MKP 300-207  SPECIAL POWER CAPACITORS FOR HIGH PULSE LOADING AND HIGH FREQUENCY INDUCTION HEATING

Construction:
Special winding units soldered on metal plates, which ensure good cooling of the capacitors. The winding unit have non-inductive, self-healing construction.

Applications:
The capacitors are designed for use in high power and high pulse loading and in high frequency resonant circuits of induction heating devices.
The construction of contact-plates are adaptable in accordance to customer requirements.

Technical data:
Rated voltage $U_R$: 1500DC up to $+70^\circ$C recommended working voltage 1200 ÷ 1500VDC, depend on the cooling-condition and working frequency. 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: $700 \text{ V}_{\text{RMS}}/50\text{Hz}$
by good cooling. If the working frequency is higher, the permissible AC voltage must be decreased, not to exceed the max. loss power of the capacitor.

$$P_L = U_{ef}^2 \times 2\pi f \times C_R \times \tan D$$

The max. loss power must to be lower than max. power dissipated by the capacitor under the cooling-condition. The power, which the capacitor can radiate

$$P_R = S \times \Delta T \times K$$

$S$: surface of the case [cm$^2$]
$\Delta T$: temperature rise max. 10$^\circ$C
$K$: coefficient [mW/$^\circ$C x cm$^2$], depend on the cooling-condition

Max. permitted dissipation power of the capacitor: depend on the cooling conditions of the capacitors

Rated capacitance:
2,0 ÷ 12 uF  other capacitance on request

Tolerance: ±10%, other tolerance on request

Dissipation factor $Tg$: < 0,0006 at 1kHz and +25$^\circ$C
ESR: at 100kHz and +25$^\circ$C < 5m$\Omega$

Self resonant frequency of the winding unit:
> 0,5MHz

Working frequency of the capacitors: up to 200kHz
Insulation resistance $R_{ip}$: 30 000$\Omega$/[M$\Omega$]

Operating temperature range: -40 ÷ +70$^\circ$C
The highest permissible capacitor temperature at the hottest point of the case must not exceed +70$^\circ$C.

Test voltage between terminals: 1 800VDC, 10sec at +25$^\circ$C, All capacitors are tested by the routine test by the producer

Marking for purchase ordering:
MKP300-207 5uF±10% 1500VDC

Warning! The manufacturer is not responsible for any damages, caused by the improper installation and application. Before using the capacitor in any application, please, read carefully this technical data-sheet.