

X1 capacitors

Rated ac voltage 440 V, 50/60 Hz

Construction

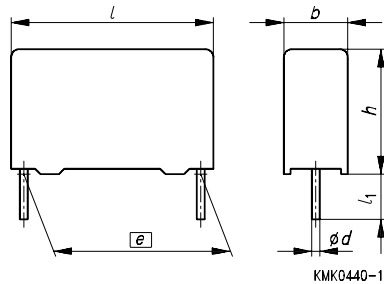
- Dielectric: polyester (MKT)
- Internal series connection
- Plastic case (UL 94 V-0)
- Epoxy resin sealing, flame-retardant

Features

- Self-healing properties

Terminals

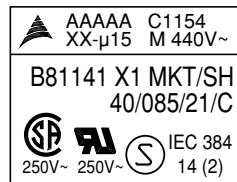
- Parallel wire leads, tinned
 - Two standard lead lengths available:
6 mm and 26 mm
- Other lead lengths available upon request.



Lead spacing $e \pm 0,4$	Lead diameter $\varnothing d$ (mm)	Lead length l_1 (mm)	
$\leq 27,5$ mm	0,8	6 – 1	26 ± 2
37,5 mm	1,0	6 – 1	26 ± 2

Marking

Manufacturer's logo, lot number, date code, rated capacitance (coded), capacitance tolerance (code letter), rated ac voltage, type number, interference suppression sub-class (X1), style (MKT), self-healing (SH), climatic category, awarded marks of conformity.



KMK0568-H

Delivery mode

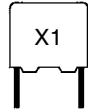
Bulk (untaped)

Taped (Ammo pack or reel)

For notes on taping, refer to chapter "Taping and packing", page 274.

Marks of conformity

Marks of conformity	Standards	Certificate
 	EN 132 400, IEC 384-14, 2nd edition UL 1414 (250 V) CSA C22.2 No. 0; 8 (250 V)	9547071-01 E 97863 LR 59709



Ordering codes and packing units

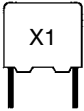
Lead spacing $\square \varnothing \pm 0,4$ mm	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)			
				Ammo pack	Reel	Untaped Lead length	
						6 mm	26 mm
15	10 nF	$5,0 \times 10,5 \times 18,0$	B81141-C1103-M***	1170	1300	1000	1000
	22 nF	$7,0 \times 12,5 \times 18,0$	B81141-C1223-M***	830	900	1000	800
	33 nF	$8,5 \times 14,5 \times 18,0$	B81141-C1333-M***	680	700	500	500
	47 nF	$9,0 \times 17,5 \times 18,0$	B81141-C1473-M***	640	700	500	500
22,5	68 nF	$8,5 \times 16,5 \times 26,5$	B81141-C1683-M***	480	500	510	450
	0,10 μ F	$10,5 \times 16,5 \times 26,5$	B81141-C1104-M***	390	400	540	350
	0,15 μ F	$11,0 \times 20,5 \times 26,5$	B81141-C1154-M***	370	350	510	300
27,5	0,22 μ F	$12,5 \times 21,5 \times 31,5$	B81141-C1224-M***	—	300	280	200
	0,33 μ F	$14,0 \times 24,5 \times 31,5$	B81141-C1334-M***	—	—	260	150
	0,47 μ F	$18,0 \times 27,5 \times 31,5$	B81141-C1474-M***	—	—	200	100
37,5	0,68 μ F	$16,0 \times 28,5 \times 41,5$	B81141-C1684-M***	—	—	100	—

Capacitance tolerance: $\pm 20 \% \hat{=} M$ (closer tolerances upon request)

Technical data

Climatic category in accordance with IEC 60068-1	40/085/21
Lower category temperature $T_{\min}$	$-40\text{ }^{\circ}\text{C}$
Upper category temperature $T_{\max}$	$+85\text{ }^{\circ}\text{C}$
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 $ \Delta C/C \leq 5\%$ Dissipation factor change $\Delta \tan \delta \leq 5 \cdot 10^{-3}$ (at 1 kHz) Insulation resistance $R_{is} \geq 50\%$ of minimum or time constant $\tau = C_R \cdot R_{is}$ as-delivered values
Permissible continuous ac voltage	440 V (50/60 Hz)
Permissible continuous dc voltage	1000 V
DC test voltage	2500 V, 2 s

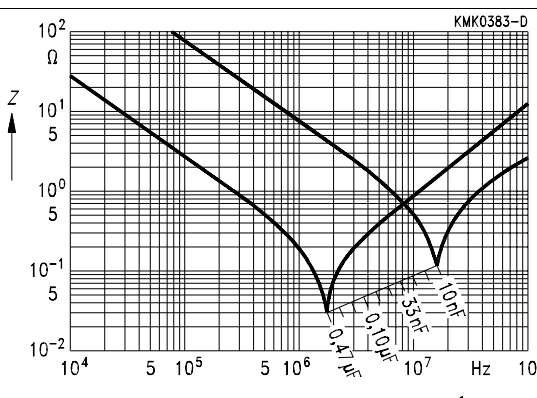
1) Replace the *** by the code number for the required lead length or packing.
000 = lead length 6 mm (untaped)
026 = lead length 26 mm (untaped)
289 = taped, Ammo pack
189 = taped, reel



B 81 141

440 Vac

Technical data

Dissipation factor $\tan \delta$ (in 10^{-3}) at 20 °C (upper limit values)		$C_R \leq 0,1 \mu\text{F}$	$0,1 \mu\text{F} < C_R \leq 1 \mu\text{F}$	$C_R > 1 \mu\text{F}$
	at	1 kHz	8	8
		10 kHz	15	15
		100 kHz	30	—
Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$ at 20 °C, rel. humidity $\leq 65\%$ (minimum as-delivered values)	$C_R \leq 0,33 \mu\text{F}$		$C_R > 0,33 \mu\text{F}$	
	30 000 M Ω		10 000 s	
Impedance Z versus frequency f (typical values)				

Pulse handling capability

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

V_R	Max. rate of voltage rise V_{pp}/τ in V/ μs (for $V_{pp} = \hat{V}_R$)			
	Lead spacing			
	15 mm	22,5 mm	27,5 mm	37,5 mm
440 Vac	80	50	30	15

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](#).

V_R	Pulse characteristic k_0 in V ² / μs (for $V_{pp} \leq \hat{V}_R$)			
	Lead spacing			
	15 mm	22,5 mm	27,5 mm	37,5 mm
440 Vac	100 000	50 000	30 000	18 000

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