



# 技术规格/Technical Data Sheet

E-40 HF DF-151SB-T L

## MONOBLOCK E-40 HF DF-151SB-T L

编码 / CODE: **30.04.002.017**

S/N: **HF**

IEC601-1: **Class I Type B**

**TOSHIBA DF-151SBR X-RAY TUBE**

编码 / CODE: **61.18.013.005**

S/N:

小焦点 / SMALL FILAMENT: **0.5 mm**

大焦点 / LARGE FILAMENT: **1.5 mm**

灯丝电源 / FILAMENT POWER SUPPLY: **400 Hz**



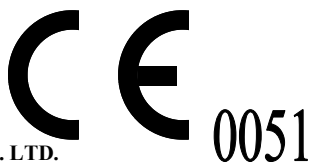
## 注意/ CAUTION

如果3个月未使用时，请按照如下条件进行老练:

- 1- 从40 kV到110kV (每挡10kV) , 1 mA, 5 秒透视, 5 秒停止; 完成后休息1分钟
  - 2- 90 kV, 5 mA, 15秒透视 + 5分钟休息; 110 kV, 5 mA, 15秒透视 + 5分钟休息
- 如出现不稳定, 停止操作, 休息5分钟, 然后从第一步开始重新进行。

WHEN NOT USED, AFTER 3 MONTH PERIOD, PROCEED TO INSERT RESTORATION FOLLOWING THIS CHART:

- 1- FLUORO: FROM 40 kV to 110kV(step 10kV), 1 mA, 5 SEC ON + 5 SEC OFF; PAUSE 5 MIN
  - 2- 90 kV, 5 mA, 15 sec. ON + 5 min. OFF; 110 kV, 5 mA, 15 SEC ON + 5 min OFF
- IF INSTABILITIES OCCUR, PLEASE STOP THE PROCESS, WAIT 5 MINUTES AND RESUME THE PROCEDURE FROM THE BEGINNING.



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E-40 HF DF-151SB-T L

## X射线管组件 / X-Ray Tube Assembly

### IMD MONOBLOCK MOD. E-40 HF DF151-SB-T L

#### 40 kHz高压发生装置 / HIGH VOLTAGE GENERATOR 40 kHz

热镀锡板外壳 / THERMO TIN-PLATED	
最大功率 / MAXIMUM POWER (100 kV - 32 mA)	3.2 kW
最高管电压 / MAXIMUM VOLTAGE TO X-RAY TUBE	110 kV
阴极对地 / CATHODE TO GROUND	55 kV
阳极对地 / ANODE TO GROUND	55 kV
最大管电流 / MAXIMUM CURRENT TO X-RAY TUBE	60 mA
最大功率时纹波 / RIPPLE AT MAXIMUM POWER	< 1 %
TEMPO DI SALITA KV A POTENZA MAX/kV RISE TIME TO MAXIMUM POWER	< 1 ms

#### X射线管组件性能 / PERFORMANCE OF MONOBLOCK

请参照所使用的X射线管的功率曲线/IN ACCORDANCE WITH X-RAY TUBE RATING CHARTS.

#### 管组件特性 / FEATURES OF THE SHEATH

80 kV下的最小固有滤过 <sup>(1)</sup> INHERENT FILTRATION MINIMUM <sup>(1)</sup> @ 80 kV	2 mm Al
外形尺寸(参见附图) / DIMENSIONS (CF. FIGURE)	
重量 / WEIGHT	14.1 kg

#### 热性能参数 / THERMAL CHARACTERISTICS

热容量 / THERMAL CAPACITY	500 kJ
热保护 / THERMAL SAFETY	60 °C ± 3 °C
热保护开关 (常闭) / THERMAL SWITCH (NORMALLY CLOSED)	
膨胀鼓 / RUBBER LUNG	0.3 dm <sup>3</sup>
连续散热功率 (60kV, 1mA) CONTINUOUS THERMAL DISSIPATION (60kV,1mA)	60 W
外壳最高温度 / MAXIMUM SHEATH TEMPERATURE	60 °C

#### 灯丝电源 / FILAMENT POWER SUPPLY

IMD 400Hz灯丝板 / IMD 400 HZ CARD OR EQUIVALENT	
最大输入电流 (有效值) / MAXIMUM INPUT CURRENT (RMS)	900 mA



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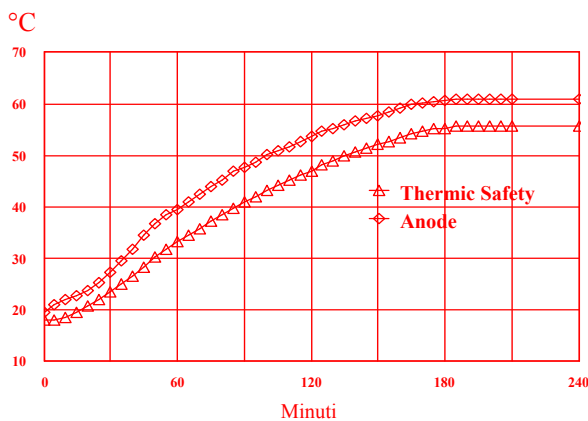
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高压变压器电源 / H.V. TRANSFORMER POWER SUPPLY	
IMD逆变器E-9040-5 HF/ IMD INVERTER E-9040-5 HF	
工作频率 / OPERATING FREQUENCY	20 kHz
最高峰值输入电压 (X和Y之间) MAXIMUM INPUT PEAK VOLTAGE (X AND Y CONNECTIONS)	350 V
最大峰值输入电流 (约为) MAXIMUM INPUT PEAK CURRENT (APPROX.)	130 A
输出信号 / OUTPUT SIGNALS	
kV+ (模拟信号 / ANALOG SIGNAL)	0 ÷ 5,5 V
kV- (模拟信号 / ANALOG SIGNAL)	0 ÷ 5,5 V
mA+ AND mA- (模拟信号 / ANALOG SIGNAL)	0 ÷ 60 mA
热保护 - 常闭 - (逻辑信号) THERMAL SECURITY - NORMALLY CLOSED - (LOGICAL SIGNAL)	

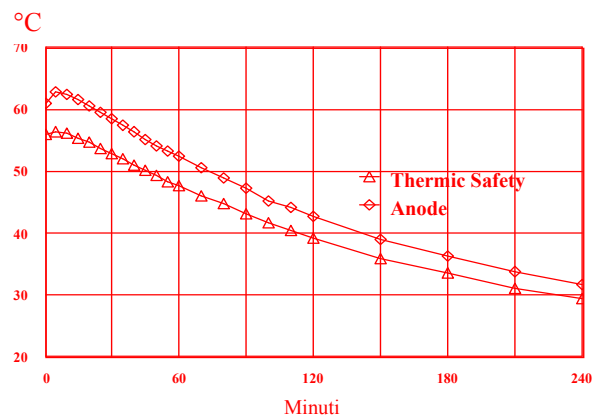
(1) 符合USA N.C.P.R. - PART 33的要求 / IN ACCORDANCE WITH : USA N.C.P.R. - PART 33

泄漏辐射 / LEAKAGE RADIATION
在透视模式下 (110kV, 3mA), 泄漏辐射小于1 mGy/小时, 符合 IEC 601-1-3 (PAR. 29.204). <i>LESS THAN 1 mGy IN ONE HOUR (110 kV, 3mA) IN FLUOROSCOPY MODE ACCORDING TO IEC 601-1-3 APPLICABLE STANDARD (PAR. 29.204)</i>

升温曲线  
HEATING CURVE (60 kV, 1 mA)



冷却曲线  
COOLING CURVE



## X射线管参数 / Insert Data

TOSHIBA X-RAY TUBE MOD. DF-151SBR

详细信息请参见X射线管技术资料  
FOR INFORMATION CF. TUBE TECHNICAL DATA SHEET

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