Elektronické součástky CZ, a.s.

CAPACITORS FOR AC & PULSE APPLICATIONS

KPI 345/250



Construction:

Metalized film electrodes, polypropylene film dielectricum, Non-inductive, self-healing construction, Plastic flame retardant case, epoxy resin sealed **Applications:**

AC applications with high peak and RMS current loading, high pulse loading, snubber applications. Directly mount to the IGBT module or across the Bus, **Technical data**

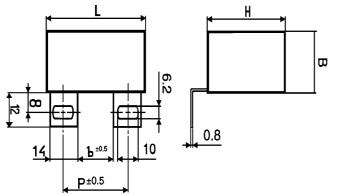
Rated voltage U_R: 250VDC

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:** 160V 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.

$$U_{MAX} = \sqrt{\frac{P_L}{2\pi \times f \times C_R \times tgD}}$$

Construction B:



Capacit.	Dimensions ⁺¹ [mm]				
C _R [μF]*	В	Н	L	р	P _L [W]
3,3	21	30	42,5	18 ÷ 25	1,6
4,7	28	37	42,5	18 ÷ 25	2
6,8	28	37	42,5	18 ÷ 25	2
10	30	45	42,5	18 ÷ 25	2,5
15	30	45	42,5	18 ÷ 25	2,5
22	40	50	42,5	18 ÷ 25	3

Other capacitance on request

Rated capacitance: 3,3 \div 22 μF

Tolerance: $\pm 20\%$, $\pm 10\%$, other tol. on request Dissipation factor Tg δ : < 0,001 at 1kHz and $\pm 25^{\circ}C$ ESR: at 100kHz and $\pm 25^{\circ}C < 1m\Omega$ Insulation resistance R_{IS}: 30 000/C [M Ω] Operating temperature range: $\pm 40 \pm \pm 85^{\circ}C$ on case

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 cooling conditions

Test voltage between terminals: 2000VDC, 2min at +25°C,

All capacitors are tested by the routine test by the producer

Protection against overvoltages:

The capacitors are self-healing and regenerate themselves after occasional breakdowns. The capacitor remains fully functional after the breakdown. **Non Recurrent Surge Voltage:**

U_{PK} 400V

If the overvoltages exceed the permissible value above, the capacitor might have been destroyed. **Test voltage between terminals and case:**

2000VDC, 1min. at +25°C

Max. repetitive rate of voltage rise dU/dt: $< 25V/\mu$ sec at U_R and $+25^{\circ}$ C

Max. peak current Ip: < CR x dU/dt

Related standards: IEC 60384-1

Marking for purchase ordering:

KPI345 15µF±10% 250V DC

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.