

START POWER

Power Electronics Technologies



77TITL91- ITL9-1 AIR-COOLED TRIODE FOR HF GENERATORS

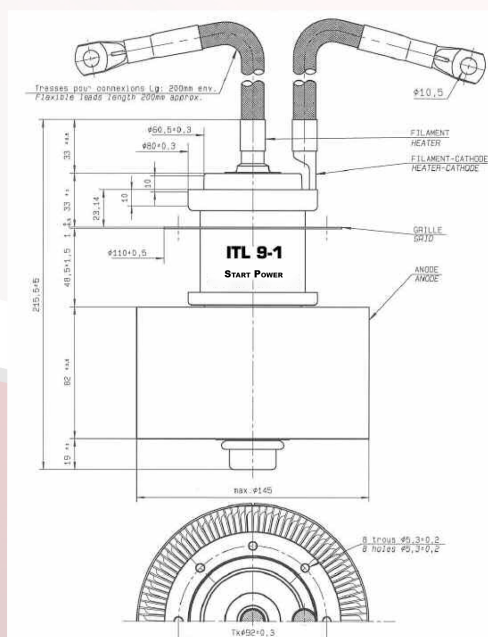
- Output power: 25 kW
- Anode voltage: 12 kV
- Anode dissipation: 8.5 kW
- Frequency up to 120 MHz

The **ITL 9-1** triode is intended for dielectric heating applications and delivers continuous RF power of 25 kW. It is especially well suited to industrial applications, such as wood gluing and plastic welding.

This air-cooled triode uses a coaxial design and metal-ceramic technology. It may be operated in CW or pulsemodes. For operation in pulse mode, the parameters depend on each equipment characteristics.

The P.R.C. factory is fully committed to the long-term viability of tube technology, and to delivering high-tech products based on our proven expertise in complex processes.

OUTLINE DRAWING (IN MM)



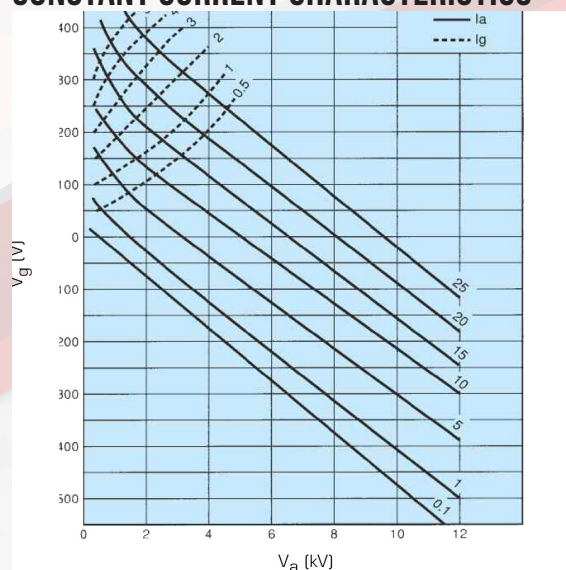
TECHNICAL SPECIFICATIONS

Cathode	thoriated tungsten		
Filament voltage	5.8	V	
Filament current	145	A	
Max. heater surge current	600	A	
Amplification factor	22		
Capacitance:			
• grid-anode	21	pF	
• grid-cathode	55	pF	
• cathode-anode	1.0	pF	

CLASS C, RF OSCILLATOR FOR INDUSTRIAL APPLICATIONS

Frequency	30	60	MHz
Anode voltage	10	8	kV
Anode current	3.3	3.4	A
Grid current, on load	0.35	0.40	A
Anode input power	33	27.2	kW
Anode output power	25	19	kW
Anode dissipation	7.2	7.6	kW
Grid dissipation	80	88	W
Grid resistance	1550	1300	Ω
Feedback ratio	9.6	11.1	%
Oscillator efficiency	75	70	%

CONSTANT CURRENT CHARACTERISTICS



MAXIMUM RATINGS

Frequency	120	MHz
Anode voltage up to 30 MHz	12	kV
Anode voltage from 30 to 60 MHz	9	kV
Anode voltage from 60 to 90 MHz	7	kV
Anode voltage from 90 to 120 MHz	6	kV
Grid voltage	-1500	V
Anode current, CW	4	A
Grid current, at full load, CW	0.8	A
Grid current, at no load, CW	1.5	A
Peak cathode current CW	25	A
Anode dissipation (Tin = 45°C)	8.5	kW
Grid dissipation up to 30 MHz	350	W
Grid dissipation from 30 to 60 MHz	320	W
Grid dissipation from 60 to 90 MHz	300	W
Grid dissipation from 90 to 120 MHz	280	W
Grid resistance (tube non conducting)	10	k Ω

MECHANICAL CHARACTERISTICS

Operating position	vertical	
Weight	4.4	kg
Dimensions	145 x 215	mm

COOLING CHARACTERISTICS (AIR-COOLING)

Typ. air temperature at tube inlet	45	°C
Min. air flow cooling (for Pa=8 kW)	9.5	m³/min
Min. air pressure cooling	5.8	mbar
Max. T° at any point on the tube envelope	200	°C