	22.5	DQ
REEL $\phi$ 355mm		6.35	1	7.5	CK
REEL $\phi$ 355mm		12.70	2	10.0/15.0	GY
REEL $\phi$ 500mm		12.70	2	10.0/15.0	CK
REEL $\phi$ 500mm		19.05	3	22.5/27.5	CK
Loose, short leads	4 <sup>+2</sup>				SE
Loose, long leads	30 <sup>+5</sup>				50

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



Rated Cap.	100Vdc / 63Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
6800pF	4.0	9.0	10.5	7.5	10000	2.00 E6	R73ED1680--0--
0.010μF	5.0	11.0	10.5	7.5	10000	2.00 E6	R73ED2100--0--
0.015μF	6.0	12.0	10.5	7.5	10000	2.00 E6	R73ED2150--0--
0.015μF	4.0	9.0	13.0	10.0	4800	0.96 E6	R73EF 2150--0--
0.022μF	5.0	11.0	13.0	10.0	4800	0.96 E6	R73EF 2220--0--
0.033μF	6.0	12.0	13.0	10.0	4800	0.96 E6	R73EF 2330--0--
0.047μF	5.0	11.0	18.0	15.0	2400	0.48 E6	R73EI 2470--0--
0.068μF	6.0	12.0	18.0	15.0	2400	0.48 E6	R73EI 2680--0--
0.10μF	7.5	13.5	18.0	15.0	2400	0.48 E6	R73EI 3100--0--
0.15μF	10.0	16.0	18.0	15.0	2400	0.48 E6	R73EI 3150--0--

Rated Cap.	250Vdc / 125Vac*				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
2200pF	4.0	9.0	10.5	7.5	21000	11.0 E6	R73ID1220--0--
3300pF	5.0	11.0	10.5	7.5	21000	11.0 E6	R73ID1330--0--
4700pF	6.0	12.0	10.5	7.5	21000	11.0 E6	R73ID1470--0--
3300pF	4.0	9.0	13.0	10.0	9900	5.0 E6	R73IF 1330--0--
4700pF	4.0	9.0	13.0	10.0	9900	5.0 E6	R73IF 1470--0--
6800pF	5.0	11.0	13.0	10.0	9900	5.0 E6	R73IF 1680--0--
0.010μF	6.0	12.0	13.0	10.0	9900	5.0 E6	R73IF 2100--0--
0.015μF	5.0	11.0	18.0	15.0	4800	2.4 E6	R73II 2150--0--
0.022μF	6.0	12.0	18.0	15.0	4800	2.4 E6	R73II 2220--0--
0.033μF	7.5	13.5	18.0	15.0	4800	2.4 E6	R73II 2330--0--
0.047μF	10.0	16.0	18.0	15.0	4800	2.4 E6	R73II 2470--0--

Rated Cap.	160Vdc / 90Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
3300pF	4.0	9.0	10.5	7.5	14000	4.50 E6	R73GD1330--0--
4700pF	4.0	9.0	10.5	7.5	14000	4.50 E6	R73GD1470--0--
6800pF	5.0	11.0	10.5	7.5	14000	4.50 E6	R73GD1680--0--
0.010μF	6.0	12.0	10.5	7.5	14000	4.50 E6	R73GD2100--0--
6800pF	4.0	9.0	13.0	10.0	6300	2.00 E6	R73GF 1680--0--
0.010μF	5.0	11.0	13.0	10.0	6300	2.00 E6	R73GF 2100--0--
0.015μF	5.0	11.0	13.0	10.0	6300	2.00 E6	R73GF 2150--0--
0.022μF	6.0	12.0	13.0	10.0	6300	2.00 E6	R73GF 2220--0--
0.033μF	5.0	11.0	18.0	15.0	3000	0.96 E6	R73GI 2330--0--
0.047μF	6.0	12.0	18.0	15.0	3000	0.96 E6	R73GI 2470--0--
0.068μF	7.5	13.5	18.0	15.0	3000	0.96 E6	R73GI 2680--0--
0.10μF	10.0	16.0	18.0	15.0	3000	0.96 E6	R73GI 3100--0--

Rated Cap.	400Vdc / 160Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
1000pF	4.0	9.0	10.5	7.5	26000	21.0 E6	R73MD1100--0--
1500pF	4.0	9.0	10.5	7.5	26000	21.0 E6	R73MD1150--0--
2200pF	5.0	11.0	10.5	7.5	26000	21.0 E6	R73MD1220--0--
3300pF	6.0	12.0	10.5	7.5	26000	21.0 E6	R73MD1330--0--
2200pF	4.0	9.0	13.0	10.0	12000	9.6 E6	R73MF 1220--0--
3300pF	5.0	11.0	13.0	10.0	12000	9.6 E6	R73MF 1330--0--
4700pF	5.0	11.0	13.0	10.0	12000	9.6 E6	R73MF 1470--0--
6800pF	6.0	12.0	13.0	10.0	12000	9.6 E6	R73MF 1680--0--
0.010μF	5.0	11.0	18.0	15.0	6000	4.8 E6	R73MI 2100--0--
0.015μF	6.0	12.0	18.0	15.0	6000	4.8 E6	R73MI 2150--0--
0.022μF	7.5	13.5	18.0	15.0	6000	4.8 E6	R73MI 2220--0--
0.033μF	8.5	14.5	18.0	15.0	6000	4.8 E6	R73MI 2330--0--
0.047μF	10.0	16.0	18.0	15.0	6000	4.8 E6	R73MI 2470--0--

Mechanical version and packaging (Table 1) \_\_\_\_\_  
 Internal use \_\_\_\_\_  
 Tolerance: J (± 5%); K (± 10%) \_\_\_\_\_

Mechanical version and packaging (Table 1) \_\_\_\_\_  
 Internal use \_\_\_\_\_  
 Tolerance: J (± 5%); K (± 10%) \_\_\_\_\_

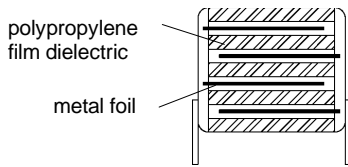
All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V<sub>R</sub>), the capacitor may work at higher dv/dt. In this case the maximum value allowed is obtained multiplying the above value (see table dv/dt) with the ratio V<sub>R</sub>/V. The pulse characteristic K<sub>0</sub> depends on the voltage wave-form and in any case it cannot overcome the value given in the above table. The dv/dt test is carried out at 2 times the above values.

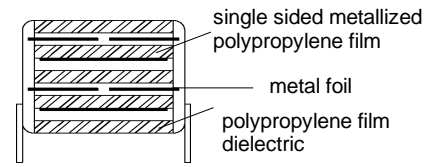
\*Not suitable for across-the-line applications. Please refer to Interference Suppression Capacitors (page 105).

## KP Series FILM-FOIL POLYPROPYLENE CAPACITOR HIGH CURRENT APPLICATIONS

PRODUCT CODE: R73



**1 section  
(630Vdc/200Vac)**



**2 sections  
(630Vdc/300Vac)**

Rated Cap.	630Vdc/200Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
100pF	4.0	9.0	10.5	7.5	30000	38 E6	R73PD0100--0--
150pF	4.0	9.0	10.5	7.5	30000	38 E6	R73PD0150--0--
220pF	4.0	9.0	10.5	7.5	30000	38 E6	R73PD0220--0--
330pF	4.0	9.0	10.5	7.5	30000	38 E6	R73PD0330--0--
470pF	4.0	9.0	10.5	7.5	30000	38 E6	R73PD0470--0--
680pF	4.0	9.0	10.5	7.5	30000	38 E6	R73PD0680--0--
1000pF	5.0	11.0	10.5	7.5	30000	38 E6	R73PD1100--0--
1500pF	6.0	12.0	10.5	7.5	30000	38 E6	R73PD1150--0--
2200pF	6.0	12.0	10.5	7.5	30000	38 E6	R73PD1220--0--
100pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 0100--0--
150pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 0150--0--
220pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 0220--0--
330pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 0330--0--
470pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 0470--0--
680pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 0680--0--
1000pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 1100--0--
1500pF	4.0	9.0	13.0	10.0	15000	19 E6	R73PF 1150--0--
2200pF	5.0	11.0	13.0	10.0	15000	19 E6	R73PF 1220--0--
3300pF	6.0	12.0	13.0	10.0	15000	19 E6	R73PF 1330--0--
4700pF	6.0	12.0	13.0	10.0	15000	19 E6	R73PF 1470--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (±5%); K (±10%)

Rated Cap.	630Vdc / 300Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
0.010μF	5.0	11.0	18.0	15.0	11000	14.0 E6	R73PI 2100--0--
0.012μF	5.0	11.0	18.0	15.0	11000	14.0 E6	R73PI 2120--0--
0.015μF	6.0	12.0	18.0	15.0	11000	14.0 E6	R73PI 2150--0--
0.018μF	6.0	12.0	18.0	15.0	11000	14.0 E6	R73PI 2180--0--
0.022μF	7.5	13.5	18.0	15.0	11000	14.0 E6	R73PI 2220--0--
0.027μF	7.5	13.5	18.0	15.0	11000	14.0 E6	R73PI 2270--0--
0.033μF	8.5	14.5	18.0	15.0	11000	14.0 E6	R73PI 2330--0--
0.039μF	10.0	16.0	18.0	15.0	11000	14.0 E6	R73PI 2390--0--
0.047μF	10.0	16.0	18.0	15.0	11000	14.0 E6	R73PI 2470--0--
0.039μF	6.0	15.0	26.5	22.5	11000	14.0 E6	R73PN 2390--0--
0.047μF	7.0	16.0	26.5	22.5	11000	14.0 E6	R73PN 2470--0--
0.056μF	7.0	16.0	26.5	22.5	11000	14.0 E6	R73PN 2560--0--
0.068μF	8.5	17.0	26.5	22.5	11000	14.0 E6	R73PN 2680--0--
0.082μF	10.0	18.5	26.5	22.5	11000	14.0 E6	R73PN 2820--0--
0.10μF	10.0	18.5	26.5	22.5	11000	14.0 E6	R73PN 3100--0--
0.10μF	9.0	17.0	32.0	27.5	11000	14.0 E6	R73PR 3100--0--
0.12μF	9.0	17.0	32.0	27.5	11000	14.0 E6	R73PR 3120--0--
0.15μF	11.0	20.0	32.0	27.5	11000	14.0 E6	R73PR 3150--0--
0.18μF	13.0	22.0	32.0	27.5	11000	14.0 E6	R73PR 3180--0--
*0.22μF	13.0	22.0	32.0	27.5	11000	14.0 E6	R73PR 3220--0--
*0.27μF	15.0	24.5	32.0	27.5	11000	14.0 E6	R73PR 3270--0--
*0.33μF	14.0	28.0	32.0	27.5	11000	14.0 E6	R73PR 3330--0--
*0.39μF	18.0	33.0	32.0	27.5	11000	14.0 E6	R73PR 3390--0--
*0.47μF	18.0	33.0	32.0	27.5	11000	14.0 E6	R73PR 3470--0--
*0.56μF	22.0	37.0	32.0	27.5	11000	14.0 E6	R73PR 3560--0--
*0.68μF	22.0	37.0	32.0	27.5	11000	14.0 E6	R73PR 3680--0--
0.82μF	19.0	32.0	41.5	37.5	3000	3.8 E6	R73PW3820--0--
1.0μF	20.0	40.0	41.5	37.5	3000	3.8 E6	R73PW4100--0--
1.2μF	20.0	40.0	41.5	37.5	3000	3.8 E6	R73PW4120--0--
1.5μF	24.0	44.0	41.5	37.5	3000	3.8 E6	R73PW4150--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: H (±2.5%); J (±5%); K (±10%)

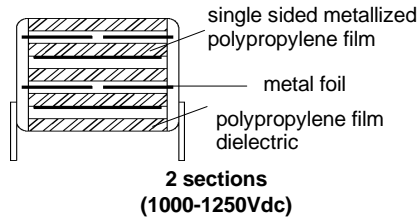
All dimensions are in mm.

**Note:** If the working voltage (V) is lower than the rated voltage (V<sub>R</sub>), the capacitor may work at higher dv/dt. In this case the maximum value allowed is obtained multiplying the above value (see table dv/dt) with the ratio V<sub>R</sub>/V. The pulse characteristic K<sub>0</sub> depends on the voltage wave-form and in any case it cannot overcome the value given in the above table. The dv/dt test is carried out at 2 times the above values.

\* This value is available in pitch 37.5 mm upon request.

KP Series  
FILM-FOIL POLYPROPYLENE CAPACITOR  
HIGH CURRENT APPLICATIONS

PRODUCT CODE: R73



Rated Cap.	1000Vdc / 400Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
3300pF	5.0	11.0	18.0	15.0	28000	56 E6	R73QI 1330--3--
3900pF	5.0	11.0	18.0	15.0	28000	56 E6	R73QI 1390--3--
4700pF	5.0	11.0	18.0	15.0	28000	56 E6	R73QI 1470--3--
5600pF	5.0	11.0	18.0	15.0	28000	56 E6	R73QI 1560--3--
6800pF	5.0	11.0	18.0	15.0	28000	56 E6	R73QI 1680--3--
8200pF	5.0	11.0	18.0	15.0	28000	56 E6	R73QI 1820--3--
0.010μF	6.0	12.0	18.0	15.0	28000	56 E6	R73QI 2100--3--
0.012μF	6.0	12.0	18.0	15.0	28000	56 E6	R73QI 2120--3--
0.015μF	7.5	13.5	18.0	15.0	28000	56 E6	R73QI 2150--3--
0.018μF	8.5	14.5	18.0	15.0	28000	56 E6	R73QI 2180--3--
0.022μF	8.5	14.5	18.0	15.0	28000	56 E6	R73QI 2220--3--
0.027μF	10.0	16.0	18.0	15.0	28000	56 E6	R73QI 2270--3--
0.015μF	6.0	15.0	26.5	22.5	11000	22 E6	R73QN 2150--3--
0.018μF	6.0	15.0	26.5	22.5	11000	22 E6	R73QN 2180--3--
0.022μF	6.0	15.0	26.5	22.5	11000	22 E6	R73QN 2220--3--
0.027μF	7.0	16.0	26.5	22.5	11000	22 E6	R73QN 2270--3--
0.033μF	7.0	16.0	26.5	22.5	11000	22 E6	R73QN 2330--3--
0.039μF	8.5	17.0	26.5	22.5	11000	22 E6	R73QN 2390--3--
0.047μF	8.5	17.0	26.5	22.5	11000	22 E6	R73QN 2470--3--
0.056μF	10.0	18.5	26.5	22.5	11000	22 E6	R73QN 2560--3--
0.068μF	11.0	20.0	26.5	22.5	11000	22 E6	R73QN 2680--3--
0.047μF	9.0	17.0	32.0	27.5	11000	22 E6	R73QR 2470--3--
0.056μF	9.0	17.0	32.0	27.5	11000	22 E6	R73QR 2560--3--
0.068μF	9.0	17.0	32.0	27.5	11000	22 E6	R73QR 2680--3--
0.082μF	10.0	20.0	32.0	27.5	11000	22 E6	R73QR 2820--3--
0.10μF	11.0	20.0	32.0	27.5	11000	22 E6	R73QR 3100--3--
*0.12μF	13.0	22.0	32.0	27.5	11000	22 E6	R73QR 3120--3--
*0.15μF	13.0	22.0	32.0	27.5	11000	22 E6	R73QR 3150--3--
*0.18μF	15.0	24.5	32.0	27.5	11000	22 E6	R73QR 3180--3--
*0.22μF	14.0	28.0	32.0	27.5	11000	22 E6	R73QR 3220--3--
*0.27μF	18.0	33.0	32.0	27.5	11000	22 E6	R73QR 3270--3--
*0.33μF	18.0	33.0	32.0	27.5	11000	22 E6	R73QR 3330--3--
0.39μF	16.0	28.5	41.5	37.5	4500	9 E6	R73QW3390--3--
0.47μF	19.0	32.0	41.5	37.5	4500	9 E6	R73QW3470--3--
0.56μF	19.0	32.0	41.5	37.5	4500	9 E6	R73QW3560--3--
0.68μF	20.0	40.0	41.5	37.5	4500	9 E6	R73QW3680--3--
0.82μF	20.0	40.0	41.5	37.5	4500	9 E6	R73QW3820--3--
1.0μF	24.0	44.0	41.5	37.5	4500	9 E6	R73QW4100--3--

Rated Cap.	1250Vdc / 450Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
2200pF	5.0	11.0	18.0	15.0	30000	75 E6	R73RI 1220--0--
2700pF	5.0	11.0	18.0	15.0	30000	75 E6	R73RI 1270--0--
3300pF	6.0	12.0	18.0	15.0	30000	75 E6	R73RI 1330--0--
3900pF	6.0	12.0	18.0	15.0	30000	75 E6	R73RI 1390--0--
4700pF	7.5	13.5	18.0	15.0	30000	75 E6	R73RI 1470--0--
5600pF	7.5	13.5	18.0	15.0	30000	75 E6	R73RI 1560--0--
6800pF	8.5	14.5	18.0	15.0	30000	75 E6	R73RI 1680--0--
8200pF	10.0	16.0	18.0	15.0	30000	75 E6	R73RI 1820--0--
8200pF	6.0	15.0	26.5	22.5	11000	27 E6	R73RN 1820--0--
0.010μF	6.0	15.0	26.5	22.5	11000	27 E6	R73RN 2100--0--
0.012μF	6.0	15.0	26.5	22.5	11000	27 E6	R73RN 2120--0--
0.015μF	7.0	16.0	26.5	22.5	11000	27 E6	R73RN 2150--0--
0.018μF	7.0	16.0	26.5	22.5	11000	27 E6	R73RN 2180--0--
0.022μF	8.5	17.0	26.5	22.5	11000	27 E6	R73RN 2220--0--
0.027μF	10.0	18.5	26.5	22.5	11000	27 E6	R73RN 2270--0--
0.033μF	10.0	18.5	26.5	22.5	11000	27 E6	R73RN 2330--0--
0.039μF	9.0	17.0	32.0	27.5	11000	27 E6	R73RR 2390--0--
0.047μF	11.0	20.0	32.0	27.5	11000	27 E6	R73RR 2470--0--
0.056μF	11.0	20.0	32.0	27.5	11000	27 E6	R73RR 2560--0--
0.068μF	13.0	22.0	32.0	27.5	11000	27 E6	R73RR 2680--0--
*0.082μF	15.0	24.5	32.0	27.5	11000	27 E6	R73RR 2820--0--
*0.10μF	15.0	24.5	32.0	27.5	11000	27 E6	R73RR 3100--0--
*0.12μF	18.0	33.0	32.0	27.5	11000	27 E6	R73RR 3120--0--
*0.15μF	18.0	33.0	32.0	27.5	11000	27 E6	R73RR 3150--0--
*0.18μF	18.0	33.0	32.0	27.5	11000	27 E6	R73RR 3180--0--
*0.22μF	22.0	37.0	32.0	27.5	11000	27 E6	R73RR 3220--0--
0.27μF	16.0	28.5	41.5	37.5	5500	14 E6	R73RW3270--0--
0.33μF	19.0	32.0	41.5	37.5	5500	14 E6	R73RW3330--0--
0.39μF	20.0	40.0	41.5	37.5	5500	14 E6	R73RW3390--0--
0.47μF	20.0	40.0	41.5	37.5	5500	14 E6	R73RW3470--0--
0.56μF	20.0	40.0	41.5	37.5	5500	14 E6	R73RW3560--0--
0.68μF	24.0	44.0	41.5	37.5	5500	14 E6	R73RW3680--0--

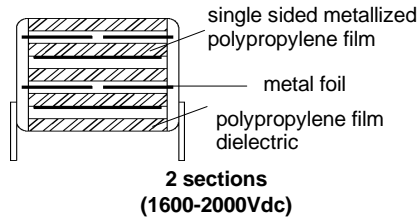
Mechanical version and packaging (Table 1) \_\_\_\_\_  
 Internal use \_\_\_\_\_  
 Tolerance: H (± 2.5%); J (± 5%); K (± 10%) \_\_\_\_\_

Mechanical version and packaging (Table 1) \_\_\_\_\_  
 Internal use \_\_\_\_\_  
 Tolerance: H (± 2.5%); J (± 5%); K (± 10%) \_\_\_\_\_

All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V<sub>R</sub>), the capacitor may work at higher dv/dt. In this case the maximum value allowed is obtained multiplying the above value (see table dv/dt) with the ratio V<sub>R</sub>/V. The pulse characteristic K<sub>0</sub> depends on the voltage wave-form and in any case it cannot overcome the value given in the above table.  
 The dv/dt test is carried out at 2 times the above values.

\* These values are available in pitch 37.5 mm upon request.



Rated Cap.	1600Vdc / 450Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
1000pF	5.0	11.0	18.0	15.0	34000	109 E6	R73TI 1100--0--
1200pF	5.0	11.0	18.0	15.0	34000	109 E6	R73TI 1120--0--
1500pF	5.0	11.0	18.0	15.0	34000	109 E6	R73TI 1150--0--
1800pF	5.0	11.0	18.0	15.0	34000	109 E6	R73TI 1180--0--
2200pF	6.0	12.0	18.0	15.0	34000	109 E6	R73TI 1220--0--
2700pF	6.0	12.0	18.0	15.0	34000	109 E6	R73TI 1270--0--
3300pF	7.5	13.5	18.0	15.0	34000	109 E6	R73TI 1330--0--
3900pF	7.5	13.5	18.0	15.0	34000	109 E6	R73TI 1390--0--
4700pF	8.5	14.5	18.0	15.0	34000	109 E6	R73TI 1470--0--
5600pF	10.0	16.0	18.0	15.0	34000	109 E6	R73TI 1560--0--
6800pF	10.0	16.0	18.0	15.0	34000	109 E6	R73TI 1680--0--
5600pF	6.0	15.0	26.5	22.5	11000	35 E6	R73TN 1560--0--
6800pF	6.0	15.0	26.5	22.5	11000	35 E6	R73TN 1680--0--
8200pF	6.0	15.0	26.5	22.5	11000	35 E6	R73TN 1820--0--
0.010μF	6.0	15.0	26.5	22.5	11000	35 E6	R73TN 2100--0--
0.012μF	7.0	16.0	26.5	22.5	11000	35 E6	R73TN 2120--0--
0.015μF	8.5	17.0	26.5	22.5	11000	35 E6	R73TN 2150--0--
0.018μF	8.5	17.0	26.5	22.5	11000	35 E6	R73TN 2180--0--
0.022μF	10.0	18.5	26.5	22.5	11000	35 E6	R73TN 2220--0--
0.027μF	9.0	17.0	32.0	27.5	11000	35 E6	R73TR 2270--0--
*0.033μF	11.0	20.0	32.0	27.5	11000	35 E6	R73TR 2330--0--
*0.039μF	11.0	20.0	32.0	27.5	11000	35 E6	R73TR 2390--0--
*0.047μF	13.0	22.0	32.0	27.5	11000	35 E6	R73TR 2470--0--
*0.056μF	13.0	22.0	32.0	27.5	11000	35 E6	R73TR 2560--0--
*0.068μF	15.0	24.5	32.0	27.5	11000	35 E6	R73TR 2680--0--
*0.082μF	14.0	28.0	32.0	27.5	11000	35 E6	R73TR 2820--0--
*0.10μF	18.0	33.0	32.0	27.5	11000	35 E6	R73TR 3100--0--
*0.12μF	18.0	33.0	32.0	27.5	11000	35 E6	R73TR 3120--0--
*0.15μF	22.0	37.0	32.0	27.5	11000	35 E6	R73TR 3150--0--
0.18μF	16.0	28.5	41.5	37.5	6500	21 E6	R73TW3180--0--
0.22μF	19.0	32.0	41.5	37.5	6500	21 E6	R73TW3220--0--
0.27μF	20.0	40.0	41.5	37.5	6500	21 E6	R73TW3270--0--
0.33μF	20.0	40.0	41.5	37.5	6500	21 E6	R73TW3330--0--
0.39μF	24.0	44.0	41.5	37.5	6500	21 E6	R73TW3390--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: H (± 2.5%); J (± 5%); K (± 10%)

Rated Cap.	2000Vdc / 500Vac				Max dv/dt (V/μs)	Max K <sub>0</sub> (V <sup>2</sup> /μs)	Part Number
	B	H	L	p			
100pF	5.0	11.0	18.0	15.0	54000	216 E6	R73UI 0100--0--
150pF	5.0	11.0	18.0	15.0	54000	216 E6	R73UI 0150--0--
220pF	5.0	11.0	18.0	15.0	54000	216 E6	R73UI 0220--0--
330pF	5.0	11.0	18.0	15.0	54000	216 E6	R73UI 0330--0--
470pF	5.0	11.0	18.0	15.0	54000	216 E6	R73UI 0470--0--
680pF	5.0	11.0	18.0	15.0	54000	216 E6	R73UI 0680--0--
1000pF	6.0	12.0	18.0	15.0	54000	216 E6	R73UI 1100--0--
1200pF	6.0	12.0	18.0	15.0	54000	216 E6	R73UI 1120--0--
1500pF	7.5	13.5	18.0	15.0	54000	216 E6	R73UI 1150--0--
1800pF	7.5	13.5	18.0	15.0	54000	216 E6	R73UI 1180--0--
2200pF	8.5	14.5	18.0	15.0	54000	216 E6	R73UI 1220--0--
2700pF	10.0	16.0	18.0	15.0	54000	216 E6	R73UI 1270--0--
2700pF	6.0	15.0	26.5	22.5	11000	44 E6	R73UN 1270--0--
3300pF	6.0	15.0	26.5	22.5	11000	44 E6	R73UN 1330--0--
3900pF	6.0	15.0	26.5	22.5	11000	44 E6	R73UN 1390--0--
4700pF	7.0	16.0	26.5	22.5	11000	44 E6	R73UN 1470--0--
5600pF	7.0	16.0	26.5	22.5	11000	44 E6	R73UN 1560--0--
6800pF	8.5	17.0	26.5	22.5	11000	44 E6	R73UN 1680--0--
8200pF	8.5	17.0	26.5	22.5	11000	44 E6	R73UN 1820--0--
0.010μF	10.0	18.5	26.5	22.5	11000	44 E6	R73UN 2100--0--
0.012μF	11.0	20.0	26.5	22.5	11000	44 E6	R73UN 2120--0--
0.012μF	9.0	17.0	32.0	27.5	11000	44 E6	R73UR 2120--0--
0.015μF	11.0	20.0	32.0	27.5	11000	44 E6	R73UR 2150--0--
*0.018μF	13.0	22.0	32.0	27.5	11000	44 E6	R73UR 2180--0--
*0.022μF	13.0	22.0	32.0	27.5	11000	44 E6	R73UR 2220--0--
*0.027μF	15.0	24.5	32.0	27.5	11000	44 E6	R73UR 2270--0--
*0.033μF	18.0	33.0	32.0	27.5	11000	44 E6	R73UR 2330--0--
*0.039μF	18.0	33.0	32.0	27.5	11000	44 E6	R73UR 2390--0--
*0.047μF	18.0	33.0	32.0	27.5	11000	44 E6	R73UR 2470--0--
*0.056μF	22.0	37.0	32.0	27.5	11000	44 E6	R73UR 2560--0--
*0.068μF	22.0	37.0	32.0	27.5	11000	44 E6	R73UR 2680--0--
0.082μF	19.0	32.0	41.5	37.5	9000	36 E6	R73UW2820--0--
0.10μF	20.0	40.0	41.5	37.5	9000	36 E6	R73UW3100--0--
0.12μF	20.0	40.0	41.5	37.5	9000	36 E6	R73UW3120--0--
0.15μF	24.0	44.0	41.5	37.5	9000	36 E6	R73UW3150--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: H (± 2.5%); J (± 5%); K (± 10%)

All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V<sub>R</sub>), the capacitor may work at higher dv/dt. In this case the maximum value allowed is obtained multiplying the above value (see table dv/dt) with the ratio V<sub>R</sub>/V. The pulse characteristic K<sub>0</sub> depends on the voltage wave-form and in any case it cannot overcome the value given in the above table. The dv/dt test is carried out at 2 times the above values.

\* These values are available in pitch 37.5 mm upon request.

**ELECTRICAL CHARACTERISTICS**

**Rated voltage ( $V_R$ ):**

100 Vdc - 160 Vdc - 250 Vdc - 400 Vdc - 630 Vdc  
for 1 section.

630 Vdc - 1000 Vdc - 1250 Vdc - 1600 Vdc - 2000 Vdc  
for 2 sections.

**Rated temperature ( $T_R$ ):** +85°C

**Temperature derated voltage:**

for temperatures between +85°C and +105°C a decreasing factor of 1.25% per degree °C on the rated voltage  $V_R$  has to be applied.

**Capacitance range**

100pF to 0.15µF 1 section  
100pF to 1.5 µF 2 sections

**Capacitance values:**

E6 series (IEC 60063 Norm)  
for 1 section and 2 sections (values < 1nF)

E12 series (IEC 60063 Norm)  
for 2 sections (values > 1nF)

**Capacitance tolerances** (measured at 1 kHz):

±5% (J); ±10% (K) for 1 section  
±2.5% (H); ±5% (J); ±10% (K) for 2 sections

**Total self inductance (L):**

(Leads length ~2 mm)

Pitch (mm)	7.5	10	15	22.5	27.5	37.5
L (nH) ≈	8	9	10	18	18	20

**Dissipation factor (DF):**

$tg\delta \times 10^{-4}$  at +25°C ±5°C

kHz	C ≤ 0.1µF	0.1µF < C ≤ 1.0µF	C > 1µF
1	≤ 3	≤ 3	≤ 3
10	≤ 4	≤ 6	
100	≤ 10		

**Insulation resistance:**

**Test conditions**

Temperature: +25°C ±5°C

Voltage charge time: 1 min

Voltage charge: 100Vdc

**Performance**

≥ 1 × 10<sup>5</sup> MΩ for C ≤ 0.33µF (5 × 10<sup>5</sup> MΩ)\*

≥ 30000 s for C > 0.33µF (150000 s)\*

\*Typical value

**Test voltage between terminations:**

2.5 ×  $V_R$  for 1 section

2.0 ×  $V_R$  for 2 sections

applied for 2 s at 25°C ±5°C

**TEST METHOD AND PERFORMANCE**

**Damp heat, steady state:**

**Test conditions**

Temperature: +40°C ±2°C

Relative humidity (RH): 93% ±2%

Test duration: 56 days

**Performance**

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

DF change ( $\Delta tg\delta$ ): ≤ 5 × 10<sup>-4</sup> at 1KHz

Insulation resistance: ≥ 50% of initial limit.

**Endurance:**

**Test conditions**

Temperature: +85°C ±2°C

Test duration: 1000 h

Voltage applied: 1.5 ×  $V_R$

**Performance**

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

DF change ( $\Delta tg\delta$ ): ≤ 5 × 10<sup>-4</sup> at 1KHz

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  $|\Delta C/C|$  ≤ 1%

DF change ( $\Delta tg\delta$ ): ≤ 5 × 10<sup>-4</sup> at 1KHz

Insulation resistance: ≥ initial limit.

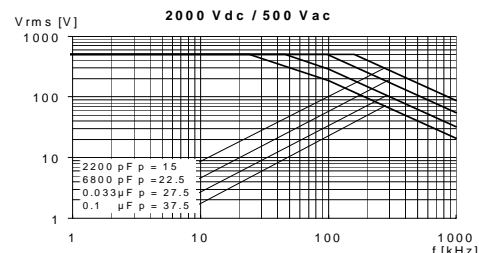
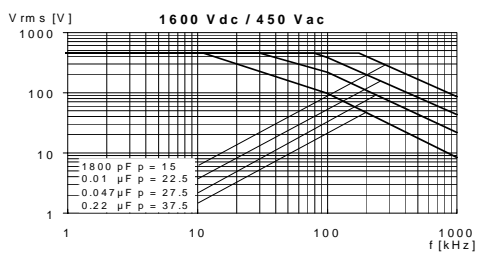
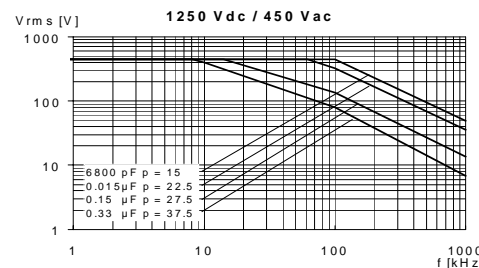
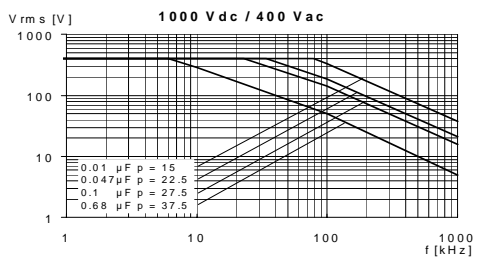
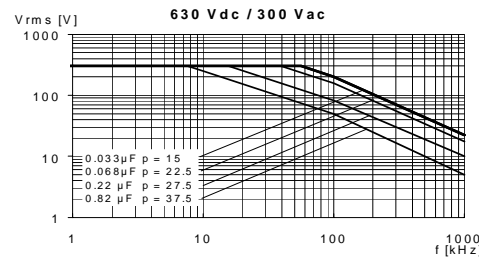
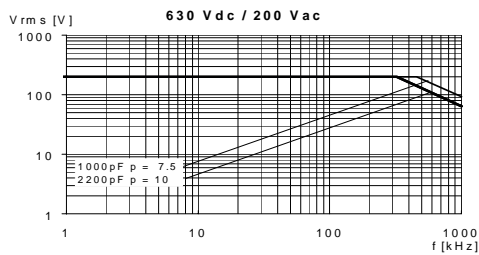
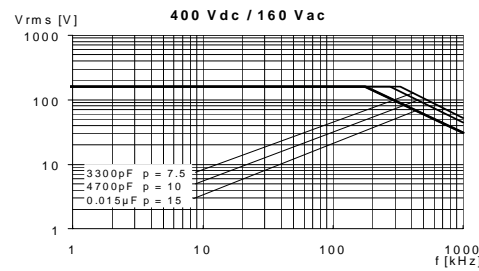
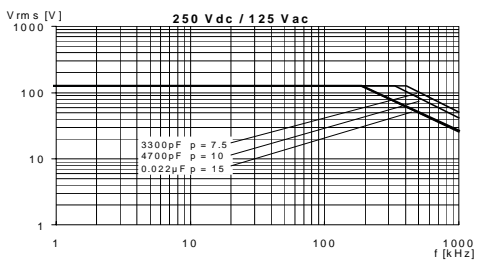
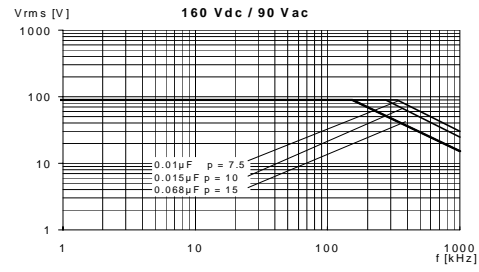
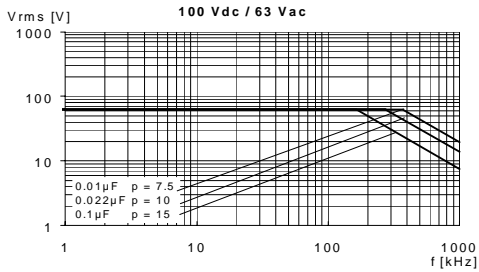
**Long term stability** (after two years):

**Storage:** standard environmental conditions (see page 10).

**Performance**

Capacitance change  $|\Delta C/C|$ : ≤ 0.5%

**MAX. VOLTAGE (Vr.m.s.) VERSUS FREQUENCY (sinusoidal wave-form /  $T_h \leq 40^\circ\text{C}$ )**



Note: p (pitch) in mm.