

ITK30-2 is water cooled, metal/ceramic coaxial power triode, with thoriated-tungsten filament, intended for use in industrial heating, as well as pulse oscillator. Max frequency: 100MHZ, max plate dissipation: 50KW.

### General Characteristics

Filament voltage	11	V
Filament current	240	A
Filament surge current	900	A
Interelectrode capacitance		
Grid-Anode	49	pF
Grid-Cathode	98	pF
Anode -Cathode	2.5	pF
Amplification factor	23	
Transconductance ( $V_a=10Kv, I_a=4A$ )	95	mA/V
Operating position	Vertical, anode up or down	
Cooling	Water	
Cooling water flow, min	$\geq 40$	L/m
Max outlet water temperature	60	$^{\circ}C$
Temperature at seal, max	220	$^{\circ}C$
Net weight	10.3	kg

### Maximum ratings

Operating frequency	100	MHz
Anode voltage		
Below 30MHz	14	kV
30~70MHz	12	kV
70~100MHz	10	kV
Anode current	16	A
Grid voltage	-1500	V
Grid current (full load)	3.0	A
Grid current (no load)	5.0	A
Peak cathode current, CW	90	A
Peak cathode current, pulse		A
Anode dissipation power	50	kW
Grid dissipation		
Below 30MHz	1200	W
30~70MHz	1050	W
70~100MHz	900	W

### Typical operation

#### Class C Radio Frequency Oscillator for Industrial applications (30MHZ)

Anode voltage	12	10	kV
Anode current	14.4	12.6	A
Grid bias voltage	-790	-680	V
Grid voltage	1265	1150	V
Grid current, on load	2.2	2.2	A
Grid dissipation	890	885	W
Grid resistance	360	310	$\Omega$
Anode dissipation	39	28	kW
Anode Input power	173	126	kW
Anode Output power	132	96	kW
Feedback ratio	11.7	11.6	%
Oscillator efficiency	76	75.7	%

