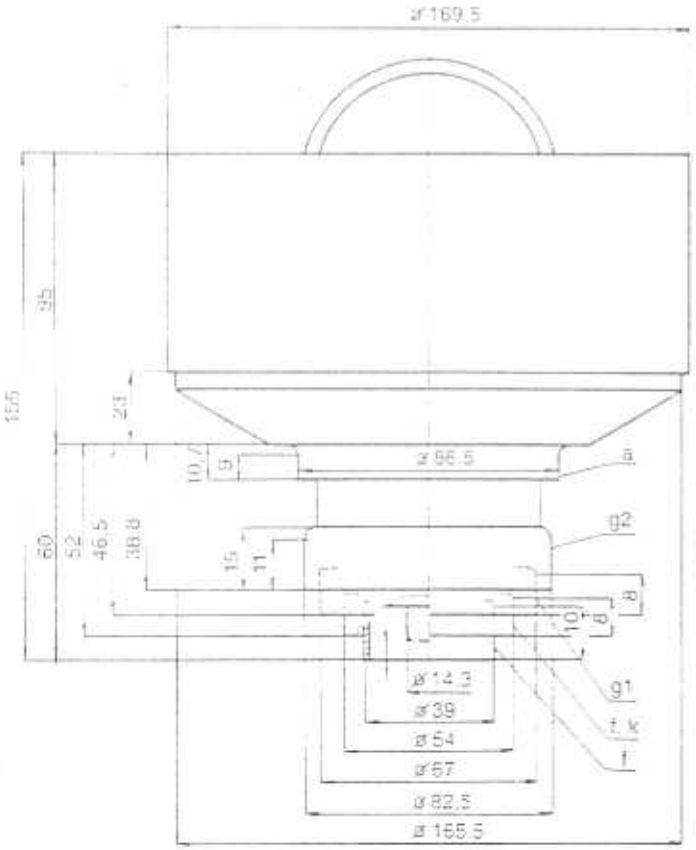
TESLA - ECIMEX a. s.



The RE 12 XO is a forced air cooled, ceramic/metal power tetrode for frequencies up to 800 MHz, with coaxial arrangement of electrode terminals and with pyrolytic graphite grids.
The maximum anode dissipation rating is 12 kW.
The RE 12 XO is primarily intended for use in TV transmitters.

RE 12 XO

RE 12 XO

HEATING DATA

Filament voltage	V_f	4,2	V
Filament current[1]	I_f	126	A
Tube heating time (minimum)[2][3]	t_f	2	min
Cathode	thoriated tungsten, direct heating, mesh type		

For actual heating data of every individual tube see its passport.

1) The heating current estimated for a new tube must be kept within ±0.5 % during the service life hours.
2) 1 minute max. 1/2 Vf and max. Ifp = 250 A plus 1 minute at full Vf.
3) When the tube is pre-heated permanently with Vf = 1,5 V then the full Vf may be applied instantaneously and the t_f reduced to 30 seconds.

MAXIMUM RATINGS

Anode voltage	V_a	6	kV
Screen grid voltage	V_{g2}	700	V
Control grid voltage	V_{g1}	–200	V
Cathode peak current	I_{kp}	22	A
Anode dissipation	W_a	12,5	kW
Screen grid dissipation	W_{g2}	120	W
Control grid dissipation	W_{g1}	50	W
Operating frequency	f	800	MHz

GENERAL DATA

Electrical

Interelectrode capacitances	$C_{k,g1}$	69	pF
	$C_{k,g2}$	4,1	pF
	$C_{a,g2}$	19	pF
	$C_{g1/g2}$	100	pF
Transconductance (at V_a = 2 kV, V_{g2} = 600 V, I_a = 3 A)	S	80	mA/V
Amplification factor (at V_a = 2 kV, I_a = 2 A, V_{g2} = 800 V)	$\mu_{g2/g1}$	8	
Emission current (at $V_a = V_{g2} = V_{g1}$ = 500 V)	I_e	25	A

Mechanical

Mounting position	vertical		
Weight	approx.	7,8	kg

Cooling

forced air

Inlet air temperature	–15 to +45	°C
Air flow at maximum ratings	13	m^3/min
Pressure drop	800	Pa
Maximum temperature of anode	250	°C
of any other part	220	°C

For other limitations see the General part.

CONSTANT CURRENT CHARACTERISTICS