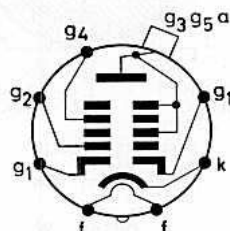


Black and White Picture Tubes

A 61-120 W/2

61 cm rectangular picture tube with 110° deflection angle, electrostatic focusing, aluminized screen and steel reinforcement including tube mount



1. Generalities

Electron Gun	Tetrode with Einzel-Lens	
Bulb	All-Glass Type	
Base	German Standard DIN 44431 (Short Design)	
Focusing Method	Electrostatic	
Deflection Method	Magnetic	
Deflection Angles	Diagonal	110°
	Horizontal	99°
	Vertical	82°
Neck Diameter	28,6 mm	
Face	Shape	Spherical
	Material	Filter-Glass (Light Transmission 44 % approx.)
Screen	Phosphor P 4 Aluminized	
Fluorescence Colour	White	
Colour Temperature	12 000 °K (approx.)	
Minimum Useful	481 x 375 mm	
Dimensions	Diagonal 577,5 mm	
Overall Length	362 ± 8 mm	
Weight	13 kg (approx.)	

Implosion protection by steel reinforcement. Admitted by Association of German Electrical Engineers, VDE.

2. Typical Operating Conditions

U_f ②	6,3 V	
I_f	0,3 ± 6% A	
U_{g3g5a}	20 kV	
U_{g2}	400	500 V
U_{g4} ③	0 ... 400	0 ... 400 V
$(-U_{g1})$ cutoff ④	40 ... 77	50 ... 93 V
U_k cutoff ④	36 ... 66	45 ... 79 V

3. Maximum Ratings

U_{g3g5a} max ⑤	20 kV
U_{g3g5a} min ⑥	13 kV
R_{g3g5a} min	16 kΩ
U_{g4} max	1000 V
U_{g4} p max ⑧	2500 V
$(-U_{g4})$ max	500 V
R_{g4} min	470 Ω
U_{g2} max	550 V
U_{g2} min	350 V
R_{g2} min	470 Ω
U_{g1} max	0 V
U_{g1} p max	2 V
$(-U_{g1})$ max	150 V
$(-U_{g1})$ p max ⑧	400 V
R_{g1} max	1,5 MΩ
Z_{g1} max	0,5 MΩ
R_{g1} min	150 Ω
P_{lm} max	10 mW/cm²
$U_{-f/k}$ max 1 ⑩ ⑨	410 V
$U_{-f/k}$ max 2 ⑩ ⑨	250 V
$U_{-f/k}$ p max	300 V
$U_{+f/k}$ max	135 V
$U_{+f/k}$ p max	180 V
$R_{f/k}$ max ⑪	1,0 MΩ
$Z_{f/k}$ max ⑫	0,1 MΩ

4. Ratings for Circuit Design

I_{g2}	≤ ± 5 μA
I_{g4}	≤ ± 25 μA
$R_{m/m'}$	≥ 2 MΩ

5. Capacitances

C_{g1}	approx.	6 pF
C_k	approx.	5 pF
$C_{g3g5a/m}$ max	2600 pF	
$C_{g3g5a/m}$ min	1700 pF	
$C_{g3g5a/m'}$ max	580 pF	
$C_{g3g5a/m'}$ min	380 pF	

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Technical drawing of a vacuum tube envelope, showing various views and dimensions:

- Top View:** Dimensions include 520.5 max., 512.5 ± 2, 362 ± 8, 28.6 ± 3, 94.23, 209.5 ± 32, 252 ± 5, 417.5 max., 409.5 ± 2, 2.39, 51 ± 3, 1, 3, 4, 2, 11, 496, 36 max., 40°, 36 max., 11, 14, 15, 392, 16, 385 ± 2.5, 15, 10° max., 10° max., 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019, 1021, 1023, 1025, 1027, 1029, 1031, 1033, 1035, 1037, 1039, 1041, 1043, 1045, 1047, 1049, 1051, 1053, 1055, 1057, 1059, 1061, 1063, 1065, 1067, 1069, 1071, 1073, 1075, 1077, 1079, 1081, 1083, 1085, 1087, 1089, 1091, 1093, 1095, 1097, 1099, 1101, 1103, 1105, 1107, 1109, 1111, 1113, 1115, 1117, 1119, 1121, 1123, 1125, 1127, 1129, 1131, 1133, 1135, 1137, 1139, 1141, 1143, 1145, 1147, 1149, 1151, 1153, 1155, 1157, 1159, 1161, 1163, 1165, 1167, 1169, 1171, 1173, 1175, 1177, 1179, 1181, 1183, 1185, 1187, 1189, 1191, 1193, 1195, 1197, 1199, 1201, 1203, 1205, 1207, 1209, 1211, 1213, 1215, 1217, 1219, 1221, 1223, 1225, 1227, 1229, 1231, 1233, 1235, 1237, 1239, 1241, 1243, 1245, 1247, 1249, 1251, 1253, 1255, 1257, 1259, 1261, 1263, 1265, 1267, 1269, 1271, 1273, 1275, 1277, 1279, 1281, 1283, 1285, 1287, 1289, 1291, 1293, 1295, 1297, 1299, 1301, 1303, 1305, 1307, 1309, 1311, 1313, 1315, 1317, 1319, 1321, 1323, 1325, 1327, 1329, 1331, 1333, 1335, 1337, 1339, 1341, 1343, 1345, 1347, 1349, 1351, 1353, 1355, 1357, 1359, 1361, 1363, 1365, 1367, 1369, 1371, 1373, 1375, 1377, 1379, 1381, 1383, 1385, 1387, 1389, 1391, 1393, 1395, 1397, 1399, 1401, 1403, 1405, 1407, 1409, 1411, 1413, 1415, 1417, 1419, 1421, 1423, 1425, 1427, 1429, 1431, 1433, 1435, 1437, 1439, 1441, 1443, 1445, 1447, 1449, 1451, 1453, 1455, 1457, 1459, 1461, 1463, 1465, 1467, 1469, 1471, 1473, 1475, 1477, 1479, 1481, 1483, 1485, 1487, 1489, 1491, 1493, 1495, 1497, 1499, 1501, 1503, 1505, 1507, 1509, 1511, 1513, 1515, 1517, 1519, 1521, 1523, 1525, 1527, 1529, 1531, 1533

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