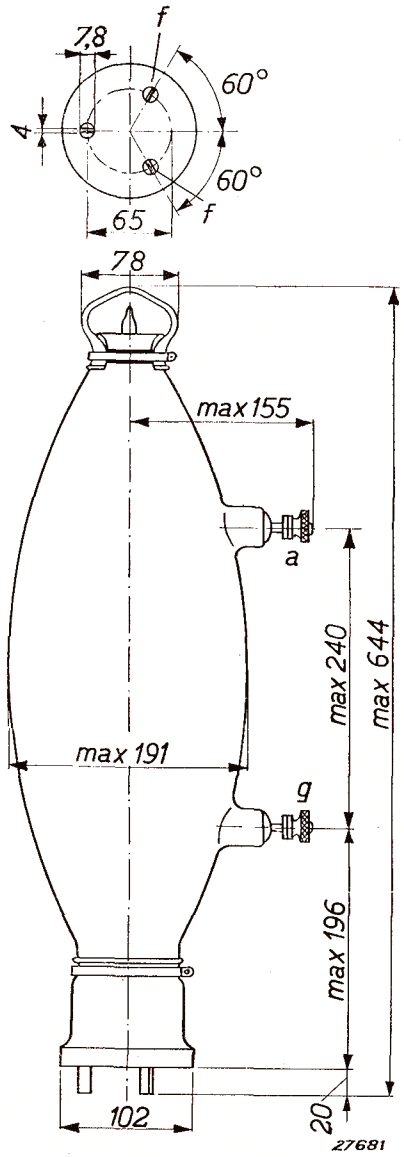


PHILIPS-EMISSION

R E 520 E 11/38

PHILIPS

TRANSMITTING VALVE

TA 4/2000

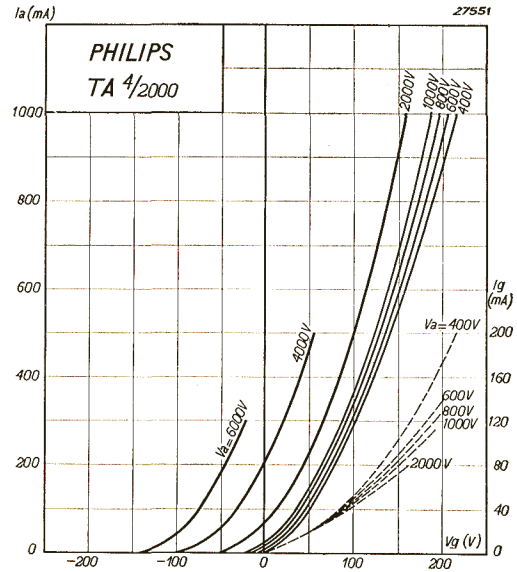
Description

This air-cooled transmitting valve is specially characterised by the valuable feature that it can also be used on short waves down to 15 metres. It possesses a tungsten filament and has a remarkably high output at a relatively low anode voltage. The latter may be 4000 volts for wavelengths down to 100 metres, and 3000 volts for a wavelength of 15 metres. When the valve is used on wavelengths above 150 metres, the anode voltage may be increased to 6000 volts without disadvantage.

The input and output of the valve for different values of the efficiency are indicated in the table below. Attention is drawn to the fact that the anode current must not exceed 750 milliamps.

Efficiency	Input	Output	Anode dissipation
40 %	1650 watts	650 watts	1000 watts
50 %	2000 watts	1000 watts	1000 watts
60 %	2500 watts	1500 watts	1000 watts
65 %	3000 watts	2000 watts	1000 watts

When using this valve on a wavelength of about 15 metres, it is recommended to remove the metal protection cap on top of the valve.



Technical Data

Filament voltage	V_f	=	22·0 V
Filament current	I_f	=	appr. 24·5 A
Total emission	I_s	=	appr. 2 A
Anode voltage	V_a	=	max. 6000 V
Max. permissible anode dissipation	W_a	=	1000 W
Anode dissipation during test	W_{at}	=	1500 W
Amplification factor	μ	=	appr. 50
Mutual conductance at I_a = 225 mA	S_{norm}	=	appr. 4·0 mA/V
Max. mutual conductance	S_{max}	=	appr. 8·0 mA/V
Internal resistance at I_a = 225 mA	R_i	=	appr. 12500 ohms