

TYPE : 9423

SERIAL NUMBER : 653

DATE : 20-Nov-2023

RADIANT CATHODE SENSITIVITY

16 mm diameter circle at centre of photocathode illuminated.

| Wavelength (nm) | Q.E. (%) | mA/W |
|-------------------|------------|------|
| 121.6 | 13.8 | 13.5 |
| 130 | 14.6 | 15.3 |
| 140 | 11.5 | 13.0 |
| 160 | 6.8 | 8.8 |
| 180 | 3.5 | 5.1 |
| 200 | 0.1 | 0.1 |

ET Enterprises
electron tubes

Ref No. K23

Order No. 54888

IMPORTANT - This test ticket must be returned with the tube if making a guarantee claim

Type: 9423B

Serial: 653

Test Result Data

Bgd@ Vknee + 100V 49 cps
D/C @ 1×10^7 GAIN 0.95 nA
VOLTS @ 1×10^7 G 2.76 KV
PEAK QE 14.6 %

PHOTOMULTIPLIER GAIN AND DARK CURRENT

| GAIN | VOLTS | DARK CURRENT |
|--------|-------|--------------|
| 10^6 | 2250 | 0.12 nA |
| 10^7 | 2760 | 0.95 nA |

form F/DP006 issue 2
2.10.08

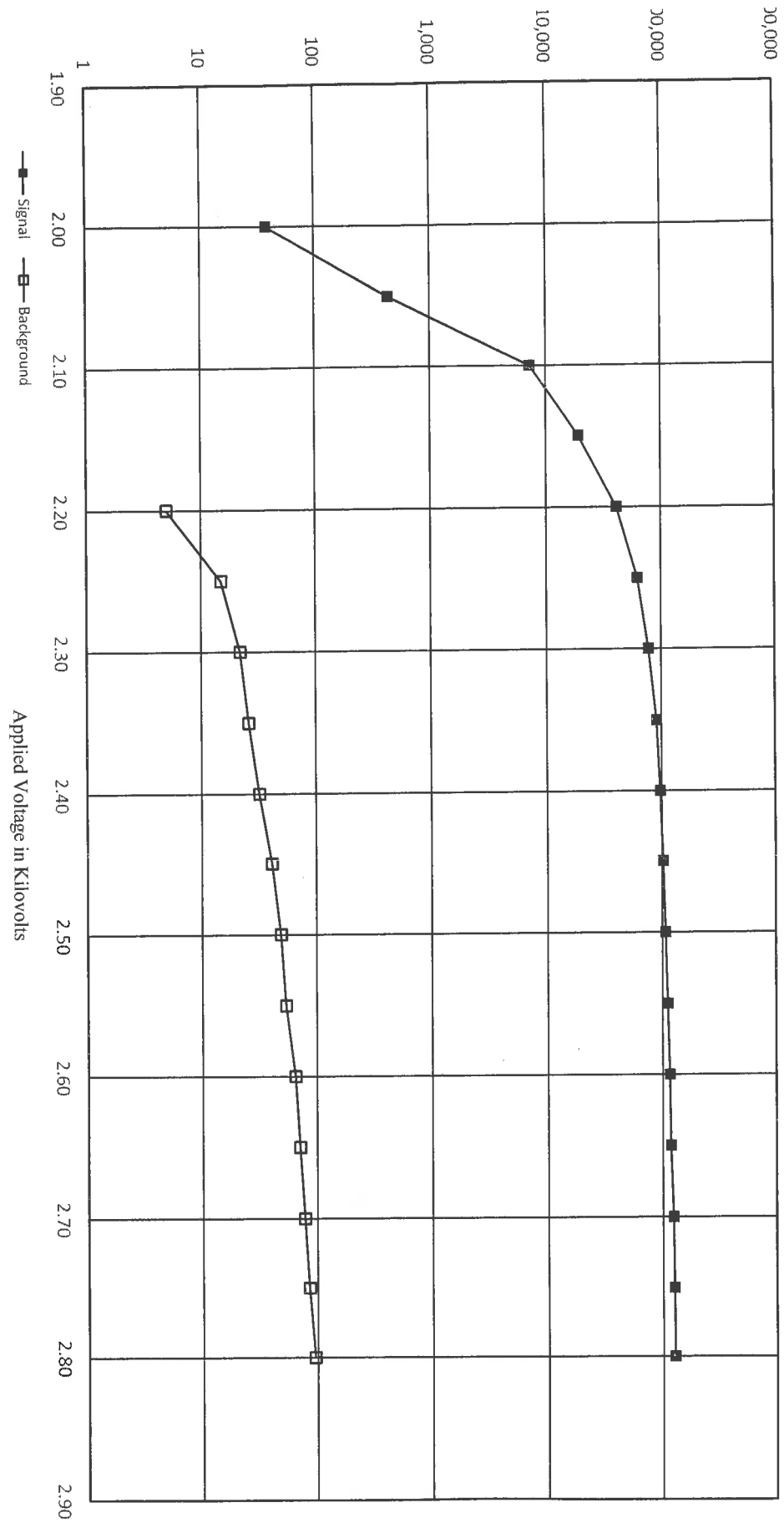
COUNTING CHARACTERISTICS

The optimum operating voltage depends on the application, the sensitivity of the measuring electronics and the chosen voltage distribution.

For reference we have shown the signal and background counting plateaux obtained with the ETL AD6 integral amplifier discriminator with a 2mV threshold (50 ohms). The photomultiplier is operated with the cathode at negative EHT in a uniform (R) voltage divider network with $k-d1 = 2R$. The suggested operating voltage is 2500 V and the background at this voltage is 49 counts per second. The operating voltage is 100 volts above the point at which the count rate increase first falls below 0.2% / volt.

TU DARMSTADT

PMT Type: 9423 S/No 653
Photon Counting Plateau Characteristic

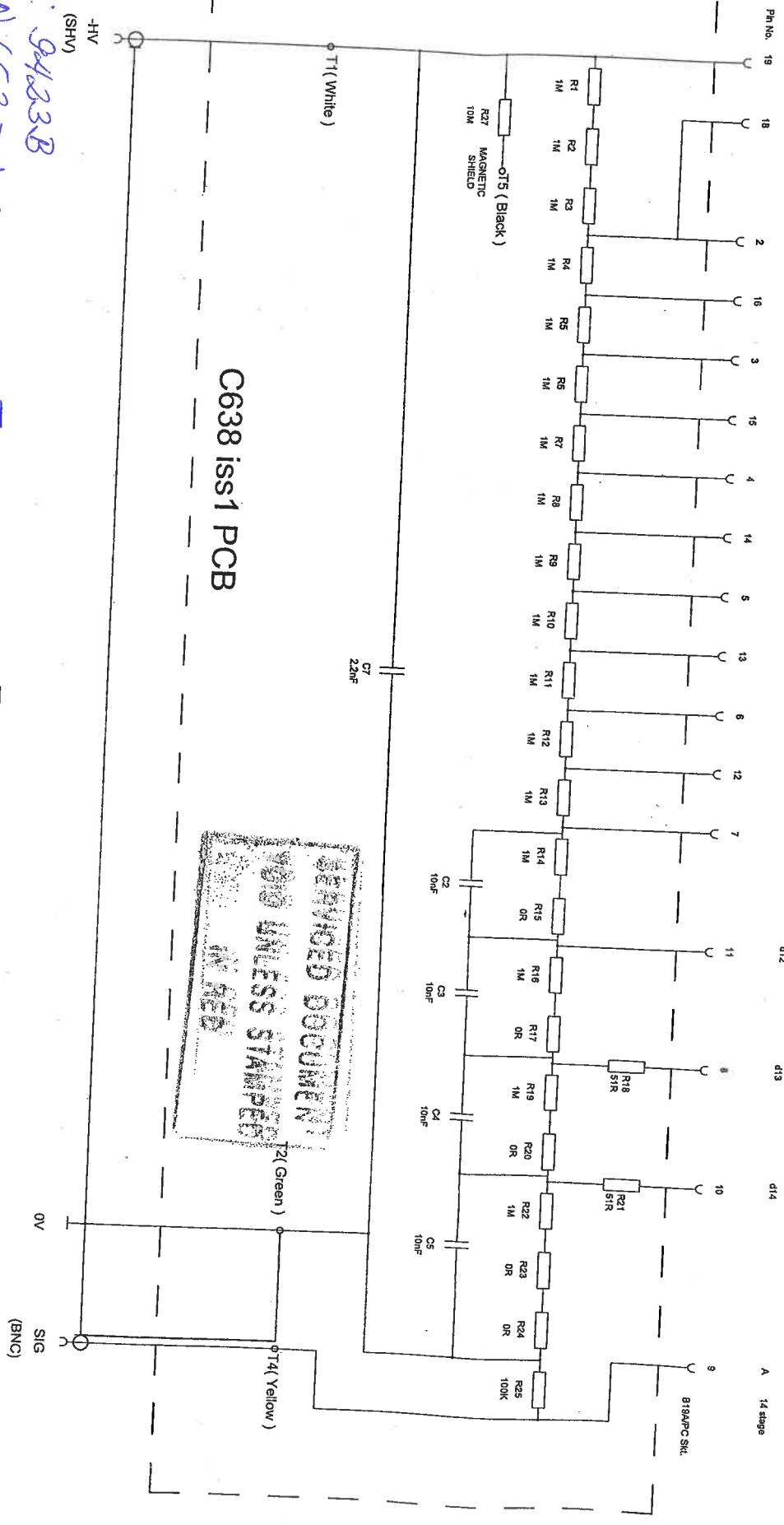


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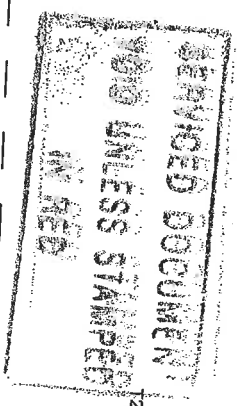
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 electron tubes

Dynode No. K F d1 d2 d3 d4 d5 d6 d7 d8 d9 d10 d11 d12 d13 d14 A 14 stage



C638 iss1 PCB



PMT: 94233B
 F. SN 653, TU-DARMSTADT

| | | | | | | | | | | | | | |
|---------------------------------|--|----------|--|------------|--|----------|--|----------|--|----------|--|------------------------|--|
| Issue | | Date | | C/Note No. | | Sign | | Drawn by | | Date | | Title | |
| 1 | | 04/07/12 | | 19055 | | ES | | E Simon | | 04/07/12 | | B2FV45/RF1 (C638GFN2). | |
| Accessories | | Scale | | Checked | | Approved | | Checked | | Approved | | Drawing Number | |
| | | n/a | | | | ASL | | ASL | | ASL | | 25823D1112 | |
| <p>Project: VOLTAGE DIVIDER</p> | | | | | | | | | | | | | |