

EUREKA RAD-9 X-RAY TUBE INSERT
FOR
EMERALD 130 TUBE HOUSING

The RAD-9 X-ray tube insert features a 72 mm. diameter 12° tungsten faced molybdenum target and is designed for general purpose radiographic and fluoroscopic procedures where low to medium power is required. The 0.6 - 1.5 mm. focal spot combination is desirable when using rare-earth film screen combinations for improved image sharpness.

FEATURES:

- Envelope:** Hard glass with controlled window thickness for accurate filtration and metal anode seal for mechanical shock durability.
- Cathode:** Double focus superimposed line focus with independently operated tungsten filaments designed to permit operation at voltage potentials as low as 50 kVp.
- Anode:** Eureka's unique anode construction directs heat away from the anode shaft to the outer copper armature for maximum protection of the bearing assembly from heat. Alloy bearings are coated with heat resistant material to ensure smooth and quiet operation. The anode is capable of attaining 60 Hz. regular speed operation of 3,000 RPM in less than 1.0 seconds.
- Anode Heat Storage Capacity ... 200,000 H.U.
Anode Heat Dissipation Rate ... 50,000 H.U./Min.
- Target:** 12° target angle; 72 mm. diameter. Tungsten faced molybdenum heavy duty target. (Focal track diameter - 2 1/4").

FILAMENT CHARACTERISTICS:

<u>Focal Spot</u>	<u>kW</u>	<u>Nominal Voltage Range (Volts A.C.)</u>	<u>Nominal Current Range (Amperes A.C.)</u>
0.6 mm.	16 *	5.0 - 8.5	4.1 - 5.3
1.5 mm.	50 *	8.2 - 12.6	4.1 - 5.3

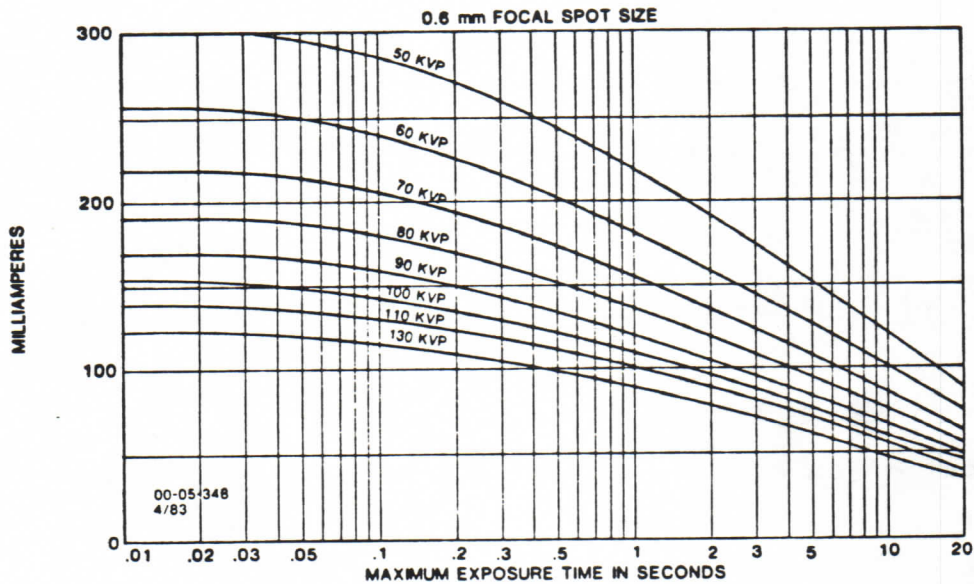
* Focal spot kW ratings based on 3 phase power at 60 Hz kVp x mA at 0.1 second exposure time with anode rotation at 3,000 RPM

RADIOGRAPHIC EXPOSURE CHART RAD-9

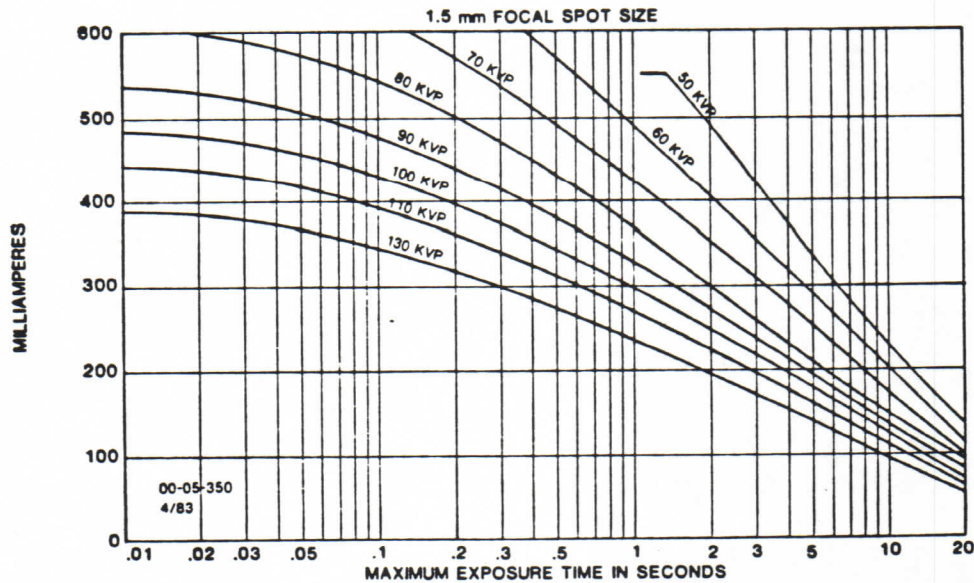
Single-phase Full Wave Rectification 0.6-1.5

TARGET: 2-13/16" (72mm) DIA., 12°, TM, 200,000 H.U.

Stator Frequency - 60 Hertz
Target Speed 3,000 RPM



Stator Frequency - 60 Hertz
Target Speed 3,000 RPM



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Tel: (312) 545-3126

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EUREKA RAD-9 X-RAY TUBE INSERT

Maximum
Voltage: Maximum peak voltage in Eureka
Emerald Housing 130 kVp
Anode to Ground 71 kVp
Cathode to Ground 71 kVp
Coverage: 12° target 17" x 17" @ 40" S.I.D.
Inherent
Filtration: Equivalent to .6mm Aluminum @ 100 kVp
Weight: Approximately 36 lbs. in oil filled tube
housing.

Ordering Information:

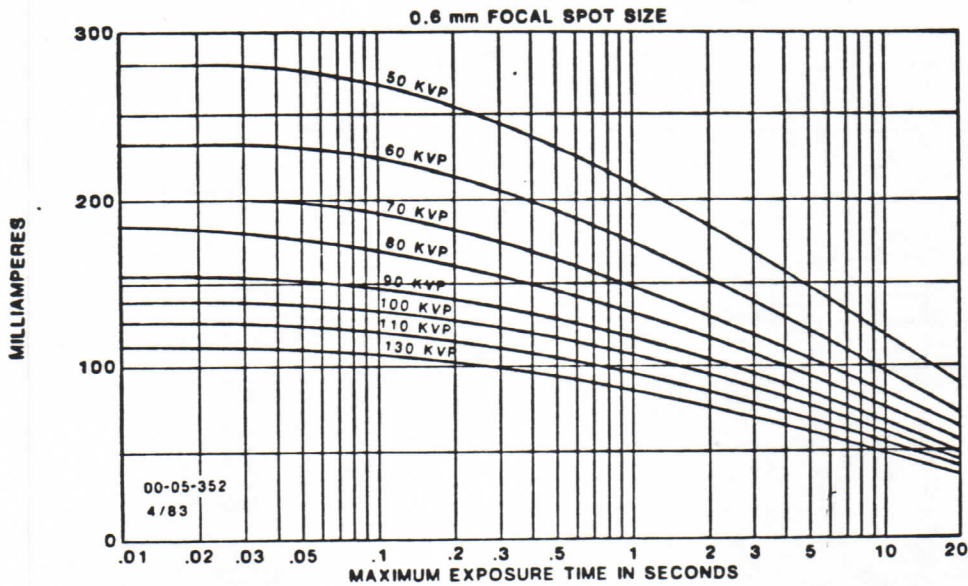
<u>Catalog Number</u>	<u>Cable Arm Angle</u>
52-09100	90°
52-09101	180°
52-09102	0°
52-09103	270°

RADIOGRAPHIC EXPOSURE CHART RAD-9

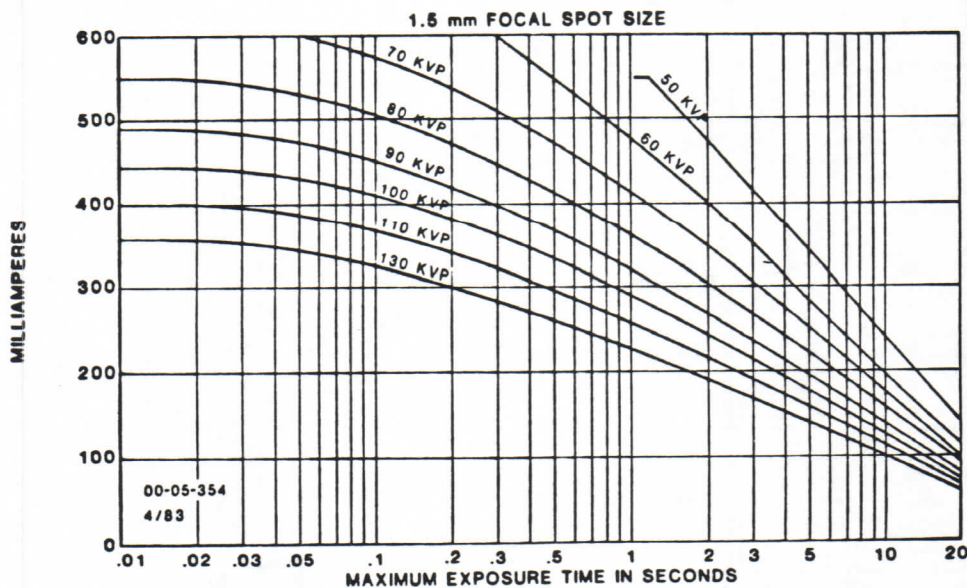
Single-phase Full Wave Rectification 0.6-1.5

TARGET : 2-13/16" (72mm) DIA., 12°, TM, 200,000 H.U.

Stator Frequency - 50 Hertz
Target Speed 2,500 RPM



Stator Frequency - 50 Hertz
Target Speed 2,500 RPM



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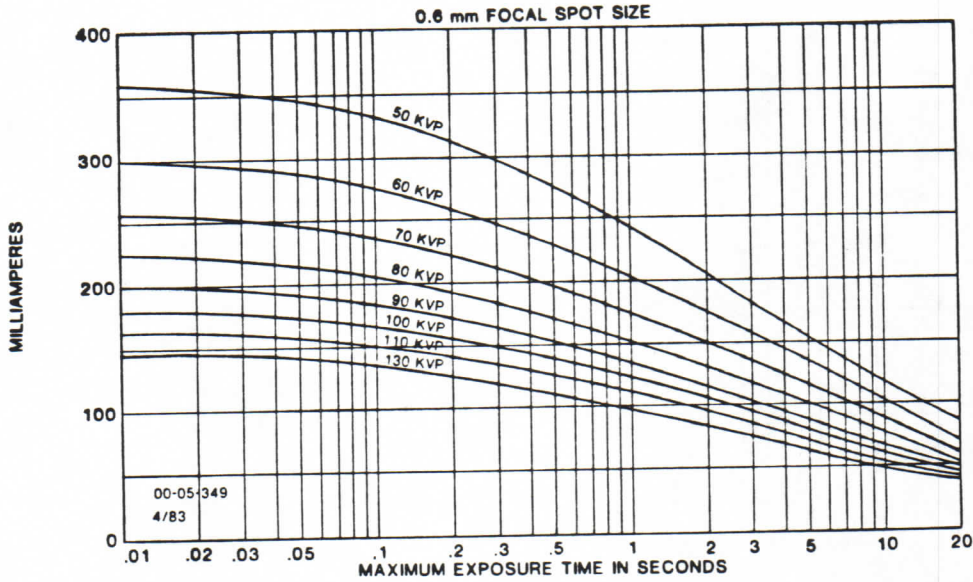
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RADIOGRAPHIC EXPOSURE CHART RAD-9

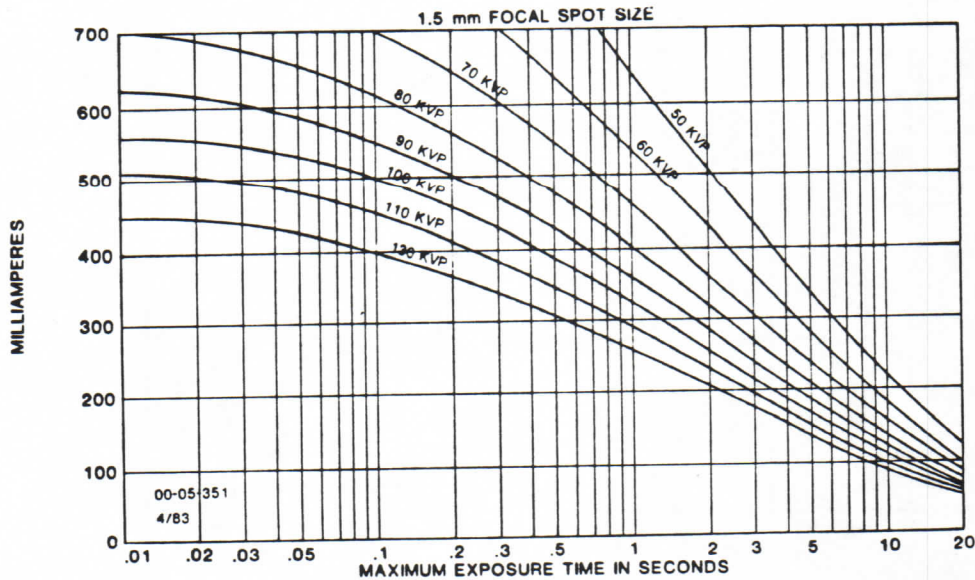
Three-phase Full Wave Rectification 0.6-1.5

TARGET: 2-13/16" (72mm) DIA., 12°, TM, 200,000 H.U.

Stator Frequency - 60 Hertz
Target Speed 3,000 RPM



Stator Frequency - 60 Hertz
Target Speed 3,000 RPM



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FILAMENT EMISSION CHARACTERISTICS, TUBE CURRENT, FILAMENT CURRENT CURVES

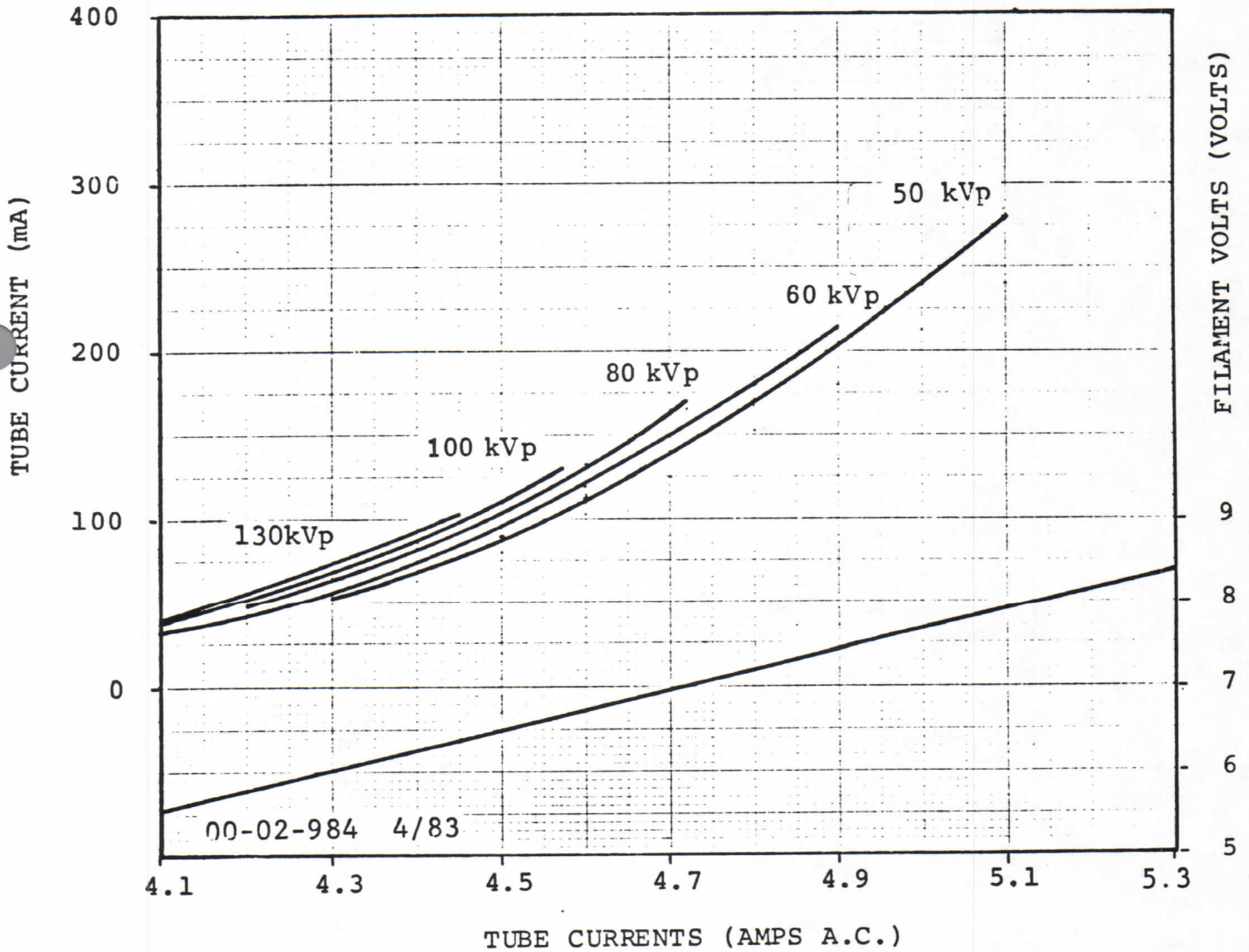
FULL WAVE

RAD-9 INSERT
0.6 FOCAL SPOT

SINGLE PHASE

EUREKA X-RAY TUBE CO.

- NOTES: 1. ALL TUBE CURRENT, FILAMENT AND TUBE VOLTAGES ARE DERIVED BY USE OF DYNALYZER II SYSTEM WITH DIGITAL DISPLAY.
2. FILAMENT CURRENT NOT TO EXCEED 5.3 AMPS.
3. FILAMENT AMPERES ARE NOMINAL AND VARY ± 0.15 AMPS FROM TUBE TO TUBE.
4. KVP END POINTS CORRESPOND TO FOCAL SPOT RATINGS FOR A 0.1 SECOND EXPOSURE OR TO MAXIMUM FILAMENT CURRENT EMISSION LIMITATIONS.

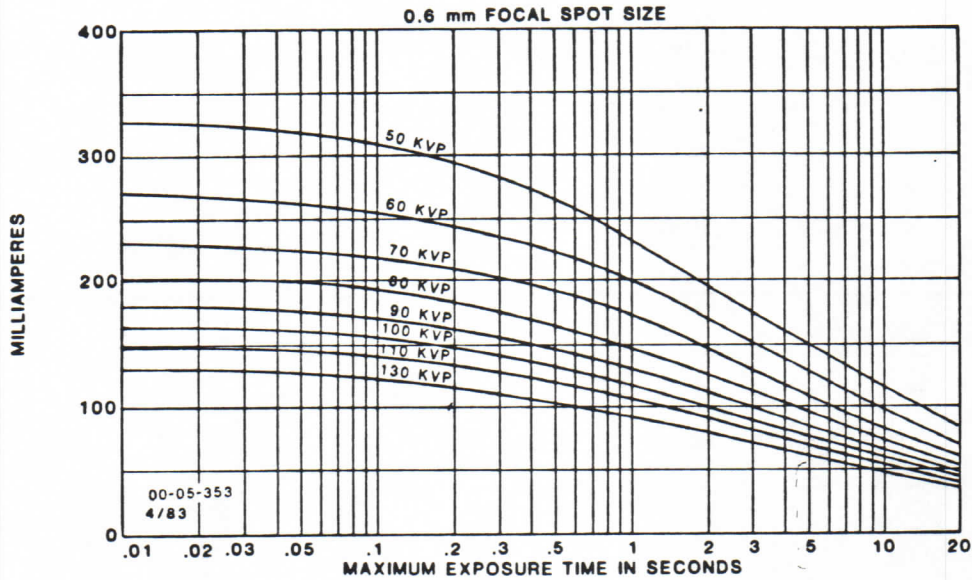


RADIOGRAPHIC EXPOSURE CHART RAD-9

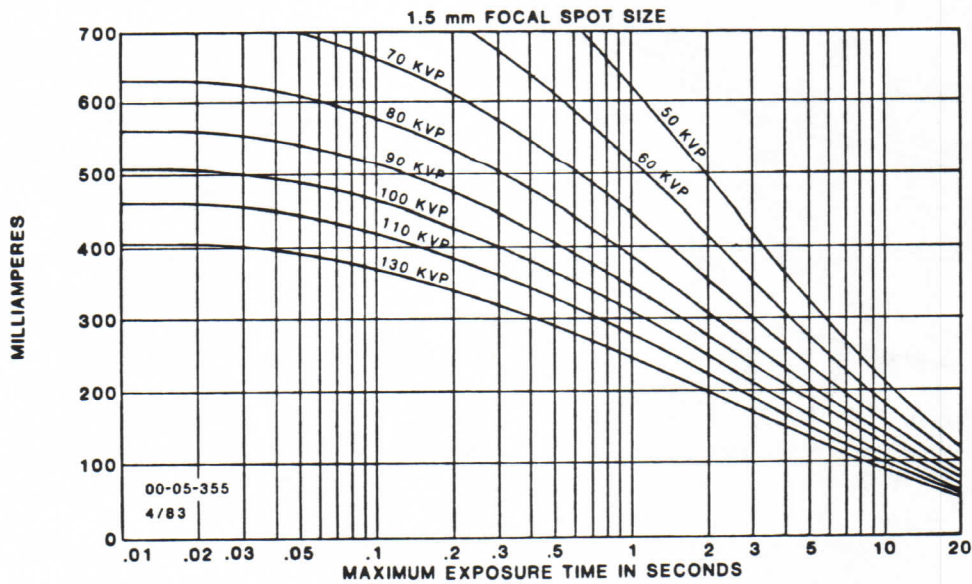
Three-phase Full Wave Rectification 0.6-1.5

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Stator Frequency - 50 Hertz
Target Speed 2,500 RPM



Stator Frequency - 50 Hertz
Target Speed 2,500 RPM



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FILAMENT EMISSION CHARACTERISTICS, TUBE CURRENT, FILAMENT CURRENT CURVES

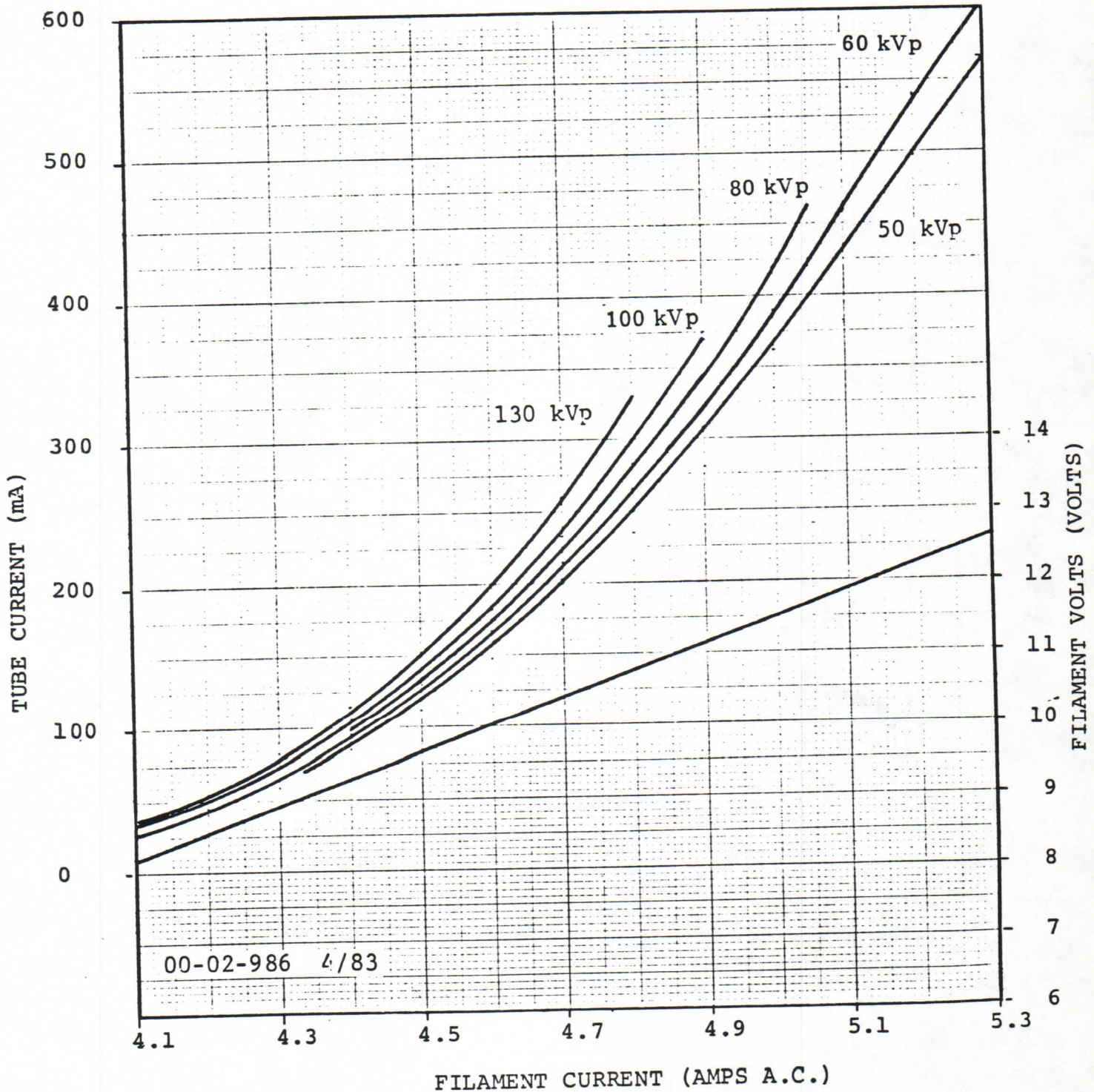
FULL WAVE

RAD-9 INSERT
1.5 FOCAL SPOT

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FILAMENT EMISSION CHARACTERISTICS, TUBE CURRENT, FILAMENT CURRENT CURVES

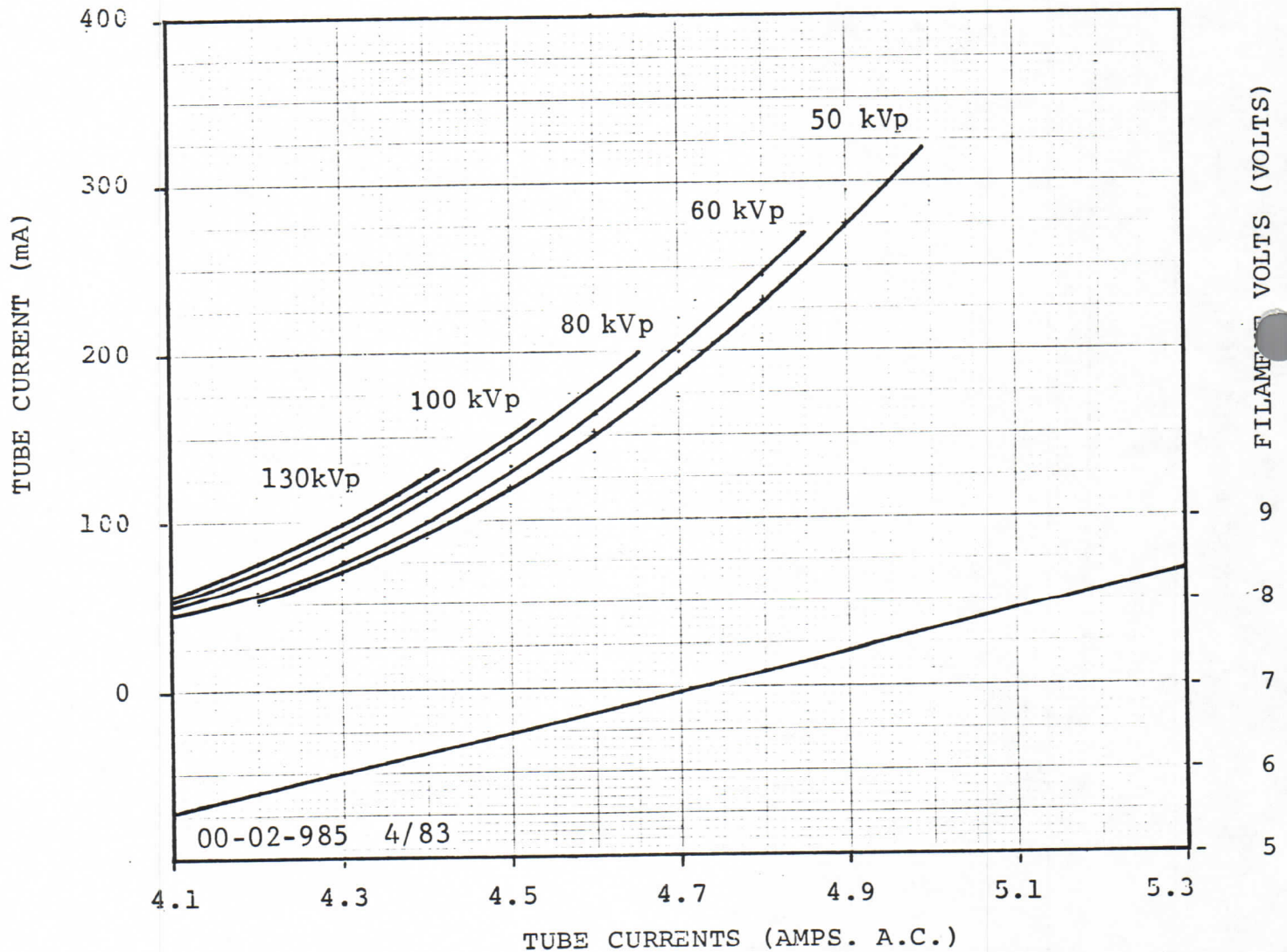
FULL WAVE

RAD-9 INSERT
0.6 FOCAL SPOT

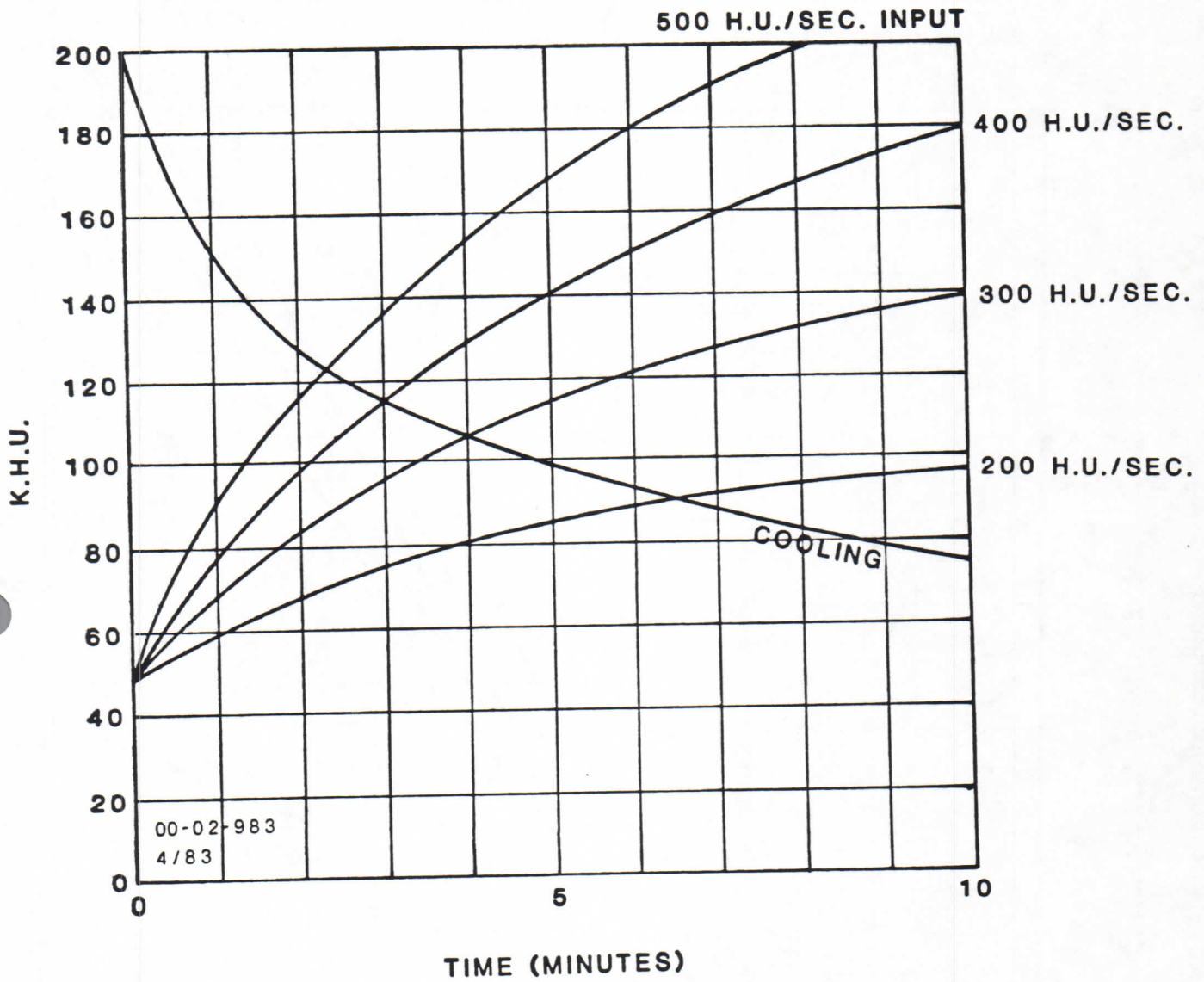
THREE PHASE

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RAD-9 ANODE THERMAL CHARACTERISTICS



NOTE: AN ADDITIONAL EIGHT MINUTES IS REQUIRED TO COOL TO 50,000 H.U.

FILAMENT EMISSION CHARACTERISTICS, TUBE CURRENT, FILAMENT CURRENT CURVES

FULL WAVE

RAD-9 INSERT
1.5 FOCAL SPOT

THREE PHASE

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