

DATASHEET
 (preliminary)

 ESTAprop AC-Capacitor
 KMKP 2250-0,47 IA

NOMINAL RATINGS

Capacitance / Tolerance	C_N	0.47 $\mu\text{F} \pm 10\%$
Rated AC voltage	U_N	2250 V
RMS Voltage	U_{rms}	1.590 V_{rms}

OVER VOLTAGES ACCORDING TO STANDARD

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

CHARACTERISTICS

Maximum current	I_{max}	7 A_{rms} ¹⁾
Maximum peak current	\hat{I}	95 A
Maximum surge current	\hat{I}_S	285 A
Series resistance	R_S	< 5.8 m Ω
Thermal Resistance (hotspot-ambient)	R_{th}	13.8 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 °C
Maximum temperature	Θ_{max}	+70 °C ¹⁾
Maximum hotspot temp.	Θ_{hs}	+85 °C ¹⁾

STORAGE TEMPERATURE

Minimum temperature	Θ_{min}	-45 °C
Maximum temperature	Θ_{max}	+85 °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	50 x 82 mm
Drawing	20-B-007-A8
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 5191-45244-xx-00

¹⁾ Calculation of hotspot-temperature

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

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