

DATASHEET
 (preliminary)

ESTAdry AC-Capacitor
KMKP 750-68 IBR
NOMINAL RATINGS

Capacitance / Tolerance	C_N	68 $\mu\text{F} \pm 10\%$
Rated AC voltage	U_N	750 V
RMS Voltage	U_{rms}	530 V_{rms}

TECHNOLOGY

Dielectric	Polypropylene; metallized selfhealing
Filling material	resin

OVER VOLTAGES ACCORDING TO STANDARD

1.1 x U_N	U_1	825 V (30% of the working time)
1.15 x U_N	U_2	863 V (30 min/day)
1.2 x U_N	U_3	900 V (5 min/day)
1.3 x U_N	U_4	975 V (1 min/day)
1.5 x U_N	U_6	1125 V (30 ms; max.1000 x per Lifetime)

BUSHINGS

Amount	2
Flash over distance T/C	18 mm
Creepage distance	18 mm
Terminal	M 8
Maximal torque	6 Nm
Height	24 mm

CHARACTERISTICS

Maximum current	I_{max}	50 A_{rms} ¹⁾ @ 60 °C $T_{ambient}$
Maximum peak current	\hat{I}	1.580 A
Maximum surge current	\hat{I}_S	4.700 A
Series resistance	R_S	< 0.92 m Ω *
Thermal Resistance (hotspot-ambient)	R_{th}	4.0 K/W*
Tangent of the loss angle (dielectric only)	$\tan \delta_0$	2×10^{-4}
Self inductance	L_S	< 150 nH*

MECHANICAL DATA

Dimensions	84,4 x 190 mm
Drawing	20-B-142
Weight	~ 1.1 kg*
Casing material	Aluminium
Painting	no
Mounting position	vertical, horizontal

ROUTINE TEST

Terminal / Terminal	UT/T	1.612 VAC, 10 s
Terminal / Casing	UT/C	4.600 VAC, 10 s

LIFE EXPECTANCY

> 100 000 h

FAILURE RATE

< 300 FIT

STANDARD

IEC 61071

SPECIFICATION
REFERENCE

5191-45677

OPERATING TEMPERATURE

Minimum temperature	Θ_{min}	- 40 °C
Maximum temperature	Θ_{max}	+ 70 °C ¹⁾
Maximum hotspot temp.	Θ_{hs}	+ 85 °C ¹⁾

¹⁾ Calculation of hotspot-temperature

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

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

STORAGE TEMPERATURE

Minimum temperature	Θ_{min}	- 45 °C
Maximum temperature	Θ_{max}	+ 85 °C

SAFETY

Please refer to the ZVEI General Safety Recommendations

* theoretic value, final value only after measurement

Statements about product lifetime and FIT rate are based on calculations, field data and internal testing. They should only be interpreted as estimations.

Also, due to external factors, the lifetime and FIT rate in the field application may deviate from the calculated values. In general, nothing stated herein shall be construed

as a guarantee of quality or durability.