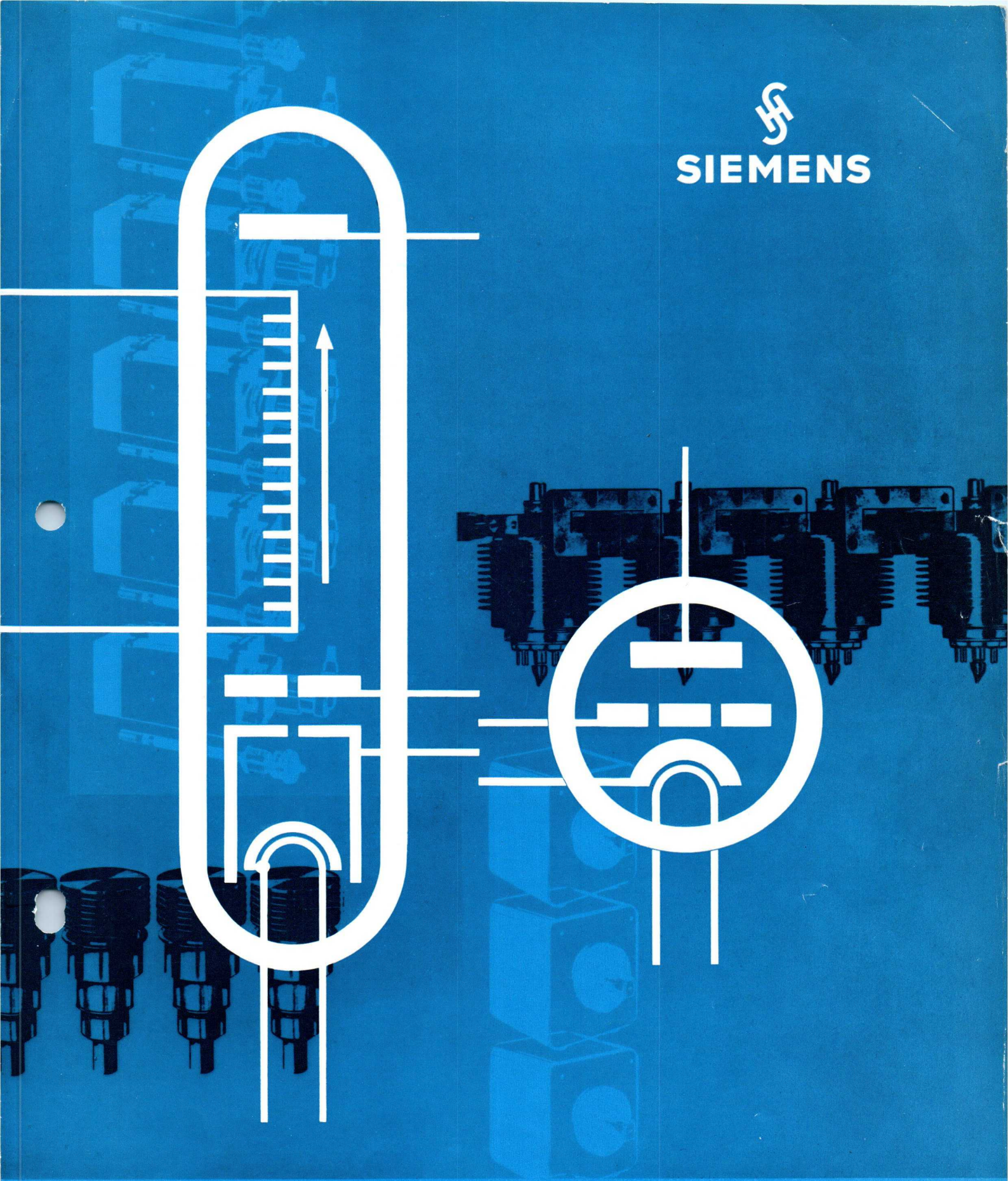

SIEMENS

Microwave Tubes

Planar Tubes

Triodes

Type	Design	Max. Frequency F Gc	Heating E_f V	Heating I_f A	Typical Operation F Gc	E_b V	I_b mA	P_o W	E_b V
YD 1100	metal-ceramic	5	6.3 ac dc	0.35 ac dc	0.9	400	30	1.3[1])	450
		3	5.2 ac dc	0.3 ac dc	2.3	500	40	5	600
		4	6.3 ac dc	0.35 ac dc	2.3	1000	530[2])	250[2])	1200
RH 6 C (YD 1060, 8412)	metal-ceramic	7	6.0 ac	0.8 ac	4	400	60	4.5	600
RH 7 C (YD 1070, 8413)	metal-ceramic	9	6.0 ac	0.8 ac	3	400	60	6	600
2 C 39 A	metal-glass	3	6.3 ac dc	1 ac dc	2.5	800	100	18	1000
2 C 39 BA	metal-ceramic	3	6.0 ac dc	0.95 ac dc	2.5	800	100	24	1000
7289	metal-ceramic	3	6.0 ac dc	0.95 ac dc	3[3])	3500[3])	3000[3])	2000[3])	3500[3])
YD 1040	metal-ceramic	3	6.0 ac dc	1.05 ac dc	2.5[4])	3500[4])	3000[4])	2000[4])	3500[4])
YD 1050	metal-ceramic	2.5	6.0 ac dc	1 ac dc	0.8	800	100	20[5])	800

Tetrodes

YL 1042	metal-ceramic	2.0	6.3 ac dc	1.1 ac dc	0.86	900	120	12	1000
RS 1062 C *	metal-ceramic	1.25	6.3 ac dc	7.5 ac dc	0.8	2500	500	600	2500
RS 1064 C *					0.125[6])	8000[6])	9000[6])	39000[6])	8000[6])
YL 1050 *	metal-ceramic	1.25	3.8 ac dc	23 ac dc	0.6	2500	1200	1400	800

* Cylindrical electrode

Reflex-Klystrons

Type	Frequency Range Gc	Heating F_f V	Heating I_f A	Typical Operation E_{rs} V	I_{rs} mA	S_m Mc/V	$\frac{\Delta S_m}{S_m}$ %	ΔF Mc
RK 6	5.775 to 5.925	6.3 ac	1 ac	400	60	3	<1	60
RK 25	3.6 to 4.5	6.3 ac	0.85 ac	310	38	2.7	4	50

For further information detailed data sheets and publications are available. The right is reserved to make certain changes during th

Maximum Ratings		Cooling	Maximum Dimensions		Application	fig.
I_k mA	P_p W		Length mm	⌀ mm		
30	15	contact cooling	48.4	13.15	1) TV transposer, common vision and sound	4
50	20				rf amplifier and oscillator	
800 2)	3				2) grid pulsed operation, dc peak value	
75	30	$P_p \geqq 10$ W forced air cooling			C amplifier, multiplier, oscillator	3
[illegible]	25	contact cooling				4
125	100	$P_p \geqq 10$ W forced air cooling	69.85	32.14	universal as amplifier, oscillator	
125	100		68.61	32 11		2
3000 3)	100				3) plate pulsed operation, t_p = 3 µs, Du = 0.25 % dc peak value	
3000 4)	100				4) plate pulsed operation, t_p = 5 µs, Du = 0.3 % dc peak value	
125	100				5) TV transposer, common vision and sound	
180	115	forced air cooling	49.6	32.0	linear amplifier, 3 tone intermodulation ratio ≧ 35 db, TV transposer, common vision and sound	1
500	700		61.0	53.0	C amplifier, TV transmitter	6
900 6)	600				6) plate pulsed operation	
1[illegible]	1600		114	95.0	linear amplifier. TV transmitters	7

P_o W	rf-connection	Remarks
0.175	waveguide F 70 34.85 × 5 flange UGF 70	metal-ceramic seals, natural air cooling
0.180	coax. 3.5/9.5 Z_o = 60 Ω	forced air cooling

e course of further development or improvement.

fig. 1

fig. 2

fig. 3

fig. 4

fig. 7

fig. 5

fig. 6

fig. 8

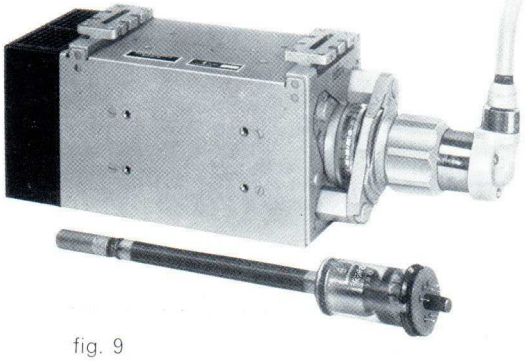

fig. 9

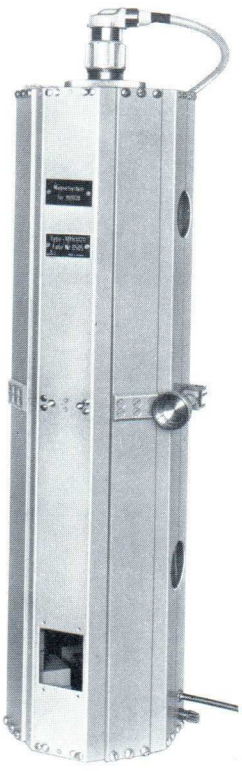

fig. 10

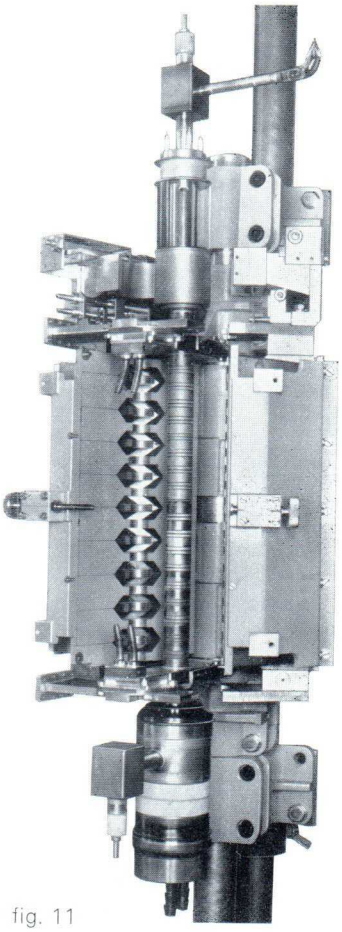

fig. 11

Type	Frequency range Gc	P_{sat} W	Heating E_f V	Heating I_f A	Typical Operation F Gc	E_h V	E_b V	I_h mA	I_k mA	G db
RW 2	1.7 to 2.3	30	6.3 ac	0.8 ac	2	1900	1600	3	85	40
RW 21	2.5 to 2.8	30	6.3 ac	0.8 ac	2.6	1850	1600	1	85	>37
RW 4	3.6 to 4.3	16	6.3 ac	0.8 ac	4	2000	1300	2.5	60	40
RW 42	3.6 to 4.2	30	6.3 ac	0.8 ac	4	2300	1500	2.5	70	39
RW 70	7.1 to 7.8	7	6.3 ac dc	0.5 ac dc	7.5	1600	1600	2	31	38
RW 80 (YH 1110)	5.8 to 8.5	30 to 16	6.3 ac	0.8 ac	6.0 8.4	2850 2750	1500 1300	2 2	50 50	40.5 37.5
RW 81	5.8 to 8.5	36 to 22	6.3 ac	0.8 ac	6	2900	1600	1.5	65	41
YH 1020	0.47 to 0.96	550	6.3 ac	2.8 ac	0.7	3100	2900	15	700	30
					0.7	3100	2900	10	750	35
YH 1040	5.925 to 6.425	3000	6.3 ac	2.5 ac	6.3	16 000	10 000	100	1100	30

* TV transmission, peak synchron power ** TV transposer (common sound and vision)

Power supplies with tube and magnet system together in rack or separately as slide in unit on request.

Siemens traveling-wave-tubes are plug-in matches in their low leakage magnet systems. The magnet system with tube and supply cable are shielded to rf.

The variations in type of cooling, position of the cooler and supply voltage connector socket enable the systems engineer to design the magnet system into the equipment in a way best suited to the general layout.

Type	Frequency range Gc	Heating E_f V	Heating I_f A	Typical Operation E_h V	I_h mA	P_o nom mW	P_o min mW
RRWO 10	6.5 to 12.7	6.3 ac	1 ac	300 to 2500	25	1000	500
RRWO 40	32 to 40	6.3 ac	1 ac	700 to 2500	20	150	40
RWO 40	26.5 to 42	6.3 ac	1 ac	500 to 2700	15	60	10
RWO 60	40 to 61	6.3 ac	1 ac	500 to 2400	15	20	2
RWO 80	60 to 90	6.3 ac	1 ac	500 to 2500	15	5	1

Power supply for all RWO and RRWO types:

Type RWON 11, which includes FM/AM modulator unit
Type RWON 111, excludes FM/AM modulator unit

The right is reserved to make certain changes during the course of further development or improvement.

For further informations concerning traveling wave tubes detailed data sheets and publications are available.

Traveling Wave Tubes

P_0 W	N_F db	Magnet Systems: Focusing	Magnet Systems: Dimensions mm	Cooling	rf-connections Remarks	fig.
Traveling-wave-tubes of average power output						
20	26	periodic permanent-magnet	MRW2a / MRW2b: 100 × 130 × 384	Conduction Convection	6/16; 7/16; 3.5/9.5 N-connector 3/7	
10*	25		MRW21a / MRW21b: 100 × 130 × 384		6/16; 7/16; 3.5/9.5; N-connector 3/7, TV transmitting Common vision and sound	
10	<25		MRW4a / MRW4b: 100 × 120 × 275	Conduction Convection	F 40 58.17 × 7 waveguide for R 40 available	
16	25					
4		permanent-magnet	MRW70 136 × 128 × 230	Conduction	F 70 34.85 × 5 waveguide for R 70 available	
15	22	periodic permanent-magnet	MRW80a / MRW80b: 100 × 112 × 264	Conduction Convection		9
10	22					
20 to 15	22					
Traveling-wave-tubes of high power output						
210*		permanent-magnet	MYH 1020 200 × 220 × 750	forced air cooling	coax 60 Ω 6/16	10
50**					coax 50 Ω C-connector	
2000		periodic perma-nent-magnet	MYH 1040 250 × 330 × 920	water cooling	waveguide R 70 31 × 15	11

Backward Wave Oscillators

Tuning	Dimensions mm	rf-connection	fig.
mechanical and electrical by E_h	80 × 80 × 250	coax	5
	80 × 80 × 195	waveguide R 320 flange UG-599/U	
electrical by E_h	159 × 159 × 255	waveguide R 320 flange UG-599/U	8
	159 × 159 × 235	waveguide R 620 flange UG-385/U	
	159 × 159 × 240	waveguide R 740 flange UG-387/U	

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