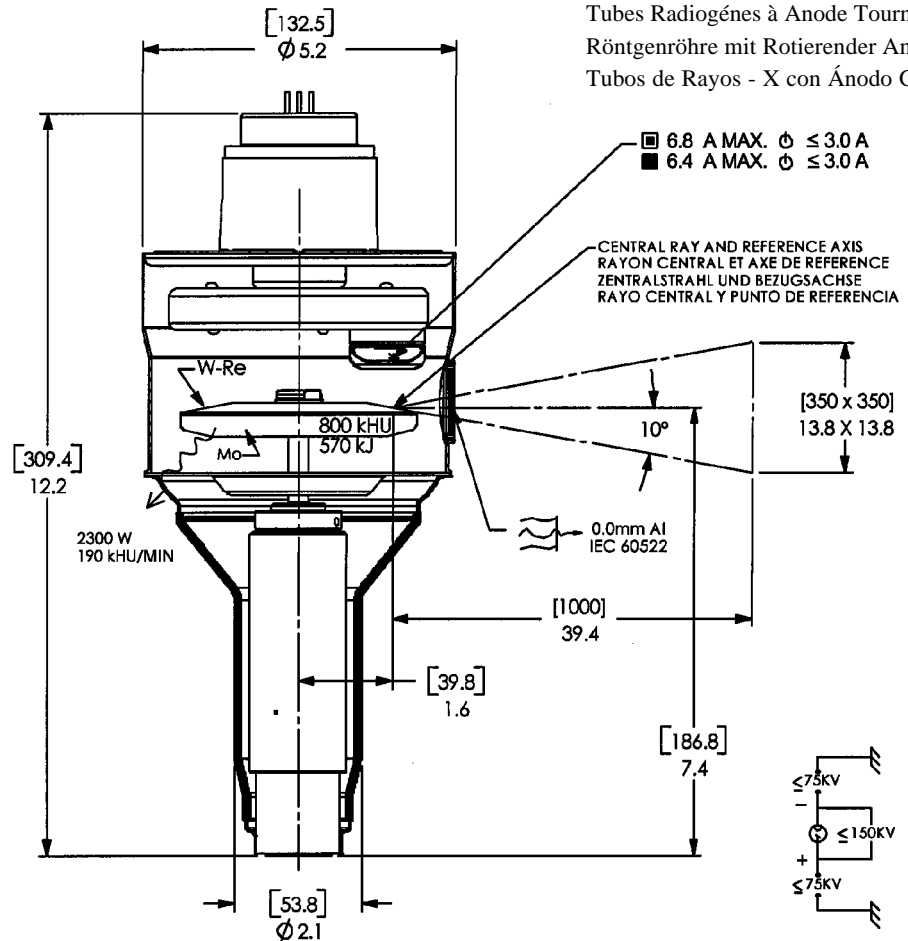


- Common - Red  
Neutre - Rouge  
Neutral - Rot  
Común - Rojo
- Large - Black  
Grand - Noir  
Gross - Schwarz  
Largo - Negro
- Small - White  
Petit - Blanc  
Klein - Weiss  
Pequeño - Blanco
- Stand - By  
Attente  
Bereitschaft  
En Espera
- Frame or Chassis  
Masse  
Chassis  
Soporte o Chasis
- X-Ray Tube  
Tube Radiogène  
Röntgen Röhre  
Tubo de Rayos X
- Radiation Filter or Filtration  
Filtre de rayonnement  
Filterung  
Filtración de Radiación



Note: Document originally drafted in the English language.

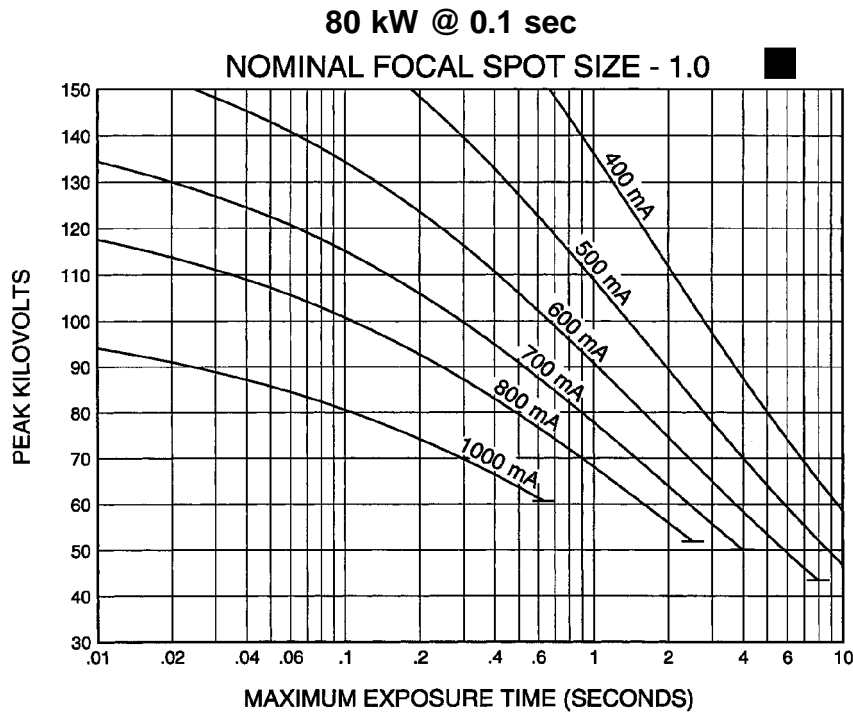
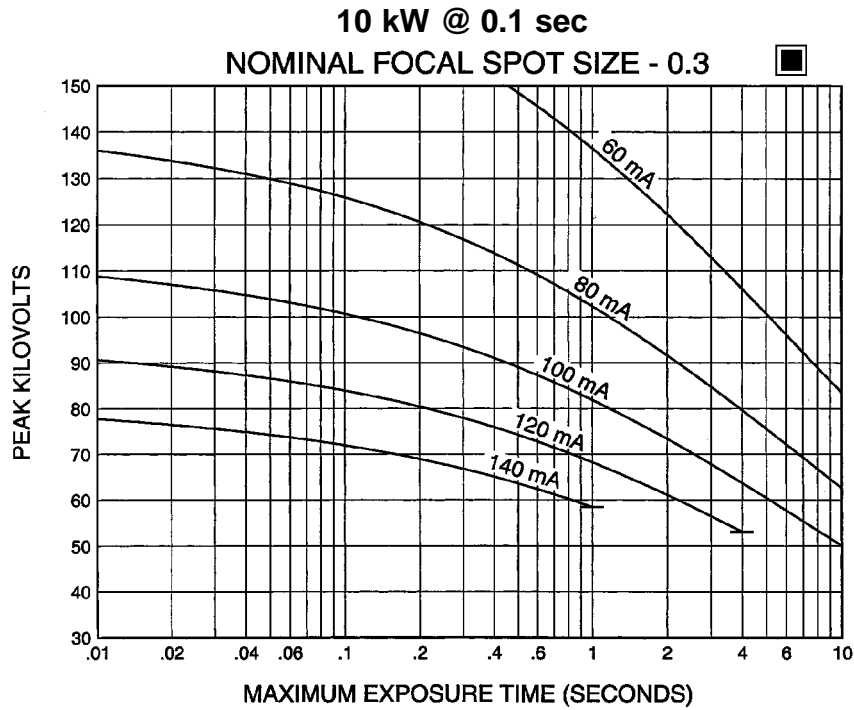
Product Description	Description du Produit	Produktbeschreibung	Descripcion del Producto
<p>The P-483 is a 4" (100 mm), 150 kV, 570 kJ (800 KHU) maximum anode heat content, rotating anode insert. This insert is designed for general radiographic and fluoro/spotfilm procedures. The insert features a 10° rhenium-tungsten molybdenum target and is available in the following nominal focal spot combinations:</p> <p style="text-align: center;">0.3 - 1.0 IEC 60336</p> <p>This insert is intended for use in a Philips ROT 500/501/507 housing.</p>	<p>Le tube P-483 à anode tournante de 100 mm, 150 kV et une capacité calorifique maximale de 570 kJ (800 kUC) est à usage spécifique pour la radiographie générale et radio-fluorographie sélective. L'anode composite en Rhénium-tungstène-molybdène avec penter d'anode de 10° est disponible avec les combinaisons focales suivantes:</p> <p style="text-align: center;">0,3 - 1,0 CEI 60336</p> <p>Ce tube est essentiellement destiné à être employé dans le gainé Philips ROT 500/501/507.</p>	<p>Die P-483 ist eine 100 mm (4 Zoll) Doppelfokushandoden-Röntgenröhre, mit einer Wärmespeicherkapazität des Anodentellers von 570 kJ (800 kUC) und einer max. spannungsfestigkeit von 150 kV. Die röhre wurde für Aufnahmearbeitsplätze und für den Durchleuchtungs- und Zeilgeräteeetrieb (1mm FFA) ausgelegt. Der Rhenium, Wolfram, und Molybdän anodenteller besitzt einen Winkel von 10°. Folgende Brennpunktombinationen sind lieferbar:</p> <p style="text-align: center;">0.3 - 1.0 IEC 60336</p> <p>Diese Röntgenröhre ist für den Einbau in die Philips Strahlerhauben ROT 500/501/507 Vorgesehen.</p>	<p>El P-483 es un tubo de ánodo giratorio de 100 mm (4 pulgadas), 150 kV, 570 kJ (800 kUC) diseñado específicamente para procedimientos generales en radiografía y fluoroscopia. Consta de un objetivo de renio, tungsteno y molibdeno con 10° pendiente. Disponible con las siguientes combinaciones de marcas focales:</p> <p style="text-align: center;">0.3 - 1.0 IEC 60336</p> <p>Este tubo es destinado para uso en los encajes de Philips ROT 500/501/507.</p>

Manufactured by Varian Medical Systems  
Fabrique par Varian Medical Systems  
Hergestellt von Varian Medical Systems  
Fabricado por Varian Medical Systems

Specifications subject to change without notice.  
Spécifications susceptibles d'être modifiées sans préavis.  
Technische Daten ohne Gewähr.  
Especificaciones sujetas a cambio sin previo aviso.

**3 Ø Constant Potential**  
**150/180 Hz**

Abaques de Charge pour Pose Unique CEI 60613  
Brennfleck - Belastungskurven IEC 60613  
Diagramas de Exposición Radiográfica IEC 60613



Nominal anode input power for the anode heat content 40%. IEC 60613

Puissance calorifique nominale de l'anode: 40%, CEI 60613

Thermische Anoden bezugsleistung für eine speicherung von 40%. IEC 60613

Aproximadamente el poder de penetracion para obtener un almacenaje de calor del anodo de 40%. IEC 60613

## CINERADIOGRAPHIC RATINGS

### HOW TO USE CINERADIOGRAPHIC CHARTS

**General:** With the Cineradiographic rating chart we can determine the maximum allowable kW of the Cine pulse, or with a given kW determine maximum time in seconds the Cine run can progress.

The Most common way of using the charts is to determine maximum time of any expected Cine run and maximum duty factor. With a known duty factor and cine run time the kW can easily be determined.

#### Definition of Terms

**Time in seconds:** Total time of one Cine run, usually 5 to 12 seconds.

**Duty Factor in Percent (DF%):** Actual time during one second the x-ray tube is producing x-rays. If we select a 4 msec pulse width and 60 exposures per second the x-ray tube will be producing x-rays for a total of 240 msec each second or 24% of the time. The higher the DF number, the more load placed on the x-ray tube.

**Peak Pulse Power:** Peak energy in watts of any one Cine Pulse. Can be any combination of kV and mA allowed by Radiographic and Filament Emission curves.

Example: 80 kV at 400 mA equals

$$80,000 \text{ V} \times 0.4 \text{ A} = 32,000 \text{ W or } 32 \text{ kW}$$

#### USING THE CINE RATING CHARTS:

P483 150/180 Hz 3 Phase 1.0 Focal Spot

**Example:** Determine maximum kW allowed with the following known factors:  
Maximum Pulse Width ..... 4 msec  
Exposures per Second .....60  
Maximum Cine Run Time ... 10 seconds

#### Calculate Duty Factor: (DF%)

$$DF\% = \frac{\text{Pulse Width (msec)} \times \text{Frames per Second}}{10}$$

$$DF\% = \frac{4 \text{ msec} \times 60 \text{ exp/sec}}{10} = \frac{240}{10} = 24\%$$

Refer to Rating Chart P483 150/180 Hz 3 Phase 1.0 Focal Spot:

At bottom of chart find 10 second line. Move vertically to intersection with 24% DF curve. Make a horizontal reference to left side of rating chart and note kW rating of 43.5 kW.

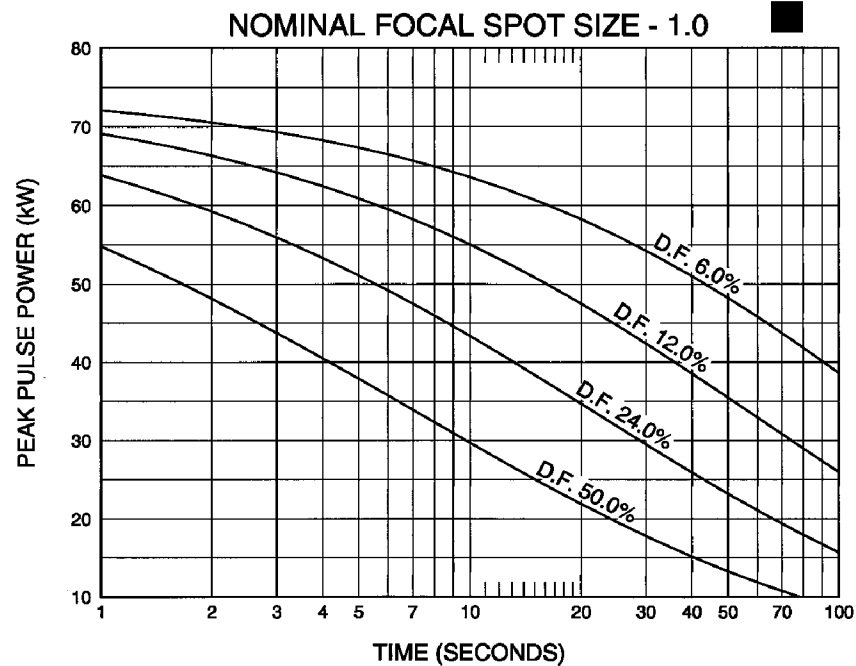
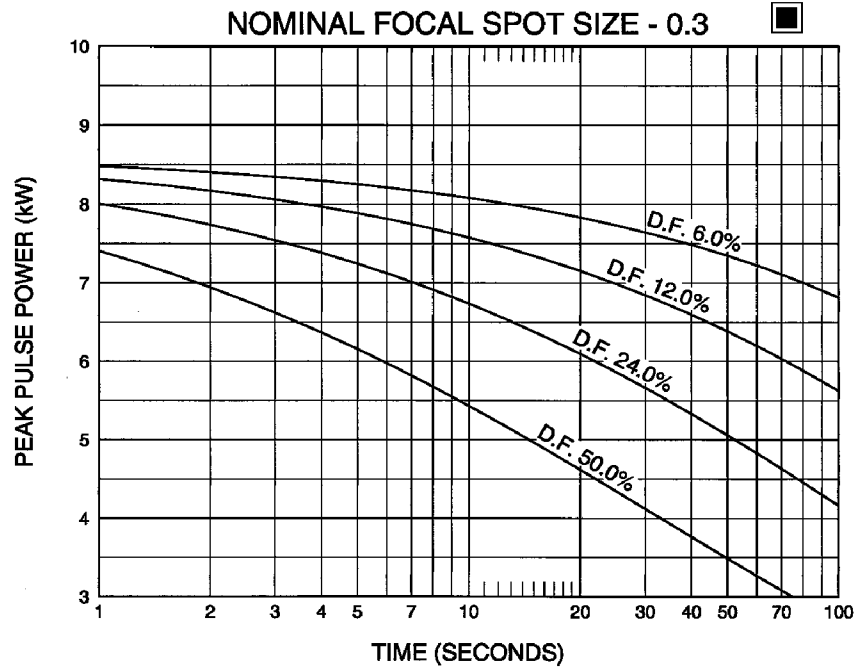
kW = kV x mA. The kW of the exposure can be any combination of mA and kV allowed by the Radiographic and Filament Emission Charts.

The Cine rating charts are usable to 100% anode heat storage. Exceeding 100% anode heat storage will cause anode track erosion with high risk of tube destruction.

# 3 Ø Constant Potential

150/180 Hz

Abaques de Cinèradiographie CEI 60613  
Belastungskurven für den Kinobetrieb IEC 60613  
Diagramas de Exposición Cineradiográfica IEC 60613



Nominal anode input power for the anode heat content 70%. IEC 60613

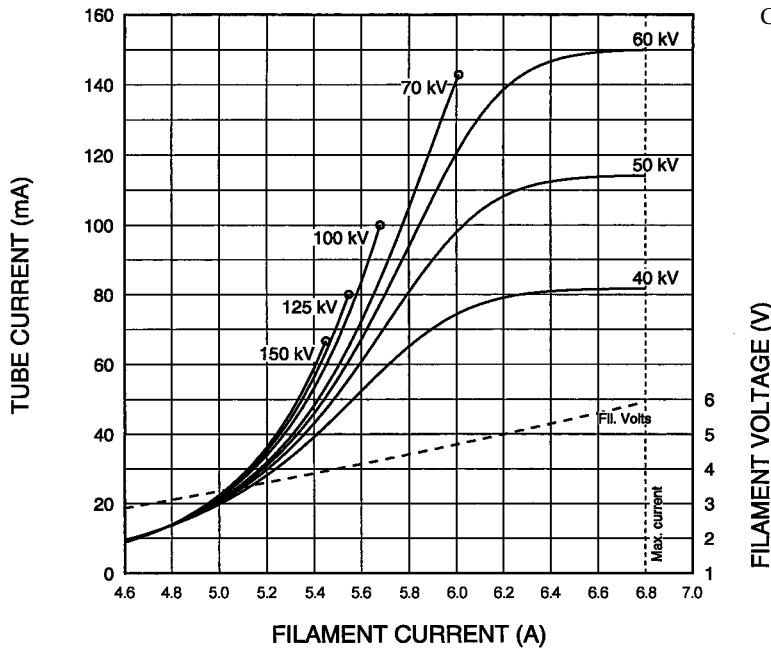
Puissance calorifique nominale de l'anode: 70%, CEI 60613


Thermische Anoden bezugsleistung für eine speicherung von 70%. IEC 60613

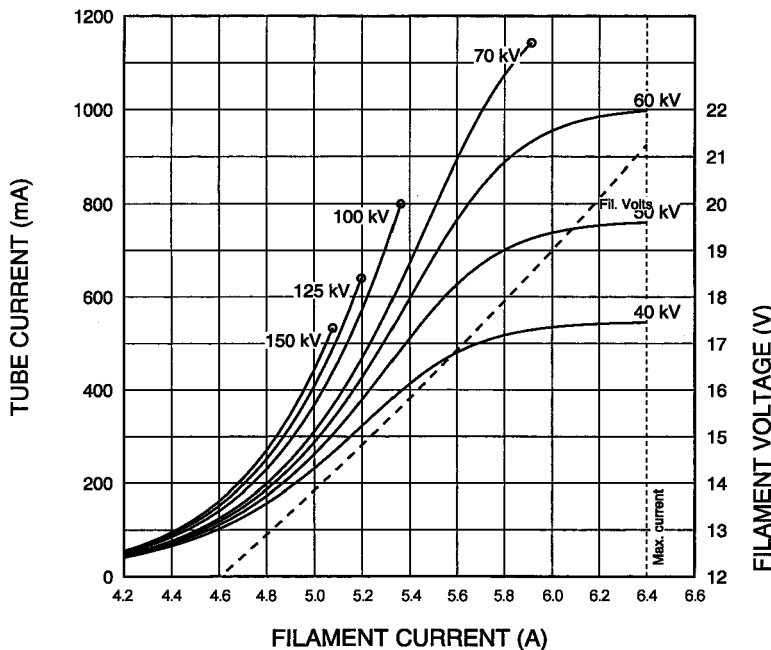
Aproximadamente el poder de penetracion para obtener un almacenaje de calor del anodo de 70%. IEC 60613


**3 Ø Constant Potential** 

Abaques d'Émissions des Filaments CEI 60613  
Glühfadenemissionsdiagramm IEC 60613  
Curvas de Emisión de los Filamentos IEC 60613



THREE PHASE EMISSION ( $\pm .15$  A)  
P483 0.3 



THREE PHASE EMISSION ( $\pm .15$  A)  
P483 1.0 

Note: When using these emission curves for trial exposures, refer to the power rating curves shown for maximum kV, tube emission, filament current, exposure time, and target speed.

Remarque: Lors de l'utilisation de ces abaques pour des expositions d'essai, référez-vous aux courbes maximales de kV, d'émission du filament, de temps d'exposition et de vitesse de rotation.

Anmerkung: Wenn Sie diese Emissionskurven für Testaufnahmen verwenden, beziehen Sie sich hierbei auf die entsprechenden Nennleistungskurven für max. kV-Werte, Röhrenemission, Heizstrom, und Anodendrehzahl.

Nota: Si utiliza estas curvas de emisión para exposiciones de prueba, refiérase a las curvas de gradación de potencia para el máximo de kV, tubo de emisión, corriente en los filamentos, tiempo de exposición, y a las curvas de velocidad del objetivo.

Abaques d' Échauffement et de Refroidissement de L'Anode  
Anodenerhitzungs und Kühlungsdiagramm  
Curvas de Calentamiento y Enfriamiento del Anodo

