


SIEMENS

RS 3002 CL 2 kW Power Triode



A new forced-air cooled power triode
for RF heating up to 500 MHz

Application

Fig. 2 shows the equivalent circuit of an oscillator with the RS 3002 CL. The RF heating output stage consists of the cavity type TK 4495 (60Ω) and tube RS 3002 CL.

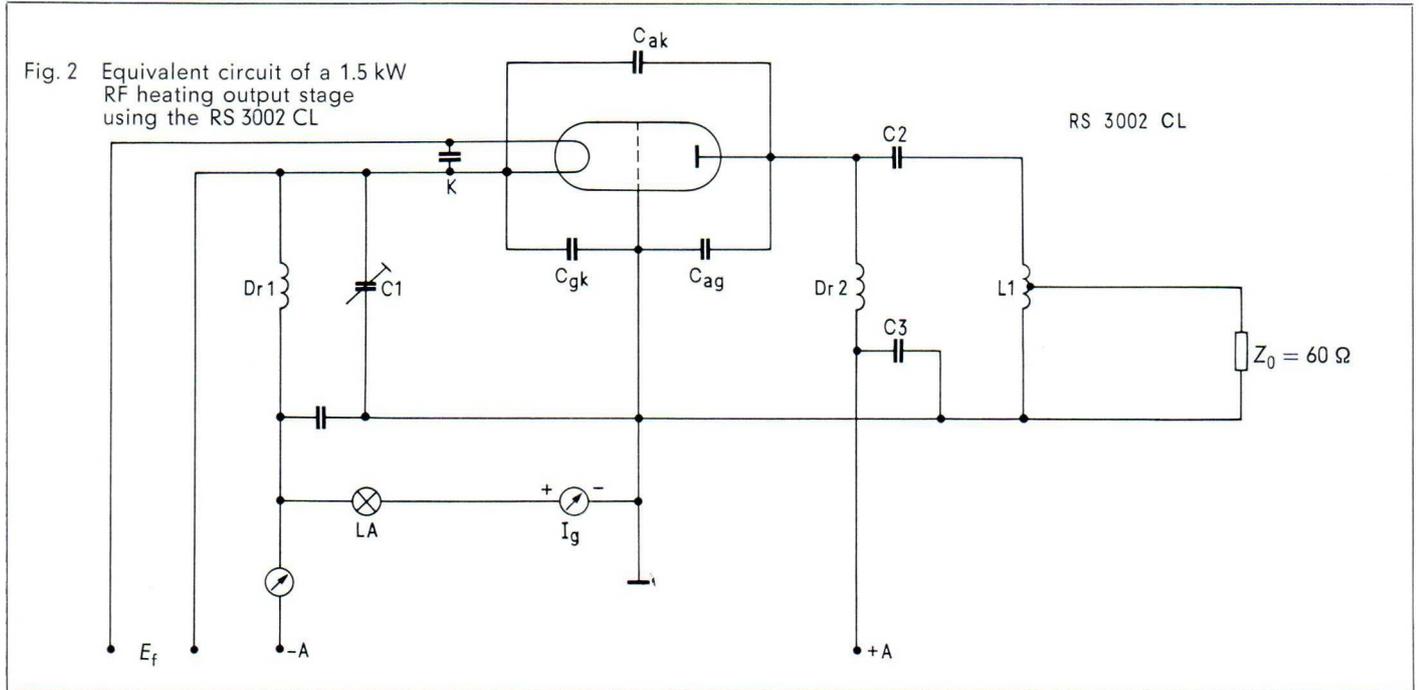
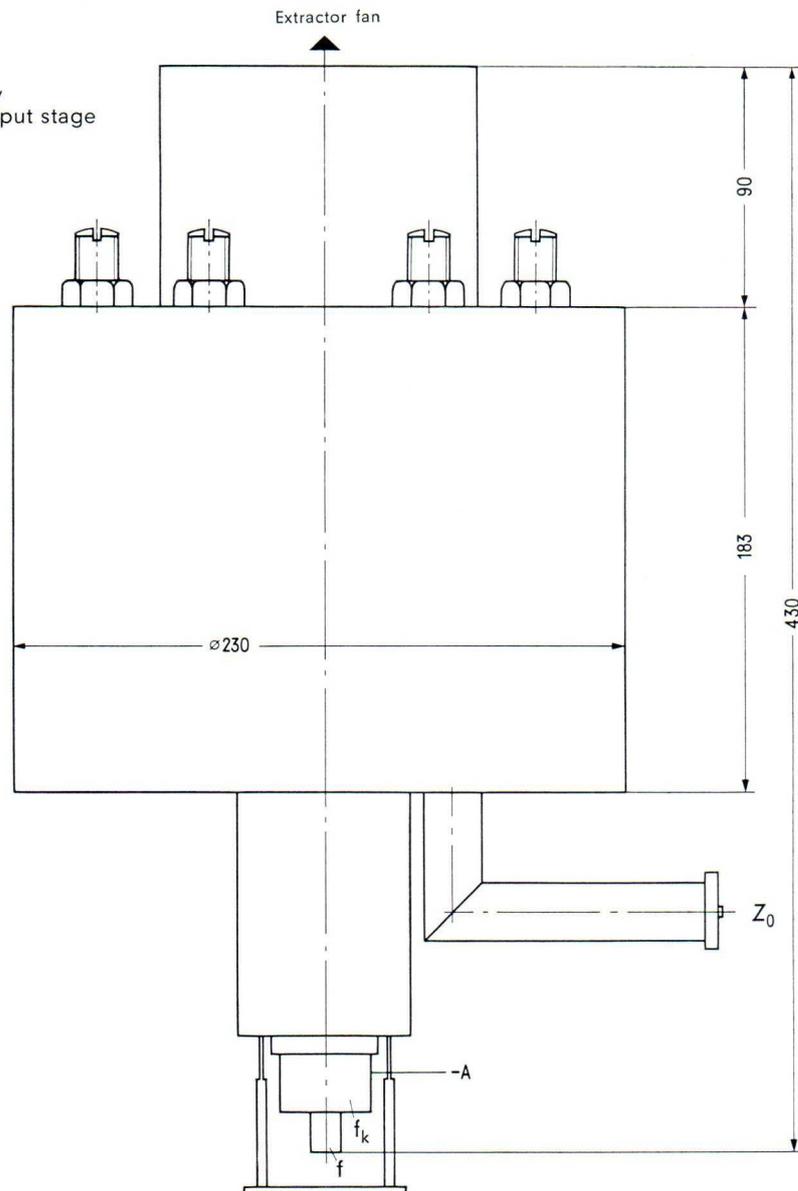


Fig. 3 Outline drawing of a cavity for a 1.5 kW RF heating output stage using the RS 3002 CL



The cavity shown in figs. 3 and 4 is based on the Huth-Kühn circuit; the tube operates in the grounded grid configuration.

To assure freedom from phase shift in operation, the tube capacitance C_{ak} is intentionally increased inside the tube. The power at the output terminal is 1.5 kW.

The cavity can be tuned with six trimmer screws to the operating frequency of 433.92 ± 0.87 MHz. It has been designed such that with load variations the frequency shift remains below ± 0.87 MHz.

The plunger visible at the bottom of the cavity is used to correct the feedback, and affects the grid-cathode circuit.

Fig. 4 Frequency stabilized cavity for a 1.5 kW RF heating output stage using the tube type RS 3002 CL

