

## RF POWER TRIODE

- Water cooled

## QUICK REFERENCE DATA

Industrial RF oscillator, class-C

freq. MHz	three phase	
	$V_a$ kV	$W_o$ 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 $\Omega$

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	$\mu$	=	17,5

## TEMPERATURE LIMIT (Absolute limit)

Temperature of all seals	max.	50 $^{\circ}\text{C}$
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 $\Delta P$ 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  $\approx$  1 at

MECHANICAL DATA

Dimensions in mm

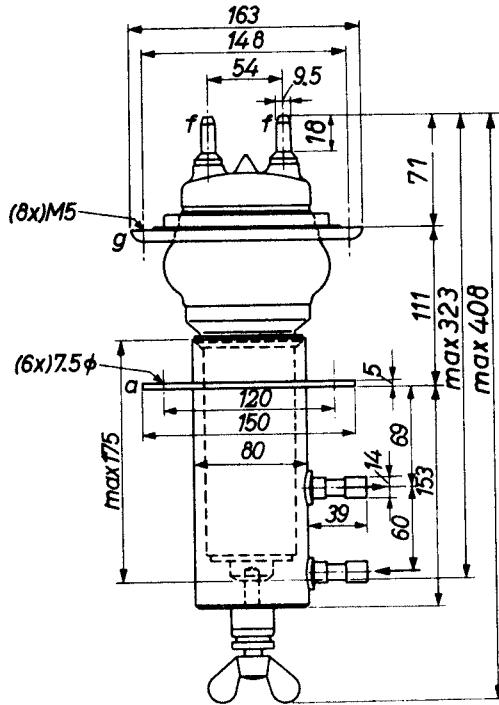


Fig. 1 Mechanical outline.

- 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

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