

BATTERY VALVES (Low filament current series) WITH SIDE CONTACT BASES

Type Number	Valve type	Maximum dimensions mm	Base (Connection reference in brackets) ¹¹⁾	Application (see p. 2)	Filament data			Anode voltage V _a Volts	Anode current I _a mA	Neg. grid bias V _{g1} Volts	Screen-grid voltage V _{g2} Volts	Screen-grid current I _{g2} mA	Voltage on grids 3 (and 5) V _{g3(5)} Volts	Voltage on grid 4 V _{g4} Volts	Mutual conduct. S mA/V	Amplification factor μ	Internal resistance R _i Ohms	External anode resist. or optimum matching imped. R _a Ohm	Output at 10% distortion W ₀ Watts	Grid A.C. voltage at the indicated output V _i V R.M.S.	Max. anode dissipation W _{a max} Watts	Grid anode capacity C _{ag1} μμF	Type Number
					Heating	Voltage Volts	Current Amps.																
KK2	Octode	120 × 46	P35 (37)	4	dir.	2,0	0,13	135	0,71) <0,015	0	135	2,1 *)	45	—0,5 —12	0,2710) <0,002	—	2,5.10* >10 ⁷	—	—	—	—	<0,07*)	KK2
								90	0,71) <0,015	0	90	1,3 *)	45	—0,5 —12	0,2710) <0,002	—	2,0.10* >10 ⁷	—	—	—			
								135	1,0*)	0	135	2,3 *)	60	—1,5	0,2710)	—	1,7.10*	—	—	—			
KF3	Variable-Mu Pentode	102 × 40	P30 (29)	1, 2, 5	dir.	2,0	0,045	135	2,0 <0,015	—0,5 —15	135	0,6	0	—	0,65 <0,002	850	1,3.10* >10 ⁷	—	—	—	—	<0,006	KF3
								90	1,0 <0,015	—0,5 —10	90	0,3	0	—	0,5 <0,002	1000	2,0.10* >10 ⁷	—	—	—	—		
KF4	H.F. Pentode	102 × 40	P30 (29)	1, 2, 7, 8, 11	dir.	2,0	0,065	135	2,6	—0,5	135	1,0	0	—	0,8	800	1,0.10*	—	—	—	—	<0,006	KF4
								90	1,2	—0,5	90	0,4	0	—	0,7	900	1,3.10*	—	—	—	—		
KB2	Duodiode	72 × 30	V24 (53)	13	indir.	2,0	0,095	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	KB2
KC1	Triode	90 × 44	P30 (24)	7, 11	dir.	2,0	0,065	135	1,2	—1,5	—	—	—	—	0,6	25	40.000	—	—	—	0,5	3,5	KC1
								90	0,3	—1,5	—	—	—	—	0,4	25	60.000	—	—	—	—		
KC3	Triode	92 × 43	P30 (24)	10	dir.	2,0	0,21	135	3,0	—2,3	—	—	—	—	2,5	30	12.000	—	—	—	—	—	KC3
KBC1	Duodiode-Triode	112 × 47	P35 (27)	9	dir.	2,0	0,1	135	2,5	—4,5	—	—	—	—	1,0	16	16.000	—	—	—	—	—	KBC1
								90	1,0	—3,0	—	—	—	—	0,7	16	23.000	—	—	—	—		
KL4	Power Pentode	100 × 42	P35 (30)	12	dir.	2,0	0,14	135	6,5	—5	135	1,0	—	—	2,1	—	150.000	19.000	0,44	3,3	1,0	—	KL4
								90	4,7	—2,6	90	0,7	—	—	1,8	—	170.000	19.000	0,16	2,0			
KDD1	Double Triode	92 × 43	P30 (47)	16	dir.	2,0	0,22	135	2 × 1,5*)	0	—	—	—	—	—	—	—	10.000*)	2,0 *)	—	—	—	KDD1

¹⁾ The data of this horizontal column apply for the oscillating condition at $V_{osc} = 8,5 V_{R.M.S.}$ ($I_{g1} = 100 \mu A$) and for long and medium wave reception. The grid leak resistance amounts to 50,000 ohms and is connected to the neutral.

²⁾ The data of this horizontal column apply for the oscillating condition at $V_{osc} = 6 V_{R.M.S.}$ ($I_{g1} = 60 \mu A$) and for short wave reception. In this range the valve must not be controlled by A.V.C. The grid leak resistance amounts to 50,000 ohms and is connected to the neutral.

³⁾ Screen-grid current $I_{g3} + I_{g5} = 0,7 \text{ mA}$.

⁴⁾ Screen-grid current $I_{g3} + I_{g5} = 0,6 \text{ mA}$.

⁵⁾ Screen-grid current $I_{g3} + I_{g5} = 1,0 \text{ mA}$.

⁶⁾ Quiescent current, anode current at full load = $2 \times 14 \text{ mA}$.

⁷⁾ From anode to anode.

⁸⁾ Ratio of intervalve transformer = $2 : (1 + 1)$ (primary to secondary turns). Driver valve KC 3, required A.C. voltage on grid of KC 3 = $2 V_{R.M.S.}$.

⁹⁾ Capacity between anode and grid 4.

¹⁰⁾ Conversion conductance.

¹¹⁾ See page 15. The numeral after the letter gives the maximum base diameter in mm.

PHILIPS NEON TUNING INDICATOR

Type Number	Dimensions without pins mm	Base (Connection reference in brackets)	Striking voltage at the auxiliary anode V_{a_2} Volts	Operating voltage at the main anode V_{a_1} Volts	Main anode current at fully lighted cathode V_{a_1} mA	Auxiliary anode current I_{a_2} μA
4662	98 × 13	Small, 4-pin (XV, see page 12)	165—190	150—170	2	40—50

NEW "MINIWATT" VALVES MODERNISE YOUR RECEIVER