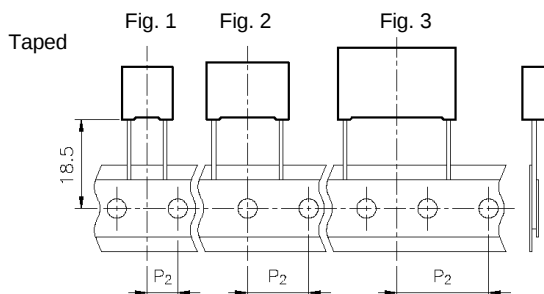
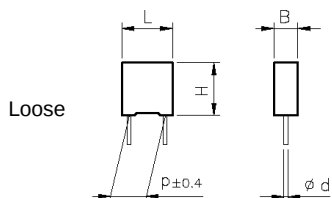


METALLIZED POLYPROPYLENE FILM CAPACITOR D.C. AND PULSE APPLICATIONS

Typical applications: deflection circuits in TV-sets and monitors (S-correction), resonant capacitor in electronic ballast and compact lamp, power factor correction and coupling capacitor in SMPS, timing, oscillator circuits.

PRODUCT CODE: R75



Ø d ± 0.05	p ≤ 10	15 ≤ p ≤ 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	5										-	

Digit 1 to 3 Series code.

Digit 4 d.c. rated voltage:

G = 160V	I = 250V
M = 400V	P = 630V
Q = 1000V	R = 1250V

Digit 5 Pitch:

D = 7.5 mm; F = 10 mm; I = 15 mm;
N = 22.5 mm; 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:

J=5%; K=10%; M=20%

GENERAL TECHNICAL DATA

Dielectric: polypropylene film.

Plates: aluminium layer deposited by evaporation under vacuum.

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: manufacturer's logo, series (R75), dielectric code (MKP), capacitance, tolerance, D.C. rated voltage, manufacturing date code.

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

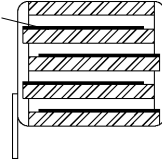
Operating temperature range: -55 to +105 °C

Related documents: IEC 60384-16; CECC 31200

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 ₂ (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 Ø 355mm		6.35	1	7.5	CK
REEL Ø 355mm		12.70	2	10.0/15.0	GY
REEL Ø 500mm		12.70	2	10.0/15.0	CK
REEL Ø 500mm		19.05	3	22.5/27.5	CK
Loose, short leads	4 +2				AA
Loose, long leads	30 +5				50

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

single sided metallized
polypropylene film1 section
(160Vdc)

Rated Cap.	160Vdc / 90Vac				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.027μF	4.0	9.0	10.5	7.5	100	32 E3	R75GD2270--0--
0.033μF	4.0	9.0	10.5	7.5	100	32 E3	R75GD2330--0--
0.039μF	4.0	9.0	10.5	7.5	100	32 E3	R75GD2390--0--
0.047μF	4.0	9.0	10.5	7.5	100	32 E3	R75GD2470--0--
0.056μF	4.0	9.0	10.5	7.5	100	32 E3	R75GD2560--0--
0.068μF	4.0	9.0	10.5	7.5	100	32 E3	R75GD2680--0--
0.082μF	5.0	11.0	10.5	7.5	100	32 E3	R75GD2820--0--
0.10μF	5.0	11.0	10.5	7.5	100	32 E3	R75GD3100--0--
0.12μF	6.0	12.0	10.5	7.5	100	32 E3	R75GD3120--0--
0.15μF	6.0	12.0	10.5	7.5	100	32 E3	R75GD3150--0--
0.047μF	4.0	9.0	13.0	10.0	80	25 E3	R75GF 2470--0--
0.056μF	4.0	9.0	13.0	10.0	80	25 E3	R75GF 2560--0--
0.068μF	4.0	9.0	13.0	10.0	80	25 E3	R75GF 2680--0--
0.082μF	4.0	9.0	13.0	10.0	80	25 E3	R75GF 2820--0--
0.10μF	5.0	11.0	13.0	10.0	80	25 E3	R75GF 3100--0--
0.12μF	5.0	11.0	13.0	10.0	80	25 E3	R75GF 3120--0--
0.15μF	5.0	11.0	13.0	10.0	80	25 E3	R75GF 3150--0--
0.18μF	6.0	12.0	13.0	10.0	80	25 E3	R75GF 3180--0--
0.18μF	5.0	11.0	18.0	15.0	100	32 E3	R75GI 3180--0--
0.22μF	5.0	11.0	18.0	15.0	100	32 E3	R75GI 3220--0--
0.27μF	6.0	12.0	18.0	15.0	100	32 E3	R75GI 3270--0--
0.33μF	6.0	12.0	18.0	15.0	100	32 E3	R75GI 3330--0--
0.39μF	7.5	13.5	18.0	15.0	100	32 E3	R75GI 3390--0--
0.47μF	7.5	13.5	18.0	15.0	100	32 E3	R75GI 3470--0--
0.56μF	8.5	14.5	18.0	15.0	100	32 E3	R75GI 3560--0--
0.68μF	8.5	14.5	18.0	15.0	100	32 E3	R75GI 3680--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

Rated Cap.	160Vdc / 90Vac				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.82μF	7.0	16.0	26.5	22.5	60	19 E3	R75GN 3820--0--
1.0μF	7.0	16.0	26.5	22.5	60	19 E3	R75GN 4100--0--
1.2μF	8.5	17.0	26.5	22.5	60	19 E3	R75GN 4120--0--
1.5μF	10.0	18.5	26.5	22.5	60	19 E3	R75GN 4150--0--
1.8μF	10.0	18.5	26.5	22.5	60	19 E3	R75GN 4180--0--
2.2μF	10.0	20.0	32.0	27.5	50	16 E3	R75GR 4220--0--
2.7μF	11.0	20.0	32.0	27.5	50	16 E3	R75GR 4270--0--
*3.3μF	13.0	22.0	32.0	27.5	50	16 E3	R75GR 4330--0--
*3.9μF	13.0	22.0	32.0	27.5	50	16 E3	R75GR 4390--0--
*4.7μF	15.0	24.5	32.0	27.5	50	16 E3	R75GR 4470--0--
*5.6μF	14.0	28.0	32.0	27.5	50	16 E3	R75GR 4560--0--
*6.8μF	18.0	33.0	32.0	27.5	50	16 E3	R75GR 4680--0--
*8.2μF	18.0	33.0	32.0	27.5	50	16 E3	R75GR 4820--0--
*10.0μF	22.0	37.0	32.0	27.5	50	16 E3	R75GR 5100--0--
12.0μF	19.0	32.0	41.5	37.5	35	11 E3	R75GW5120--0--
15.0μF	20.0	40.0	41.5	37.5	35	11 E3	R75GW5150--0--
18.0μF	20.0	40.0	41.5	37.5	35	11 E3	R75GW5180--0--
22.0μF	24.0	44.0	41.5	37.5	35	11 E3	R75GW5220--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

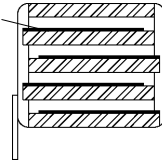
All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V_R), 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_R/V. The pulse characteristic K₀ 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.

METALLIZED POLYPROPYLENE FILM CAPACITOR
D.C. AND PULSE APPLICATIONS

PRODUCT CODE: R75

single sided metallized
polypropylene film1 section
(250Vdc)

Rated Cap.	250Vdc / 160Vac				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.015μF	4.0	9.0	10.5	7.5	225	115 E3	R75ID2150--0--
0.018μF	4.0	9.0	10.5	7.5	225	115 E3	R75ID2180--0--
0.022μF	4.0	9.0	10.5	7.5	225	115 E3	R75ID2220--0--
0.027μF	5.0	11.0	10.5	7.5	225	115 E3	R75ID2270--0--
0.033μF	5.0	11.0	10.5	7.5	225	115 E3	R75ID2330--0--
0.039μF	6.0	12.0	10.5	7.5	225	115 E3	R75ID2390--0--
0.047μF	6.0	12.0	10.5	7.5	225	115 E3	R75ID2470--0--
0.056μF	6.0	12.0	10.5	7.5	225	115 E3	R75ID2560--0--
0.022μF	4.0	9.0	13.0	10.0	125	65 E3	R75IF 2220--0--
0.027μF	4.0	9.0	13.0	10.0	125	65 E3	R75IF 2270--0--
0.033μF	4.0	9.0	13.0	10.0	125	65 E3	R75IF 2330--0--
0.039μF	4.0	9.0	13.0	10.0	125	65 E3	R75IF 2390--0--
0.047μF	5.0	11.0	13.0	10.0	125	65 E3	R75IF 2470--0--
0.056μF	5.0	11.0	13.0	10.0	125	65 E3	R75IF 2560--0--
0.068μF	6.0	12.0	13.0	10.0	125	65 E3	R75IF 2680--0--
0.082μF	6.0	12.0	13.0	10.0	125	65 E3	R75IF 2820--0--
0.10μF	6.0	12.0	13.0	10.0	125	65 E3	R75IF 3100--0--
0.12μF	5.0	11.0	18.0	15.0	200	100 E3	R75II 3120--3--
0.15μF	5.0	11.0	18.0	15.0	200	100 E3	R75II 3150--3--
0.18μF	6.0	12.0	18.0	15.0	200	100 E3	R75II 3180--3--
0.22μF	6.0	12.0	18.0	15.0	200	100 E3	R75II 3220--3--
0.27μF	7.5	13.5	18.0	15.0	200	100 E3	R75II 3270--3--
0.33μF	7.5	13.5	18.0	15.0	200	100 E3	R75II 3330--3--
0.39μF	8.5	14.5	18.0	15.0	200	100 E3	R75II 3390--3--
0.47μF	8.5	14.5	18.0	15.0	200	100 E3	R75II 3470--3--
0.56μF	10.0	16.0	18.0	15.0	200	100 E3	R75II 3560--3--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

Rated Cap.	250Vdc / 160Vac				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.39μF	6.0	15.0	26.5	22.5	125	63 E3	R75IN. 3390--3--
0.47μF	6.0	15.0	26.5	22.5	125	63 E3	R75IN. 3470--3--
0.56μF	7.0	16.0	26.5	22.5	125	63 E3	R75IN. 3560--3--
0.68μF	7.0	16.0	26.5	22.5	125	63 E3	R75IN. 3680--3--
0.82μF	8.5	17.0	26.5	22.5	125	63 E3	R75IN. 3820--3--
1.0μF	10.0	18.5	26.5	22.5	125	63 E3	R75IN. 4100--3--
1.2μF	10.0	18.5	26.5	22.5	125	63 E3	R75IN. 4120--3--
1.5μF	11.0	20.0	26.5	22.5	125	63 E3	R75IN. 4150--3--
1.2μF	9.0	17.0	32.0	27.5	100	50 E3	R75IR. 4120--3--
1.5μF	10.0	20.0	32.0	27.5	100	50 E3	R75IR. 4150--3--
1.8μF	11.0	20.0	32.0	27.5	100	50 E3	R75IR. 4180--3--
*2.2μF	13.0	22.0	32.0	27.5	100	50 E3	R75IR. 4220--3--
*2.7μF	13.0	22.0	32.0	27.5	100	50 E3	R75IR. 4270--3--
*3.3μF	15.0	24.5	32.0	27.5	100	50 E3	R75IR. 4330--3--
*3.9μF	14.0	28.0	32.0	27.5	100	50 E3	R75IR. 4390--3--
*4.7μF	18.0	33.0	32.0	27.5	100	50 E3	R75IR. 4470--3--
*5.6μF	18.0	33.0	32.0	27.5	100	50 E3	R75IR. 4560--3--
*6.8μF	22.0	37.0	32.0	27.5	100	50 E3	R75IR. 4680--3--
8.2μF	19.0	32.0	41.5	37.5	40	20 E3	R75IW.4820--3--
10.0μF	20.0	40.0	41.5	37.5	40	20 E3	R75IW.5100--3--
12.0μF	20.0	40.0	41.5	37.5	40	20 E3	R75IW.5120--3--
15.0μF	24.0	44.0	41.5	37.5	40	20 E3	R75IW.5150--3--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V_R), 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_R/V. The pulse characteristic K₀ 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.

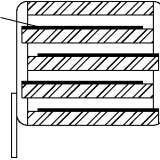
*These values are available in pitch 37.5 mm upon request.

**METALLIZED POLYPROPYLENE FILM CAPACITOR
D.C. AND PULSE APPLICATIONS**

PRODUCT CODE: R75

single sided metallized
polypropylene film

**1 section
(400Vdc)**



Rated Cap.	400Vdc / 220Vac**				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
5600pF	4.0	9.0	10.5	7.5	250	200 E3	R75MD1560--0--
6800pF	4.0	9.0	10.5	7.5	250	200 E3	R75MD1680--0--
8200pF	4.0	9.0	10.5	7.5	250	200 E3	R75MD1820--0--
0.010μF	4.0	9.0	10.5	7.5	250	200 E3	R75MD2100--0--
0.012μF	4.0	9.0	10.5	7.5	250	200 E3	R75MD2120--0--
0.015μF	5.0	11.0	10.5	7.5	250	200 E3	R75MD2150--0--
0.018μF	5.0	11.0	10.5	7.5	250	200 E3	R75MD2180--0--
0.022μF	6.0	12.0	10.5	7.5	250	200 E3	R75MD2220--0--
0.027μF	6.0	12.0	10.5	7.5	250	200 E3	R75MD2270--0--
0.010μF	4.0	9.0	13.0	10.0	175	140 E3	R75MF 2100--0--
0.012μF	4.0	9.0	13.0	10.0	175	140 E3	R75MF 2120--0--
0.015μF	4.0	9.0	13.0	10.0	175	140 E3	R75MF 2150--0--
0.018μF	4.0	9.0	13.0	10.0	175	140 E3	R75MF 2180--0--
0.022μF	5.0	11.0	13.0	10.0	175	140 E3	R75MF 2220--0--
0.027μF	5.0	11.0	13.0	10.0	175	140 E3	R75MF 2270--0--
0.033μF	6.0	12.0	13.0	10.0	175	140 E3	R75MF 2330--0--
0.039μF	6.0	12.0	13.0	10.0	175	140 E3	R75MF 2390--0--
0.047μF	6.0	12.0	13.0	10.0	175	140 E3	R75MF 2470--0--
0.068μF	5.0	11.0	18.0	15.0	300	240 E3	R75MI 2680--3--
0.082μF	5.0	11.0	18.0	15.0	300	240 E3	R75MI 2820--3--
0.10μF	5.0	11.0	18.0	15.0	300	240 E3	R75MI 3100--3--
0.12μF	6.0	12.0	18.0	15.0	300	240 E3	R75MI 3120--3--
0.15μF	6.0	12.0	18.0	15.0	300	240 E3	R75MI 3150--3--
0.18μF	7.5	13.5	18.0	15.0	300	240 E3	R75MI 3180--3--
0.22μF	7.5	13.5	18.0	15.0	300	240 E3	R75MI 3220--3--
0.27μF	8.5	14.5	18.0	15.0	300	240 E3	R75MI 3270--3--
0.33μF	10.0	16.0	18.0	15.0	300	240 E3	R75MI 3330--3--
0.39μF	10.0	16.0	18.0	15.0	300	240 E3	R75MI 3390--3--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

All dimensions are in mm.

Rated Cap.	400Vdc / 220Vac**				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.27μF	6.0	15.0	26.5	22.5	180	144 E3	R75MN 3270--3--
0.33μF	6.0	15.0	26.5	22.5	180	144 E3	R75MN 3330--3--
0.39μF	7.0	16.0	26.5	22.5	180	144 E3	R75MN 3390--3--
0.47μF	7.0	16.0	26.5	22.5	180	144 E3	R75MN 3470--3--
0.56μF	8.5	17.0	26.5	22.5	180	144 E3	R75MN 3560--3--
0.68μF	10.0	18.5	26.5	22.5	180	144 E3	R75MN 3680--3--
0.82μF	10.0	18.5	26.5	22.5	180	144 E3	R75MN 3820--3--
1.0μF	11.0	20.0	26.5	22.5	180	144 E3	R75MN 4100--3--
0.56μF	9.0	17.0	32.0	27.5	130	104 E3	R75MR 3560--3--
0.68μF	9.0	17.0	32.0	27.5	130	104 E3	R75MR 3680--3--
0.82μF	9.0	17.0	32.0	27.5	130	104 E3	R75MR 3820--3--
1.0μF	10.0	20.0	32.0	27.5	130	104 E3	R75MR 4100--3--
*1.2μF	11.0	20.0	32.0	27.5	130	104 E3	R75MR 4120--3--
*1.5μF	13.0	22.0	32.0	27.5	130	104 E3	R75MR 4150--3--
*1.8μF	13.0	22.0	32.0	27.5	130	104 E3	R75MR 4180--3--
*2.2μF	15.0	24.5	32.0	27.5	130	104 E3	R75MR 4220--3--
*2.7μF	14.0	28.0	32.0	27.5	130	104 E3	R75MR 4270--3--
*3.3μF	18.0	33.0	32.0	27.5	130	104 E3	R75MR 4330--3--
*3.9μF	18.0	33.0	32.0	27.5	130	104 E3	R75MR 4390--3--
*4.7μF	22.0	37.0	32.0	27.5	130	104 E3	R75MR 4470--3--
*5.6μF	22.0	37.0	32.0	27.5	130	104 E3	R75MR 4560--3--
6.8μF	19.0	32.0	41.5	37.5	70	56 E3	R75MW4680--3--
8.2μF	20.0	40.0	41.5	37.5	70	56 E3	R75MW4820--3--
10μF	24.0	44.0	41.5	37.5	70	56 E3	R75MW5100--3--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

Note: If the working voltage (V) is lower than the rated voltage (V_R), 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_R/V. The pulse characteristic K₀ 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.

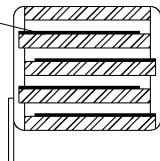
**Not suitable for across-the-line applications. Please refer to Interference Suppression Capacitors (page 105).

METALLIZED POLYPROPYLENE FILM CAPACITOR D.C. AND PULSE APPLICATIONS

PRODUCT CODE: R75

single sided metallized
polypropylene film

1 section
(630Vdc)



Rated Cap.	630Vdc / 250Vac**				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
1000pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1100--0--
1200pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1120--0--
1500pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1150--0--
1800pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1180--0--
2200pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1220--0--
2700pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1270--0--
3300pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1330--0--
3900pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1390--0--
4700pF	4.0	9.0	10.5	7.5	300	380 E3	R75PD1470--0--
5600pF	5.0	11.0	10.5	7.5	300	380 E3	R75PD1560--0--
6800pF	5.0	11.0	10.5	7.5	300	380 E3	R75PD1680--0--
8200pF	5.0	11.0	10.5	7.5	300	380 E3	R75PD1820--0--
0.010μF	6.0	12.0	10.5	7.5	300	380 E3	R75PD2100--0--
0.012μF	6.0	12.0	10.5	7.5	300	380 E3	R75PD2120--0--
1000pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1100--0--
1200pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1120--0--
1500pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1150--0--
1800pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1180--0--
2200pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1220--0--
2700pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1270--0--
3300pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1330--0--
3900pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1390--0--
4700pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1470--0--
5600pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1560--0--
6800pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1680--0--
8200pF	4.0	9.0	13.0	10.0	250	315 E3	R75PF1820--0--
0.010μF	5.0	11.0	13.0	10.0	250	315 E3	R75PF2100--0--
0.012μF	5.0	11.0	13.0	10.0	250	315 E3	R75PF2120--0--
0.015μF	6.0	12.0	13.0	10.0	250	315 E3	R75PF2150--0--
0.018μF	6.0	12.0	13.0	10.0	250	315 E3	R75PF2180--0--
0.022μF	5.0	11.0	18.0	15.0	400	504 E3	R75PI 2220--0--
0.027μF	5.0	11.0	18.0	15.0	400	504 E3	R75PI 2270--0--
0.033μF	5.0	11.0	18.0	15.0	400	504 E3	R75PI 2330--0--
0.039μF	5.0	11.0	18.0	15.0	400	504 E3	R75PI 2390--3--
0.047μF	5.0	11.0	18.0	15.0	400	504 E3	R75PI 2470--3--
0.056μF	5.0	11.0	18.0	15.0	400	504 E3	R75PI 2560--3--
0.068μF	6.0	12.0	18.0	15.0	400	504 E3	R75PI 2680--3--
0.082μF	6.0	12.0	18.0	15.0	400	504 E3	R75PI 2820--3--
0.10μF	7.5	13.5	18.0	15.0	400	504 E3	R75PI 3100--3--
0.12μF	7.5	13.5	18.0	15.0	400	504 E3	R75PI 3120--3--
0.15μF	8.5	14.5	18.0	15.0	400	504 E3	R75PI 3150--3--
0.18μF	10.0	16.0	18.0	15.0	400	504 E3	R75PI 3180--3--
0.22μF	10.0	16.0	18.0	15.0	400	504 E3	R75PI 3220--3--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V_R), 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_R/V. The pulse characteristic K₀ 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.

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

Rated Cap.	630Vdc / 250Vac**				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.12μF	6.0	15.0	26.5	22.5	250	315 E3	R75PN 3120--3--
0.15μF	6.0	15.0	26.5	22.5	250	315 E3	R75PN 3150--3--
0.18μF	7.0	16.0	26.5	22.5	250	315 E3	R75PN 3180--3--
0.22μF	7.0	16.0	26.5	22.5	250	315 E3	R75PN 3220--3--
0.27μF	8.5	17.0	26.5	22.5	250	315 E3	R75PN 3270--3--
0.33μF	10.0	18.5	26.5	22.5	250	315 E3	R75PN 3330--3--
0.39μF	10.0	18.5	26.5	22.5	250	315 E3	R75PN 3390--3--
0.47μF	11.0	20.0	26.5	22.5	250	315 E3	R75PN 3470--3--
0.56μF	11.0	20.0	26.5	22.5	250	315 E3	R75PN 3560--3--
0.39μF	11.0	20.0	32.0	27.5	180	227 E3	R75PR 3390--0--
0.47μF	11.0	20.0	32.0	27.5	180	227 E3	R75PR 3470--0--
0.56μF	11.0	20.0	32.0	27.5	180	227 E3	R75PR 3560--3--
*0.68μF	11.0	20.0	32.0	27.5	180	227 E3	R75PR 3680--3--
*0.82μF	13.0	22.0	32.0	27.5	180	227 E3	R75PR 3820--3--
*1.0μF	13.0	22.0	32.0	27.5	180	227 E3	R75PR 4100--3--
*1.2μF	15.0	24.5	32.0	27.5	180	227 E3	R75PR 4120--3--
*1.5μF	14.0	28.0	32.0	27.5	180	227 E3	R75PR 4150--3--
*1.8μF	18.0	33.0	32.0	27.5	180	227 E3	R75PR 4180--3--
*2.2μF	18.0	33.0	32.0	27.5	180	227 E3	R75PR 4220--3--
*2.7μF	22.0	37.0	32.0	27.5	180	227 E3	R75PR 4270--3--
*3.3μF	22.0	37.0	32.0	27.5	180	227 E3	R75PR 4330--3--
3.9μF	20.0	40.0	41.5	37.5	90	113 E3	R75PW4390--3--
4.7μF	20.0	40.0	41.5	37.5	90	113 E3	R75PW4470--3--
5.6μF	24.0	44.0	41.5	37.5	90	113 E3	R75PW4560--3--

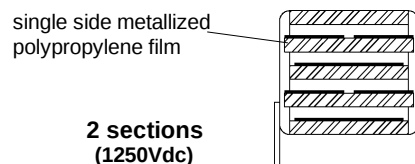
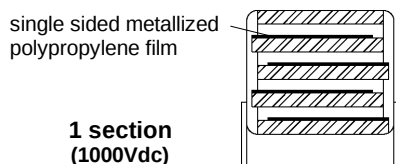
Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

METALLIZED POLYPROPYLENE FILM CAPACITOR D.C. AND PULSE APPLICATIONS

PRODUCT CODE: R75



Rated Cap.	1000Vdc / 250Vac**				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.012μF	5.0	11.0	18.0	15.0	450	900 E3	R75QI 2120--0--
0.015μF	5.0	11.0	18.0	15.0	450	900 E3	R75QI 2150--0--
0.018μF	5.0	11.0	18.0	15.0	450	900 E3	R75QI 2180--0--
0.022μF	5.0	11.0	18.0	15.0	450	900 E3	R75QI 2220--0--
0.027μF	6.0	12.0	18.0	15.0	450	900 E3	R75QI 2270--0--
0.033μF	6.0	12.0	18.0	15.0	450	900 E3	R75QI 2330--0--
0.039μF	7.5	13.5	18.0	15.0	450	900 E3	R75QI 2390--0--
0.047μF	7.5	13.5	18.0	15.0	450	900 E3	R75QI 2470--0--
0.056μF	8.5	14.5	18.0	15.0	450	900 E3	R75QI 2560--0--
0.068μF	8.5	14.5	18.0	15.0	450	900 E3	R75QI 2680--0--
0.082μF	10.0	16.0	18.0	15.0	450	900 E3	R75QI 2820--0--
0.068μF	6.0	15.0	26.5	22.5	300	600 E3	R75QN 2680--0--
0.082μF	7.0	16.0	26.5	22.5	300	600 E3	R75QN 2820--0--
0.10μF	7.0	16.0	26.5	22.5	300	600 E3	R75QN 3100--0--
0.12μF	8.5	17.0	26.5	22.5	300	600 E3	R75QN 3120--0--
0.15μF	10.0	18.5	26.5	22.5	300	600 E3	R75QN 3150--0--
0.18μF	10.0	18.5	26.5	22.5	300	600 E3	R75QN 3180--0--
0.22μF	11.0	20.0	26.5	22.5	300	600 E3	R75QN 3220--0--
0.22μF	10.0	20.0	32.0	27.5	200	400 E3	R75QR 3220--0--
*0.27μF	11.0	20.0	32.0	27.5	200	400 E3	R75QR 3270--0--
*0.33μF	13.0	22.0	32.0	27.5	200	400 E3	R75QR 3330--0--
*0.39μF	13.0	22.0	32.0	27.5	200	400 E3	R75QR 3390--0--
*0.47μF	15.0	24.5	32.0	27.5	200	400 E3	R75QR 3470--0--
*0.56μF	15.0	24.5	32.0	27.5	200	400 E3	R75QR 3560--0--
*0.68μF	18.0	33.0	32.0	27.5	200	400 E3	R75QR 3680--0--
*0.82μF	18.0	33.0	32.0	27.5	200	400 E3	R75QR 3820--0--
*1.0μF	18.0	33.0	32.0	27.5	200	400 E3	R75QR 4100--0--
*1.2μF	22.0	37.0	32.0	27.5	200	400 E3	R75QR 4120--0--
1.5μF	19.0	32.0	41.5	37.5	150	300 E3	R75QW4150--0--
1.8μF	20.0	40.0	41.5	37.5	150	300 E3	R75QW4180--0--
2.2μF	20.0	40.0	41.5	37.5	150	300 E3	R75QW4220--0--
2.7μF	24.0	44.0	41.5	37.5	150	300 E3	R75QW4270--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

Rated Cap.	1250Vdc / 500Vac**				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
1500pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1150--0--
1800pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1180--0--
2200pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1220--0--
2700pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1270--0--
3300pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1330--0--
3900pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1390--0--
4700pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1470--0--
5600pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1560--0--
6800pF	5.0	11.0	18.0	15.0	1300	3400 E3	R75RI 1680--0--
8200pF	6.0	12.0	18.0	15.0	1300	3400 E3	R75RI 1820--0--
0.010μF	6.0	12.0	18.0	15.0	1300	3400 E3	R75RI 2100--0--
0.012μF	7.5	13.5	18.0	15.0	1300	3400 E3	R75RI 2120--0--
0.015μF	7.5	13.5	18.0	15.0	1300	3400 E3	R75RI 2150--0--
0.018μF	8.5	14.5	18.0	15.0	1300	3400 E3	R75RI 2180--0--
0.022μF	10.0	16.0	18.0	15.0	1300	3400 E3	R75RI 2220--0--
0.027μF	10.0	16.0	18.0	15.0	1300	3400 E3	R75RI 2270--0--
0.018μF	6.0	15.0	26.5	22.5	700	1800 E3	R75RN 2180--0--
0.022μF	6.0	15.0	26.5	22.5	700	1800 E3	R75RN 2220--0--
0.027μF	7.0	16.0	26.5	22.5	700	1800 E3	R75RN 2270--0--
0.033μF	7.0	16.0	26.5	22.5	700	1800 E3	R75RN 2330--0--
0.039μF	8.5	17.0	26.5	22.5	700	1800 E3	R75RN 2390--0--
0.047μF	10.0	18.5	26.5	22.5	700	1800 E3	R75RN 2470--0--
0.056μF	10.0	18.5	26.5	22.5	700	1800 E3	R75RN 2560--0--
0.068μF	11.0	20.0	26.5	22.5	700	1800 E3	R75RN 2680--0--
*0.082μF	10.0	20.0	32.0	27.5	500	1300 E3	R75RR 2820--0--
*0.10μF	11.0	20.0	32.0	27.5	500	1300 E3	R75RR 3100--0--
*0.12μF	13.0	22.0	32.0	27.5	500	1300 E3	R75RR 3120--0--
*0.15μF	13.0	22.0	32.0	27.5	500	1300 E3	R75RR 3150--0--
*0.18μF	14.0	28.0	32.0	27.5	500	1300 E3	R75RR 3180--0--
*0.22μF	18.0	33.0	32.0	27.5	500	1300 E3	R75RR 3220--0--
*0.27μF	18.0	33.0	32.0	27.5	500	1300 E3	R75RR 3270--0--
*0.33μF	18.0	33.0	32.0	27.5	500	1300 E3	R75RR 3330--0--
*0.39μF	22.0	37.0	32.0	27.5	500	1300 E3	R75RR 3390--0--
*0.47μF	22.0	37.0	32.0	27.5	500	1300 E3	R75RR 3470--0--
0.56μF	20.0	40.0	41.5	37.5	360	900 E3	R75RW3560--0--
0.68μF	20.0	40.0	41.5	37.5	360	900 E3	R75RW3680--0--
0.82μF	24.0	44.0	41.5	37.5	360	900 E3	R75RW3820--0--

Mechanical version and packaging (Table 1)

Internal use

Tolerance: J (± 5%); K (± 10%); M (± 20%)

All dimensions are in mm.

Note: If the working voltage (V) is lower than the rated voltage (V_R), 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_R/V. The pulse characteristic K₀ 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.

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

ELECTRICAL CHARACTERISTICS

Rated voltage (V_R):

160Vdc - 250Vdc - 400Vdc - 630Vdc - 1000Vdc
for 1 section.
1250Vdc
for 2 sections.

Rated temperature (T_R): +85°C

Temperature derated voltage:

The following decreasing factor has to be applied on the rated voltage:

+85°C to +105°C: 2.00% per °C for V_R (d.c.)
+85°C to +105°C: 1.25% per °C for V_R (a.c.)

Capacitance range:

1000 pF to 22μF for 1 section.
1500 pF to 0.82μF for 2 sections.

Capacitance values:

E12 series (IEC 60063 Norm).

Capacitance tolerances (measured at 1 kHz):

±5% (J); ±10% (K); ±20% (M).

Total self-inductance (L): (Lead 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):

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

KHz	$C \leq 0.1\mu\text{F}$	$0.1 < C \leq 1.0\mu\text{F}$	$1 < C \leq 4.7\mu\text{F}$	$C > 4.7\mu\text{F}$
1	≤ 4	≤ 5	≤ 6	≤ 10
10	≤ 6	≤ 8		
100	≤ 25			

Insulation resistance:

Test conditions

Temperature: +25°C ±5°C
Voltage charge time: 1 min
Voltage charge: 100Vdc

Performance

≥ 1×10^5 MΩ for $C \leq 0.33\mu\text{F}$ (5×10^5 MΩ)*
≥ 30000 s for $C > 0.33\mu\text{F}$ (150000 s)*

* Typical value.

Test voltage between terminations:

$1.6 \times V_R$ 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 ($\Delta \text{tg}\delta$): ≤ 10×10^{-4} at 1kHz
Insulation resistance: ≥ 50% of initial limit.

Endurance:

Test conditions

Temperature: +85°C ±2°C
Test duration: 2000 h
Voltage applied: $1.25 \times V_R$

Performance

Capacitance change $|\Delta C/C|$: ≤ 3%
DF change ($\Delta \text{tg}\delta$): ≤ 10×10^{-4} at 10kHz for $C \leq 1\mu\text{F}$
≤ 10×10^{-4} at 1kHz for $C > 1\mu\text{F}$
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 ($\Delta \text{tg}\delta$): ≤ 10×10^{-4} at 10kHz for $C \leq 1\mu\text{F}$
≤ 10×10^{-4} at 1kHz for $C > 1\mu\text{F}$
Insulation resistance: ≥ initial limit.

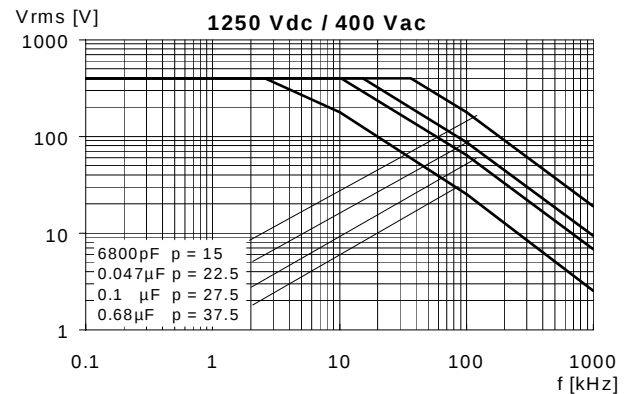
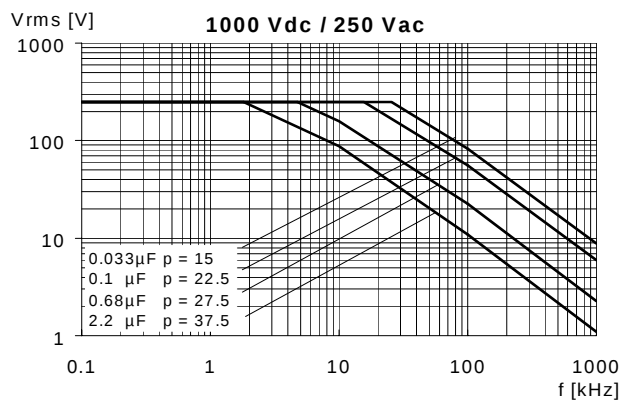
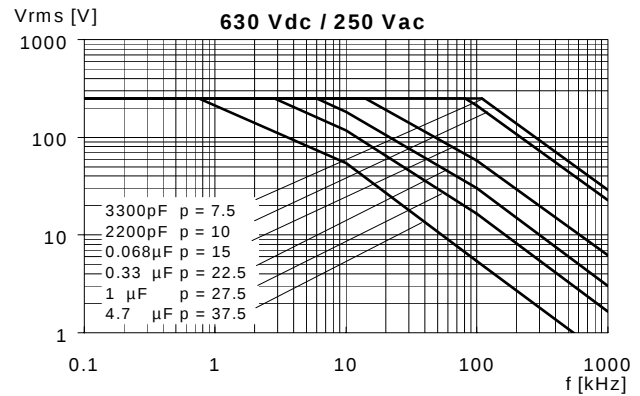
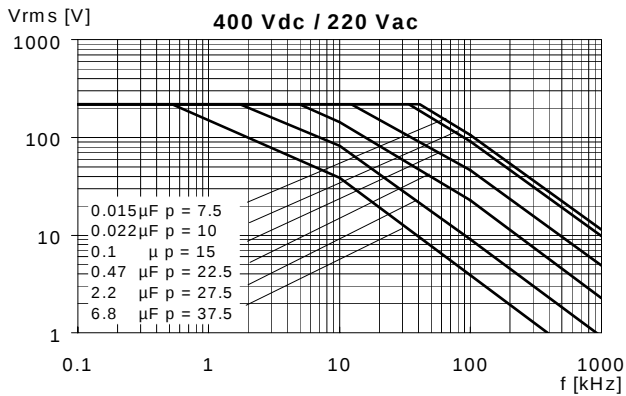
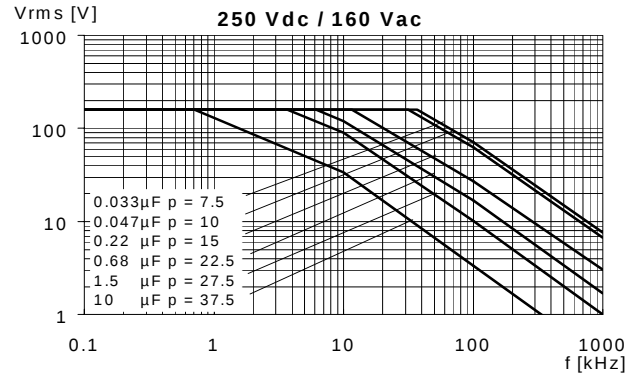
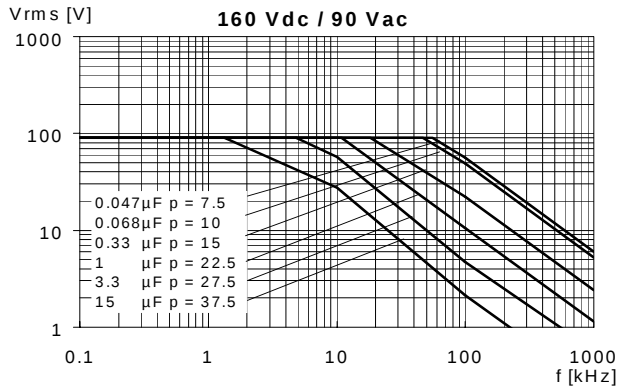
Long term stability (after two years):

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.