RS 3080 CL

(For Stalam 105KW RF Dryer)

Forced Air Cooled Triode
For Industrial RF Heating

- Output Power: 120 kW (CW mode)
- Anode voltage: 14 kV
- Anode dissipation: 45 kW
- Frequency up to 100 MHz

Manufactured in India, in a world-class facility equipped with high quality machinery, materials and components sourced from reputed suppliers in America, Europe and Japan.

One year warranty against manufacturing defects irrespective of the number of hours of operation.

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The RS3080CL is a RF power triode designed for industrial heating applications. This tube uses a coaxial design and metal-ceramic technology. This triode is designed to operate in CW modes. For operation in pulse mode, the parameters depend on each equipment characteristics. Contact us for specific information. The RS3080CL is a forced-air cooled triode.

Electrical characteristics

Cathode Filament	thoriated tungsten
Filament voltage (+ 5 %, - 10 %)	11 V
Filament current	205 A
Surge current (maximum)	615 A
Capacitances:	
• Grid to Anode	46 pF
• Grid to Cathode	106 pF
• Cathode to Anode (see note 2)	3 pF
Amplification factor	19
Transconductance (Va: 4 kV, Ia: 3 A)	60 mA/V approx.

Mechanical characteristics

Operating position	vertical anode up or down
Weight	18.5 kg (41 lbs) approx.
Dimensions	see ourline drawing

Maximum ratings

Frequency	30 MHz
Anode voltage	14 kV
Control grid voltage	-1.5 kV
Cathode current:	
• on load, CW	2.3 A
• off load, CW	2.6 A
Peak cathode current, CW	85 A
Anode dissipation	45 kW
Grid dissipation	1.25 kW
Grid resistance (at blocked tube)	8 KΩ

Typical Operation (Class C RF oscillator for industrial applications)

Frequency	< 30 MHz
Anode voltage	12 kV
Control grid bias	- 1055 V
RF Control grid voltage	1555 V
Anode current	12.7 A
Control grid current	2.2 A
Anode input power	151.9 kW
Anode output power	106 kW
Anode dissipation	35 kW
Control grid dissipation	942 W
Grid resistance	485 Ω
Feedback ratio	14.8 %
Oscillator efficiency	74.9 %

Operations at higher frequencies available upon request

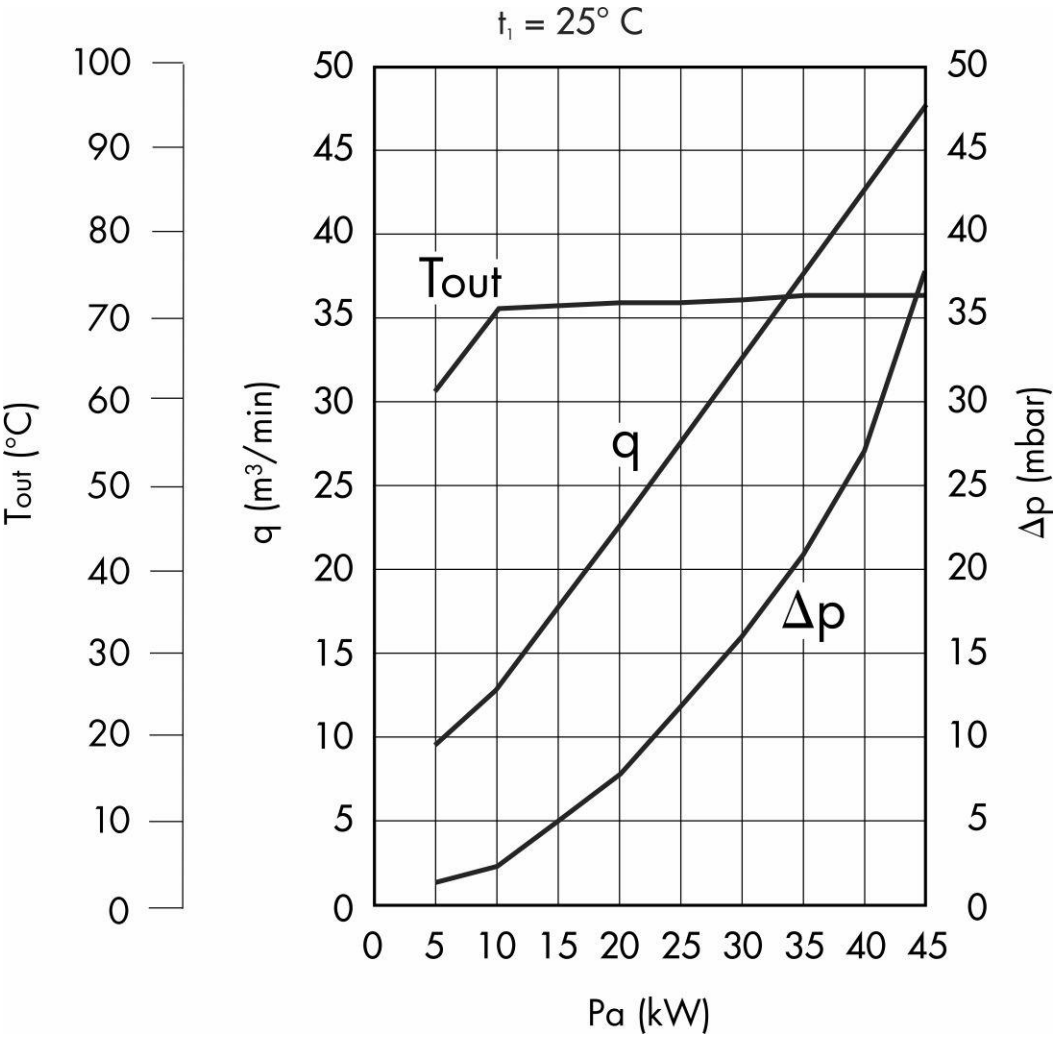
Cooling

Anode cooling	forced air
Cooling water flow and pressure gradient . .	see cooling curves
Inlet air temperature	25 °C typical
Temperature at any point on tube envelope . .	220 °C max.

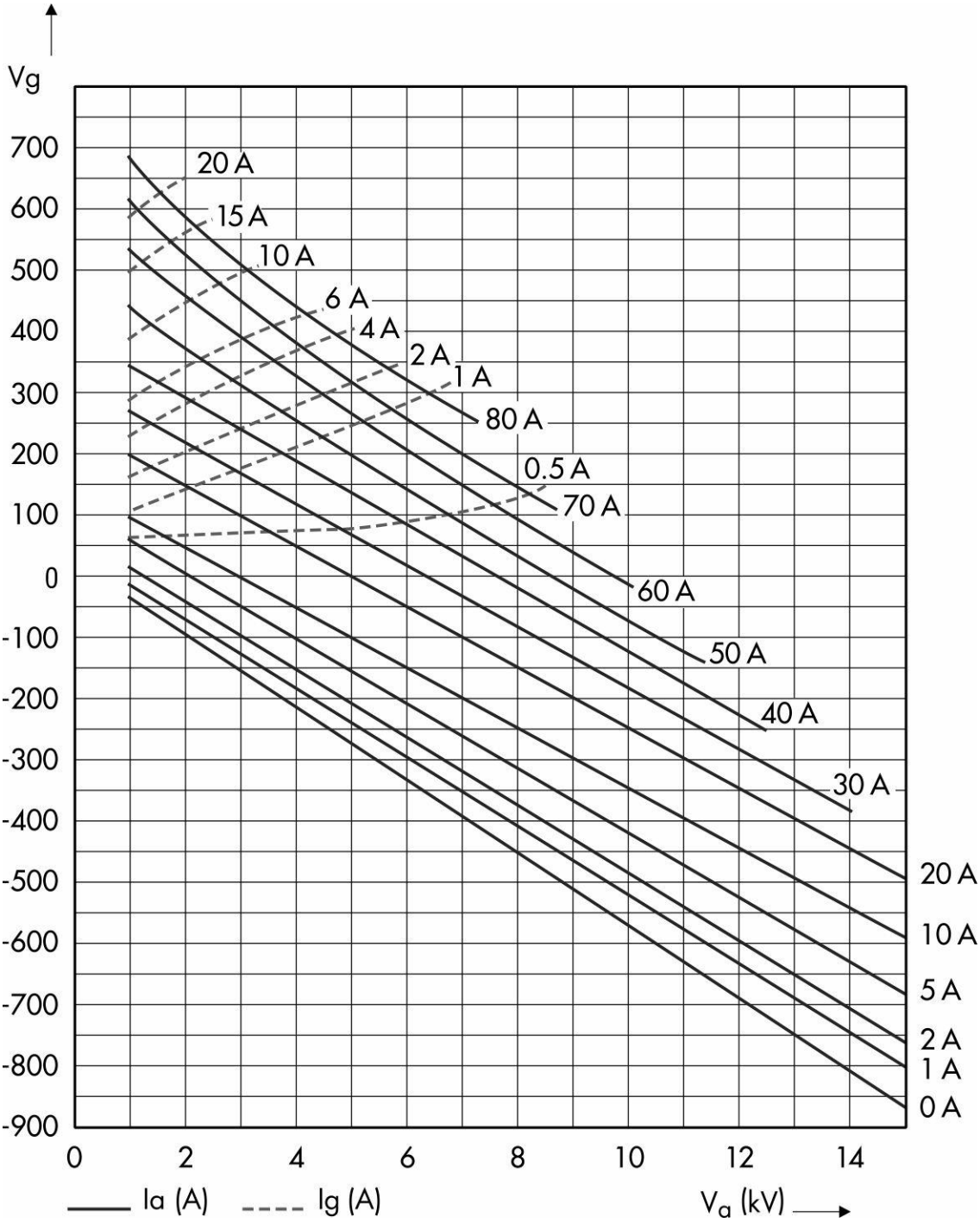
Cooling Curves

(For air flow from electrode terminal side)

Pa : anode dissipation Δp : pressure drop
q : air flow rate Tout : air outlet temperature



Constant Current Characteristics



Outline Drawing (in mm)