RF POWER TRIODE

- Water cooled

QUICK REFERENCE DATA

Industrial RF oscillator, class-C

freq.	three phase	
	V_a	W_o
MHz	kV	kW
30	7	17,7
	6	14,3

HEATING: direct; thoriated tungsten filament

Filament voltage	V_f	=	6,3 V
Filament current	I_f	=	136 A
Cold filament resistance	R_{fo}	=	0,005 Ω

The filament is designed to accept temporary fluctuations of +5% and −10%

The filament current must never exceed a peak value of 280 A at any time during the initial energizing schedule.

CAPACITANCES

Anode to all other elements except grid	C_a	=	1,2 pF
Grid to all other elements except anode	C_g	=	44,5 pF
Anode to grid	C_{ag}	=	33,5 pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a	=	6 kV
Anode current	I_a	=	2,5 A
Mutual conductance	S	=	23 mA/V
Amplification factor	μ	=	17,5

TEMPERATURE LIMIT (Absolute limit)

Temperature of all seals		max.	50 °C
Water inlet temperature			

Table 1 Cooling characteristics

anode dissipation W_a kW	inlet temperature T_i °C	rate of flow q_{min} l/min	pressure drop ΔP kPa	max. outlet temperature T_o (°C)
15	20	15	30	35
	50	34	140	60
10	20	9,5	15	37
	50	22	60	57
5	20	4,5	3	40
	50	12	20	60

ACCESSORIES

Filament clips with cable	40662
Grid connector	40664
Water jacket	K720
O-ring, large	2622 080 30889
small	2622 080 30736

* 100 kPa ≈ 1 at

MECHANICAL DATA

Dimensions in mm

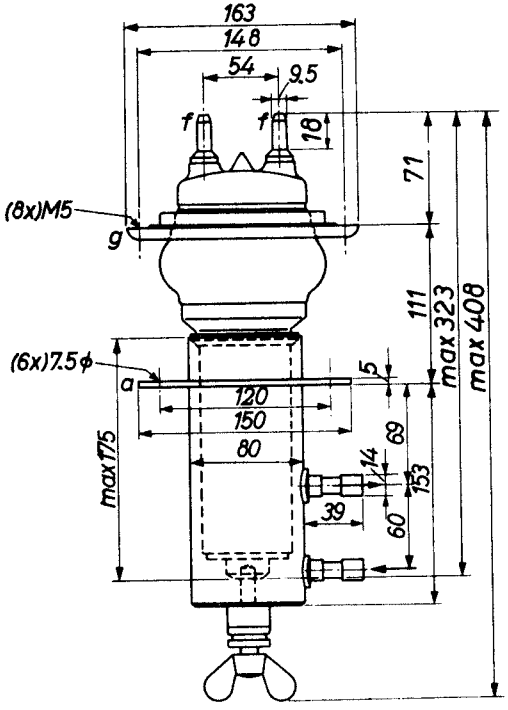

Fig. 1 Mechanical outline.

Mounting position	:	vertical with anode down.
Net mass of tube	:	2 kg
Net mass of water jacket	:	2,2 kg

For further data and curves (except cooling curves) please refer to type TBL 6/14

PHILIPS

Data handbook

Electronic components and materials

TBW6/14

page	sheet	date
1	139	1988.02
2	140	1988.02
3	141	1988.02
4	FP	2000.09.22