

77 T 3026J replacement of RS 3026 CJ

Water-cooled triode for Industrial RF Heating



77 T 3026J Water-cooled triode for RF induction heating machines

- Output power: 32 kW
- Anode voltage: 12 kV
- Anode dissipation: 25 kW
- Frequency up to 120 MHz

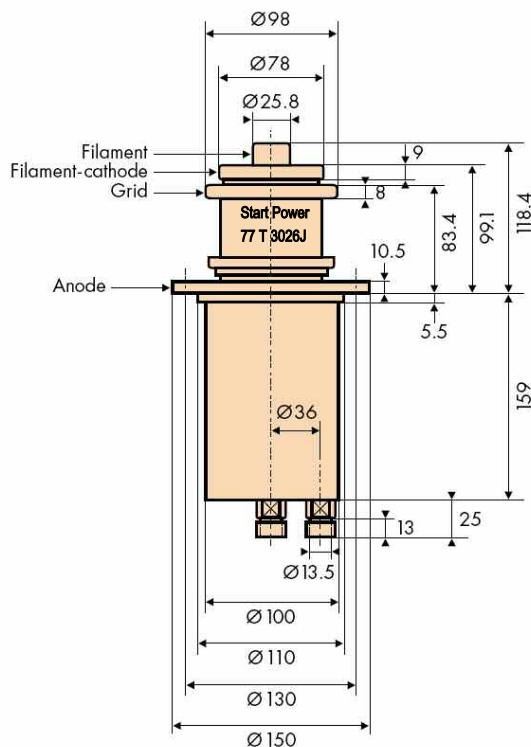
The 77T3026J is a replacement for RS 3026 CJ triode, intended for induction dielectric heating applications, delivers continuous RF power of 32 kW. It is especially well suited to industrial applications such as the heat treatment of metals.

This water-cooled triode uses a coaxial design and metal-ceramic technology. It may be operated in CW or pulse modes. For operation in pulse mode, the parameters depend on each equipment characteristics. Contact us for specific information.

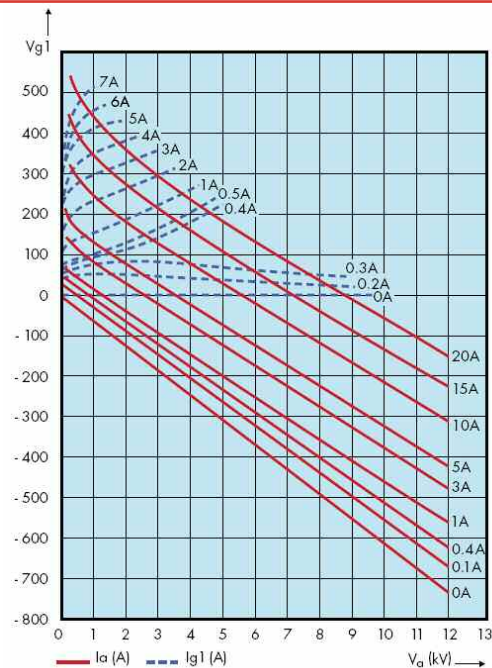
The P.R.C. factory is fully committed to the long-term viability of tube technology, and to delivering high-tech products based on our proven expertise in complex processes.

77 T 3026J Industrial RF Heating

Outline drawing (in mm)



Constant current characteristics



Technical specifications

| | |
|---------------------------|--------------------|
| Cathode | thoriated tungsten |
| Filament voltage | 7 V |
| Filament current | 115 A |
| Max. heater surge current | 450 A |
| Amplification factor | 20 |
| Capacitance | |
| • grid-anode | 26 pF |
| • grid-cathode | 59 pF |
| • cathode-anode | 1.5 pF |

Mechanical characteristics

| | |
|--------------------|--------------|
| Operating position | vertical |
| Weight | 7 kg |
| Dimensions | 150 x 302 mm |

Cooling characteristics (industrial water)

| | |
|--|------------|
| Max. water temperature at tube outlet | 65 °C |
| Min. water pressure at tube inlet | 6 bar |
| Max. T° at any point on the tube envelop | 220 °C |
| Min. air flow on filament connections | 0.7 m³/min |

Maximum ratings

| | | |
|---|-------|-----|
| Frequency | 120 | MHz |
| Anode voltage | | |
| • up to 40 MHz | 12 | kV |
| • from 40 to 80 MHz | 11 | kV |
| • from 80 to 120 MHz | 9 | kV |
| Grid voltage | -1500 | V |
| Grid current, at full load up to 40 MHz | 1.1 | A |
| Grid current, off load up to 40 MHz | 1.4 | A |
| Cathode current CW | 6 | A |
| Anode dissipation | 25 | kW |
| Grid dissipation | | |
| • up to 40 MHz | 550 | W |
| • from 40 to 80 MHz | 450 | W |
| • from 80 to 120 MHz | 350 | W |
| Grid resistance | 15 | kΩ |

Class C, RF oscillator for industrial applications

| | | | |
|-----------------------|------|------|-----|
| Frequency | <40 | <40 | MHz |
| Anode voltage | 10 | 8 | kV |
| Anode current | 4.1 | 4.2 | A |
| Anode input power | 41 | 33.6 | kW |
| Anode output power | 32 | 25 | kW |
| Anode dissipation | 8.2 | 7.8 | kW |
| Grid current, on load | 700 | 760 | mA |
| Grid dissipation | 240 | 260 | W |
| Grid resistance | 1.15 | 0.86 | kΩ |
| Feedback ratio | 13.5 | 15 | % |
| Oscillator efficiency | 78 | 74.5 | % |

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