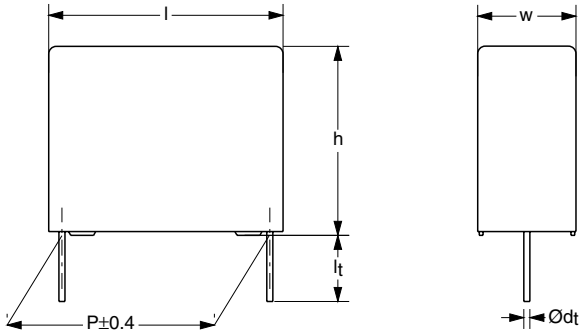
AC and Pulse Metallized Polypropylene Film Capacitors KP/MMKP Radial Potted Type



Dimensions in mm

APPLICATIONS

Where high currents and steep pulses occur. Power supplies

MARKING

C-value; tolerance; rated voltage; manufacturer's type designation; code for dielectric material; manufacturer's emblem; code for factory of origin; year and week of manufacture

DIELECTRIC

Polypropylene film

ELECTRODES

Metallized film and aluminium foil

ENCAPSULATION

Flame retardant plastic case and epoxy resin (UL-class 94 V-0)

CONSTRUCTION

Internal serial construction

LEADS

Tinned wire

CAPACITANCE RANGE (E24 SERIES)

0.0047 to 0.27 µF

FEATURES

15 to 27.5 mm pitch. Supplied loose and taped on reel

Lead (Pb)-free product

RoHS-compliant product

Pb-free

e3

RoHS COMPLIANT

CAPACITANCE TOLERANCE

± 5 %; ± 3.5 %

RATED (DC) VOLTAGE

630 V; 1000 V

RATED (AC) VOLTAGE

300 V; 400 V

RATED PEAK-TO-PEAK VOLTAGE

850 V; 1100 V

CLIMATIC CATEGORY

55/100/56

RATED TEMPERATURE

85 °C

MAXIMUM APPLICATION TEMPERATURE

100 °C

REFERENCE SPECIFICATIONS

IEC 60384-17

PERFORMANCE GRADE

for $C > 4.7$ nF: grade 1 (long life)

for $C \leq 4.7$ nF: grade 2

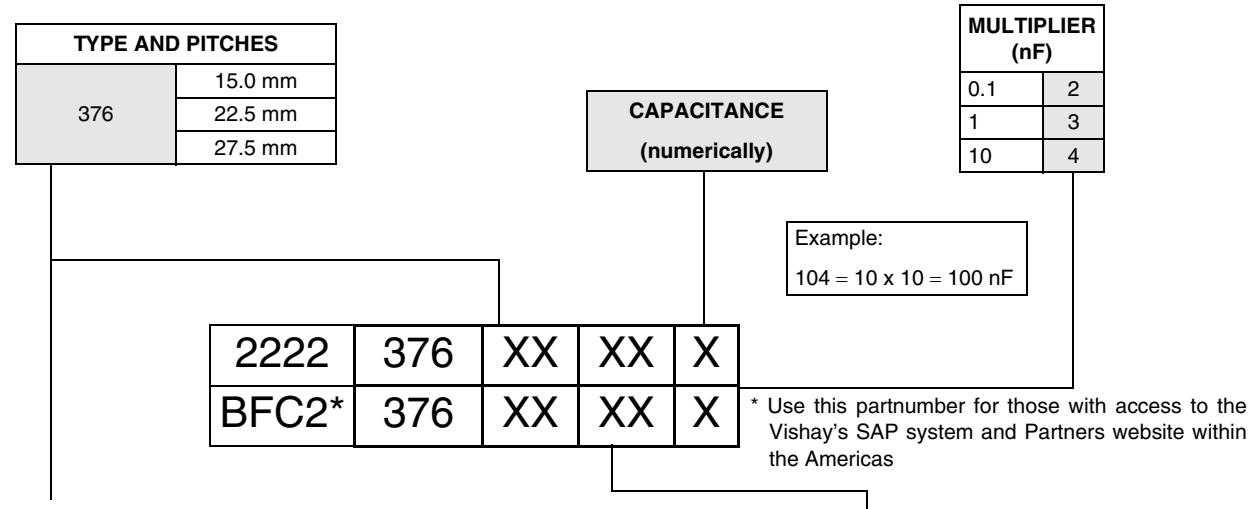
STABILITY GRADE

Grade 2

DETAIL SPECIFICATION

For more detailed data and test requirements see *"Type detail specification HQN-384-17/101"*

COMPOSITION OF CATALOG NUMBER



TYPE	PACKAGING	LEAD CONFIGURATION	ON REQUEST		
			C-TOL	630 V	1000 V
376	loose in box	lead length 5.0 ± 1.0 mm	± 5 %	62	72
			± 3.5 %	63	73
		lead length 3.5 ± 0.3 mm	± 5 %	68	78
			± 3.5 %	69	79
	taped on reel	H = 18.5 mm; P_0 = 12.7 mm; reel diameter 500 mm	± 5 %	65	75
			± 3.5 %	66	76

SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
P = 15.0 mm	$\leq 3 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
P = 22.5 mm	$\leq 3 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
P = 27.5 mm	$\leq 4 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm	4000 V/µs	
P = 22.5 mm	1400 V/µs	
P = 27.5 mm	900 V/µs	
R between leads at 500 V; 1 minute	> 100000 MΩ	
R between interconnected leads and case; 500 V; 1 minute	> 100000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 400 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	1008 V; 1 minute	
Withstanding (DC)voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 630 V; U_{Rac} = 300 V; U_{p-p} = 850 V

C (µF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 376 ..... AND PACKAGING		
			LOOSE IN BOX		REEL
			l_t = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol = ± 5 %		
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.60 ± 0.06 mm					
0.0068 0.0075 0.0082 0.0091	5.0 × 11.0 × 17.5	1.1	62682 62752 62822 62912	1000	1100
0.01 0.011 0.012 0.013	6.0 × 12.0 × 17.5	1.5	62103 62113 62123 62133	1000	900
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm					
0.015 0.016 0.018	7.0 × 13.5 × 17.5	2.0	62153 62163 62183	1000	800
0.02 0.022	8.5 × 15.0 × 17.5	2.6	62203 62223	1000	650
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm					
0.024 0.027 0.03	6.0 × 15.5 × 26.0	2.8	62243 62273 62303	300	600
0.033 0.036 0.039	7.0 × 16.5 × 26.0	3.5	62333 62363 62393	200	550
0.043 0.047 0.051 0.056	8.5 × 18.0 × 26.0	4.5 4.5 4.5 5.1	62433 62473 62513 62563	200	450
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm					
0.062 0.068 0.075	9.0 × 19.0 × 31.0	6.2	62623 62683 62753	100	
0.082 0.091 0.1 0.11	11.0 × 21.0 × 31.0	8.3	62823 62913 62104 62114	100	
0.12 0.13 0.15 0.16	13.0 × 23.0 × 31.0	10.8	62124 62134 62154 62164	100	
0.18 0.2	15.0 × 25.0 × 31.0	13.0	62184 62204	100	
0.22 0.24 0.27	18.0 × 28.0 × 31.0	19.0	62224 62244 62274	100	

SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
P = 15.0 mm	$\leq 3 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
P = 22.5 mm	$\leq 3 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
P = 27.5 mm	$\leq 3 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm	7000 V/µs	
P = 22.5 mm	2500 V/µs	
P = 27.5 mm	1600 V/µs	
R between leads at 500 V; 1 minute	> 100000 MΩ	
R between interconnected leads and case; 500 V; 1 minute	> 100000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 500 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s		
for C ≤ 47 nF	1600 V; 1 minute	
for C > 47 nF	$[1,6-(0,0364 \cdot \sqrt{C-47})] \times 1000\,V$; 1 minute	
Withstanding (DC)voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 1000 V; U_{Rac} = 400 V/$U_{p\text{-}p}$ = 1100 V

C (µF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 376 ..... AND PACKAGING		
			LOOSE IN BOX		REEL
			l_t = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol = ± 5 %		
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.60 ± 0.06 mm					
0.0047	5.0 × 11.0 × 17.5	1.1	72472	1000	1100
0.0051			72512		
0.0056			72562		
0.0062	6.0 × 12.0 × 17.5	1.5	72622	1000	900
0.0068			72682		
0.0075			72752		
0.0082			72822		
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm					
0.0091	7.0 × 13.5 × 17.5	2.0	72912	1000	800
0.01			72103		
0.011			72113		
0.012			72123		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm					
0.013	6.0 × 15.5 × 26.0	2.8	72133	300	600
0.015	7.0 × 16.5 × 26.0	3.5	72153	200	550
0.016			72163		
0.018			72183		

C (µF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 376 ..... AND PACKAGING		
			LOOSE IN BOX		REEL
			l_t = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol = ± 5 %		
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
0.02	8.5 × 18.0 × 26.0	4.5	72203	200	450
0.022			72223		
0.024			72243		
0.027			72273		
0.03			72303		
0.033			72333		
0.036			72363		
0.039	10.0 × 19.5 × 26.0	5.4	72393	200	350
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm					
0.043	9.0 × 19.0 × 31.0	6.2	72433	100	
0.047			72473		
0.051			72513		
0.056	11.0 × 21.0 × 31.0	8.3	72563	100	
0.062			72623		
0.068			72683		
0.075			72753		
0.082	13.0 × 23.0 × 31.0	10.8	72823	100	
0.091			72913		
0.1			72104		
0.11	15.0 × 25.0 × 31.0	13.0	72114	100	
0.12			72124		
0.13			72134		
0.15			72154		
0.16	18.0 × 28.0 × 31.0	19.0	72164	100	
0.18			72184		

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