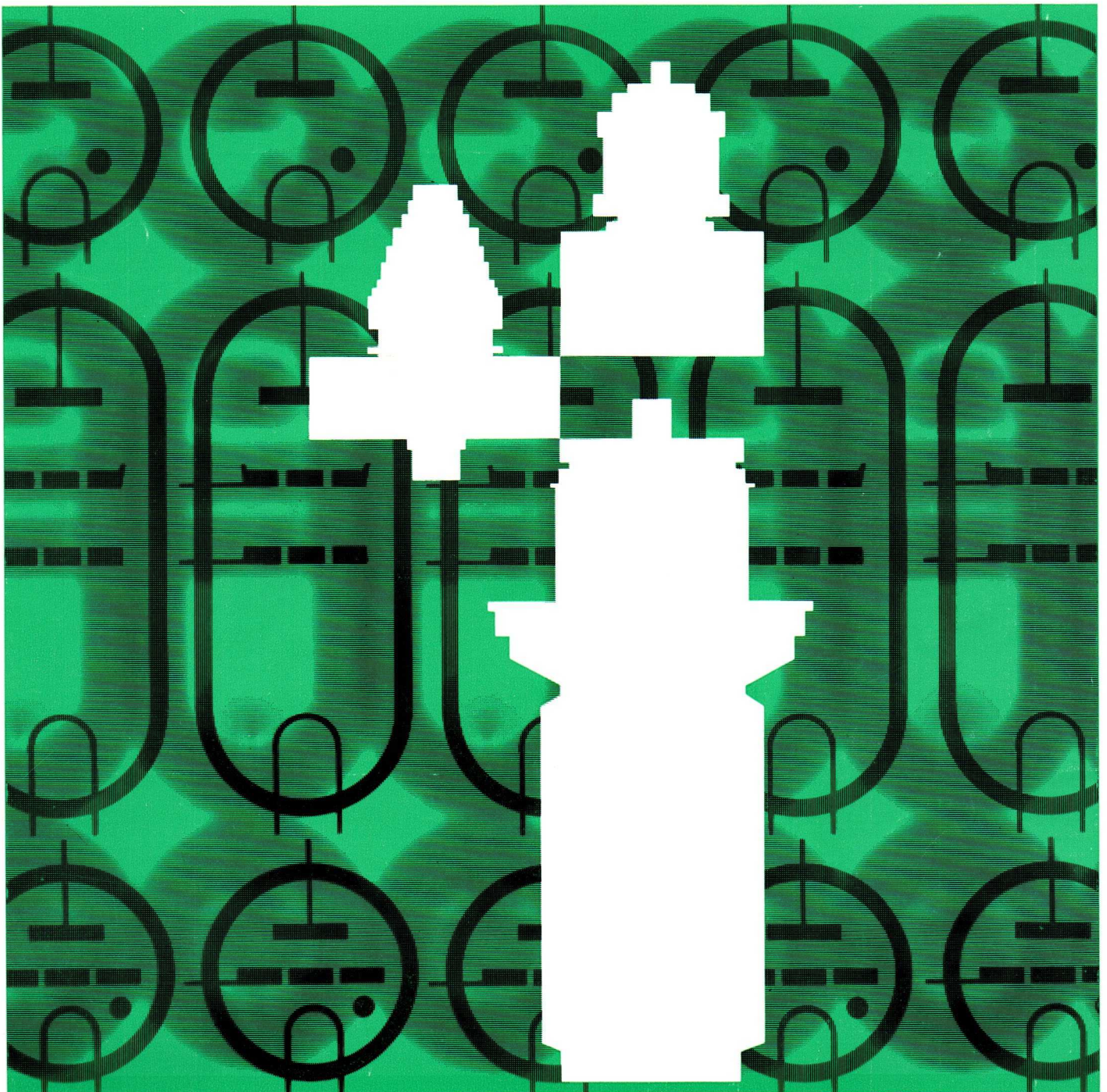



SIEMENS

Power Grid Tubes High Voltage Rectifiers and Thyratrons



Air-, Water- and Evaporative cooled Power Grid Tubes

Type	Order No.	Design and Application	Heating		Maximum Ratings			Typical Operation RF-Amplifier				Remarks
			E_f V	I_f A	E_b kV	P_p kW	f MHz	E_b kV	P_o kW	P_i kW		
RS 1001 L RS 1001 W RS 1001 V	Q 51 - X 1001 Q 52 - X 1001 Q 53 - X 1001	Triode for frequencies up to 100 MHz	5	150	8	10	100	6	11	0.6	Grounded grid	
RS 1011 L RS 1011 W RS 1011 V	Q 51 - X 1011 Q 52 - X 1011 Q 51 - X 1021	Triode especially for VHF-Transmitters	10	75	5	10	220	4	12	1.3	Grounded grid Sync. level	
RS 1021 L	Q 51 - X 1021	Triode especially for VHF-Transmitters	5	52	5	3	220	2.2	1.65	0.2	Grounded grid Sync. level as Oscillator	
RS 1023 L	Q 51 - X 1023	Triode for industrial Generators for Frequencies up to 500 MHz	3,4	19,5	2,5	0,3	450	1,7	370	0,018		
RS 1031 L RS 1031 W RS 1031 V	Q 51 - X 1031 Q 52 - X 1031 Q 53 - X 1031	Triode for frequencies up to 70 MHz	10	130	15	25 25 50	30	12	70	1.2	Class C-Operation	
RS 1041 W RS 1041 V	Q 52 - X 1041 Q 53 - X 1041	Triode for frequencies up to 30 MHz	18	280	15 15	120 180	10	15	360	5.5	Class C-Operation	
RS 1051 L	Q 51 - X 1051	Air cooled Triode for frequencies up to 30 MHz	5.3	135	6	6	30	6	15	0.3	Class B-Operation	
RS 1061 L RS 1061 W RS 1061 V	Q 51 - X 1061 Q 52 - X 1061 Q 53 - X 1061	Triode especially for industrial RF-Generators	10	52	12	8 8 12	30	9	15	0.5	as Oscillator	
RS 1071 L	Q 51 - X 1071	Air cooled Triode, especially for VHF-Transmitters	5	80	5	5	220	2.8	3.5	0.36	Grounded grid Sync. level	
RS 1081 L RS 1081 W RS 1081 V	Q 51 - X 1081 Q 52 - X 1081 Q 53 - X 1081	Triode especially for industrial RF-Generators	8	115	15	20 20 45	30	10	33	0.5	as Oscillator	
RS 2001 W RS 2001 K	Q 52 - X 2001 Q 53 - X 2001	Triode for frequencies up to 30 MHz	18	164	15	60 110	10	14	200	4.0	Class C-Operation	
RS 2011 L RS 2011 W RS 2011 V	Q 51 - X 2011 Q 52 - X 2011 Q 53 - X 2011	Triode for frequencies up to 70 MHz	10	70	11	8 8 12	30	6	6	0.26	Plate voltage modulation	
RS 2021 L RS 2021 W RS 2021 V	Q 51 - X 2021 Q 52 - X 2021 Q 53 - X 2021	Triode for frequencies up to 60 MHz	12.6	160	15	35 45 60	30	12	90	1.9	Class C-Operation	
RS 2031 W RS 2031 V	Q 52 - X 2031 Q 53 - X 2031	Triode especially for Modulators	18	166	12	60 110	—	11	240	2 × 0.6	AF-Power Amplifier 2 Tubes in push-pull	
RS 2041 W RS 2041 V	Q 52 - X 2041 Q 53 - X 2041	Triode for frequencies up to 30 MHz	22	400	18	170 220	30	12	380	10	Plate voltage modulation	
RS 2051 W RS 2051 V	Q 52 - X 2051 Q 53 - X 2051	Triode especially for Modulators	18	260	15	120 180	—	11	420	2 × 1	AF-Power Amplifier 2 Tubes in push-pull	
RS 3025 CL RS 3025 CJ	Q 51 - X 3025 Q 52 - X 3025	Triode in Metal-Ceramic Technique for RF-Generators for frequencies up to 120 MHz	6.3	130	8	10	40	8	23		as Oscillator	
RS 3060 CL RS 3060 CW RS 3060 CJ	Q 51 - X 3060 Q 52 - X 3062 Q 52 - X 3051	Triode in Metal-Ceramic Technique for RF-Generators for frequencies up to 100 MHz	10.5	205	14	30 40 40	30	10	70	1.7	as Oscillator	

Triodes

Tetrodes

RS 1012 L YL 1181	Q 51 - X 1012	Tetrode especially for VHF-Transmitters	5	62	6	4	220	4	5.5	0.5	Grounded grid Sync. level
RS 1012 V YL 1182	Q 53 - X 1012		8	38	3.8	3.2	600	3.3	2.5	0.4	Grounded grid Sync. level
RS 1022 C	Q 51 - X 1022	Tetrode in Metal-Ceramic Technique for frequencies up to 600 MHz	4.1	130	6	12	790	5.0	10	0.8	Grounded grid Sync. level
RS 1032 C	Q 51 - X 1032	Tetrode in Metal-Ceramic Technique for frequencies up to 1000 MHz	3.2	80	3.8	3.5	790	3.3	2.5	0.4	Grounded grid Sync. level
RS 1052 C	Q 51 - X 1052	Tetrode in Metal-Ceramic Technique for frequencies up to 1000 MHz	6.3	7.5	2.5	0.7	790 30 790	2.5 2.5 1.4	0.59 0.68 0.055	0	Class C operation Amplifier at SSB AB1-TV Translator
RS 1062 C	Q 51 - X 1062	Air-cooled coaxially based Tetrode	6.3	7.5	8	0.6	125	8	39	5.3	RF-Power Amplifier
RS 1072 C	Q 51 - X 1072	Pulsed Tetrode for frequencies up to 1250 MHz	3.8	23	3.5	1.6	60	3	1.1	0	Amplifier at SSB
RS 1082 CL YL 1011	Q 51 - X 1082	Air cooled metal-ceramic Tetrode especially for 1000 Watts SSB Transmitters	10	200	12	25	30	8	30	0	as linear Power Amplifier at SSB
RS 1082 CW YL 1010	Q 52 - X 1082	Tetrode in Metal-Ceramic Technique suitable for SSB Transmitters and Broadcast Transmitters	12.5	200	12	35	30	10	66	0.15	Plate and Screen Voltage Modulation
RS 1082 CV YL 1012	Q 53 - X 1082		22	350	15	120 150	30	9	120	0	SSB single tone
RS 1084 CL YL 1084 CW YL 1084 CV	Q 51 - X 1084 Q 52 - X 1084 Q 53 - X 1084	Tetrode in Metal-Ceramic-Technique for broadcasting and communication transmitters	10.5	90	9	12	30	8	11	0	SSB single tone
RS 2002 W YL 1090	Q 52 - X 2002	High power transmitting Tetrode for SSB and Broadcast Transmitters	10.5	90	5	12	220	4.8	12	0.5	Grounded grid sync. level
RS 2002 V YL 1091	Q 53 - X 2002		10	86	8	12	110	7.5	12	0.03	Kathode grounded
RS 2012 CL	Q 51 - X 2012	Tetrode in Metal-Ceramic Technique for SSB- and FM-Transmitters up to 110 MHz	26	360	11.0	170	27	10	260	3	Plate voltage modulation
RS 2022 CL	Q 51 - X 2022	Tetrode in Metal-Ceramic Technique especially for VHF-Transmitters	6.3	1.1	1.2	0.130	900	1	0.030	0	Grounded grid SSB single tone
RS 2032 CL	Q 51 - X 2032	Tetrode in Metal-Ceramic Technique especially for grounded cathode operation up to 300 MHz	3.8	21	2.75	1.8	600	2.5	1	0.04	Class B-Operation
RS 2042 V	Q 53 - X 2042	High power transmitting Tetrode for frequencies up to 30 MHz	3.8	21	3.5	1.6	400	3.3	1.8	50	Class B-Operation
YL 1042	Q 51 - X 1042	Forced air cooled Disc-Seal Tetrode for frequencies up to 3000 MHz	3.8	21	2.7	1.6	790	2.5	0.25	0.005	TV Translator
YL 1050	Q 51 - X 1050	Forced air cooled Tetrode in Ceramic Technique for frequencies up to 960 MHz									
YL 1052	Q 51 - X 1049	Tetrode in Metal-Ceramic Technique for power amplifier for frequencies up to 1250 MHz									
YL 1055	Q 51 - X 1055	Tetrode in Metal-Ceramic Technique for high-gain power amplifier for frequencies up to 860 MHz									

L air cooling, W water cooling, C Metal-Ceramic Technique,
V resp. K evaporative cooling, J water cooling with integral cooler

Radiation cooled Power Grid Tubes

Type	Order No.	Design and Application	Heating		Maximum Ratings		Typical Operation RF-Amplifier				Remarks	
			E_f V	I_f A	E_b kV	P_p W	f MHz	E_b kV	P_o W	P_i W		
Triodes												
RS 1006 B	Q 54 - X 1006	Triode for communication and electromedical applications up to 150 MHz	6.3	5.8	3	150	150	150	2.5	390	14	Class C-Operation
RS 1016 5868	Q 54 - X 1016	Triode for communication and industrial RF applications up to 100 MHz	10	9.9	4	450	450	100	4	1690	60	Class C-Operation
RS 1026 5867	Q 54 - X 1026	Triode for communication and electromedical applications up to 150 MHz	5	14	4	350	350	100	4	1200	46	Class C-Operation
RS 1036	Q 54 - X 1036	Triode for industrial RF-applications up to 50 MHz	5	32.5	7	500	500	50	6	1640	—	as oscillator
RS 1046 7092	Q 54 - X 1046	Triode for industrial RF-applications up to 50 MHz	6.3	32.5	7	800	800	50	6	2840	—	as oscillator
RS 1091	Q 54 - X 1091	Triode especially for industrial generators up to 50 MHz	6.3	50	8	1200	1200	50	6	4500	130	as oscillator

Tetrodes, Pentodes

RS 1002 A 7527	Q 54 - X 1002	Tetrode, for Transmitters up to 110 MHz	5	14.1	4	400	400	110	4	800	2	Class C-Operation
RS 1003	Q 54 - X 1003	Pentode for communication up to 100 MHz	6.3	2.3	1	60	60	100	0.8	105	1	Class C-Operation
RS 1007 6155	Q 54 - X 1007	Tetrode for communication and electromedical applications up to 200 MHz	5	6.5	3	125	125	120	3	375	2	Class C-Operation
RS 1009 5894	Q 54 - X 1009	Twin Tetrode for VHF, UHF and TV-Transmitters up to 500 MHz	6.3 12.6	1.8 0.9	0.75	2 × 20	2 × 20	500	0.6	60	—	Class C-Operation*
RS 1019 6252	Q 54 - X 1019	Twin Tetrode for communications up to 600 MHz	6.3 12.6	1.3 0.65	0.6	2 × 10	2 × 10	600	0.4	20	—	Class C-Operation*
RS 1029 6360	Q 54 - X 1029	Twin tetrode for communications up to 200 MHz	6.3 12.6	0.82 0.41	0.3	2 × 5	2 × 5	200	0.3	14.5	0.1	Class C-Operation*
YL 1000	Q 54 - X 1000	Quick Heating 8-W Pentode for Mobile Applications up to 200 MHz	1.1	0.98	0.3	5	5	50 175	0.3 0.3	8 3.3	—	Class C-Operation

YL 1020 8118	Q 54 – X 1020	Quick Heating 45-W Double-Tetrode for Mobile Transmitters up to 500 MHz	1.6	4.25	0.6	2 × 10	200 460	0.6 0.4	45 21	1.5 5	Class C-Operation *
YL 1060 7854	Q 54 – X 1060	150-W Double-Tetrode for Frequencies up to 175 MHz	6.3 12.6	1.8 0.9	1	2 × 30	175	1	146	3.5	Class C-Operation *
YL 1070 8117	Q 54 – X 1070	150-W Double-Tetrodes for SSB-Transmitters up to 175 MHz	6.3 12.6 26.5 13.25	1.8 0.9 0.43 0.86	1	2 × 30	7	1	141	0	SSB Amplifier Both systems in parallel
YL 1071 8116	Q 54 – X 1071										
YL 1080 8348	Q 54 – X 1080	12-W Quick Heating Double-Tetrode for Mobile Transmitters up to 200 MHz	1.6	2.5	0.3	2 × 5	200	0.3	12	1	Class C-Operation *
YL 1130 8408	Q 54 – X 1130	15-W Quick Heating Double-Tetrode for Mobile Transmitters up to 500 MHz	1.1	2.9	0.3	2 × 4	200 500	0.275 0.175	15 8	0.7 1.5	Class C-Operation *
YL 1210 8457	Q 54 – X 1210	14.5-W Double-Tetrode for Mobile VHF-Transmitters up to 200 MHz	6.75 13.5	0.72 0.36	0.3	2 × 5	200	0.3	14.5	0.1	Class C-Operation *
YL 1220 8577	Q 54 – X 1220	5-W Double-Tetrode for Mobile Transmitters up to 500 MHz	6.75 13.5	0.76 0.38	0.25	2 × 3	500	0.18	5.8	1.2	Class C-Operation *
YL 1240 8458	Q 54 – X 1240	30-W Double-Tetrode for Mobile Transmitters up to 200 MHz	6.75 13.5	0.8 0.4	0.4	2 × 7.5	200	0.4	20	1	Class C-Operation *
YL 1250 8505	Q 54 – X 1250	50-W Beam-Tetrode for Transmitters at frequencies up to 250 MHz	6.75 13.5	1.2 0.6	0.55	25	75 175	0.55 0.4	52 38	0.5 1.5	Class C-Operation
6146 QE 05/40 6159 QE 05/40 H 6883 QE 05/40 F	Q 54 – X 3055 Q 54 – X 3057 Q 54 – X 3056	50-W Beam-Tetrode for RF-, AF-Power Amplifier and Oscillator up to 175 MHz	6.3 26.5 12.6	1.25 0.3 0.62	0.6	20	60 175	0.6 0.32	52 25	0.2 3	Class C-Operation
3939 QQE 02/5	Q 54 – X 3101	5-W Double-Tetrode for Mobile Transmitters up to 500 MHz	6.3 12.6	0.6 0.3	0.3	2 × 3	500	0.18	5.8	1.2	Class C-Operation *
7377 QQE 04/5	Q 54 – X 3102	7-W Double-Tetrode up to 950 MHz	6.3 12.6	0.6 0.3	0.4	2 × 8	960	0.25	7	1.4	Class C-Operation *
8032 QE 05/40 K	Q 54 – X 3063	50-W Beam-Tetrode for RF-, AF-Power Amplifier and Oscillator up to 175 MHz	13.5	0.585	0.6	20	60	0.6	52	0.2	Class C-Operation
8042 QC 05/35	Q 54 – X 3059	35-W Quick-Heating Beam-Tetrode up to 175 MHz	1.6	3.2	0.65	25	60 175	0.6 0.4	65 35	2 5	Class C-Operation

* both sections in push-pull

High Voltage Rectifiers

Type	Order No.	Design	Heating		Maximum Ratings		Typical Operating Three-Phase Bridge				
			E_f V	I_f A	Inverse voltage kV	DC-Current Average Value A	Peak Value A	Trans- former Volt. kV _{eff}	E_L kV	I_L A	P_L kW
Gle 10 000/025/1	Q 65-X 1301	Mercury Vapor Half-Wave Rectifier	2.5	4.8	10	0.25	1	7	9.6	0.75	7.2
Gle 13 000/1.5/6	Q 65-X 1304	Mercury Vapor Half-Wave Rectifier	5	7	13	1.5	6	9.2	12.4	4.5	55
Gle 15 000/1.5/6	Q 65-X 1305	Mercury Vapor Half-Wave Rectifier	5	9.5	15	1.5	6	10.6	14.3	4.5	64
Gle 15 000/3/12	Q 65-X 1303	Mercury Vapor Half-Wave Rectifier	5	11.5	15	3	12	10.6	14.3	9.0	129
Gle 20 000/2.5/10	Q 65-X 1302	Mercury Vapor Half-Wave Rectifier	5	12.5	21	2.5	10	14.8	20	7.5	150
Gle 61	Q 65-X 1326	Mercury Vapor Half-Wave Rectifier	5	18	24	2.5	10	12.8	17.2	15	260
Gle 71	Q 65-X 1327	Mercury Vapor Half-Wave Rectifier	5	30	26	5	20	12.8	17.2	30	520

Thytrons

Type	Order No.	Design	Heating		Maximum Ratings			General Data		
			E_f V	I_f A	Inserve voltage kV	DC Current Average value A	Peak value A	Ionization Time μ s	Deion- ization Time μ s	Heating Time s
Ste 1000/02/03	Q 61-X 3506	Inert Gas Triode	3	1.1	1	0.2	0.3	1	75	5
Ste 1000/2.5/15 5559	Q 61-X 3505	Mercury Vapor Triode	5	4.5	1.5	2.5	15	10	1000	300
Ste 1300/01/05 Ste 5727	Q 61-X 3501	Inert Gas Tetrode	6.3	0.6	1.3	0.1	0.5	0.5	35	10
Ste 2000/6/80	Q 61-X 3504	Inert Gas and Mercury Vapor Triode	2.5	22	2	6	80	10	500	60
Ste 2500/05/2 5557	Q 61-X 3503	Mercury Vapor Triode	2.5	5	5	0.5	2	10	1000	10
Ste 2500/6/40	Q 61-X 3502	Mercury Vapor Tetrode	5	10	2.5	6	40	10	1000	300
Ste 5684 (Ste 6011)	Q 61-X 3507	Inert Gas Triode	2.5	9	1.25	2.5	30	10	1000	30
Ste 15000/15/45	Q 61-X 3508	Mercury Vapor Triode	5	20	15	15	45	10	1000	600
Ste 55	Q 61-X 3526	Mercury Vapor Triode	5	12	22	2.5	10	10	230	60
Ste 71	Q 61-X 71	Mercury Vapor Triode	5	22	24	5	20	10	500	120
Ste 81	Q 61-X 81	Mercury Vapor Triode	2.5	45	20	12.5	50	10	600	300
Ste 91	Q 61-X 91	Mercury Vapor Triode	5	40	20	45	200	10	1000	1200

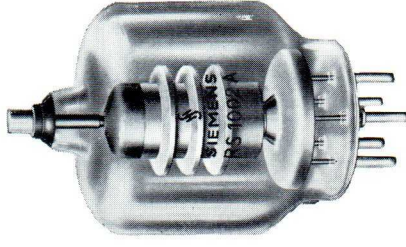
Power Grid Tubes



RS 1091

276 mm

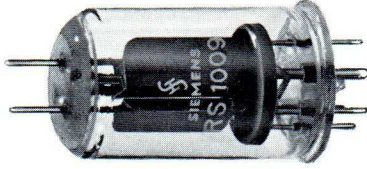
192 mm



RS 1002 A

156 mm

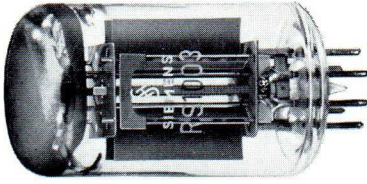
90 mm



RS 1009

106 mm

46 mm



RS 1003

105.5 mm

51.0 mm



RS 1029

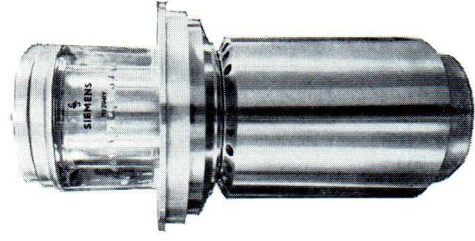
78.4 mm

22.2 mm

Type

Overall length max.

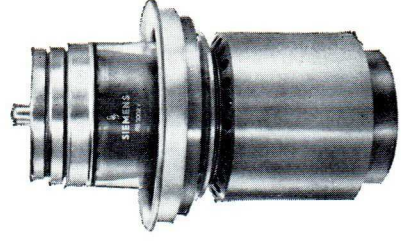
Diameter max.



RS 2041 V

660 mm

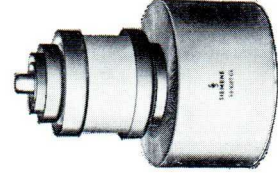
315 mm



RS 2002 V

506 mm

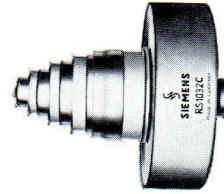
315 mm



RS 1082 CL

315 mm

220 mm



RS 1032 C

180 mm

159 mm

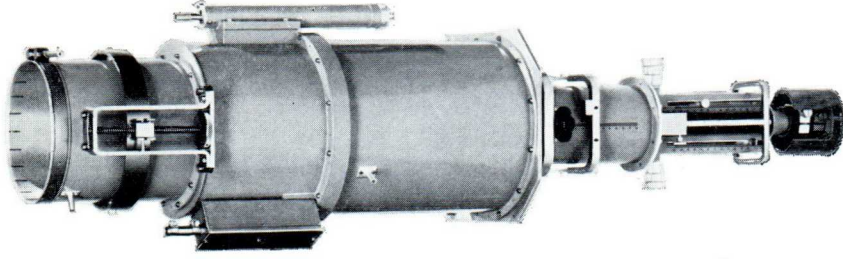
Type

Overall length max.

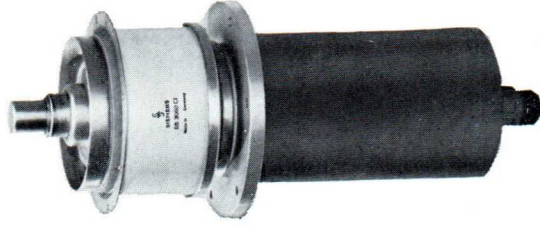
Diameter max.

Cavity for RS 2022 CL

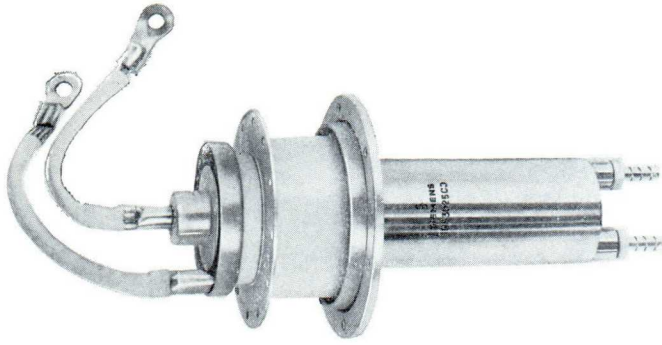
Power Grid Tubes



Type	TK 4460
Overall length max.	1172 mm
Diameter max.	240 mm



Type	RS 3060 CI
Overall length max.	346 mm
Diameter max.	185 mm



Type	RS 3025 CJ
Overall length max.	311 mm
Diameter max.	135 mm



Type	RS 2032 CL
Overall length max.	173 mm
Diameter max.	172 mm

SIEMENS
L I M I T E D

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