MKT Capacitors for high voltage applications

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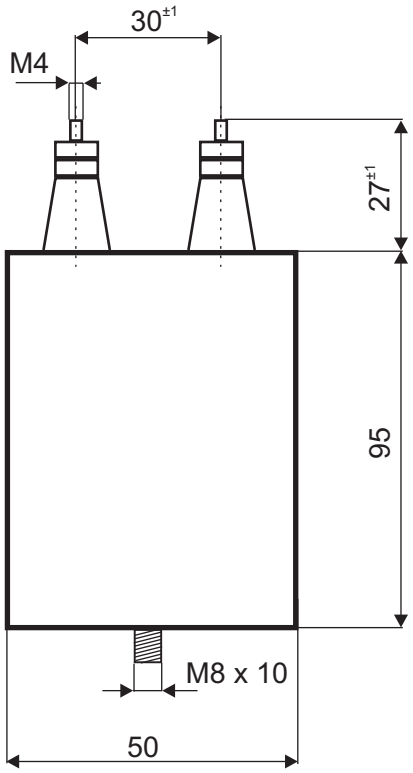
MKT 500 - 073



Capacit. C_R (µF)	Dimension [mm]			
	D	L	Upper screw	Botton screw
1,0	50	95	M4	M8

Construction:
Metallized electrodes, polyester - film dielectricum,
Non-inductive, self-healing construction.
Plastic cylindrical flame retardant case,
with bottom screw M8x10

Applications:
High voltage capacitors for DC applications as coupling, decoupling, HV DC power supplies and other DC applications with low ripple current.

Technical data

Rated voltage U_R: 2500V DC
Rated voltage is the max. DC or peak voltage, for which the capacitor is designed.
If the capacitor works with the DC and also super-imposed AC voltage U_{AC}, the sum of DC and the amplitude of AC must not exceed the U_R

Max permissible AC voltage: 400V 50/60Hz,
If the working frequency is higher, the permissible AC voltage must be decreased, not to exceed the max. loss power of the capacitor.

$$\text{Max.}U_{AC(f)} = \sqrt{\frac{P_L}{2\pi f C_R \times \text{tg}\delta}}$$

Rated capacitance: 1µF
Tolerance: 10%, 5%,
Dissipation factor Tgδ: < 0,01 at 1kHz and +25°C
Insulation resistance R_{is}: >10 000/C [MΩ]
Operating temperature range: -40 +85°C
The highest permissible capacitor temperature at the hottest point of the case must not exceed +85°C.
Max . permitted dissipation power of the capacitor P_L: depend on the construction of the capacitor and the cooling conditions, see table.
Test voltage between terminals: 1,25 x U_R, 1min. at +25°C
All capacitors are tested by the routine test by the manufacturer
Protection against Overvoltages:
The capacitors are self-healing and regenerate themselves after occasional breakdowns**.** The capacitor remains fully functional after the breakdown.
Permitted Overvoltages in working conditions:
1,1 x U_R max. 30% of the service period
1,15x U_R max.30min./day
1,2 x U_R max. 5min./day
1,25 x U_R max. 1min./day
If the Overvoltages exceed the permissible values above, the capacitor might have been destroyed.
Test voltage between terminals and case:
3000VDC, 1min. at +25°C
Max. repetitive rate of voltage rise dU/dt:
< 20V/µsec at U_R and +25°C
Max. peak current I_p: < C_R x dU/dt
Terminals: upper-screws M4
bottom-screw M8x10
Related standards: IEC 60384-1, IEC 60384-2
Marking for purchase ordering: MKT 500-073
1 µF/K/2500VDC

Warning! The manufacturer is not responsible for any damages, caused by the improper installation and application. Before using the capacitor in any application, pleas, read carefully this technical data-sheet.