

# RS2048CJC POWER TUBE

## RS2048CJC

Water-cooled high- $\mu$  tetrode for industrial RF-Heating

### 53 kW tetrode for CO<sub>2</sub> laser

- Output power: 53 kW in CW mode
- Anode voltage: 14 kV
- Anode dissipation: 30 kW max.
- Frequency up to 110 MHz



The RS2048CJC is a RF power high-amplification factor water-cooled tetrode designed specifically for industrial CO<sub>2</sub> laser applications. This tube uses a coaxial design and metal-ceramic technology. It is a very powerful tube regarding its compact size. It delivers continuous RF power of 53 kW for CO<sub>2</sub> laser power between 5000 and 7000 W.

### Technically specifications

Cathode	thoriated tungsten				
Filament voltage	9	V			
Filament current	115	A			
Max. heater surge current	250	A			
Amplification factor	7.5				
Capacitances					
• K - G1 =	80	pF	• G1 - G2 =	115	pF
• K - G2 =	5.2	pF	• G1 - A =	0.6	pF
• FK - A =	0.1	pF	• G2 - A =	20.5	pF

### Mechanically characteristics:

Operating position	vertical		
Weight	4.4	kg	
Dimensions	130 x 230	mm	

Rev.: 170710-1

# RS2048CJC

## POWER TUBE

---

### 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 envelope	220	°C
Min. air flow on filament connections	0.7	m <sup>3</sup> /min

### Maximum ratings:

Frequency	110	MHz
Anode voltage	14	kV
Screen grid voltage	1000	V
Control grid voltage	-300	V
DC anode current	6	A
Cathode current peak	35	A
Anode dissipation	30	kW
Grid dissipation		
• up to 50 MHz	300	W
• from 50 to 110 MHz	270	W

### Class C, RF amplifier operation:

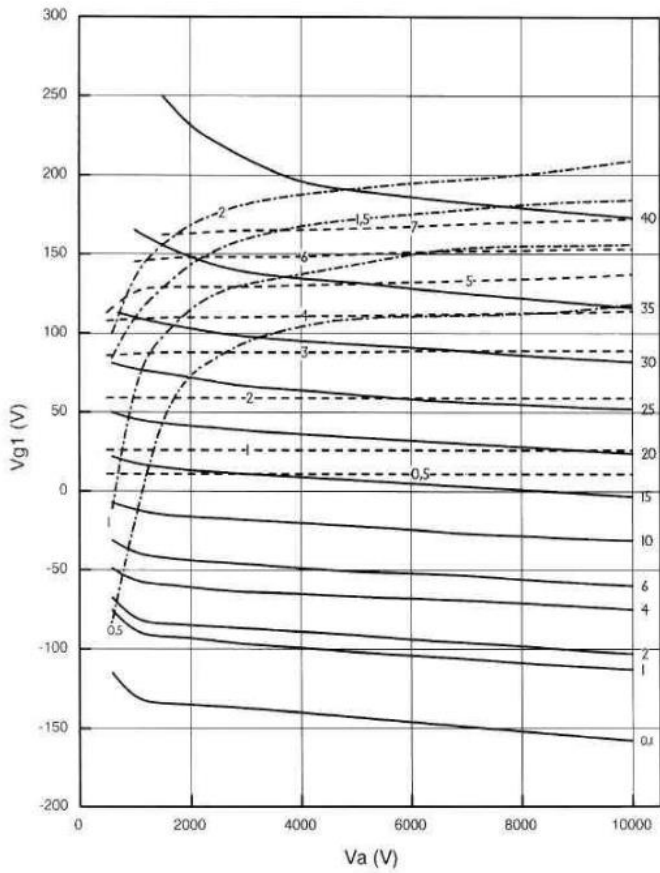
Frequency	<50	<110	MHz
Anode voltage	12	10	kV
Anode current	5.6	4.9	A
Anode output power	53	37.5	kW
Anode dissipation	14	11	kW
Screen grid voltage	800	800	V
Control grid voltage	-230	-220	V
Screen grid current	220	190	mA
Control grid current	600	550	mA
Screen grid dissipation	176	152	W

Rev.: 170710-1

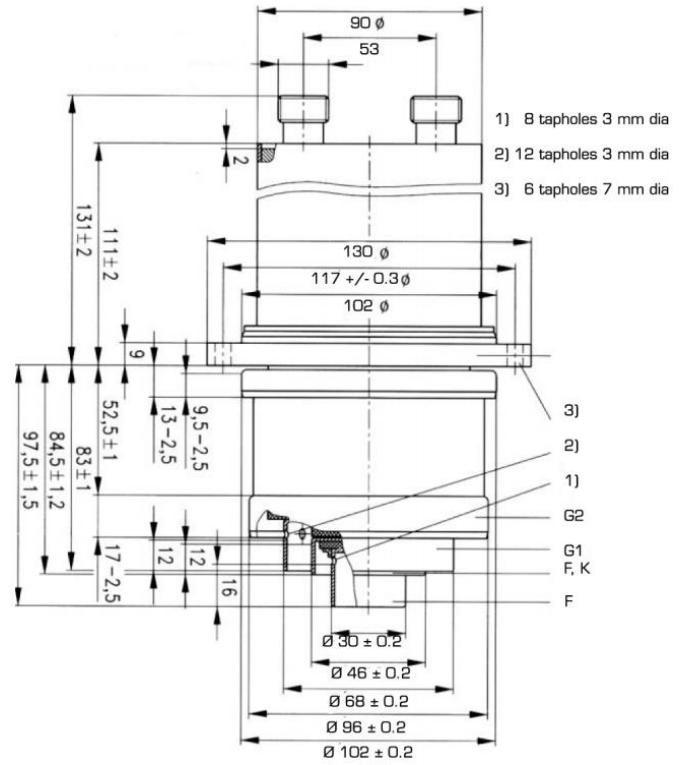
# RS2048CJC

## POWER TUBE

### Constant current characteristics VG2 = 800 V



### Outline drawing (in mm)



Rev.: 170710-1