

4 VALVE DATA PREFERRED TYPES E OUTPUT PENTODES

EL 31 Output pentode rated for a continuous anode dissipation of 25 W

HEATER

V_h 6.3 V I_h 1.4 A Suitable for A.C. mains operation

CAPACITANCE

C_{a-g1} 1.2 μF

CHARACTERISTICS

V_a	275	600	V
V_{g2}	275	400	V
V_{g1}	-9	-22	V
I_a	91	42	mA
I_{g2}	11	5	mA
g_m	14	7.0	mA/V
r_a	20	43	K Ω
μ_{g1-g2}	16.5	—	

OPERATING CONDITIONS

As push-pull pair (self bias)

V_a	350	375	400	V
V_{g2}	350	375	400	V
R_k	100	122	145	Ω
$I_{a(o)}$	2×71	2×67	2×63	mA
I_a (max. sig.)	2×83	2×75	2×69	mA
$I_{g2(o)}$	2×8.8	2×8.8	2×8.3	mA
I_{g2} (max. sig.)	2×23.5	2×24.5	2×24	mA
R_{a-a}	5	6	7	K Ω
$V_{in(r.m.s.)}$	2×15	2×15	2×15.5	V
* P_{out}	38	37.5	37	W
D_{tot}	4.2	5.0	5.0	%

*Measured at start of I_{g1} or 5% distortion

OPERATING CONDITIONS

As push-pull pair (fixed bias)

V_a	400	600	800	V
V_{g2}	400	400	400	V
V_{g1}	-23	-25.2	-26	V
$I_{a(o)}$	2×40	2×30	2×30	mA
I_a (max. sig.)	2×110	2×103	2×107	mA
$I_{g2(o)}$	2×5.2	2×3.4	2×3.1	mA
I_{g2} (max. sig.)	2×26.8	2×28.5	2×28.5	mA
R_{a-a}	4	7.5	10	K Ω
$V_{in(r.m.s.)}$	2×15.5	2×17.5	2×18	V
* P_{out}	55	84	120	W
D_{tot}	3.2	5.0	5.0	%

*Measured at start of I_{g1} or 5% distortion.

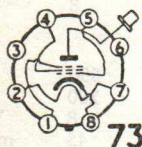


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LIMITING VALUES

EL 31
(contd.)

$V_{a(b)}$ max.	1,200	V
V_a max.	800	V
$V_{g2(b)}$ max.	800	V
V_{g2} max.	400	V
p_a max.	25	W
p_{g2} max.	8	W
I_k max.	200	mA
V_{h-k} max.	100	V
R_{g1-k} max. (self bias)	0.5	M Ω
R_{g1-k} max. (fixed bias)	0.1	M Ω



BASE :
Octal

DIMENSIONS :
L=141 mm
D=54 mm

Output pentode

EL 32

HEATER

V_h 6.3 V I_h 0.2 A Suitable for series or parallel operation, D.C. or A.C.

OPERATING CONDITIONS

As Class "A" amplifier

V_a	250	V
V_{g2}	250	V
V_{g1}	-18	V
I_a	32	mA
I_{g2}	5	mA
g_m	2.8	mA/V
r_a	70	K Ω
R_a	8	K Ω
P_{out}	3.6	W
$V_{in(r.m.s.)}$	10	V
D_{tot}	10	%

OPERATING CONDITIONS

As push-pull pair (self bias)

V_a	200	250	V
V_{g2}	200	250	V
R_k	330	330	Ω
$I_{a(o)}$	2×21	2×27.5	mA
I_a (max. sig.)	2×24.5	2×32	mA
$I_{g2(o)}$	2×3.85	2×4.4	mA
I_{g2} (max. sig.)	2×6.1	2×8.0	mA
R_{a-a}	9	8	K Ω
P_{out}	5.1	7	W
D_{tot}	1.6	1.5	%

