MAXIMUM CURRENT (HV SHORT):
100KV/(4+75) = 1266 AMPS
R25
75OHM
24kW
(CURRENT-LIMITING
NICHROME COIL
RESISTOR)
BEAM SUPPLY
HV BUSHING
FROM CB21
(DWG 430-106, P2)
FROM CB22
(DWG 430-106, P3)
T23 AUX
T22
ISO 115KVDC
8.6V @ 100A
T24
32V @ 25A
T25 AUX
T25
8.6V @ 100A
T26
32V @ 25A
V25
KLYSTRON A
LITTON L3403
V25
KLYSTRON B
LITTON L3403
FROM MODULATOR
EARTH
GROUND
RG62 TO CONSOLE SCOPE
"KLY. B CURRENT"
J53
R18
2.5
480W
J54
R19
R20
TO "KLY B COLLECTOR
CURRENT"
CONSOLE METER
BODY CURRENT SENSE
TO CROWBAR
160 mV/A
J52
R11 0.16 OHMS
2uF, TC= 0.32uSEC
THIS POINT NORMALLY IS PINNED TO
GROUND BY R11, THE 0.16 BODY
CURRENT SENSING RESISTOR
FAULT CURRENT (BODY CURRENT
OR OTHER SHORT FROMB- BUS TO GND
DEVELOPS VOLTAGE ACROSS R11.
R24
.005 OHM
TO "BEAM CURRENT"
CONSOLE METER
1 uF
R41
0.67 OHM, 1kW
TC=0.67uSEC
PULSE CURRENT SENSE
TO CROWBAR
670 mV/A
J55
E13
1.5KV
C33
1 uF
1kV
R40
100
10W
TC=100uSEC
PURPOSE OF THIS NETWORK:
NOISE FILTER, OR
MAY BE TO KEEP B+ BUS FROM
LIFTING TOO FAR OFF GROUND
IN CASE R11, R24, OR R 41 FAILS.
NORMAL CURRENT PULSE
DEVELOPS A POSITIVE VOLTAGE PULSE
AT THE BOTTOM OF R41
HV METERING TOWER
L9
3.4 uH
R4
300 M, 300W
TO "BEAM VOLTAGE"
CONSOLE METER
(505 uA full scale)
"150kV" full scale
R22,R23
EACH 22k, 2W
NOTE THAT RETURN CURRENT
(LESS THAN 0.5mA)
FROM METERING STACK IS VIA
0.10 OHM BODY CURRENT SHUNT
(AND THROUGH 100 OHM R42)
B- BUS -100kV
69A PULSE
4A AVG
-100kV @ 4.4A
T005
C36
0.7uF
55kV
25
TO MODULATOR
-55 kV TAP
CROW BAR
T004
4 OHMS
24.8uF
120kV
CAPACITOR BANK
EQUIVALENT CIRCUIT
CROWBAR
FIRING PULSE
B+ BUS (NEAR GROUND)
430 TRANSMITTER
DWG. 430HV.ecw
TITLE: HV PATHS
file:430HV.ecw jbh 6-24-04