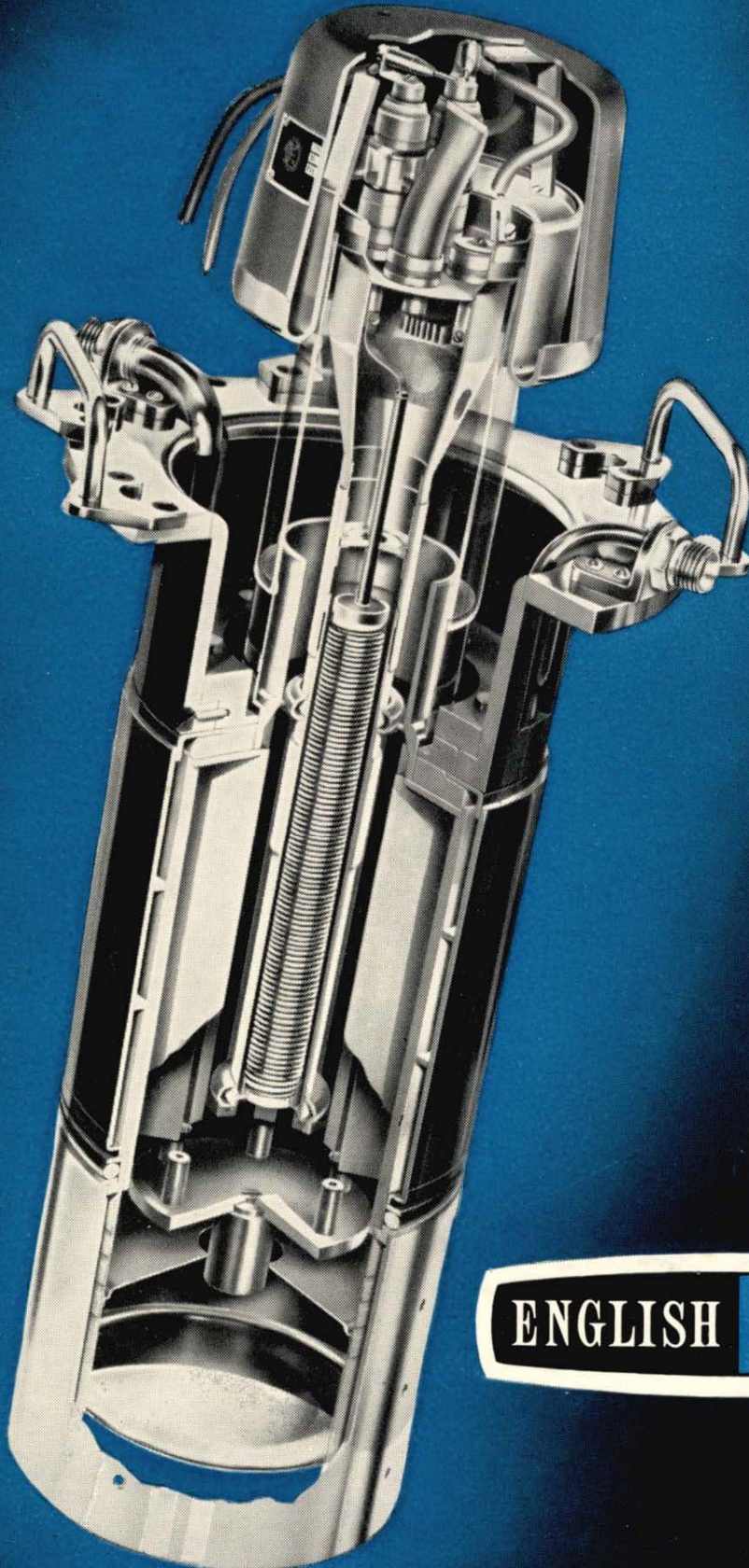


MAGNETRONS



ENGLISH ELECTRIC

ENGLISH ELECTRIC MAGNETRONS



This folder gives brief details of the comprehensive range of Magnetrons designed and manufactured by the English Electric Valve Company Limited. The types are listed in order of code numbers on pages one, two, three and four, service type numbers on page five and ascending nominal frequencies on pages six and seven.

With the exception of two types where mechanical tuning is detailed, all these valves oscillate at a fixed frequency within the particular range quoted. For some a separate magnet is required. Those fitted with an integral permanent magnet are specified as "packaged". Full technical information will be sent upon request.

The inclusion of a type in this list does not necessarily indicate that it is in current production or can be delivered from stock.

Continuous research and development work results in an ever expanding range of these valves, and enquiries for new types will receive close attention.

ENGLISH ELECTRIC VALVE CO. LTD., CHELMSFORD, ENGLAND

Telephone: Chelmsford 3491

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E.E.V. Type No.	Service Type No.	Normal Operating Conditions						Class (See end of Table)
		Frequency Range (Mc/s)	Magnetic Field (Gauss)	Peak Anode Current (A)	Peak Anode Voltage (kV)	Duty Cycle	Peak Output Power (kW)	
2J30	—	2860-2900	1900	30	20	·001	300	FSAC
2J31	CV1807	2820-2860	1900	30	20	·001	300	FSAC
2J32	CV1808	2780-2820	1900	30	20	·001	300	FSAC
2J33	CV1809	2740-2780	1900	30	20	·001	300	FSAC
2J34	CV1810	2700-2740	1900	30	20	·001	300	FSAC
2J42†	CV3676	9345-9405	—	4·5	5·5	·002	8	FPANG
2J55	—	9345-9405	—	12	12	·001	45	FPAG
2J56	CV2852 CV5235*	9215-9275	—	12	12	·001	45	FPAG
4J31	CV1914	2860-2900	2700	70	28	·0005	1000	FSAC
4J32	—	2820-2860	2700	70	28	·0005	1000	FSAC
4J33†	CV1916	2780-2820	2700	70	28	·0005	1000	FSAC
4J34	CV1897	2740-2780	2700	70	28	·0005	1000	FSAC
	CV2744	2740-2765	2700	70	28	·0005	1000	FSAC
4J35	CV1898	2700-2740	2700	70	28	·0005	1000	FSAC
4J43	—	2992-3019	2700	70	28	·0005	900	FSAC
4J44	—	2965-2992	2700	70	28	·0005	900	FSAC
4J50A†	CV2284	9345-9405	—	25	22	·001	225	FPAG
4J52A	CV5018	9350-9400	—	15	15	·001	80	FPAG
4J53†	CV513	2793-2813	2700	70	28	·0005	1000	FSAC
4J78	CV3953	9003-9168	—	27·5	21·5	·001	250	FPAG
5586	CV3611	2700-2900	2700	70	30	·0005	1000	TSAC
5657	CV3958	2900-3100	2700	70	30	·0005	1000	TSAC
6027	—	9345-9405	—	7	6·9	·001	20	FPAG
7182	—	2750-2860	1400	157	35	·0015	2500	FEWAX

E.E.V. Type No.	Service Type No.	Normal Operating Conditions						Class (See end of Table)
		Frequency Range (Mc/s)	Magnetic Field (Gauss)	Peak Anode Current (A)	Peak Anode Voltage (kV)	Duty Cycle	Peak Output Power (kW)	
M501	CV1479	3030-3060	2300	35	27	·001	500	FSAC
	CV1480	3005-3030	2300	35	27	·001	500	FSAC
	CV1481	2980-3005	2300	35	27	·001	500	FSAC
	CV1482	2940-2980	2300	35	27	·001	500	FSAC
M501A	CV3659	3030-3060	2300	35	27	·001	500	FSAC
	CV3660	3005-3030	2300	35	27	·001	500	FSAC
	CV3661	2980-3005	2300	35	27	·001	500	FSAC
	CV3662	2940-2980	2300	35	27	·001	500	FSAC
M501B	—	3030-3060	2300	35	27	·001	500	FSAC
	—	3005-3030	2300	35	27	·001	500	FSAC
	—	2980-3005	2300	35	27	·001	500	FSAC
	—	2940-2980	2300	35	27	·001	500	FSAC
M502A	CV2373	9325-9425	—	22·5	21	·0004	180	FPAG
M503A	—	9345-9405	—	4·5	5·5	·0001	8	FPANG
M504	—	9325-9425	7000	50	35	·0006	750	FEAG
M505	CV1747	9360-9460	3250	12	11·1	·001	45	FSAG
M506A	CV3982	9360-9460	3250	12	11·2	·001	50	FSAG
M507	CV1475	3340-3380	2100	40	27	·00025	425	FSAC
	CV1476	3305-3340	2100	40	27	·00025	425	FSAC
	CV1477	3270-3305	2100	40	27	·00025	425	FSAC
	CV1478	3230-3270	2100	40	27	·00025	425	FSAC
M508	CV370	9210-9270	—	4·5	5·5	·001	8	FPANG
M509	CV3976	8770-8830	—	4·5	5·5	·001	8	FPANG
M513A	CV3528	9345-9405	—	7·5	7·5	·0005	18	FPANG

E.E.V. Type No.	Service Type No.	Normal Operating Conditions						Class (See end of Table)
		Frequency Range (Mc/s)	Magnetic Field (Gauss)	Peak Anode Current (A)	Peak Anode Voltage (kV)	Duty Cycle	Peak Output Power (kW)	
M519	CV1483	3570-3614	2300	40	27	·00025	425	FSAC
	CV1484	3530-3570	2300	40	27	·00025	425	FSAC
	CV1485	3490-3530	2300	40	27	·00025	425	FSAC
	CV1486	3450-3490	2300	40	27	·00025	425	FSAC
M521	CV2376	9600-9700	3250	12	11·1	·001	45	FSAG
M523	CV2412	9580-9705	—	25	22	·001	225	FPAG
M525	CV2362	2750-2765	1800	70	36	·001	1150	FSWG
	CV2363	2765-2780	1800	70	36	·001	1150	FSWG
	CV2364	2780-2795	1800	70	36	·001	1150	FSWG
	CV2365	2795-2810	1800	70	36	·001	1150	FSWG
	CV2366	2810-2825	1800	70	36	·001	1150	FSWG
	CV2367	2825-2840	1800	70	36	·001	1150	FSWG
	CV2368	2840-2855	1800	70	36	·001	1150	FSWG
M528	CV1495	3000-3020	2050	22·5	22·5	·001	200	FSAC
	CV1496	3020-3040	2050	22·5	22·5	·001	200	FSAC
	CV1497	3040-3060	2050	22·5	22·5	·001	200	FSAC
	CV1498	3060-3080	2050	22·5	22·5	·001	200	FSAC
	CV1499	3080-3100	2050	22·5	22·5	·001	200	FSAC
	CV1500	3100-3120	2050	22·5	22·5	·001	200	FSAC
M529	CV2426	8830-8995	—	25	22	·001	225	FPAG
M535	—	9500-9600	—	4·5	5·5	·0001	7·2	FPNG
M537	CV2281	8770-8830	—	4·5	5·5	·001	8	FPAG
M538A	CV2473	9210-9270	—	25	22	·001	225	FPAG
M539	CV2425	8665-8830	—	25	22	·001	225	FPAG
M546	—	9700-9850	—	25	22	·001	225	FPAG
M547	—	9850-10 000	—	25	22	·001	225	FPAG

E.E.V. Type No.	Service Type No.	Normal Operating Conditions					Duty Cycle	Peak Output Power (kW)	Class (See end of Table)
		Frequency Range (Mc/s)	Magnetic Field (Gauss)	Peak Anode Current (A)	Peak Anode Voltage (kV)				
M548	CV5031	9003-9168	3800	12	13.5	.001	50	FSAG	
M549	CV2424	8500-8665	—	25	22	.001	225	FPAG	
M554	—	1295-1365	925	150	39	.00125	2600	FSWGG	
M555	—	14 000-16 500	—	15	16.0	.001	65	FPAG	
M558	—	9345-9405	—	4.5	5.5	.0001	8	FSANY	
M559	—	9345-9405	—	7.0	7.2	.001	20	FPAG	
M561	—	3040-3060	1800	15	13	.001	80	FSAC	
M565	—	1215-1365	800	240	48	.0025	5000	FEWAZ	
M566	—	2750-2860	1580	145	38.5	.0015	2500	FEWAZ	
M569	—	2850-2960	1580	140	40	.0015	2500	FEWAZ	
M570	—	2950-3060	1580	140	40	.0015	2500	FEWAZ	
M573	—	2850-2960	1520	144	38	.0015	2500	FEWAX	
M574	—	2950-3060	1580	132	41	.0015	2500	FEWAX	

† Qualification approval for JAN marking has been received.

* Near equivalent.

CLASS

Frequency and Operation

F—Fixed Frequency, pulsed
T—Tunable Frequency, pulsed

Magnetic Field

E—Electro-magnet
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 electro-magnet with coaxial-to-waveguide launching section
Y—Requires permanent magnet and coaxial-to-waveguide launching section
Z—Requires electro-magnet with waveguide launching section

SERVICE TYPE NUMBERS OF E.E.V. MAGNETRONS

Service Type No.	E.E.V. Type No.	Service Type No.	E.E.V. Type No.
CV370	M508	CV2364	M525
CV513	4J53	CV2365	M525
CV1475	M507	CV2366	M525
CV1476	M507	CV2367	M525
CV1477	M507	CV2368	M525
CV1478	M507	CV2373	M502A
CV1479	M501	CV2376	M521
CV1480	M501	CV2412	M523
CV1481	M501	CV2424	M549
CV1482	M501	CV2425	M539
CV1483	M519	CV2426	M529
CV1484	M519	CV2473	M538A
CV1485	M519	CV2744	4J34§
CV1486	M519	CV2852	2J56
CV1495	M528	CV3528	M513A
CV1496	M528	CV3611	5586
CV1497	M528	CV3659	M501A
CV1498	M528	CV3660	M501A
CV1499	M528	CV3661	M501A
CV1500	M528	CV3662	M501A
CV1747	M505	CV3676	2J42†
CV1807	2J31	CV3953	4J78
CV1808	2J32	CV3958	5657
CV1809	2J33	CV3976	M509
CV1810	2J34	CV3982	M506A
CV1897	4J34	CV5018	4J52A
CV1898	4J35	CV5031	M548
CV1914	4J31	CV5235	2J56*
CV1916	4J33†		
CV2281	M537		
CV2284	4J50A†		
CV2362	M525		
CV2363	M525		

† Qualification approval for JAN marking has been received

* Near equivalent

§ 4J34 to reduced frequency limits

Frequency Range (Mc/s)	Peak Output Power (kW)	E.E.V. Type No.
1215-1365	5000	M565
1295-1365	2600	M554
2700-2740	1000	4J35
2700-2740	300	2J34
2740-2765	1000	4J34§
2750-2765	1150	M525
2740-2780	1000	4J34
2740-2780	300	2J33
2765-2780	1150	M525
2780-2795	1150	M525
2700-2900	1000	5586
2780-2820	300	2J32
2780-2820	1000	4J33†
2795-2810	1150	M525
2793-2813	1000	4J53†
2750-2860	2500	7182
2750-2860	2500	M566
2810-2825	1150	M525
2825-2840	1150	M525
2820-2860	300	2J31
2820-2860	1000	4J32
2840-2855	1150	M525
2860-2900	300	2J30
2860-2900	1000	4J31
2850-2960	2500	M569
2850-2960	2500	M573
2940-2980	500	M501
2940-2980	500	M501A
2940-2980	500	M501B
2965-2992	900	4J44
2980-3005	500	M501
2980-3005	500	M501A
2980-3005	500	M501B
2900-3100	1000	5657
2950-3060	2500	M570
2950-3060	2500	M574
2992-3019	900	4J43
3000-3020	200	M528
3005-3030	500	M501
3005-3030	500	M501A
3005-3030	500	M501B
3020-3040	200	M528
3030-3060	500	M501
3030-3060	500	M501A
3030-3060	500	M501B
3040-3060	80	M561

Frequency Range (Mc/s)	Peak Output Power (kW)	E.E.V. Type No.
3040-3060	200	M528
3060-3080	200	M528
3080-3100	200	M528
3100-3120	200	M528
3230-3270	425	M507
3270-3305	425	M507
3305-3340	425	M507
3340-3380	425	M507
3450-3490	425	M519
3490-3530	425	M519
3530-3570	425	M519
3570-3614	425	M519
8500-8665	225	M549
8665-8830	225	M539
8770-8830	8	M509
8770-8830	8	M537
8830-8995	225	M529
9003-9168	50	M548
9003-9168	250	4J78
9210-9270	8	M508
9210-9270	225	M538A
9215-9275	45	2J56
9325-9425	180	M502A
9325-9425	750	M504
9345-9405	8	2J42†
9345-9405	8	M503A
9345-9405	8	M558
9345-9405	18	M513A
9345-9405	20	6027
9345-9405	20	M559
9345-9405	45	2J55
9345-9405	225	4J50A†
9350-9400	80	4J52A
9360-9460	45	M505
9360-9460	50	M506A
9500-9600	7.2	M535
9580-9705	225	M523
9600-9700	45	M521
9700-9850	225	M546
9850-10 000	225	M547
14 000-16 000	65	M555

§ 4J34 to reduced frequency limits

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