

DATASHEET
 (preliminary)

 ESTAprop AC-Capacitor
 KMKP 2250-1,0 IA

NOMINAL RATINGS

Capacitance / Tolerance	C_N	1.0 $\mu\text{F} \pm 10\%$
Rated DC voltage	U_N	2250 V
RMS Voltage	U_{rms}	1590 V_{rms}

OVER VOLTAGES ACCORDING TO STANDARD

$1.1 \times U_N$	U_1	2475 V (30% of the working time)
$1.15 \times U_N$	U_2	2588 V (30 min/day)
$1.2 \times U_N$	U_3	2700 V (5 min/day)
$1.3 \times U_N$	U_4	2925 V (1 min/day)
$1.5 \times U_N$	U_6	3375 V (30 ms; max. 1000 x per Lifetime)

CHARACTERISTICS

Maximum current	I_{max}	10 A_{rms} ¹⁾
Maximum peak current	\hat{I}	204 A
Maximum surge current	\hat{I}_S	612 A < 1000*/lifetime
Series resistance	R_S	< 3,6 m Ω
Thermal Resistance (hotspot-ambient)	R_{th}	13,6 K/W
Tangent of the loss angle	$\tan \delta_0$	2×10^{-4}
Self inductance	L_S	< 150 nH

ROUTINE TEST

Terminal / Terminal	UT/T	4838 VDC, 10 s
Terminal / Casing	UT/C	4800 VAC, 10 s

OPERATING TEMPERATURE

Minimum temperature	Θ_{min}	-25 $^{\circ}\text{C}$
Maximum temperature	Θ_{max}	+70 $^{\circ}\text{C}$ ¹⁾
Maximum hotspot temp.	Θ_{hs}	+85 $^{\circ}\text{C}$ ¹⁾

STORAGE TEMPERATURE

Minimum temperature	Θ_{min}	-45 $^{\circ}\text{C}$
Maximum temperature	Θ_{max}	+85 $^{\circ}\text{C}$

TECHNOLOGY

Dielectric	Polypropylene; metallized selfhealing
Filling material	castor oil

BUSHINGS
D-142

Amount	2
Flash over distance T/C	6 mm
Creepage distance	7 mm
Terminal	6.3 x 0.8
Maximal torque	-
Height	16 mm

MECHANICAL DATA

Dimensions	60 x 82 mm
Drawing	20-B-008-A3
Weight	0.2 kg
Casing material	Aluminium
Painting	no
Mounting position	vertical, horizontal

LIFE EXPECTANCY > 100 000 h

FAILURE RATE < 300 FIT

STANDARD IEC 61071-2007-1

SPECIFICATION
REFERENCE 5191-45238-xx-00

¹⁾ Calculation of hotspot-temperature

$$P_D = U_{rms}^2 \times 2\pi f \times C_N \times \tan \delta_0 + I^2 \times R_S$$

$$\Theta_{hs} = \Theta_{amb} + R_{th} \times P_D$$