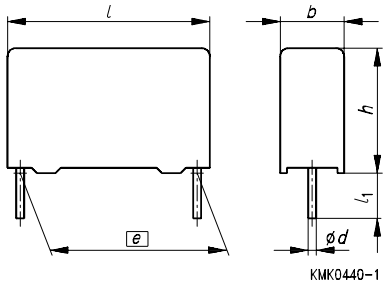
Y2 capacitors
Rated ac voltage 250 V, 50/60 Hz



KMK0440-1

Construction

- Dielectric:
  for e = 10 mm: polyester (MKT),
  for e ≥ 15 mm: polypropylene (MKP)
- Internal series connection
  (for e ≥ 15 mm)
- Plastic case (UL 94 V-0)
- Epoxy resin sealing, flame-retardant
- Impregnated

Lead spacing e ±0,4	Lead diameter ∅d (mm)	Lead length l_1 (mm)	
10 mm	0,6	6 – 1	—
≥ 15 mm	0,8	6 – 1	26 ±2

Features

- Very small dimensions
- Self-healing properties

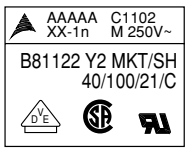
Terminals

- Parallel wire leads, tinned
- Two standard lead lengths available:
  6 mm und 26 mm
  Other lead lengths available upon request

Marking

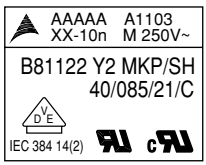
Manufacturer's logo, lot number, date code, rated capacitance (coded), capacitance tolerance (code letter), rated ac voltage, type number, interference suppression sub-class (Y2), style (MKT or MKP), self-healing (SH), climatic category, awarded marks of conformity

Lead spacing = 10 mm



KMK0576-8

Lead spacing ≥ 15 mm



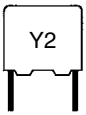
KMK0577-G

Delivery mode

Bulk (untaped)
Taped (Ammo pack or reel)
For notes on taping, refer to chapter "Taping and packing", page 274.

Marks of conformity

Marks of conformity	Lead spacing	Standards	Certificate
	10 mm	EN 132400 / IEC 384-14, 2nd edition UL 1414 CSA C22.2 No. 0; 1	18643-4670-1007/A1K E97863/ 4NK15866A LR 59709-11
	≥ 15 mm	EN 132400 / IEC 384-14, 2nd edition UL 1414 Approved by UL acc. to CSA C22.2 No. 0; 1	18643-4670-1012/22E56 E97863/97NK03236 E97863/97NK03236



B 81 122

250 Vac

Ordering codes and packing units

Lead spacing $\boxed{e}$ ±0,4 mm	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code[1]	Packing units (pcs) Ammo pack	Reel	Untaped Lead length 6 mm	26 mm
10	1,0 nF	4,0 × 9,0 × 13,0	B81122-C1102-M***	1000	1700	1000	–
	1,5 nF	4,0 × 9,0 × 13,0	B81122-C1152-M***	1000	1700	1000	–
	2,2 nF	5,0 × 11,0 × 13,0	B81122-C1222-M***	830	1300	1000	–
	3,3 nF	5,0 × 11,0 × 13,0	B81122-C1332-M***	830	1300	1000	–
	4,7 nF	6,0 × 12,0 × 13,0	B81122-C1472-M***	680	1100	1000	–
	5,6 nF	6,0 × 12,0 × 13,0	B81122-C1562-M***	680	1100	1000	–
	6,8 nF	6,0 × 12,0 × 13,0	B81122-C1682-M***	680	1100	1000	–
15	10 nF	6,0 × 11,0 × 18,0	B81122-A1103-M***	960	1100	1000	1000
	15 nF	7,0 × 12,5 × 18,0	B81122-A1153-M***	830	900	1000	800
	22 nF	8,5 × 14,5 × 18,0	B81122-A1223-M***	680	700	500	500
	27 nF	8,5 × 14,5 × 18,0	B81122-A1273-M***	680	700	500	500
	33 nF	9,0 × 17,5 × 18,0	B81122-A1333-M***	640	700	500	500
22,5	47 nF	7,0 × 16,0 × 26,5	B81122-A1473-M***	580	600	630	500
	56 nF	8,5 × 16,5 × 26,5	B81122-A1563-M***	480	500	510	450
	68 nF	10,5 × 16,5 × 26,5	B81122-A1683-M***	390	400	540	350
	0,10 µF	10,5 × 20,5 × 26,5	B81122-A1104-M***	390	400	540	300
27,5	0,15 µF	11,0 × 21,0 × 31,5	B81122-A1154-M***	—	350	320	200
	0,22 µF	13,5 × 23,0 × 31,5	B81122-A1224-M***	—	250	260	150
	0,33 µF	18,0 × 27,5 × 31,5	B81122-A1334-M***	—	—	200	100

Capacitance tolerance: ± 20 % (closer tolerances upon request)

1) Replace the *** by the code letter for the required lead length or packing.
000 = lead length 6 mm (untaped)
026 = lead length 26 mm (untaped)
289 = taped, Ammo pack
189 = taped, reel

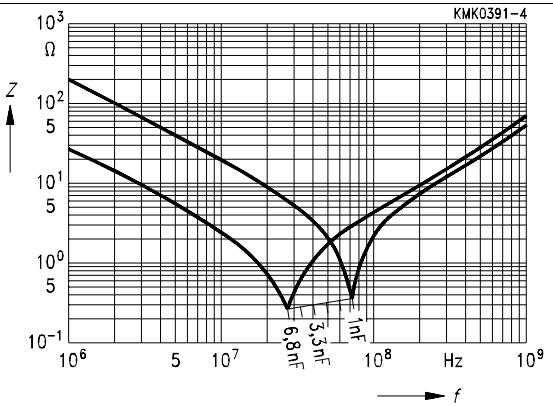
Technical data

Climatic category in accordance with IEC 60068-1	40/100/21 (⊏e⊐ = 10 mm, MKT) 40/085/21 (⊏e⊐ ≥ 15 mm, MKP)		
Lower category temperature T_{min} Upper category temperature T_{max}	– 40 °C + 100 °C or + 85 °C		
Passive flammability category in accordance with IEC 40 (CO) 752	C		
Damp heat test	21 days/40 °C/93 % relative humidity		
Limit values after damp heat test	Capacitance change $\lvert\Delta C/C\rvert$	≤ 5 % (⊏e⊐ = 10 mm) ≤ 3 % (⊏e⊐ ≥ 15 mm)	
	Dissipation factor change $\Delta \tan \delta$	for ⊏e⊐ = 10 mm: $\leq 5 \cdot 10^{-3}$ (at 1 kHz) for (⊏e⊐ ≥ 15 mm): $\leq 0{,}5 \cdot 10^{-3}$ (at 1 kHz) $\leq 1{,}0 \cdot 10^{-3}$ (at 10 kHz)	
	Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$	≥ 50 % of minimum as-delivered values	
Permissible continuous ac voltage	450 V (50/60 Hz) (⊏e⊐ ≥ 15 mm) 275 V (50/60 Hz) (⊏e⊐ = 10 mm)		
Permissible continuous dc voltage	1000 V (⊏e⊐ ≥ 15 mm) 1200 V (⊏e⊐ = 10 mm)		
DC test voltage	2700 V, 2s (⊏e⊐ ≥ 15 mm) 2500 V, 2 s (⊏e⊐ = 10 mm)		
Dissipation factor tan δ (in 10^{-3}) at 20 °C (upper limit values)		$C_R \leq 0{,}1$ µF	$C_R > 0{,}1$ µF
	Lead spacing ⊏e⊐ = 10 mm		
	at 1 kHz	8	–
	10 kHz	15	–
	100 kHz	30	–
	Lead spacing ⊏e⊐ ≥ 15mm		
	at 1 kHz	–	0,5
	10 kHz	–	0,8
	100 kHz	5	–
Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$ at 20 °C, rel. humidity ≤ 65 % (minimum as-delivered values)	30 000 MΩ		

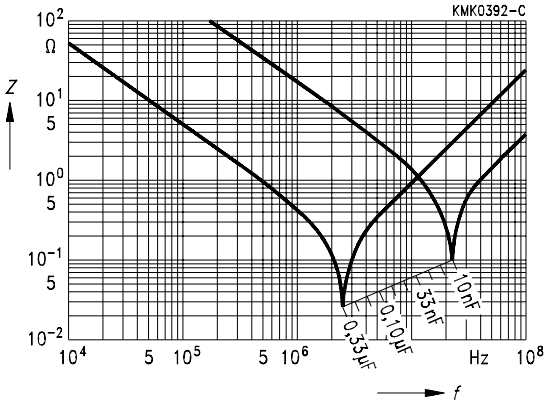
Technical data

Impedance Z
versus frequency f
(typical values)

Lead spacing = 10 mm



Lead spacing ≥ 15 mm



Pulse handling capability

Maximum permissible voltage change per unit of time for non-sinusoidal voltages (pulse, sawtooth).

	Max. rate of voltage rise V_{pp}/τ in V/µs (for $V_{pp} = \hat{V}_R$)			
Lead spacing	10 mm	15 mm	22,5 mm	27,5 mm
V_R = 250 Vac	400	450	200	125

For $V_{pp} < \hat{V}_R$, the permissible voltage rise rate V_{pp}/τ may be multiplied by the factor $\hat{V}_R/V_{pp}$.
Also refer to the calculation example in chapter “General technical information”, page 302.

	Pulse characteristic k_0 in V²/µs (for $V_{pp} \leq \hat{V}_R$)			
Lead spacing	10 mm	15 mm	22,5 mm	27,5 mm
V_R = 250 Vac	280 000	310 000	140 000	90 000

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