16P12
WATER COOLED TRIODE
Directly heated
TENTATIVE

GENERAL
The 16P12 is a directly heated, water cooled triode with integral cooling. It has a thoriated tungsten filament and is intended for use in induction heating equipment. The filament is suitable for direct switching.

RATING
Filament Voltage \( V_f \) 8.0 ±5% V
Filament Current \( I_f \) 26.0 A
Maximum d.c. Anode Voltage \( V_{a(\text{max})} \) 8.0 kV
Maximum Peak Cathode Current \( I_{k(pk)\text{max}} \) 6.0 A
Maximum Anode Dissipation \( P_a(\text{max}) \) 3.0 kW
Maximum Operating Frequency
(Limited by water connections) \( f(\text{max}) \) 10 Mc/s
(Limited by valve) \( f(\text{max}) \) 40 Mc/s

INTER-ELECTRODE CAPACITANCES
Anode/Grid \( c_{a-g} \) 11.5 pF
Grid/Filament \( c_{g-f} \) 14.5 pF
Anode/Filament \( c_{a-f} \) 0.8 pF

CHARACTERISTICS
Anode Voltage \( V_a \) 5.0 kV
Anode Current \( I_a \) 400 mA
Mutual Conductance \( g_m \) 7.5 mA/V
Amplification Factor \( \mu \) 24

DIMENSIONS
Maximum Overall length 211 mm

MOUNTING POSITION—Vertical, base upwards

ANODE—External

BASE—Special

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CHARACTERISTIC CURVES: $V_g/V_a$
CONSTANT CURRENT CHARACTERISTICS

[Diagram showing characteristic curves with grid and anode voltage and current scales.]
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WATER FLOW/DISSIPATION CHART

Temperature difference between outgoing and incoming water (°C)

Anode dissipation (kW)

Water flow: 1.0 litres/min

Water flow: 1.5 litres/min

Water flow: 2.0 litres/min

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