Capacitors for High frequency induction heating

We have developed new types of the capacitors for using in the devices for high frequency heating.

These capacitors are developed to have minimized internal losses. If the capacitor has extremely minimized internal losses, it can work in electric circuits with high frequencies, by very high current and high working voltage. Thereby can rich big carried power.

The internal losses are the reason of the rise of the heat which have to be removed. This heat could cause the destruction of the capacitor if the heat removal is not sufficient. Permissible temperature rise of the capacitor effected by the power dissipation also depend on the ambient temperature, shown in fig. below.

By the application of the capacitor is useful to make energetic balance and choose appropriate cooling of the capacitor. The capacitors KPI300-148 are designed for the cooling with the fluid in the high frequency devices for high working power, more than 100kVA.

The fig. below shows the high frequency generator, which works at 300kHz.
Firm ELEKTRONIC COMPONENTS CZ, a.s. follows further development of the capacitors for higher power at higher frequencies

Karel Vyoral, Dipl. Ing