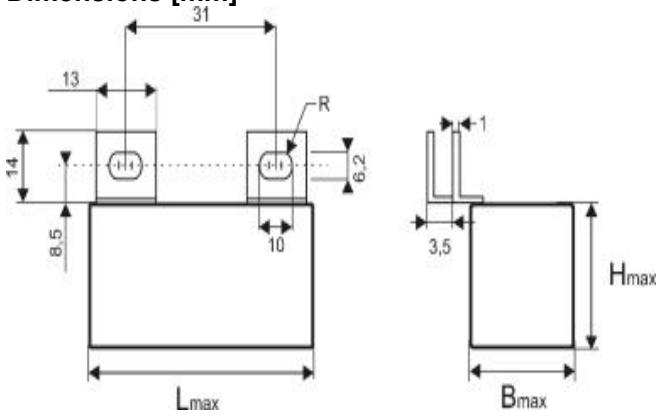
# Elektronické součástky CZ, a.s.

## KPI 348 EC CAPACITORS FOR AC & PULSE PPLICATIONS

**Dimensions [mm]**




**p=31±1, other p on request**

| Capacity | Dimensions$^{+1}$ [mm] | | | ESR | $I_{RMS}$ |
|---|---|---|---|---|---|
| $C_R$[µF]* | B | H | L | [mΩ] | [A] |
| 0,5 | 28 | 37 | 42,5 | 3,5 | 16 |
| 0,68 | 30 | 45 | 42,5 | 3 | 18 |
| 1,0 | 35 | 45 | 58 | 2,8 | 22 |
| 1,2 | 35 | 45 | 58 | 2,5 | 24 |
| 1,5 | 35 | 45 | 58 | 2,0 | 30 |
| 2,0 | 40 | 50 | 58 | 1,8 | 32 |
| 2,5 | 40 | 60 | 58 | 1,6 | 34 |
| | | | | | |

***Other Capacity on request**

**Construction:**
Metal foil electrodes, polypropylene film dielectric, 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, High dU/dt snubber applications. Directly mount to the IGBT module or across the Bus, For using in induction heating suitable

**Technical data**

**Rated voltage $U_R$:** 1200DC
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:** 500V 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.

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

**Rated capacitance:** 0,5÷2,5µF, other capacity on request
**Tolerance:** ±20%, ±10%, other tolerance on request
**Dissipation factor Tgδ:** < 0,0006 at 1kHz and +25°C
**ESL:** at resonant frequency and+25°C < 30nH
**Insulation resistance $R_{IS}$:** 30 000/C [MΩ, uF]
**Operating temperature range:** -40 ÷ +70°C
The highest permissible capacitor temperature at the hottest point of the case must not exceed +70°C.
**Max . permitted dissipation power of the capacitor $P_L$**: depend on the cooling conditions
**Test voltage between terminals:** 1600VDC, 2sec at +25°C, All capacitors are tested by the routine test by the producer
**Protection against Over-voltages:**
The capacitors are self-healing and regenerate themselves after occasional breakdowns. The capacitor remains fully functional after the breakdown.
**Permitted Over-voltages in working conditions:**
1,1 x $U_R$ max. 10% of the service period
If the Over-voltages 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:**
< 600V/µsec at $U_R$ and +25°C
**Max. peak current $I_p$:** < $C_R$ x dU/dt
**Related standards:** IEC 60384-1
**Marking for purchase ordering:**
KPI348 EC 1,5µF±10% 1200V 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.