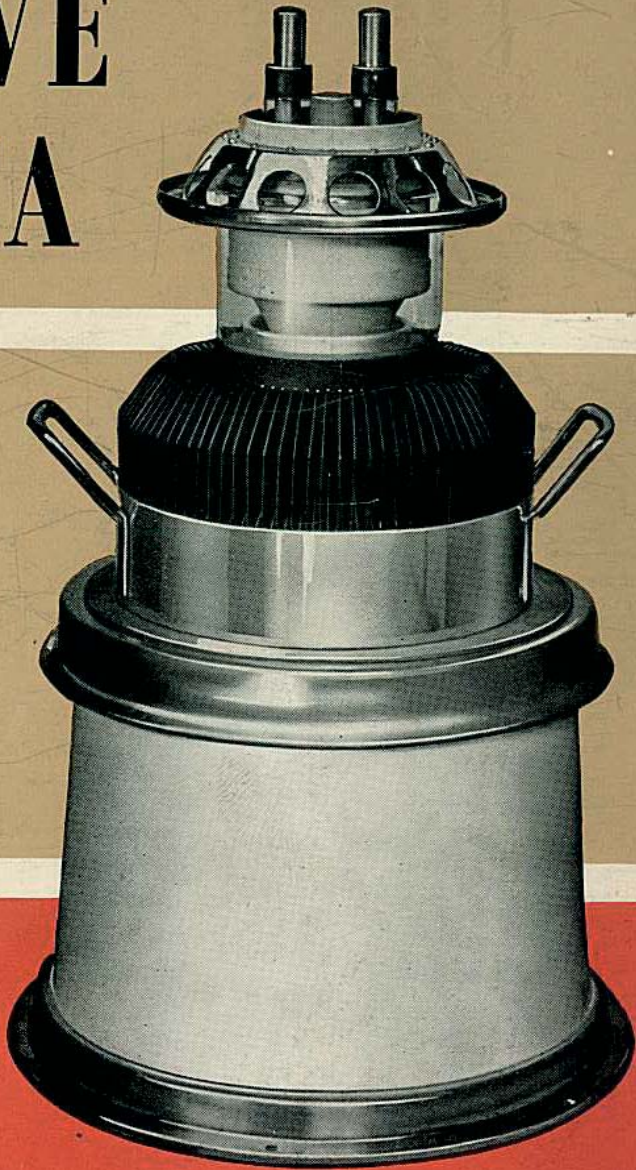


*Spring*  
JANUARY 1961

# ABRIDGED VALVE DATA



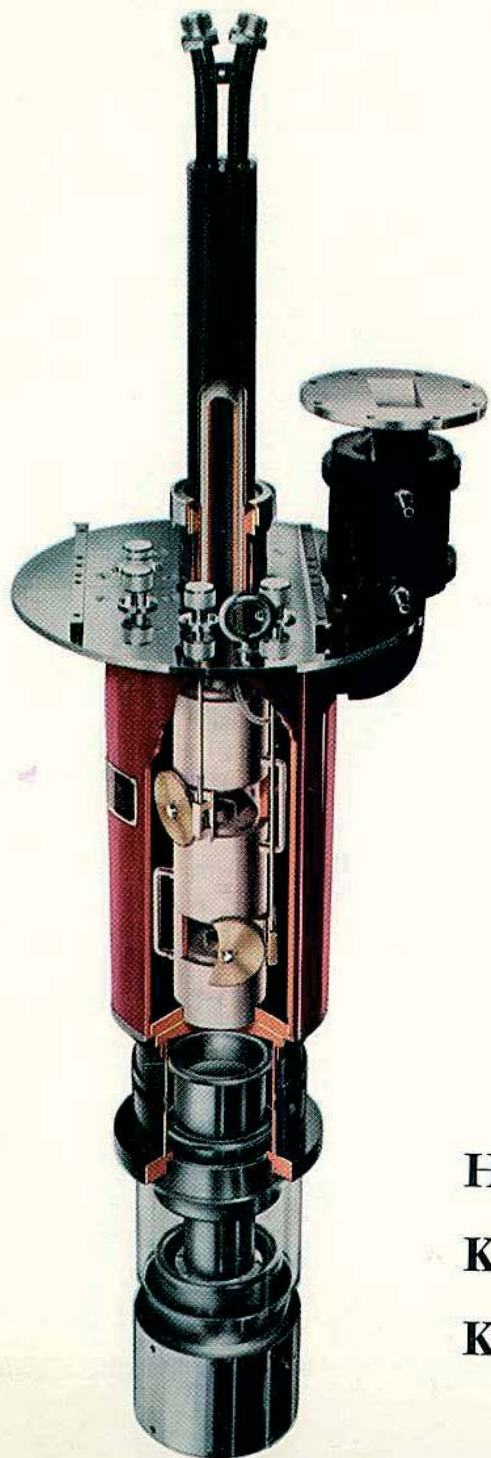
**ENGLISH ELECTRIC VALVE CO. LTD.**

*Represented in Thailand by*  
**YIP IN TSOI & CO. LTD.**

**P.O. Box 23, Bangkok**

*Telegrams:* TINBANK

*Telephone:* 34961 (5 lines)



**HIGH POWER  
KLYSTRON  
K352**

**VALVE  
REPLACEMENT  
INDEX**

**VALVE REPLACEMENT INDEX**

**RECTIFIERS**

**RECTIFIERS** Mercury Vapour, Xenon, High Vacuum  
**IGNITRON**

**GERMANIUM  
RECTIFIERS**

**RECTIFIERS**  
Germanium

**TRIODES**

**TRIODES** Natural,  
Forced-air, Water and Vapour Cooled

**TETRODES**

**TETRODES** Natural,  
Forced-air and Water Cooled

**COLD CATHODE  
TUBES**

**COLD CATHODE TUBES** Stabilisers, Reference Tubes,  
Trigger Tubes, Glow Modulator, Spark Gap

**THYRATRONS**

**THYRATRONS** Rare Gas and Hydrogen

**LYSTRONS**

**KLYSTRONS** Pulse and C.W. Power Amplifiers,  
Oscillators

**MAGNETRONS**

**MAGNETRONS**

**B.W.O.  
STORAGE  
TUBES**

**BACKWARD WAVE OSCILLATORS**  
**STORAGE TUBES**

**TRAVELLING  
WAVE TUBES**

**TRAVELLING WAVE TUBES**  
**SOLENOIDS**

**T.V. CAMERA  
TUBES**

**TELEVISION CAMERA TUBES**  
Image Orthicons and Vidicons

**JANUARY**



**1961**

This quick reference brochure, which is issued annually, gives abridged data for all E.E.V. Co. valves up to the time of going to press.

The supply of certain types listed in this brochure, when they are not available from current production, may be subject to a minimum quantity being ordered.

Detailed data for any type will be supplied upon request and if your name is on our mailing list, copies of all free publications will be sent immediately they become available.

Please see page 38 for information on the complete E.E.V. Co. Valve Data Books.

We welcome enquiries for special valves not included in this catalogue

# VALVE REPLACEMENT INDEX

We welcome enquiries for special valves not included in this catalogue

The following index lists valves of various manufacturers for which E.E.V. Co. valves may be used as replacements. Service type numbers are also listed. In most cases replacement is a simple plug-in matter but where some minor adjustment to the circuit may be necessary this is indicated by an asterisk\*. For the sake of completeness all E.E.V. Co. types are included under 'Type to be replaced'.

Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.
OA2	OA2	20	3B22	3B22	9	4J52A	4J52A	28	150C3	OD3	20
OA2WA	OA2WA	20	3B24W	3B24W	10	4J53	4J53	29	150C4	OA2	20
OA3	OA3	20	3B28	3B28	9	4J78	4J78	29	715C	C1111*	19
OA3/VR75	OA3	20	3C24	3C24	14	4KM50,000LA4KM50,000LA		25			
OB2	OB2	20	3C45	FX227*	24	4PR60A	C1133*	19	813	813	18
OB2WA	OB2WA	20	3C45/PL345	FX227*	24				829B	829B	18
OC2	OC2	20	3E29	3E29	—	5C22	5C22	24	832A	832A	18
OC3	OC3	20	3J/121E	BR152B	15	5C22/HT415	5C22	24	833A	833A	14
OC3/VR105	OC3	20	3J/161J	BR1129	16	5C22/PL522	5C22	24	857B	AH205/857B*	8
OD3	OD3	20	3J/162J	BR1129	16	5C/100A	813	18	869B	869B	8
OD3/VR150	OD3	20				5D22	C1112*	18	872A	872A	8
OG3	QS1209/5651	21	4-125A	C1108*	18	5F22A	C1112	18	872AX	872A	8
			4-250A	C1112*	18	5H69A	869B	8	889R-A	889R-A	—
1B59	1B59	23	4B13	813	18	6D4	6D4	23	892R	BR175*	15
			4B32	4B32	9	7H57	AH205/857B	8			
2-25A	A235	10	4C35	4C35	24	8T92R	BR175*	15	4049D	AH221	8
2B29	829B	18	4C35/PL435	4C35	24						
2B32	832A	18	4D21	C1108*	18	11TA31	OA2*	20	5586	5586	29
2G/473C	AX228	9	4D32	4D32	18	11TF25	STV280/40	22	5651	QS1209/5651	21
2H28	3B28	9	4H32	4B32	9	12E12	C1111*	19	5651WA	QS1212*	21
2J30	2J30	28	4H72	872A	8	12TF25	STV280/80	22	5657	5657	29
2J31	2J31	28	4J31	4J31	28	75B1	QS75/20	20	5736	5736	15
2J32	2J32	28	4J32	4J32	28	85A2	QS1209/5651	21	5762	5762	15
2J33	2J33	28	4J33	4J33	28	90C1	QS1215	21	5771	BW165	16
2J34	2J34	28	4J34	4J34	28	95A1	QS95/10	21	5820	5820	36
2J42	2J42	28	4J35	4J35	28				5823	5823	23
2J42A	6027	29	4J43	4J43	28	108C1	OB2	20	5894	C178A/5894	18
2J50	2J50	—	4J44	4J44	28	150B2	QS1200	21	5949	FX229*	24
2J55	2J55	28	4J50	4J50A*	28	150B3	QS150/15	21			
2J56	2J56	28	4J50A	4J50A	28	150C2	OA2	20	6027	6027	29

**VALVE  
REPLACEMENT  
INDEX**

	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.
<b>RECTIFIERS</b>	6073	OA2WA	20	ACT14	BR140*	15	AX9912	5C22	24	BW140	BW140	16
	6074	OB2WA	20	ACT16	BR153*	15				BW153	BW153	16
	6075	CW1100	19	ACT29	BR1138*	16	B142	833A	14	BW161	BW161	16
<b>GERMANIUM RECTIFIERS</b>	6076	CR1100	19				B1109	3C24	14	BW165	BW165	16
	6130	FX227*	24	AFX203	AFX203	23				BW173	BW173	16
	6155	C1108	18	AFX212	6D4	23				BW179	BW179	16
<b>TRIODES</b>	6156	C1112	18	AFX234	AFX234	23	BA9-20	N1010	33	BW189	BW189	16
	6166	CR192*	19							BW194	BW194	16
	6181	6181	19	AG3B28	3B28	9	BR128B	BR128B	15	BW1102	BW1102	17
<b>TETRODES</b>	6198	6198	37	AG869B	869B	8	BR140	BR140	15	BW1103	BW1103	17
	6252	C1134*	18	AG872A	872A	8	BR152B	BR152B	15	BW1115	BW1126	17
	6268/4C35	4C35	24				BR153	BR153	15	BW1121	BW1121	17
<b>COLD CATHODE TUBES</b>	6279/5C22	5C22	24	AH200	AH200	8	BR155	BR155	15	BW1124	BW1124	17
	6326	6326	37	AH205	AH205/857B	8	BR161	BR161	15	BW1126	BW1126	17
	6354	QS1200	21	AH205/857B	AH205/857B	8	BR175	BR175	15	BW1139	BW1139	16
<b>THYRATRONS</b>	6474	6474	36	AH211	AH211A*	8	BR179	BR179	15			
	6849	6849	36	AH211A	AH211A	8	BR189	BR189	15	BY189	BY189	16
	6861	6861	34	AH213	869B	8	BR191B	5762	15	BY194	BY194	17
<b>LYSTRONS</b>	6866	E702*	33	AH217	872A	8	BR194	BR194	15	BY1102	BY1102	17
	7038	7038	37	AH221	AH221	8	BR195	BR195	15	BY1121	BY1121	17
	7182	7182	29	AH238	AH238	8	BR1102	BR1102	17	BY1122	BY1122	17
<b>MAGNETRONS</b>	7293	7293	36				BR1103	BR1103	17			
	7294	7294	36	ATW10-3	BR128B*	15	BR1106	BR1106	15	C1A	AFX203*	23
	7295	7295	36				BR1115	BR1115	17	C143	813	18
<b>B.W.O. STORAGE TUBES</b>	7384	7384	24	AX4-125A/ 4D21	C1108*	18	BR1121	BR1121	17	C144	829B	18
	7389	7389	36	AX4-250A/ 5D22	C1112*	18	BR1122	BR1122	16	C178A	C178A/5894	18
	7475	QS92/10	20				BR1124	BR1124	17	C178A/5894	C178A/5894	18
<b>TRAVELLING WAVE TUBES</b>	A207	A207	10	AX224	3B28	9	BR1126	BR1126	17	C180	832A	18
	A235	A235	10	AX228	AX228	9	BR1129	BR1129	16	C1108	C1108	18
	A237	A237	10	AX230	4B32	9	BR1131	BR1131	16	C1111	C1111	19
<b>T.V. CAMERA TUBES</b>	A239	3B24W	10	AX9903	C178A/5894*	18	BR1132	BR1132	16	C1112	C1112	18
	A291	A291	10	AX9907	CW1100*	19	BR1138	BR1138	16	C1123	4D32	18
	A296	A296	10	AX9907R	CR1100*	19				C1133	C1133	19
<b>VALVE REPLACEMENT INDEX</b>	ACS4	CR1100*	19	AX9910	C1134*	18	BT79	FX227	24	C1134	C1134	18
	ACT9	BR152B	15	AX9911	4C35*	24	BTL6-1	{ BR1106* BR1124*	15 17	CAT29	BW1139	16

# VALVE REPLACEMENT INDEX—*continued*

We welcome enquiries for special valves not included in this catalogue

Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.
CO43	N1010*	33	CV1070	QS92/10	20	CV1916	4J33	28	CV2416	C1133	19
CO119	N1034*	33	CV1435	AH221	8	CV1949	6D4	23	CV2424	M549	31
			CV1449	872A	8	CV1994	BR152B*	15	CV2425	M539	31
CR176	CR176	19	CV1475	M507	30	CV2130	C1108	18	CV2426	M529	31
CR192	CR192	19	CV1476	M507	30	CV2131	C1112	18	CV2473	M538A	31
CR1100	CR1100	19	CV1477	M507	30	CV2159	BR153	15	CV2494	K351	27
CR1101	6181	19	CV1478	M507	30	CV2160	A207	10	CV2496	K329	25
			CV1479	M501	29	CV2161	K301	26	CV2518	4B32	9
CV5	AH221	8	CV1480	M501	29	CV2164	K302	26	CV2520	5C22	24
CV26	813	18	CV1481	M501	29	CV2203	FX215	24	CV2666	829B	18
CV28	BR152B	15	CV1482	M501	29	CV2225	QS1200	21	CV2673	AH205/857B	8
CV188	QS92/10	20	CV1483	M519	30	CV2263	K305	26	CV2736	3C24 (in pairs)	14
CV216	OD3	20	CV1484	M519	30	CV2273	K312	26	CV2744	4J34	28
CV284	QS75/20	20	CV1485	M519	30	CV2281	M537	31	CV2752	C1133	19
CV286	QS95/10	21	CV1486	M519	30	CV2282	K308	26	CV2797	C178A/5894	18
CV287	QS150/15	21	CV1495	M528	31	CV2284	4J50A	28	CV2799	C1134	18
CV370	M508	30	CV1496	M528	31	CV2304	K324	26	CV2852	2J56	28
CV372	FX227	24	CV1497	M528	31	CV2322	BR161	15	CV2858	3B24W	10
CV395	QS150/45	21	CV1498	M528	31	CV2323	BR179	15	CV2868	AFX203	23
CV398	C1111	19	CV1499	M528	31	CV2324	CR176	19	CV2871	BW140	16
CV422	QS108/45	21	CV1500	M528	31	CV2343	K335	26	CV2872	BW153	16
CV427	C1111	19	CV1600	BW173	16	CV2362	M525	30	CV2902	GX402	22
CV434	QS75/60	20	CV1629	AH238	8	CV2363	M525	30	CV2993	FX231	24
CV449	QS1209/5651	21	CV1747	M505	29	CV2364	M525	30	CV3521	FX229	24
CV482	A237	10	CV1787	4C35	24	CV2365	M525	30	CV3528	M513A	30
CV513	4J53	29	CV1807	2J31	28	CV2366	M525	30	CV3540	5C22	24
CV532	AH211A	8	CV1808	2J32	28	CV2367	M525	30	CV3543	4D32	18
CV635	833A	14	CV1809	2J33	28	CV2368	M525	30	CV3599	3E29	—
CV642	872A	8	CV1810	2J34	28	CV2373	M502A	29	CV3611	5586	29
CV686	OC3	20	CV1832	OA2	20	CV2376	M521	30	CV3629	FX227*	24
CV788	832A	18	CV1833	OB2	20	CV2381	N1034	33	CV3659	M501A	29
CV789	3C24	14	CV1835	3B28	9	CV2383	5762	15	CV3660	M501A	29
CV904	BR175	15	CV1897	4J34	28	CV2393	N1010	33	CV3661	M501A	29
CV1068	STV280/40	22	CV1898	4J35	28	CV2399	AX228	9	CV3662	M501A	29
CV1069	STV280/80	22	CV1914	4J31	28	CV2412	M523	30	CV3676	2J42	28

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<b>RECTIFIERS</b>	CV3798	OA3	20	DR813	813	18	FX229	FX229	24	GU23	AH221*	8
	CV3815	3B22	9	DR832A	832A	18	FX231	FX231	24			
	CV3953	4J78	29	DR833A	833A	14	FX290	FX290	24			
<b>GERMANIUM RECTIFIERS</b>	CV3958	5657	29	DR857B	AH205/857B*	8				GX402	GX402	22
	CV3976	M509	30	DR869B	869B	8	G10/1dV	3B28*	9	GXU1	3B28	9
	CV3982	M506A	30	DR872A	872A	8	G180/2M	QS150/45	21	GXU2	4B32*	9
	CV4020	OA2WA	20							GXU3	AX228	9
	CV4028	OB2WA	20	DX2	3B28	9	GD85M/S	QS1209/5651	21	GXU4	AX228*	9
<b>TRIODES</b>	CV4048	QS1212	21				GD100A/S	QS92/10	20			
	CV4052	QS1202	21	E125A	C1108*	18	GD100B/S	QS92/10*	20	JP9-7	2J42	28
	CV4053	QS1203	21	E250A	C1112*	18	GD150A/S	OD3	20	JP9-7A	M508	30
<b>TETRODES</b>	CV4054	QS1213	21	E702	E702	33	GD150M/S	OA2	20	JP9-7D	M503A	29
	CV4515	K337	26	E702A	E702A	33				JP9-15	6027	29
	CV5018	4J52A	28				GHT1	FX215	24	JP9-50	2J56	28
	CV5023	AFX234	23	ELIC	3B22	9				JP9-80	4J52A	28
	CV5031	M548	31	ELC1A	AFX203*	23	GL-4D21/4-125A	C1108*	18	JP9-250	4J50A	28
<b>COLD CATHODE TUBES</b>	CV5083	QS75/20	20				GL-4-250A/5D22			JP9-250A	4J78	29
	CV5218	BR189	15	EN93	6D4	23				K300	K300	26
	CV5219	CR1100	19				GL-813	C1112*	18	K301	K301	26
	CV5235	2J56*	28	ES833	833A	14	GL-829-B	829B	18	K302	K302	26
	CV5268	7384	24				GL-832-A	832A	18	K305	K305	26
<b>CLYSTRONS</b>	CV6003	K342	27	ESA892	BR175*	15	GL-833-A	833A	14	K308	K308	26
	CV6022	FX290	24				GL-857B	AH205/857B*	8	K311	K311	26
	CV6023	N1034S	33	ESU77	A207	10	GL-869B	869B	8	K312	K312	26
	CV6024	N1010S	33	ESU103	3B28	9	GL-872A	872A	8	K313	K313	26
				ESU200	AH221*	8	GL-5762	5762	15	K315	K315	26
<b>MAGNETRONS</b>	CW1100	CW1100	19	ESU872	872A	8	GL-5894	C178A/5894	18	K317	K317	26
							GL-6181	6181	19	K321	K321	26
				F-857B	AH205/857B*	8				K323	K323	26
<b>B.W.O. STORAGE TUBES</b>	CX1119	7384	24	F-869-B	869B*	8	GTR95M/S	QS95/10	21	K324	K324	26
	CX1120	CX1120	24	F-872-A	872A	8	GTR150M/S	QS150/15	21	K328	K328	26
<b>TRAVELLING WAVE TUBES</b>	DQ4	872A*	8	FX215	FX215	24				K329	K329	25
	DQ4a	AH221*	8	FX219	5C22	24	GU18	AH238	8	K335	K335	26
	DQ6	869B	8	FX225	4C35	24	GU20/21	{ AH238* AH238*	8	K336	K350	27
	DQ7	AH205/857B*	8	FX227	FX227	24				K337	K337	26

# VALVE REPLACEMENT INDEX—continued

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Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.	Type to be replaced	E.E.V. type	Pg. No.
K340	K340	27	M503	M503A	29	M559	M559	31	N1004	N1004	34
K342	K342	27	M503A	M503A	29	M561	M561	31	N1005M	N1005M	34
K343	K343	27	M504	M504	29	M565	M565	32	N1010	N1010	33
K345	K345	27	M505	M505	29	M566	M566	32	N1010S	N1010S	33
K346	K346	27	M506A	M506A	30	M569	M569	32	N1013	N1013	34
K347	K347	25	M507	M507	30	M570	M570	32	N1016M	N1016M	34
K350	K350	27	M508	M508	30	M573	M573	32	N1017M	N1017M	34
K351	K351	27	M509	M509	30	M574	M574	32	N1018M	N1018M	34
K352	K352	25	M510	2J30 to 2J34	28	M4011	M4011	32	N1022M	6861	34
K354	K354	—	M511	4J78	29	M8098	QS1212	21	N1024M	N1024M	34
K357	K357	27	M513A	M513A	30	M8142	QS1213	21	N1025M	N1025M	34
K359	K359	27	M518A	4J31 to 4J35 & 4J53	28	M8223	OA2WA	20	N1029	N1029	34
K361	K361	27			29	M8224	OB2WA	20	N1031	N1031	35
K4001	K4001	25	M519	M519	30				N1032	N1032	35
			M521	M521	30				N1033	N1033	35
			M523	M523	30	ML-7C24	5762	15	N1034	N1034	33
KD21	OA3	20	M525	M525	30	ML-813	813	18	N1034S	N1034S	33
KD4	OC3	20	M526	2J42	28	ML-829B	829B	18	N1039	N1039	35
KD25	OD3	20	M528	M528	31	ML-832A	832A	18	N4001	N4001	35
			M529	M529	31	ML-833A	833A	14	N4003	N4003	35
			M535	M535	31	ML-857B	AH205/857B*	8	N4004	N4004	35
KS6-1000 D, E, F	K345 D, E, F	27	M536	4J43 & 4J44	28	ML-869B	869B	8			
KS7-1000 A, B, C, Z	K345 A, B, C, Z	27	M537	M537	31	ML-872A/ 872	872A	8	P120-1a	813*	18
			M538A	M538A	31	ML-5736	5736	15	P535/1E	C1111	19
			M539	M539	31	ML-5894	C178A/5894	18	P552/1E	C1111	19
			M542	5586	29	ML-6198	6198	37	P807	7293	36
			M543	7182	29				P809	7294	36
KU25	FX231	24	M546	M546	31				P810	6198	37
			M547	M547	31				P811	7295	36
			M548	M548	31	MPS1A	MPS1A	10	P812	P812	37
M501	M501	29	M549	M549	31				P813	6326	37
M501A	M501A	29	M551	4J52A	28				P815	P815	37
M501B	M501B	29	M554	M554	31				P816	5820	36
M502	4J50A	28	M555	M555	31	N1001	N1001	34	P817	6474	36
M502A	M502A	29	M558	M558	31	N1002	N1002	34			



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<b>RECTIFIERS</b>	P820	P820	37	QS1205	OA3	20	RS1007	C1108*	18	TT20	C1134	18
	P822	7389	36	QS1206	OC3	20				TX12-12W	BW140*	16
	P825	P825	37	QS1207	OA2	20	SAL-39	K329*	25	TY4-350	833A	14
<b>GERMANIUM RECTIFIERS</b>	P826	P826	37	QS1208	OB2	20	SRS362	833A*	14			
				QS1209	QS1209/5651	21	SRS455	C1108*	18	UE813	813	18
	PL-4D21	C1108*	18	QS1209/5651	QS1209/5651	21	SRS456	C1112*	18	UE833A	833A	14
<b>TRIODES</b>	PL-5C22/ HT415	5C22	24	QS1210	OA2WA	20	SRS4451	829B*	18	UE872A	872A	8
	PL-5D22	C1112*	18	QS1211	OB2WA	20		{ C178A/5894*				
				QS1212	QS1212	21	SRS4452	832A*	18	VA201B	K351	27
<b>TETRODES</b>	Q160-1	C1108*	18	QS1213	QS1213	21	StR85/10	QS1209/5651*	21	VA220 Series	K345 Series	27
	Q400-1	C1112*	18	QS1215	QS1215	21	StR108/30	OB2*	20	VA713 Series	VA713 Series	11
							StR150/30	OA2*	20	VA719 Series	VA719 Series	11
<b>COLD CATHODE TUBES</b>	QBL5/3500	CR1100	19	QT1250	QT1250	23	StR280/40	STV280/40*	22	VR75/30	OA3	20
	QBW5/3500	CW1100	19	QT1251	QT1251	23	StR280/80	STV280/80*	22	VR105/30	OC3	20
				QV20-P18	C1133*	19	STV280/40	STV280/40	22	VR150/30	OD3	20
<b>THYRATRONS</b>	QQEO3/20	C1134	18	QY2-100	813	18	T813	813	18	WL-5D22	C1112*	18
	QQEO4/20	832A	18	QY3-125	C1108	18	TH2J30-34	2J30-34	28	WL-813	813	18
	QQEO6/40	C178A/5894	18	QY4-250	C1112	18	TH3B24W	3B24W	10	WL-829-B	829B	18
<b>CLYSTRONS</b>	QQVO3-20A	C1134	18	QY4-400	C1136	—	TH4J50A	4J50A	28	WL-832A	832A	18
	QQVO4-15	832A	18	QY5-3000A	CR1100	19	TH4J52A	4J52A	28	WL-833A	833A	14
	QQVO6-40A	C178A/5894	18	QY5-3000W	CW1100	19	TH833A	833A	14	WL-857B	AH205/857B*	8
<b>MAGNETRONS</b>	QS75/20	QS75/20	20	RG3-1250	AH238	8	TH2200	K345	27	WL-869B	869B	8
	QS75/60	QS75/60	20	RG4-1250	AH221	8	Series	Series	27	WL872-A/ 872	872A	8
	QS83/3	QS1209/5651	21				TH5031	872A	8	WL5736	5736	15
<b>B.W.O. STORAGE TUBES</b>	QS92/10	QS92/10	20	RK813	813	18	TH5040	869B	8			
	QS95/10	QS95/10	21	RK829B	829B	18	TH5221	3B28	9	XH3-045	FX227	24
	QS108/45	QS108/45	21	RK832A	832A	18	TH5586	5586	29	XH8-100	4C35	24
<b>TRAVELLING WAVE TUBES</b>	QS150/15	QS150/15	21	RK872A	872A	8	TH5657	5657	29	XH16-200	5C22	24
	QS150/40	OD3	20				TH6435	4C35	24	XH25-500	FX229	24
	QS150/45	QS150/45	21				TH6522	5C22	24			
<b>T.V. CAMERA</b>	QS1200	QS1200	21	RR3-250	3B28	9	TH6907	FX229*	24	Z900T	5823	23
	QS1202	QS1202	21	RR3-1250	4B32	9	TT10	813	18	Z5823	5823*	23
	QS1203	QS1203	21	RR3-1250A	AX228	9	TT16D	C1108	18			

## MERCURY VAPOUR RECTIFIERS—Oxide Coated Filament

E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament		Peak inverse voltage max. (kV)	Peak anode current max. (A)	Mean anode current max. (A)	Max. d.c. output 3-phase full wave		Base
						Voltage (V)	Current (A)				Voltage (kV)	Current (A)	
869B	—	869B	—	366	131	5.0	19	20	10	2.5	19	7.5	3-Pin Jumbo
872A	AH217	872A	CV642 CV1449	216	59	5.0	7.5	10	5.0	1.25	9.5	3.75	B4F 4-Pin Jumbo
AH200	—	—	—	457	133	2.5	40	20	10	2.5	19	7.5	Special
AH205/ 857B	857B/ AH205	857B $\Delta$	CV2673	505	194	5.0	30	22	40	10	21	30	Flying Leads
AH211A	Replaces AH211	—	CV532	340	81	2.5	30	16	8.0	2.0	15.2	6.0	Special
AH221	—	—	CV5 CV1435	270	59	4.0	11	20	5.0	1.25	19	3.75	G.E.S.
AH238	—	—	CV1629	250	59	4.0	7.0	13	5.0	1.25	12.4	3.75	G.E.S.

$\Delta$  Electrical equivalent.

## XENON FILLED RECTIFIERS—Oxide Coated Filament

	E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament		Peak inverse voltage max. (kV)	Peak anode current max. (A)	Mean anode current max. (A)	Max. d.c. output 3-phase full wave		Base
							Voltage (V)	Current (A)				Voltage (kV)	Current (A)	
DIODES	3B22††	—	3B22	CV3815	153	42	2.5	6.25	0.725†	4.0	0.5	—	—	Medium UX4
DIODES	3B28	AX224	3B28	CV1835	156	53	2.5	5.0	10‡	1.0	0.25	9.5	0.75	Medium UX4
									5.0§§	2.0	0.5	4.7	1.5	
CATHODE TUBES	4B32	AX230	4B32	CV2518	216	59	5.0	7.1	10‡	5.0	1.25	9.5	3.75	B4F 4-Pin Jumbo
RECTIFIERS	AX228	AX228	—	CV2399	258	59	4.0	11	13‡	6.0	1.25	12.3	3.75	G.E.S.
									10‡	6.0	1.5	9.5	4.5	

†† This rectifier has two separate anodes brought out to the base. Anode current ratings are per anode.

† For operation up to 250 c/s.

‡ For operation up to 150 c/s.

§§ For operation up to 500 c/s.

We welcome enquiries for special valves not included in this catalogue

## HIGH VACUUM RECTIFIERS—Thoriated Tungsten Filament

E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament		Peak inverse voltage max. (kV)	Peak anode current max. (A)	Mean anode current max. (mA)	Nominal impedance (ohms)	Base
						Voltage (V)	Current (A)					
3B24W	A239	3B24W	CV2858	122	40	5.0	3.0	20	0.3	60	1490	Medium UX4
A207	—	—	CV2160	250	60	4.0	12	45	1.1	350	600	G.E.S.
A235	—	2-25A	—	111	36	6.3	3.0	25	0.5	50	1200	Small UX4
A237	—	—	CV482	250	60	4.0	12	65	1.5	250	1000	G.E.S.
A291	—	—	—	170	87	5.0	20	25	3.5	700	200	B5F
→A296	—	—	—	250	156	6.3	32.5	25	6.5	1250	130	Flying Leads

## IGNITRON—Mercury Pool Cathode

E.E.V. type	Overall length max. (mm)	Overall diameter max. (mm)	Peak forward voltage max. (kV)	Ambient temperature range (°C)	Peak positive igniter voltage max. (kV)	Peak negative igniter voltage max. (kV)	Peak current at 0.002 duty factor max. (A)	Peak current at 0.0006 duty factor max. (A)	Mean current max. (A)	Tube drop (V)
MPS1A	186	72	6	15 to 50 20 to 50	9.5 8.0	1.0	500	1000	1.0	16

→ Indicates a recent addition to the range.

# GERMANIUM POWER RECTIFIERS

The ratings are per diode  
Air cooled types for stack mounting

GERMANIUM RECTIFIERS	E.E.V. type	Overall length (mm)	Overall diameter (mm)	Mounting stud	Peak inverse voltage (V)		Maximum mean current (amps) at ambient temperature or max. inlet temperature of coolant			Cooling	Cooling fins (inches)
					Max. recurrent	Max. transient	35°C	45°C	55°C		
<b>TRIODES</b>	VA713A	32	18☺☺	Whit.	160	320	13	8.5	4.25	Free air circulation	4 × 4 × 1/32
<b>TETRODES</b>	VA713B	32	18☺☺	Whit.	140	280	13	8.5	4.25		
	VA713C	32	18☺☺	Whit.	120	240	13	8.5	4.25		
	VA713D	32	18☺☺	Whit.	100	200	13	8.5	4.25		
	VA713E	32	18☺☺	Whit.	80	160	13	8.5	4.25		
	VA713F	32	18☺☺	Whit.	60	120	13	8.5	4.25		
<b>COLD CATHODE TUBES</b>	VA713G	32	18☺☺	Whit.	40	80	13	8.5	4.25		
<b>THYRATRONS</b>	VA719A	32	18☺☺	Whit.	160	320	20	13	6.5	Free air circulation	6 × 6 × 1/16
	VA719B	32	18☺☺	Whit.	140	280	20	13	6.5		
	VA719C	32	18☺☺	Whit.	120	240	20	13	6.5		
	VA719D	32	18☺☺	Whit.	100	200	20	13	6.5		
	VA719E	32	18☺☺	Whit.	80	160	20	13	6.5		
	VA719F	32	18☺☺	Whit.	60	120	20	13	6.5		
<b>CLYSTRONS</b>	VA719G	32	18☺☺	Whit.	40	80	20	13	6.5		

**MAGNETRONS**

☺☺ Diode only.

We welcome enquiries for special valves not included in this catalogue

**B.W.O. STORAGE TUBES**

**TRAVELLING WAVE TUBES**

**T.V. CAMERA**

## GERMANIUM RECTIFIER STACKS

Germanium power rectifiers can be supplied either as basic units with or without cooling fins or as complete stacks, finned and suitably connected for use in single or polyphase circuits.

## VA713. SOME TYPICAL RECTIFIER STACKS—Resistive Load

Stack No.	Circuit	R.M.S. input voltage (Volts)	D.C. output voltage (Volts)	Max. d.c. output current (Amperes)			No. of VA713 diodes	Approx. overall dimensions (inches)	
				35°C Ambient	45°C Ambient	55°C Ambient			
13A1-1-1	Single phase, half wave	113	50	13	8.5	4.25	1	4 × 5 × 3	
13B1-1-1		98	43	13	8.5	4.25	1		
13C1-1-1		84	37	13	8.5	4.25	1		
13D1-1-1		70	31	13	8.5	4.25	1		
13E1-1-1		56	25	13	8.5	4.25	1		
13F1-1-1		42	18	13	8.5	4.25	1		
13G1-1-1		28	12	13	8.5	4.25	1		
13A3-1-1	Single phase, bridge	113	100	26	17	8.5	4	4 × 5 × 4½	
13B3-1-1		98	86	26	17	8.5	4		
13C3-1-1		84	73	26	17	8.5	4		
13D3-1-1		70	61	26	17	8.5	4		
13E3-1-1		56	48	26	17	8.5	4		
13F3-1-1		42	36	26	17	8.5	4		
13G3-1-1		28	23	26	17	8.5	4		
13A5-1-1	Three phase, bridge	<i>Phase</i> <i>Line</i>						4 × 5 × 6½	
13B5-1-1		—	113	150	36	24	12		6
13C5-1-1		—	98	130	36	24	12		6
13D5-1-1		—	84	111	36	24	12		6
13E5-1-1		—	70	92	36	24	12		6
13F5-1-1		—	56	72	36	24	12		6
13G5-1-1		—	42	53	36	24	12		6
		28	35	36	24	12	6		

Details of stacks covering higher voltages and currents are available on request.

We welcome enquiries for special valves not included in this catalogue

VA719. SOME TYPICAL RECTIFIER STACKS—Resistive Load

	Stack No.	Circuit	R.M.S. input voltage (Volts)	D.C. output voltage (Volts)	Max. d.c. output current (Amperes)			No. of VA719 diodes	Approx. overall dimensions (inches)
					35°C Ambient	45°C Ambient	55°C Ambient		
<b>TRIODES</b>	19A1-1-1	Single phase, half wave	113	50	20	13	6.5	1	6 × 7 $\frac{3}{8}$ × 3 $\frac{1}{4}$
	19B1-1-1		98	43	20	13	6.5		
	19C1-1-1		84	37	20	13	6.5		
	19D1-1-1		70	31	20	13	6.5		
	19E1-1-1		56	25	20	13	6.5		
<b>TETRODES</b>	19F1-1-1		42	18	20	13	6.5	1	
	19G1-1-1		28	12	20	13	6.5	1	
<b>COLD CATHODE TUBES</b>	19A2-1-1	Single phase, full wave centre-tap	56+56	50	40	26	13	2	6 × 7 $\frac{3}{8}$ × 3 $\frac{3}{8}$
	19B2-1-1		49+49	43	40	26	13	2	
<b>THYRATRONS</b>	19C2-1-1		42+42	37	40	26	13	2	
	19D2-1-1		35+35	31	40	26	13	2	
	19E2-1-1		28+28	25	40	26	13	2	
	19F2-1-1		21+21	18	40	26	13	2	
19G2-1-1	14+14	12	40	26	13	2			
<b>CLYSTRONS</b>	19A4-1-1	Three phase, half wave	<i>Phase</i> 65.4	<i>Line</i> 113	75	56	36	18	6 × 7 $\frac{3}{8}$ × 4 $\frac{3}{8}$
	19B4-1-1		56.6	98	65	56	36	18	
<b>MAGNETRONS</b>	19C4-1-1		48.5	84	56	56	36	18	
	19D4-1-1		40.5	70	46	56	36	18	
	19E4-1-1		32.4	56	36	56	36	18	
<b>B.W.O. STORAGE TUBES</b>	19F4-1-1		24.3	42	28	56	36	18	
	19G4-1-1		16.2	28	17	56	36	18	

Details of stacks covering higher voltages and currents are available on request.

TRAVELLING WAVE TUBES

T.V. CAMERA

## POWER TRIODES—Natural or Forced-air Cooled Thoriated Tungsten Filaments

E.E.V. type	Previously known as	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament		Frequency (Mc/s) §§§	Anode voltage max. (kV)	Anode dissipation max. (W)	Peak usable cathode current (A)	Amplification factor	Type of cooling	Base
					Voltage (V)	Current (A)							
3C24	B1109	CV789 CV2736	111	37	6·3	3·0	60/100	2·0	25	0·4	25	Natural	Small UX4
833A	—	CV635	225	117	10	10	30/75	3·0 4·0	300 400	2·2	35	Natural Forced-air	Special

§§§ *Frequency*—The lower value indicates the maximum operating frequency at full rating. Operation at the higher value is possible with suitable derating.

We welcome enquiries for special valves not included in this catalogue



**POWER TRIODES**—Forced-air, Water and Vapour Cooled  
 Thoriated Tungsten Filament indicated by Th.  
 Pure Tungsten Filament indicated by T.

	E.E.V. type	Previously known as	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament			Frequency (Mc/s) §§§	Anode voltage max. (kV)	Anode dissipation max. (kW)	Peak usable cathode current (A)	Amplification factor	Type of cooling
						Type	Voltage (V)	Current (A)						
	5736	—	—	188	91	Th	6.0	60	60/200	5.0	2.5	10	22	Forced-air
<b>TRIODES</b>	5762	BR191B	CV2383	187	119	Th	12.6	29	30/220	6.2	3	10	29	Forced-air
	BR128B	—	—	381	302	Th	7.2	170	30/110	12	12.5	35	26	Forced-air
<b>TETRODES</b>	BR140	—	—	620	295	T	19	75	15/40	12	8	10	45	Forced-air
<b>COLD CATHODE TUBES</b>	BR152B	—	CV28 CV1994†	470	187	T	16	22	15/80	10	0.8	2	40	Natural
											1.1			Forced-air
<b>THYRATRONS</b>	BR153	—	CV2159	626	264	T	19	100	20/40	15	12	12	45	Forced-air
	BR155	—	—	458	258	T	17	130	30/110	10	7.5	14	50	Forced-air
<b>GLYSTRONS</b>	BR161	—	CV2322	483	356	Th	9.0	175	30/50	12	15	45	45	Forced-air
	BR175	—	CV904	508	270	T	22	60	1.6/20	12.5	4	8.5	50	Forced-air
<b>MAGNETRONS</b>	BR179	—	CV2323	354	258	Th	6.6	90	50/110	8.5	8	16	28	Forced-air
	BR189	—	CV5218	547	356	Th	9.0	240	5/50	15	27	70	34	Forced-air
<b>B.W.O. STORAGE TUBES</b>	BR194	—	—	650	280	Th	13	240	5/30	15	40	100	34	Forced-air
	BR195	—	—	219	130	Th	6.0	67	30/220	6	4	10	25	Forced-air
<b>TRAVELLING WAVE TUBES</b>	BR1106	—	—	282	163	Th	5.0	175	30/220	6.6	10	20	29	Forced-air

§§§ Frequency—The lower value indicates the maximum operating frequency at full rating. Operation at the higher value is possible with suitable derating.

† BR152B (CV28) without radiators.

# POWER TRIODES—continued

E.E.V. type	Previously known as	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament			Frequency (Mc/s) §§§	Anode voltage max. (kV)	Anode dissipation max. (kW)	Peak usable cathode current (A)	Amplification factor	Type of cooling
					Type	Voltage (V)	Current (A)						
BR1122	—	—	352	258	Th	6·0	115	5/110	12	10	16	37	Forced-air
BR1129	—	—	138	64	Th	5·0	43·5	175	3·0	2·0	7·5	20	Forced-air
BR1131	—	—	477	167	Th	8·5	22	15/80	10	3·5	5	40	Forced-air
BR1132	—	—	508	270	Th	6·0‡	36	1·6/20	12·5	4	10	50	Forced-air
BR1138	—	—	470	187	Th	8·5	22	15/80	10	1·0	5	40	Natural
										1·25			Forced-air
BW140	—	CV2871	610	140	T	19	75	15/40	12	12	10	45	Water
BW153	—	CV2872	615	157	T	19	100	20/40	15	18	12	45	Water
BW161	—	—	476	235	Th	9·0	175	30/50	12	30	45	45	Water
BW165	—	—	388	165	Th	7·2	170	30/110	12	24	35	26	Water
BW173	—	CV1600	432	91	T	19	50	20	10	10	5·4	40	Water
BW179	—	—	343	180	Th	6·6	90	50/110	8·5	10	16	25	Water
BW189	—	—	525	280	Th	9·0	240	5/50	15	35	70	34	Water
BW194	—	—	626	280	Th	13	240	5/30	15	50	100	34	Water
BW1139	—	—	615	157	Th	11·5	70	20/40	15	18	12	45	Water
BY189	—	—	535	280	Th	9·0	240	5/50	15	35	70	34	Vapour ●

§§§ Frequency—The lower value indicates the maximum operating frequency at full rating.

Operation at the higher value is possible with suitable derating.

‡ With 2-phase supply. Otherwise 12·0V.

● Evaporating Unit supplied by E. F. V. Co. Ltd

# VALVES FOR R.F. HEATING— Forced-air, Water and Vapour Cooled Thoriated Tungsten Filaments

	E.E.V. type	Previously known as	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament		Frequency (Mc/s) §§§	Anode voltage max. (kV)	Anode dissipation max. (kW)	Peak usable cathode current (A)	Amplification factor	Type of cooling
						Voltage (V)	Current (A)						
	BR1102	—	—	483	300	8.2	230	50	12	20	45	42	Forced-air
	BR1103	—	—	356	267	6.0	120	100	8.5	10	16	25	Forced-air
	BR1115	—	—	200	119	15	39	30/110	6	3	14	30	Forced-air
	BR1121	—	—	394	267	6.6	230	50	10	15	45	38	Forced-air
<b>TETRODES</b>	BR1124	—	—	356	267	6.0	115	100	8.5	10	16	37	Forced-air
	BR1126	—	—	201	166	15	39	30/110	6	3	14	30	Forced-air
<b>COLD CATHODE TUBES</b>	BW1102	—	—	473	152	8.2	230	50	12	20	45	42	Water
	BW1103	—	—	343	116	6.0	120	100	8.5	10	16	25	Water
<b>THYRATRONS</b>	BW1121	—	—	381	153	6.6	230	50	10	15	45	38	Water
	BW1124	—	—	343	116	6.0	115	100	8.5	10	16	37	Water
<b>KLYSTRONS</b>	BW1126	—	—	189	117	15	39	30/110	6	3	14	30	Water
	→BY194	—	—	640	280	13	240	5/30	15	50	100	34	Vapour ■
<b>MAGNETRONS</b>	BY1102	—	—	480	162	8.2	230	50	12	25	45	42	Vapour ■
	BY1121	—	—	388	162	6.6	230	50	10	18	45	38	Vapour ■
<b>B.W.O. STORAGE TUBES</b>	→BY1122	—	—	350	181	6.0	115	5/110	12	10	16	37	Vapour ■

→ Indicates a recent addition to the range.

§§§ Frequency—The lower value indicates the maximum operating frequency at full rating.

Operation at the higher value is possible with suitable derating.

■ Evaporating-Condenser Unit supplied by E.E.V. Co. Ltd.

We welcome enquiries for special valves not included in this catalogue

**TRAVELLING WAVE TUBES**

**T.V. CAMERA**

**POWER TETRODES**—Natural Cooled.

Th. indicates Thoriated Tungsten Filament  
ih. indicates Indirectly Heated Cathode

E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament or heater			Frequency (Mc/s) §§§	Anode voltage max. (V)	Anode dissipation max. (W)	Screen voltage max. (V)	Amplification factor grid-screen	Base
						Type	Voltage (V)	Current (A)						
4D32	C1123	4D32	CV3543	146	59	ih	6·3	3·75	60	750	50	350	10	B7A (E7-2)
813	C143	813	CV26	190	65	Th	10	5·0	30/120	2000	100	400	8·5	B7D (A7-17)
829B	C144	829B	CV2666	110	61	ih	6·3 per	1·125 unit	200/250	750	2 × 20	225	9	B7A (E7-2)
832A	C180	832A	CV788	84	59	ih	6·3 per	0·8 unit	200/250	750	2 × 7·5	250	6·5	B7A (E7-2)
C178A /5894	C178A	5894	CV2797	104	46	ih	6·3 per	0·9 unit	250/500	600	2 × 20	300	8·0	B7A (E7-2)
C1108	—	4-125A*	CV2130	130	62	Th	5·0	6·5	120/200	3000	125	400	6·2	B5F
C1112	—	4-250A*	CV2131	151	87	Th	5·0	14·1	75/120	4000	250	600	5·1	B5F
C1134	—	6252*	CV2799	86	46	ih	6·3 per	0·65 unit	150/600	600	2 × 10	300	8·0	B7A (E7-2)

§§§ *Frequency*—The lower value indicates the maximum operating frequency at full rating. Operation at the higher value is possible with suitable derating.

\* Near equivalents.

We welcome enquiries for special valves not included in this catalogue

## POWER TETRODES—Forced-air Cooled

E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament or heater			Frequency (Mc/s)§§§	Anode voltage max. (V)	Anode dissipation max. (W)	Screen voltage max. (V)	Amplification factor grid-screen	Base
						Type	Voltage (V)	Current (A)						
6181	CR1101	6181	—	185	129	ih	120	1.6	900	2000	2000	500	7.0	—
CR176	—	—	CV2324	322	184	Th	5.0	64	30	7500	3500	1500	4.4	—
CR192	—	6166*	—	296	163	Th	5.0	175	60/220† 216‡	6900 6000	10 000	2000	10	—
CR1100	—	—	CV5219	169	97	Th	6.3	32.5	110/220	5000	3000	1200	8.5	—

TETRODES

## POWER TETRODE—Water Cooled

CW1100	—	—	—	172	70	Th	6.3	32.5	110/220	5000	3000	1200	8.5	—
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COLD CATHODE TUBES

THYRATRONS

## PULSE AMPLIFIER TETRODES

E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Filament or heater			Peak anode current max. (A)	Anode voltage max. (V) D.C.	Anode dissipation max. (W)	Screen voltage max. (V)	Base
						Type	Voltage (V)	Current (A)					
C1111	—	715C	CV427 △ CV398 △	150	65	ih	26	2.15	15	17 500	60	1500	B4A
C1133	4PR60A/ C1133	4PR60A △	CV2752 △ CV2416	150	65	ih	26	2.15	18	20 000	60	1500	B4A

CLYSTRONS

MAGNETRONS

B.W.O. STORAGE TUBES

TRAVELLING WAVE TUBES

§§§ *Frequency*—The lower value indicates the maximum operating frequency at full rating. Operation at the higher value is possible with suitable derating.

\* Near equivalents.

† Class C unmodulated.

‡ Television service.

△ Electrical equivalents.

T.V. CAMERA TUBES

We welcome enquiries for special valves not included in this catalogue

## VOLTAGE STABILISERS

E.E.V. type	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Striking voltage (V)		Operating voltage approx. (V)	Ignition electrode voltage (V)	Ignition electrode series resistance (megohms)	Tube current max. (mA)	Tube current min. (mA)	Regulation max. (V)	Base
						○	●							
OA2	QS1207	OA2	CV1832	66.5	19	185	225	150	—	—	30	5	6.0	B7G
<b>OA2WA</b>	<b>QS1210</b>	<b>OA2WA</b>	<b>CV4020</b>	<b>66.5</b>	<b>19</b>	<b>165</b>	<b>225</b>	<b>150</b>	—	—	<b>30</b>	<b>5</b>	<b>5.0</b>	<b>B7G</b>
OA3	QS1205	OA3	CV3798	105	39.5	105	160	75	—	—	40	5	6.5	Int. Octal
OB2	QS1208	OB2	CV1833	66.5	19	133	210	108	—	—	30	5	3.5	B7G
<b>OB2WA</b>	<b>QS1211</b>	<b>OB2WA</b>	<b>CV4028</b>	<b>66.5</b>	<b>19</b>	<b>133</b>	<b>210</b>	<b>108</b>	—	—	<b>30</b>	<b>5</b>	<b>3.0</b>	<b>B7G</b>
OC2	—	OC2	—	66.5	19	115	145	75	—	—	30	5	4.5	B7G
OC3	QS1206	OC3	CV686	105	39.5	133	210	108	—	—	40	5	4.0	Int. Octal
OD3	QS150/40	OD3	CV216	105	39.5	180	225	150	—	—	40	5	5.5	Int. Octal
QS75/20	—	—	CV284 (CV5083)	54	19	110	160	75 (70)	—	—	20	2	6.0	B7G
QS75/60	—	—	CV434	80	30	117	—	75	—	—	60	5	5.0	B8G
QS92/10	—	—	CV188 (CV1070)	85	33	140	—	92 (100)	—	—	10	1	5.0	British 4-pin

QS95/10	—	—	CV286	54	19	110	—	95	150	0·25	10	2	5·0	B7G
QS108/45	—	—	CV422	80	30	120	—	108	150	0·10	45	5	5·0	B8G
QS150/15	—	—	CV287	54	19	170	—	150	240	0·25	15	2	5·0	B7G
QS150/45	—	—	CV395	80	30	170	—	150	200	0·10	45	5	5·0	B8G
QS1202(	—	—	CV4052	47·6	19	133	210	108	—	—	15	2	3·0	B7G/F
QS1203(	—	—	CV4053	47·6	19	180	225	150	—	—	15	2	4·5	B7G/F
QS1215	—	—	—	54	19	115	115	90	—	—	40	1	10	B7G

**COLD CATHODE  
TUBES**

**VOLTAGE REFERENCE TUBES**

**THYRATRONS**

QS1200	—	—	CV2225	54	19	180	225	150	—	—	15	5	5·0	B7G
QS1209/ 5651	5651/ QS1209	5651	CV449	54	19	115	160	85	—	—	10	1	4·0	B7G
QS1212(	—	5651WA*	CV4048	54	19	115	115	85	—	—	10	1	4·0	B7G
QS1213(	—	—	CV4054	47·6	19	115	115	85	—	—	10	1	4·0	B7G/F

**CLYSTRONS**

**MAGNETRONS**

( This is a rugged and reliable type.  
B7G/F denotes flying leads. The  
overall length excludes leads.

- In normal lighting.
- In total darkness.
- \* Near equivalents.

**B.W.O.  
STORAGE  
TUBES**

**TRAVELLING  
WAVE TUBES**

**T.V. CAMERA**

**STABILOVOLTS—(Four Gap)**

E.E.V. type	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Gap	Striking voltage max. (V)	Operating voltage approx. (V)	Anode current max. (mA)	Cathode current min. (mA)	Regulation per gap over full current range (average) (V)	Base
STV280/40	CV1068	145	50	A4 to K	420	280	35	5	4.0	B5
				A3 to K	320	210	40			
				A2 to K	210	140	60			
				A1 to K	110	70	60			
STV280/80	CV1069	150	63	A4 to K	420	280	70	10	4.0	B5
				A3 to K	320	210	70			
				A2 to K	210	140	90			
				A1 to K	110	70	100			

**SPARK GAP—Gas Filled**

E.E.V. type	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Striking voltage max. (V)	Pulse operation			D.C. operation			
					Gap voltage max. (V)	Peak current max. (A)	Mean current max. (mA)	Tube current max. (mA)	Tube current min. (mA)	Operating voltage (V)	Regulation max. (V)
GX402	CV2902	134	64	750	400	160	160	500	50	122 approx.	5.0

We welcome enquiries for special valves not included in this catalogue



## TRIGGER TUBES

E.E.V. type	American equivalent	Overall length max. (mm)	Overall diameter max. (mm)	Peak cathode current max. (mA)	Mean cathode current max. (mA)	Anode break-down voltage max. (V)	Operating voltage max. (V)	Trigger break-down voltage min. (V)	Base
→5823	5823	54	19	100	25	200	85	105	B7G
→QT1250	—	54	19	100	25	210	68	80	B7G
→QT1251	—	47·6	19	100	25	210	68	80	B7G/F

## GLOW MODULATOR

E.E.V. type	American equivalent	Overall length max. (mm)	Overall diameter max. (mm)	Peak cathode current max. (mA)	Mean cathode current max. (mA)	Mean cathode current min. (mA)	Breakdown voltage max. (V)	Operating voltage† max. (V)	Light output† (c.p.)	Base
→1B59	1B59	77·8	32	75	35	5	225	150	0·13	Int. Octal

† At 30 mA d.c.

THYRATRONS

## THYRATRONS—Rare Gas Filled

LYSTRONS

E.E.V. type	Description	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Heater		Peak inverse voltage max. (V)	Peak forward voltage max. (V)	Peak anode current max. (A)	Mean anode current max. (A)	Tube drop approx. (V)	Base
							Voltage (V)	Current (A)						
6D4	Triode	AFX212	6D4	CV1949	54	19	6·3	0·25	350	350	0·11	0·025	18	B7G
AFX203	Triode	—	C1A*	CV2868	176	57	2·5))	5·00	340	170	7·7	0·64	11	Medium UX4
AFX234	Triode	—	—	CV5023	54	19	6·3	0·49	350	350	1·20	0·045	16	B7G

\* Near equivalents.

)>) Directly heated filament.

→ Indicates a recent addition to the range.

MAGNETRONS

B.W.O.  
STORAGE  
TUBES

TRAVELLING  
WAVE TUBES

T.V. CAMERA

## THYRATRONS—Hydrogen Filled

E.E.V. type	Description	Previously known as	American equivalent	Service type	Overall length max. (mm)	Overall diameter max. (mm)	Heater		Peak forward voltage max. (kV)	Peak anode current max. (A)	Mean anode current max. (A)	Tube drop approx. (V)	Heating factor $\ddagger\ddagger$	Base
							Voltage (V)	Current (A)						
4C35	Triode	FX225	4C35	CV1787	175	65	6.3	6.1	8	90	0.1	100	$2.0 \times 10^9$	B4D
5C22¶	Triode	FX219	5C22	CV2520 CV3540	222	65	6.3	10.6	16	325	0.2	100	$3.2 \times 10^9$	B4D
7384	Tetrode	CX1119	7384	CV5268	318	84	6.3	21.5	25	1000	1.25	100	$6.25 \times 10^9$	B5F metal shell
CX1120	Tetrode	—	—	—	210	65	6.3	10.6	16	325	0.2	100	$3.2 \times 10^9$	B4D
FX215	Triode	—	—	CV2203	286	102	2.5	27.5	16	200	0.2	100	$2.2 \times 10^9$	Special Flexible leads
FX227	Triode	—	3C45* 6130*	CV372 CV3629*	127	39	6.3	2.3	3	35	0.045	100	$0.3 \times 10^9$	Medium UX4
FX229	Triode	—	5949*	CV3521	318	84	6.3	18.5	25	500	0.5	100	$6.25 \times 10^9$	B5F metal shell
FX231	Triode	—	KU25	CV2993	222	65	6.3	10.6	12	325	0.2	100	$3.8 \times 10^9$	B4D
FX290Ⓒ	Triode	—	—	CV6022	222	65	6.3	10.6	16	325	0.2	100	$3.2 \times 10^9$	B4D

$\ddagger\ddagger$  Product of peak forward voltage, peak current pulse and repetition frequency.

Ⓒ This is a rugged version of 5C22.

\* Near equivalents.

¶ Qualification approval for JAN marking has been obtained.

We welcome enquiries for special valves not included in this catalogue

# KLYSTRONS

## AMPLIFIER KLYSTRONS—Pulse Operation

E.E.V. type	Service type	Mechanical tuning range (Mc/s)	Beam voltage (peak) (kV)	Beam current		Body current peak (A)	Focus electrode voltage (kV)	Magnetic field (Gauss)	Gain (db)	Output power (peak) (kW)	Pulse length ( $\mu$ sec)	Pulse repetition rate (p.p.s.)	Heater	
				(Peak) (A)	(Mean) (mA)								Voltage (V)	Current (A)
K329†	CV2496	960–1215	10	2.4	140	—	0	—	17	5	7.0■	3600▲	5.0	40
▼K347†	—	580–615	75	20	—	10	0	350	33	600	6.0	400	7.0	35
→K352‡	—	2998 ± 5 Fixed	190	88	154	12.5	—	1100	32	6000	2.5	600	4.3	83

## AMPLIFIER KLYSTRON—C.W. Operation

E.E.V. type	American equivalent	Mechanical tuning range (Mc/s)	Beam voltage (kV)	Beam current (A)	Collector current (A)	Body current (mA)	Focus electrode voltage (V)	Gain (db)	Output power (kW)	Heater	
										Voltage (V)	Current (A)
▼4KM50,000LA‡	4KM50,000LA	400–610	16	1.59	1.5	90	–200	57ø 25∞	10	7.5	40

## ELECTROMAGNET MOUNT for use with klystron K352

E.E.V. type	Resistance ( $\Omega$ )				Supply voltage max. (V)	Supply current max. (A)	Typical operation						
	Main coil		Bucking coil				Main coil current (A)	Bucking coil current (A)	Field (Gauss)	Water flow (g.p.m.)	Water pressure (p.s.i.)	Inlet temp. ( $^{\circ}$ C)	Outlet temp. ( $^{\circ}$ C)
	Hot	Cold	Hot	Cold									
K4001	2	1.45	78	55	80	40	30	0.6	1100	1.6	25	15	30

▼ The operation of this valve is guaranteed only when used with external cavities, electromagnet frame, and focusing coils supplied by E.E.V. Co. Ltd.

→ Indicates a recent addition to the range.

■ This applies to pulses in pairs.

† Forced-air cooled.

ø Narrow band.

▲ Pulse pairs per second.

‡ Water and forced-air cooled.

∞ Broad band.

KLYSTRONS

MAGNETRONS

B.W.O. STORAGE TUBES

TRAVELLING WAVE TUBES

T.V. CAMERA TUBES

We welcome enquiries for special valves not included in this catalogue

**KLYSTRONS—continued—REFLEX OSCILLATORS**

E.E.V. type	Service type	American equivalent	Mechanical tuning range (Mc/s)	Electronic tuning range (Mc/s)	Resonator voltage (V)	Resonator current (mA)	Reflector voltage maximum range (V)	Output power (mW)	Tuner	Base	Heater	
											Voltage (V)	Current (A)
K300	—	—	9320-9500	30	350	35	-90 to -150	30	Micr.	Int. Octal	6.3	0.6
K301	CV2161	—	2500-3500	15	350	35	-120 to -400	30	Separate resonator	Solder tags	6.3	0.6
K302	CV2164	—	9320-9500	30	350	35	-80 to -165	30	Micr.	Int. Octal	6.3	0.6
K305	CV2263	—	9250-9500	35	350	35	-80 to -170	25	Ext. pin	Int. Octal	6.3	0.6
K308	CV2282	—	8800-8900	40	350	35	-140 to -220	40	Micr.	Int. Octal	6.3	0.6
K311	—	—	8500-9500	30	350	35	-165 to -365	45	Knob or shaft	Int. Octal	6.3	0.6
K312	CV2273	—	9430-9650	30	350	35	-110 to -180	30	Micr.	Int. Octal	6.3	0.6
K313	—	—	9645-9775	30	350	35	-80 to -185	25	Ext. pin	Int. Octal	6.3	0.6
K315	—	—	9105-9205	30	350	35	-150 to -270	20	Micr.	Int. Octal	6.3	0.6
K317	—	—	8200-8300	30	350	35	-200 to -320	20	Micr.	Int. Octal	6.3	0.6
K321	—	—	9430-9650	30	350	35	-110 to -180	25	Ext. pin	Int. Octal	6.3	0.6
K323	—	—	9645-9775	30	350	35	-80 to -185	25	Micr.	Int. Octal	6.3	0.6
K324	CV2304	—	9000-10 000	30	350	35	-250 to -400	45	Knob or shaft	Int. Octal	6.3	0.6
K328	—	—	9555-9685	30	350	35	-110 to -190	25	Micr.	Int. Octal	6.3	0.6
K335	CV2343	—	9555-9685	30	350	35	-110 to -180	25	Micr.	Int. Octal	6.3	0.6
K337C	CV4515	—	9000-10 000	24	350	35	-250 to -400	45	Shaft	Solder tags	6.3	0.6

K 340	—	—	9300-9500	40	300	25	-90 to -175	35	Single screw	Mod. Octal	6·3	0·6
K342(	CV6003	—	8500-9000	35	350	35	-150 to -275	45	Shaft	Solder tags	6·3	0·6
K 343	—	—	12 000-14 500	80 50	350 350	30 30	-50 to -250 -100 to -350	40 50	Single screw	Flying leads	6·3	0·6
K345 <sup>∞</sup> series	—	VA220 series	5925-7725	30	750	72	-250 to -400	1·0W	Single screw	Int. Octal Wafer	6·3	0·8
K 346	—	—	14 500-17 000	120 75	350 350	30 30	-50 to -250 -100 to -350	35 45	Single screw	Flying leads	6·3	0·6
K351(	CV2494	VA201B	8500-9600	35 42	300 250	40 30	-80 to -185 -40 to -120	65 30	Single screw	Flying leads	6·3	1·2
K357	—	—	10 660-10 720	30	250	15	-80 to -130	12	Single screw	Int. Octal	6·3	0·6
→K359(	—	—	8100-8750	55	350	45	-90 to -185	90	Single screw	Flying leads	6·3	1·2
→K361	—	—	10 700-10 725	20	300	25	-150 to -250	27	Single screw	Flying leads	6·3	0·6

### TWO RESONATOR OSCILLATOR—Forced-air cooled

MAGNETRONS	E.E.V. type	Mechanical tuning range (Mc/s)	Electronic tuning range (Mc/s)	Beam voltage (V)	Beam current (mA)	Modulation sensitivity kc/s/V	Temperature coefficient (kc/s/°C)	Residual F.M. noise (c/s r.m.s.)	Output power (W)	Tuner	Base	Heater	
												Voltage (V)	Current (A)
B.W.O. STORAGE TUBES	K350	8500-10 000	12	700	70	200	35	<170	1·2	Locknuts	Flying leads	6·3	1·7

→ Indicates a recent addition to the range.

( Rugged.

All reflex oscillators are natural cooled except where otherwise indicated.

∞ Forced-air cooled.

TRAVELLING  
WAVE TUBES

T.V. CAMERA  
TUBES

## MAGNETRONS

We welcome enquiries for special valves not included in this catalogue

E.E.V. type	Previously known as	American equivalent	Service type	Frequency range (Mc/s)	Class (See end of table)	Heater (Starting)		Operational conditions				Typical performance	
						Voltage (V)	Current (A)	Magnetic field (Gauss)	Peak anode current (A)	Pulse length ( $\mu$ sec)	Pulse repetition rate (p.p.s.)	Peak anode voltage (kV)	Peak output power (kW)
2J30 2J31 2J32 2J33 2J34	M510 M510 M510 M510 M510	2J30 2J31 2J32 2J33 2J34	— CV1807 CV1808 CV1809 CV1810	2860–2900 2820–2860 2780–2820 2740–2780 2700–2740	FSAC	6.3	1.5	1900	30	1.0	1000	20	300
2J42¶	M526	2J42	CV3676	9345–9405	FPANG	6.3	0.5	—	4.5	1.0	2000	5.5	8
2J55	—	2J55	—	9345–9405	FPAG	6.3	1.0	—	12	1.0	1000	12	45
2J56	—	2J56	CV2852 CV5235*	9215–9275	FPAG	6.3	1.0	—	12	1.0	1000	12	45
4J31 4J32 4J33¶ 4J34 4J35	M518A M518A M518A M518A M518A	4J31 4J32 4J33 4J34 4J35	CV1914 — CV1916 CV1897 CV2744 CV1898	2860–2900 2820–2860 2780–2820 2740–2780 2740–2765 2700–2740	FSAC	16	3.1	2700	70	1.0	500	28	1000
4J43 4J44	M536 M536	4J43 4J44	— —	2992–3019 2965–2992	FSAC	16	3.1	2700	70	1.0	500	28	900
4J50A¶	M502	4J50A	CV2284	9345–9405	FPAG	13.75	3.25	—	25	1.0	1000	22	225
4J52A	M551	4J52A	CV5018	9350–9400	FPAG	12.6	2.2	—	15	1.0	1000	15	80

4J53†	M518A	4J53	CV513	2793-2813	FSAC	16	3-1	2700	70	1-0	500	28	1000
4J78	M511	4J78	CV3953	9003-9168	FPAG	13-75	3-5	—	27-5	1-0	1000	21-5	250
5586	M542	5586	CV3611	2700-2900	TSAC	16	3-1	2700	70	1-0	500	30	1000
5657	—	5657	CV3958	2900-3100	TSAC	16	3-1	2700	70	1-0	500	30	1000
6027	—	6027	—	9345-9405	FPAG	6-3	0-5	—	7	1-0	1000	6-9	20
7182	M543	7182	—	2750-2860	FEWAX	12	15	1400	157	5-0	300	35	2500
M501	—	—	CV1479 CV1480 CV1481 CV1482	3030-3060 3005-3030 2980-3005 2940-2980	FSAC	5-0	2-6	2300	35	2-0	500	27	500
M501A	—	—	CV3659 CV3660 CV3661 CV3662	3030-3060 3005-3030 2980-3005 2940-2980	FSAC	5-0	2-6	2300	35	2-0	500	27	500
M501B	—	—	—	3030-3060 3005-3030 2980-3005 2940-2980	FSAC	5-0	2-6	2300	35	2-0	500	27	500
M502A	—	—	CV2373	9325-9425	FPAG	12-6	2-25	—	22-5	1-0	400	21	180
M503A	—	—	—	9345-9405	FPANG	6-3	0-5	—	4-5	0-1	1000	5-5	8
M504	—	—	—	9325-9425	FEAG	5-0	40	7000	50	0-6	1000	35	750
M505	—	—	CV1747	9360-9460	FSAG	3-0	3-5	3250	12	1-0	1000	11-1	45

† Qualification approval for JAN marking has been obtained.

\* Near equivalent.

MAGNETRONS

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STORAGE  
TUBES

TRAVELLING  
WAVE TUBES

T.V. CAMERA  
TUBES

## MAGNETRONS—continued

We welcome enquiries for special valves not included in this catalogue

E.E.V. type	Previously known as	American equivalent	Service type	Frequency range (Mc/s)	Class (See end of table)	Heater (Starting)		Operational conditions				Typical performance	
						Voltage (V)	Current (A)	Magnetic field (Gauss)	Peak anode current (A)	Pulse length ( $\mu$ sec)	Pulse repetition rate (p.p.s.)	Peak anode voltage (kV)	Peak output power (kW)
M506A	—	—	CV3982	9360–9460	FSAG	3·0	3·5	3250	12	1·0	1000	11·2	50
M507	—	—	CV1475	3340–3380	FSAC	5·0	2·6	2100	40	0·5	500	27	425
	—	—	CV1476	3305–3340									
	—	—	CV1477	3270–3305									
	—	—	CV1478	3230–3270									
M508	—	2J42§	CV370	9210–9270	FPANG	6·3	0·5	—	4·5	1·0	1000	5·5	8
M509	—	2J42§	CV3976	8770–8830	FPANG	6·3	0·5	—	4·5	2·0	500	5·5	8
M513A	—	—	CV3528	9345–9405	FPANG	6·3	0·5	—	7·5	1·0	500	7·5	18
M519	—	—	CV1483	3570–3614	FSAC	5·0	2·6	2300	40	0·5	500	27	425
	—	—	CV1484	3530–3570									
	—	—	CV1485	3490–3530									
	—	—	CV1486	3450–3490									
M521	—	—	CV2376	9600–9700	FSAG	3·0	3·5	3250	12	1·0	1000	11·1	45
M523	—	4J50A§	CV2412	9580–9705	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M525	—	—	CV2362	2750–2765	FSWG	8·5	9·0	1800	70	1·0	1000	36	1150
	—	—	CV2363	2765–2780									
	—	—	CV2364	2780–2795									
	—	—	CV2365	2795–2810									
	—	—	CV2366	2810–2825									
	—	—	CV2367	2825–2840									
—	—	CV2368	2840–2855										



M528	—	—	CV1495 CV1496 CV1497 CV1498 CV1499 CV1500	3000-3020 3020-3040 3040-3060 3060-3080 3080-3100 3100-3120	FSAC	6·0	1·25	2050	22·5	0·5	2000	22·5	200
M529	—	4J50A§	CV2426	8830-8995	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M535	—	—	—	9500-9600	FPNG	6·3	0·5	—	4·5	0·1	1000	5·5	7·2
M537	—	2J42§	CV2281	8770-8830	FPAG	6·3	0·5	—	4·5	1·0	1000	5·5	8
M538A	—	—	CV2473	9210-9270	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M539	—	4J50A§	CV2425	8665-8830	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M546	—	4J50A§	—	9700-9850	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M547	—	4J50A§	—	9850-10 000	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M548	—	—	CV5031	9003-9168	FSAG	3·0	3·5	3800	12	1·0	1000	13·5	50
M549	—	4J50A§	CV2424	8500-8665	FPAG	13·75	3·25	—	25	1·0	1000	22	225
M554	—	—	—	1295-1365	FSWGG	20	13·5	925	150	5·0	250	39	2600
M555	—	—	—	14 000-16 500	FPAG	12·6	2·25	—	15	1·0	1000	16·0	65
M558	—	—	—	9345-9405	FSANY	6·3	0·5	—	4·5	0·1	1000	5·5	8
→M559	—	—	—	9345-9405	FPAG	6·3	0·5	—	7·0	1·0	1000	7·2	20
M561	—	—	—	3040-3060	FSANC	10·5 6·3†	1·1 1·5	1800	15	2·0	500	15	100

§ Frequency variant of.

† Alternative heater ratings.

→ Indicates a recent addition to the range.

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STORAGE  
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WAVE TUBES**

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TUBES**

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**MAGNETRONS—continued**

E.E.V. type	Previously known as	American equivalent	Service type	Frequency range (Mc/s)	Class (See end of table)	Heater (Starting)		Operational conditions				Typical performance	
						Voltage (V)	Current (A)	Magnetic field (Gauss)	Peak anode current (A)	Pulse length ( $\mu$ sec)	Pulse repetition rate (p.p.s.)	Peak anode voltage (kV)	Peak output power (kW)
→M565	—	—	—	1215–1365	FEWAZ	48	14	800	240	10	250	48	5000
→M566	—	—	—	2750–2860	FEWAZ	12	15	1580	145	5.0	300	38.5	2500
M569	—	—	—	2850–2960	FEWAZ	12	15	1580	140	5.0	300	40	2500
M570	—	—	—	2950–3060	FEWAZ	12	15	1580	140	5.0	300	40	2500
M573	—	—	—	2850–2960	FEWAX	12	15	1520	144	5.0	300	38	2500
M574	—	—	—	2950–3060	FEWAX	12	15	1580	132	5.0	300	41	2500

**CLASS**

**Frequency and Operation**  
 F—Fixed Frequency, pulsed.  
 T—Tunable Frequency, pulsed.

**Magnetic Field**  
 E—Electromagnet.  
 P—Packaged integral magnet.  
 S—Separate magnet (not supplied).

**Cooling**  
 A—Forced-air.  
 AN—Forced-air or Natural.  
 N—Natural.  
 W—Water.  
 WA—Water and Forced-air.

**Output**  
 C—Coaxial.  
 G—Waveguide.  
 GG—The waveguide output is not sold with this valve.  
 X—Requires electromagnet with coaxial-to-waveguide launching section.  
 Y—Requires permanent magnet and coaxial-to-waveguide launching section.  
 Z—Requires electromagnet with waveguide launching section.

**ELECTROMAGNET AND LAUNCHING SECTION**

E.E.V. type	Description
→M4011	Water-cooled electromagnet and launching section for use with magnetrons M566, M569 and M570. Approximate power requirements 28.5A, 50V.

→ Indicates a recent addition to the range.

## BACKWARD WAVE OSCILLATORS

With Packaged Magnetic Focusing and Coaxial type 'N' output connector

E.E.V. type	Service type	Heater		Electronic tuning range (Mc/s)	Typical output power (mW)≈	Delay line voltage range (V)	Delay line current max. (mA)	Anode voltage range (V)	Anode current max. (mA)	Control grid cut-off voltage max. (V)	Typical operation			Base
		(V)	(A)								Anode voltage (V)	Delay line current (mA)	Grid voltage (V)	
N1010† N1010S‡	CV2393 CV6024	6·3	2·3	7000–11 500	30–150	300–1500	40	100–200	10	–100♀	150	22–33	0	JEDEC A7–13 (USM7)
N1034† N1034S‡	CV2381 CV6023	6·3	2·4	2400–4500	70–800	150–1170	50	100–200	20	–100♀	170	35–45	0	B7D

≈ Variation of typical output power over the band.

† Permanent magnet.

♀ Oscillations are cut off at this voltage.

‡ Solenoid.

## STORAGE TUBES

E.E.V. type	Description	Typical brightness	Deflection	Useful screen dia.	Bases
E702	Direct view storage tube recommended for radar applications	2200 ft.-lamberts	Electrostatic	3·8 inches	One small button thirty fivar JEDEC 31–36
E702A	Direct view storage tube recommended for oscilloscope applications	900 ft.-lamberts	Electrostatic	3·8 inches	One small button thirty fivar JEDEC 31–36

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E.E.V. type	Description	Frequency range (Mc/s)	Typical conditions at centre frequency							R.F. Connections	R.F. Connectors Type	Base
			Output power	Noise factor (db)	Gain (db)	Helix voltage (V)	Collector voltage (V)	Collector current (mA)	Focusing field (Gauss)			
6861ø	Low noise tube	2700 to 3500	1 mW	6.5	25	375	400	0.15	525	Coaxial Straight	N Plug	Intern. Octal
N1001	Power tube	1700 to 2300	15 W	—	25	2630	2800	43	450	Waveguide	—	B4D
N1002	Low noise tube	1700 to 2300	2.5 mW	9	23	565	700	0.2	450 & 150	Waveguide	—	Intern. Octal
N1004	Power tube	3800 to 4200	4 W	—	24	2350	2350	20	550	Waveguide	—	B4D
N1005Mø‡	Low noise tube	3600 to 4200	1.5 mW	9	20	380	700	0.2	350	Coaxial Straight	BNC Jack	Intern. Octal
N1013	Medium power tube	1700 to 2300	5 mW 200 mW	20	33 30	650 650	750 750	4.0 4.0	400 400	Waveguide	—	Intern. Octal
N1016Mø‡	Low noise tube	4100 to 7000	1 mW	10	30	600	725	0.3	520	Coaxial Straight	C Jack	Intern. Octal
N1017Mø	Low noise tube	1200 to 1400	2 mW	6.5	26	260	450	0.15	450 & 100	Coaxial Straight	C Jack	Intern. Octal
N1018Mø‡	Medium power tube	3600 to 4200	5 mW 100 mW	21	33 25	600 600	750 750	2.0 2.0	400 400	Coaxial Straight	BNC Jack	Intern. Octal
N1024Mø	Low noise tube	3600 to 4200	1.5 mW	9	20	380	700	0.2	350	Coaxial Bent	BNC Jack	Intern. Octal
N1025Mø	Medium power tube	3600 to 4200	5 mW 100 mW	21	33 25	600 600	750 750	2.0 2.0	400 400	Coaxial Bent	BNC Jack	Intern. Octal
N1029ø‡	Power tube	5850 to 7200	5 W	—	43	2500	1500	35	600	Waveguide	—	Flying Leads

N1031 $\emptyset$	Low noise tube	3800 to 4200	2.3 mW	8.5	25	500	700	0.25	550	Waveguide	—	Intern. Octal
N1032 $\emptyset$	Medium power tube	3800 to 4200	300 mW	19	38	1450	1750	3.5	350	Waveguide	—	Intern. Octal
N1033 $\emptyset$	Power tube	3800 to 4800	7 W	28	37	2260	1400	24	550	Waveguide	—	Giant 7-pin
→N1039 $\emptyset$ ‡	Power tube	5850 to 7200	5 W	—	43	2500	1500	35	600	Waveguide	—	Giant 7-pin

$\emptyset$  Aluminium foil solenoid.

‡ Permanent magnet.

→ Indicates a recent addition to the range.

## ALUMINIUM FOIL SOLENOIDS for use with Travelling Wave Tubes

E.E.V. type	Field strength		Ambient temperature or inlet temperature of forced-air max. (°C.)	For use with tube type	Typical operation					
	Gun field (Gauss/A) (approx.)	Main field (Gauss/A) (approx.)			Gun field (Gauss)	Main field (Gauss)	D.C. current		D.C. voltage (approx.)	
							Gun (A)	Main (A)	Gun (V)	Main (V)
N4001	—	60	40	{ N1005M N1024M }	—	350	—	5.8	—	8.7
			35	{ N1018M N1025M }	—	400	—	6.7	—	10
			55	N1016M	—	520	—	8.7	—	13.3
N4003	185	13	40	N1017M	450	100	2.4	7.2	17	2.0
N4004	—	60	40	6861	—	525	—	9.0	—	17.5

## TELEVISION CAMERA TUBES

### 3-INCH IMAGE ORTHICONS

E.E.V. type	Alternatively known as	Description
5820	P816	General purpose tube which gives an acceptable picture at very low light levels. Recommended for outdoor use with poor illumination; also suitable for studio use.
6474	P817	Developed for use in colour cameras employing three image orthicons for simultaneous colour pick-up, and high quality monochrome transmissions. While requiring a slightly higher light input than the 5820 or 7293, its sensitivity is adequate for outside broadcasts or in the studio.
6849§		Intended for very low light level industrial applications. Not recommended for broadcast use.
7293	P807	Interchangeable with 5820 but differing slightly in construction and operation. An additional electrode improves the field conditions in front of the target, so reducing distortion of the scanning beam.
7294	P809	Interchangeable with 6474 but differing slightly in construction and operation. An additional electrode improves the field conditions in front of the target, so reducing distortion of the scanning beam. While requiring a slightly higher light input than the 5820 or 7293, its sensitivity is adequate for outside broadcasts or in the studio.

### 4½-INCH IMAGE ORTHICONS

E.E.V. type	Alternatively known as	Description
7295	P811	A general purpose tube with a medium target capacitance, suitable for both outdoor and studio use.
7389	P822	Tube with a target capacitance between that of the 7295 and that of the P812, and normally recommended for studio use.

### 4½-INCH IMAGE ORTHICONS

E.E.V. type	Alternatively known as	Description
P812§	—	Tube with a higher target capacitance than the 7389, and suitable for use in standards conversion equipment.
P815§	—	For medical and scientific use, for low light level applications; not recommended for broadcast use.
P825§	—	For use in X-ray image amplifier equipment utilizing a wide aperture optical system.

### VIDICONS

E.E.V. type	Alternatively known as	Description
6198	P810	1-inch Vidicon for a wide range of industrial research and development applications. Incident light on photo-layer 3–10 ft. candles.
6326	P813	1-inch Vidicon for pick-up from film (telecine), for broadcasting use. Incident light on photo-layer 50–300 ft. candles.
→7038	—	1-inch Vidicon for use over a wide range of applications. Incident light on photo-layer 3–300 ft. candles, according to requirements.
P820	—	1-inch Vidicon for pick-up from limited motion scenes. Broadcasting quality. Incident light on photo-layer 6 ft. candles.
→P826	—	1-inch Vidicon similar to 6198 with relaxed specification for blemishes in the outer areas of the picture.

§ Not available from stock.

→ Indicates a recent addition to the range.

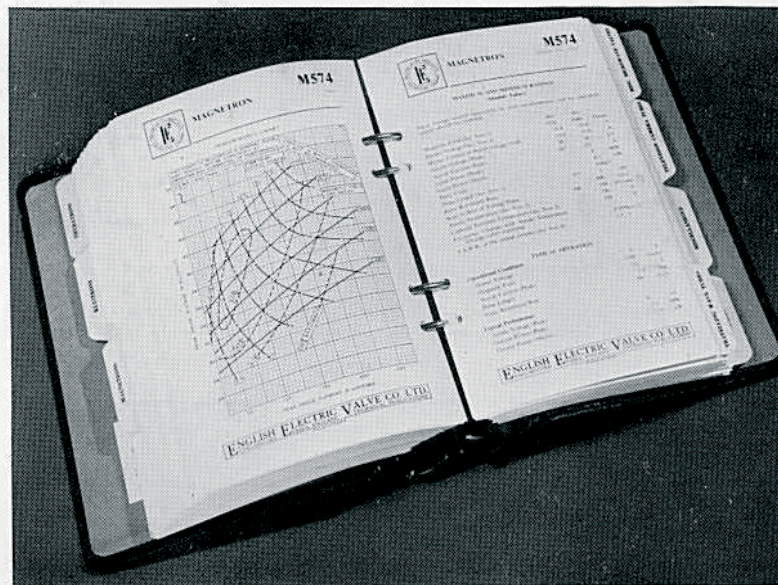
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## E.E.V. VALVE DATA BOOKS

These Data Books give full information, including operating conditions, characteristic curves and outlines, for over 250 E.E.V. Co. Ltd. valve types. In addition, each section of the Data Books is preceded by a preamble to assist in making the best use of the data provided.

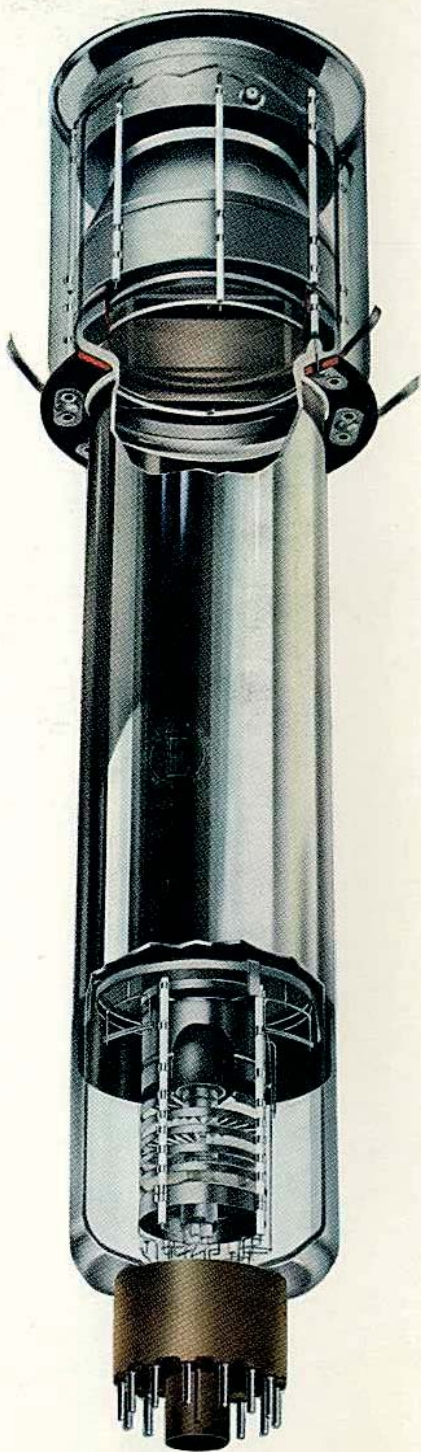
Each volume opens flat to ensure easy access to the data without completely releasing the pages, whilst a simple lever gives full opening for the ready insertion of new pages. Supplementary data sheets are issued at regular intervals.

*For further details please write to*  
**TECHNICAL PUBLICATIONS DEPARTMENT**  
 English Electric Valve Company Limited  
 Chelmsford, Essex, England





**4½-inch IMAGE  
ORTHICON  
7295**



ENGLISH ELECTRIC VALVE Co. Ltd.  
CHELMSFORD, ENGLAND

*Telephone:* Chelmsford 3491

*Manufacturers of*  
SPECIALISED ELECTRONIC VALVES AND TUBES