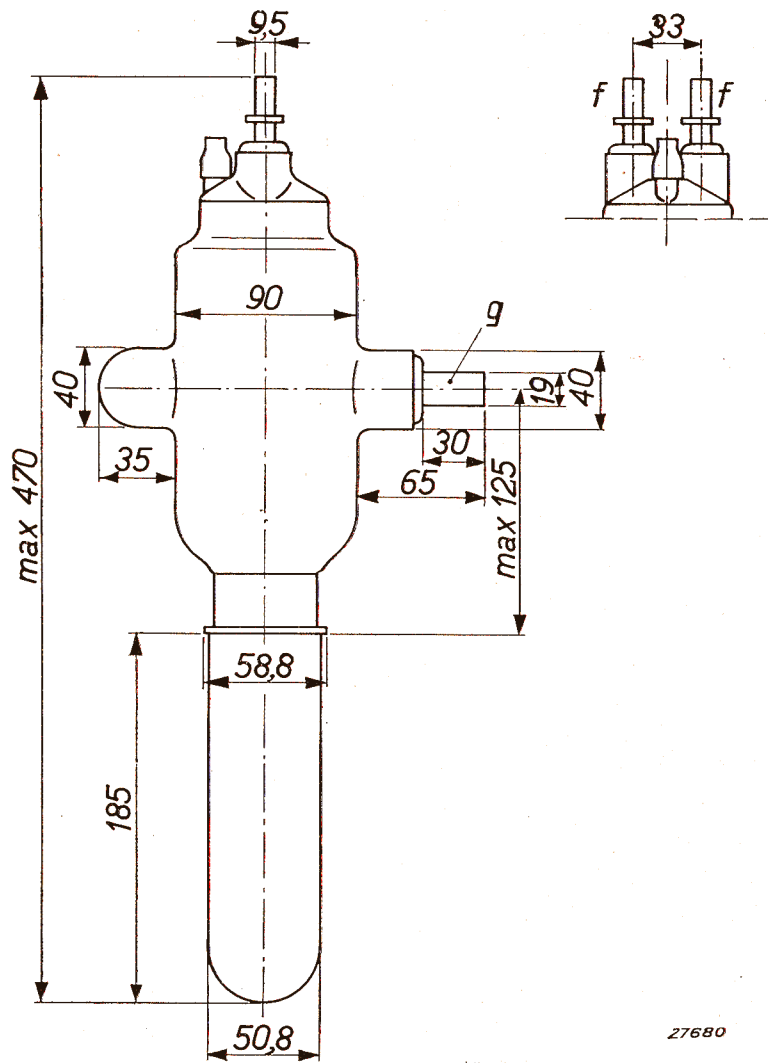


PHILIPS



27680

TRANSMITTING VALVE

TA $1\frac{1}{2}/15$

PHILIPS-EMISSION

Description

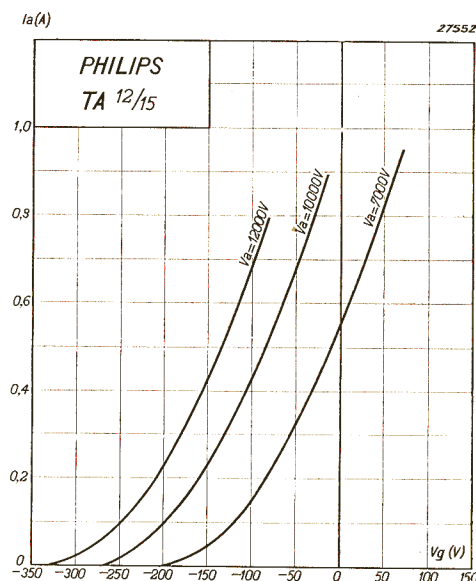
The triode TA 12/15 has a tungsten filament and has been specially designed for H.F. amplification in powerful transmitters for wavelengths down to 150 metres. In the table below the attainable output is indicated for various values of the efficiency at an anode voltage of 12,000 volts and the maximum anode dissipation of 7.5 kW, the maximum anode current being 1.25 amps (for telegraphy only). The TA 12/15 has a watercooled anode.

| Efficiency | Input | Output | Anode dissipation |
|------------|-------|---------|-------------------|
| 50 % | 15 kW | 7.5 kW | 7.5 kW |
| 60 % | 15 kW | 9 kW | 6 kW |
| 65 % | 15 kW | 9.8 kW | 5.2 kW |
| 70 % | 15 kW | 10.5 kW | 4.5 kW |

For use as a H.F. class B amplifier please refer to the table below

| Anode voltage | Anode current | Depth of modulation | Carrier power | Peak power |
|---------------|---------------|---------------------|---------------|------------|
| 12000 V | 0.7 amp | 100 % | 2.8 kW | 11.2 kW |
| 12000 V | 0.75 amp | 80 % | 3.3 kW | 11.2 kW |
| 12000 V | 0.85 amp | 60 % | 4.3 kW | 11.2 kW |

With H.F. class C anode modulation (Heising system) the anode voltage should not exceed 10,000 volts.



Technical Data

| | |
|--------------------------------------|---|
| Filament voltage | $V_f = 22.0 V$ |
| Filament current | $I_f = \text{appr. } 41 A$ |
| Total emission | $I_s = \text{appr. } 6 A$ |
| Anode voltage | $V_a = \text{max. } 12000 V$ |
| Max. permissible anode dissipation | $W_a = 7.5 kW$ |
| Anode dissipation during test | $W_{at} = 10 kW$ |
| Amplification factor | $\mu = \text{appr. } 40$ |
| Mutual conductance at $I_a = 0.8 A$ | $S_{norm} = \text{appr. } 5.5 mA/V$ |
| Max. mutual conductance | $S_{max} = \text{appr. } 8.0 mA/V$ |
| Internal resistance at $I_a = 0.8 A$ | $R_i = \text{appr. } 7300 \text{ ohms}$ |