



Note: Document originally drafted in the English language.

注释：文件最初用英语起草。

Product Description

The GS-5179 is a 7.5" (190.5 mm) 140 kV, 3.8 MJ (5.3 MHU) maximum anode heat content, rotating anode insert. This insert is specifically designed for Neusoft CT Scanners. The insert features a 7° tungsten-rhenium facing on molybdenum with a graphite backed target and is available with the following nominal focal spot:

0.5 x 1.0
1.0 x 1.0
IEC 60336

Loading Factor for slit focal:
Small - 140 kV, 150 mA
Large - 140 kV, 210 mA

Maximum Anode Cooling Rate:
9,600 W (13,440 HU/sec)

Continuous Anode Input Power:
6,300 W (8,820 HU/sec)

Nominal CT Anode Input Power:
Small - 36 kW IEC 60613:2010
Large - 50.4 kW IEC 60613:2010

Nominal CT Scan Power Index:
Small - 36 kW IEC 60613:2010
Large - 49 kW IEC 60613:2010

Reference Axis:
Perpendicular to port face.

This insert is intended for use in Varex Imaging B-320H housing.

产品说明

GS-5179 是一款具有 7.5" (190.5 mm) 靶盘, 140 kV, 3.8 MJ (5.3 MHU) 最大阳极热容量的旋转阳极 X 射线管芯。该管芯专门针对 Neusoft CT 扫描仪而设计。该管芯的靶盘结构为 7° 靶角, 铇钨钼合金靶材, 石墨基底, 可提供下列尺寸的标称焦点:

0.5 x 1.0
1.0 x 1.0
IEC 60336

狭缝焦点的测量条件:
小焦点 - 140 kV, 150 mA
大焦点 - 140 kV, 210 mA

最大阳极冷却速率:
9,600 W (13,440 HU/sec)

连续阳极输入功率:
6,300 W (8,820 HU/sec)

标称CT阳极输入功率:
小焦点 - 36 kW IEC 60613:2010
大焦点 - 50.4 kW IEC 60613:2010

标称CT扫描功率指数
小焦点 - 36 kW IEC 60613:2010
大焦点 - 49 kW IEC 60613:2010

参考轴:
垂直于窗口面

该管芯适用于 万睿视影像 B-320H 管套。

3Ø 105 Hz 

0.5 Focal Spot 7°
0.5 焦点 7°

| Volume scan time (seconds) | Maximum allowed tube current (mA) as a function of the following starting heat storage and tube voltages | | | | | | | | |
|----------------------------|--|-------|-------|-----------------------------|-------|-------|-----------------------------|-------|-------|
| | Starting heat storage = 40% | | | Starting heat storage = 60% | | | Starting heat storage = 80% | | |
| | 100 kV | 120kV | 140kV | 100 kV | 120kV | 140kV | 100 kV | 120kV | 140kV |
| 1 | 360 | 300 | 257 | 360 | 300 | 257 | 360 | 300 | 257 |
| 2 | 360 | 300 | 257 | 360 | 300 | 257 | 360 | 300 | 257 |
| 4 | 360 | 300 | 257 | 360 | 300 | 257 | 360 | 300 | 257 |
| 10 | 360 | 300 | 257 | 360 | 300 | 257 | 324 | 270 | 231 |
| 20 | 360 | 300 | 257 | 360 | 300 | 257 | 264 a | 220 a | 189 a |
| 30 | 360 | 300 | 257 | 360 | 300 | 257 | 201 a | 168 a | 144 a |
| 50 | 360 | 300 | 257 | 287 a | 239 a | 205 a | 145 a | 121 a | 104 a |

3Ø 105 Hz 

1.0 Focal Spot 7°
1.0 焦点 7°

| Volume scan time (seconds) | Maximum allowed tube current (mA) as a function of the following starting heat storage and tube voltages | | | | | | | | |
|----------------------------|--|-------|-------|-----------------------------|-------|-------|-----------------------------|-------|-------|
| | Starting heat storage = 40% | | | Starting heat storage = 60% | | | Starting heat storage = 80% | | |
| | 100 kV | 120kV | 140kV | 100 kV | 120kV | 140kV | 100 kV | 120kV | 140kV |
| 1 | 504 | 420 | 360 | 504 | 420 | 360 | 390 | 325 | 279 |
| 2 | 504 | 420 | 360 | 504 | 420 | 360 | 380 | 317 | 271 |
| 4 | 504 | 420 | 360 | 504 | 420 | 360 | 362 | 302 | 259 |
| 10 | 504 | 420 | 360 | 500 | 417 | 357 | 324 a | 270 a | 231 a |
| 20 | 504 | 420 | 360 | 419 | 350 | 300 | 264 a | 220 a | 189 a |
| 30 | 481 | 401 | 344 | 361 | 301 | 258 | 201 a | 168 a | 144 a |
| 50 | 378 | 315 | 270 | 287a | 239 a | 205 a | 145 a | 121 a | 104 a |

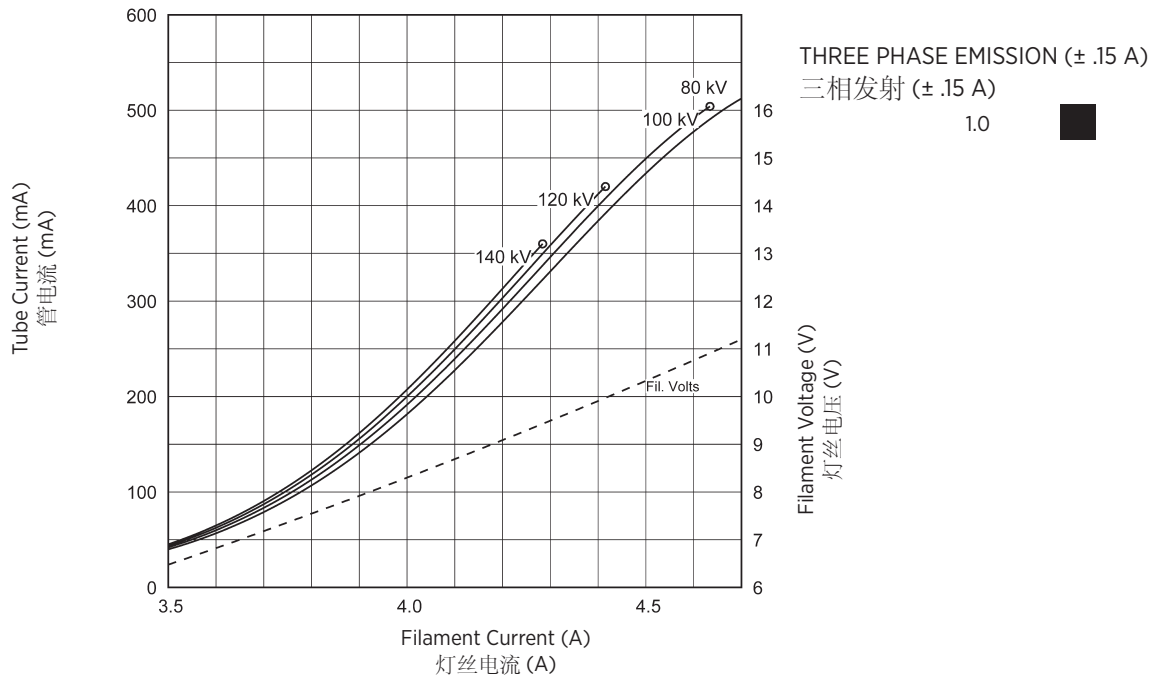
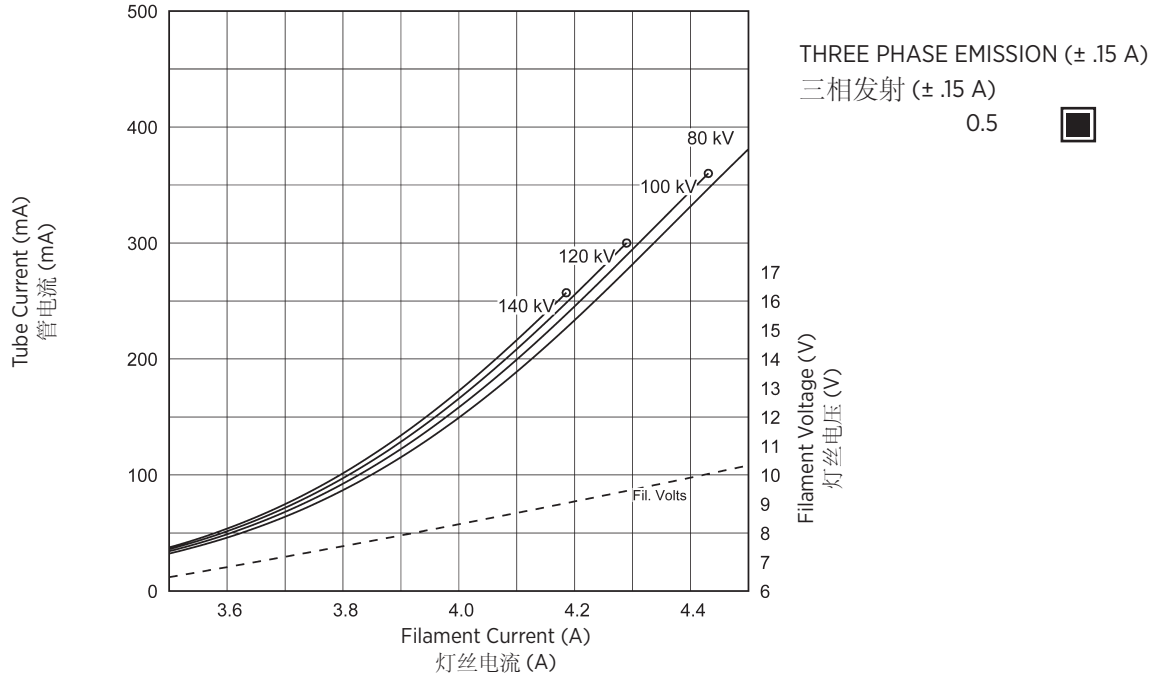
Note:
1. Limits are based on maximum track rating except for the following codes:
a - Limited by available heat storage.
b - Limited by window heating.
c - Limited by filament emission.
2. H.S. = Heat Storage
kV = Tube Voltage

注释
1. 除如下所列规则外，限制均以最大轨道额定值为依据：
a - 受有效热容量限制。
b - 受窗口加热限制。
c - 受灯丝放射限制。
2. H.S. = 热容量
kV = 管电压

Note:
Rating charts reflect maximim tube performance. Tube operation is ultimately limited by system software.

注释
额定值表反映最大管性能。管的工作状况最终受系统软件的限制。

3 Ø

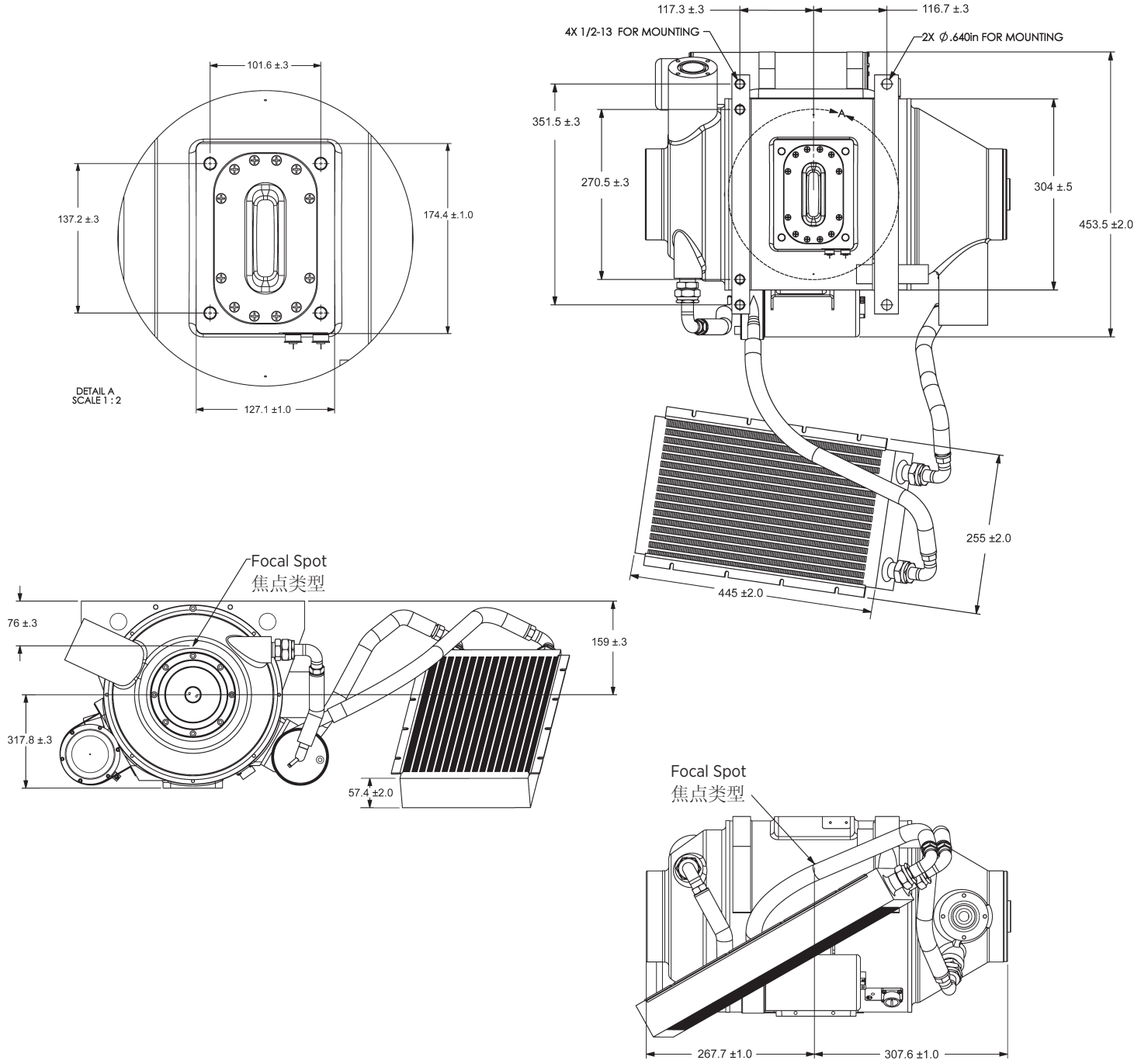


| <u>Product Description</u> | <u>产品说明</u> |
|---|---|
| Maximum Peak Voltage 140 kV | 最大峰值电压 140 kV |
| Anode to Ground 70 kV | 阳极到地 70 kV |
| Cathode to Ground 70 kV | 阴极到地 70 kV |
| Maximum X-ray Tube Assembly Heat Content . . . 3.8 MJ (5.3 MHU) | 最大 X 射线管组件热含量 3.8 MJ (5.3 MHU) |
| Nominal Continuous Input Power (Includes stator heat) 6.4 kW (9.0 kHU/sec) IEC 60613:2010 | 标称连续输入功率 (包括定子热量) 6.4 kW (9.0 kHU/sec) IEC 60613:2010 |
| Maximum Housing Temperature 80°C | 最大管套温度 80°C |
| Maximum Heat Exchanger Dissipation 6.4 kW (9.0 kHU/sec) | 交换器最大热耗散 6.4 kW (9.0 kHU/sec) |
| Focal Point Position (Central Ray) Within 1mm (X, Y Direction from the center of radiation port.) | 焦点位置 (中心射线) 在 1 mm 内 (源于辐射端口中心的 X、Y 方向) |
| X-Ray Tube Assembly | X 射线管组件 |
| Permanent Filtration 0.5 mm Al @ 75 kV IEC 60522/1999 | 固有滤过 0.5 mm Al @ 75 kV IEC 60522/1999 |
| Additional Filtration 1.5 mm Al @ 75 kV IEC 60522/1999 | 附加滤过 1.5 mm Al @ 75 kV IEC 60522/1999 |
| Minimum Total Filtration . . . 2.0 mm Al @ 75 kV IEC 60522/1999 | 最小总滤过 2.0 mm Al @ 75 kV IEC 60522/1999 |
| Loading Factors for Leakage Radiation 140 kV, 43 mA | 泄漏辐射加载系数 140 kV, 43 mA |
| High Voltage Cable Receptacles Per IEC 60526 | 高压电缆插座 IEC 60526 |
| Ambient Air Temperature Limits for Operation 5°C to 40°C | 环境气温工作限值 5°C ~ 40°C |
| Temperature Limits for Storage and Transport -30°C to +75°C | 存储与运输温度限值 -30°C ~ +75°C |
| Humidity +10% to +90% | 湿度 +10% ~ +90% |
| Atmospheric Pressure Range 70 kPa to 106 kPa | 大气压范围 70 kPa ~ 106 kPa |
| Weight - Housing & Heat Exchanger 214.5 lbs. ±3.5 lbs. | 重量: 管套 和 热交换器 214.5 lbs. ±3.5 lbs. |
| IEC Classification Class 1 | IEC 分级 1 类 |
| Safety Devices - Thermal Switches | 安全性装置: 热控开关 |
| External - Normally Closed Contact Opening at 80°C ±3.9°C | 外部 - 常闭接点 开启温度 80°C ±3.9°C |
| Internal - Normally Closed Contact Opening at 110°C ±4.4°C | 内部 - 常闭接点 开启温度 110°C ±4.4°C |
| Pressure Switch | 压力开关 - 常开触点 在 3.0 PSID ±1.0 PSID 时闭合 |
| Normally Open contact closes at 3.0 PSID ±1.0 PSID | 灯丝频率限值 50 HZ - 40 kHz |
| Filament Frequency Limits 50 HZ - 40 kHz | 电源 直流 |
| Power Supply DC | |

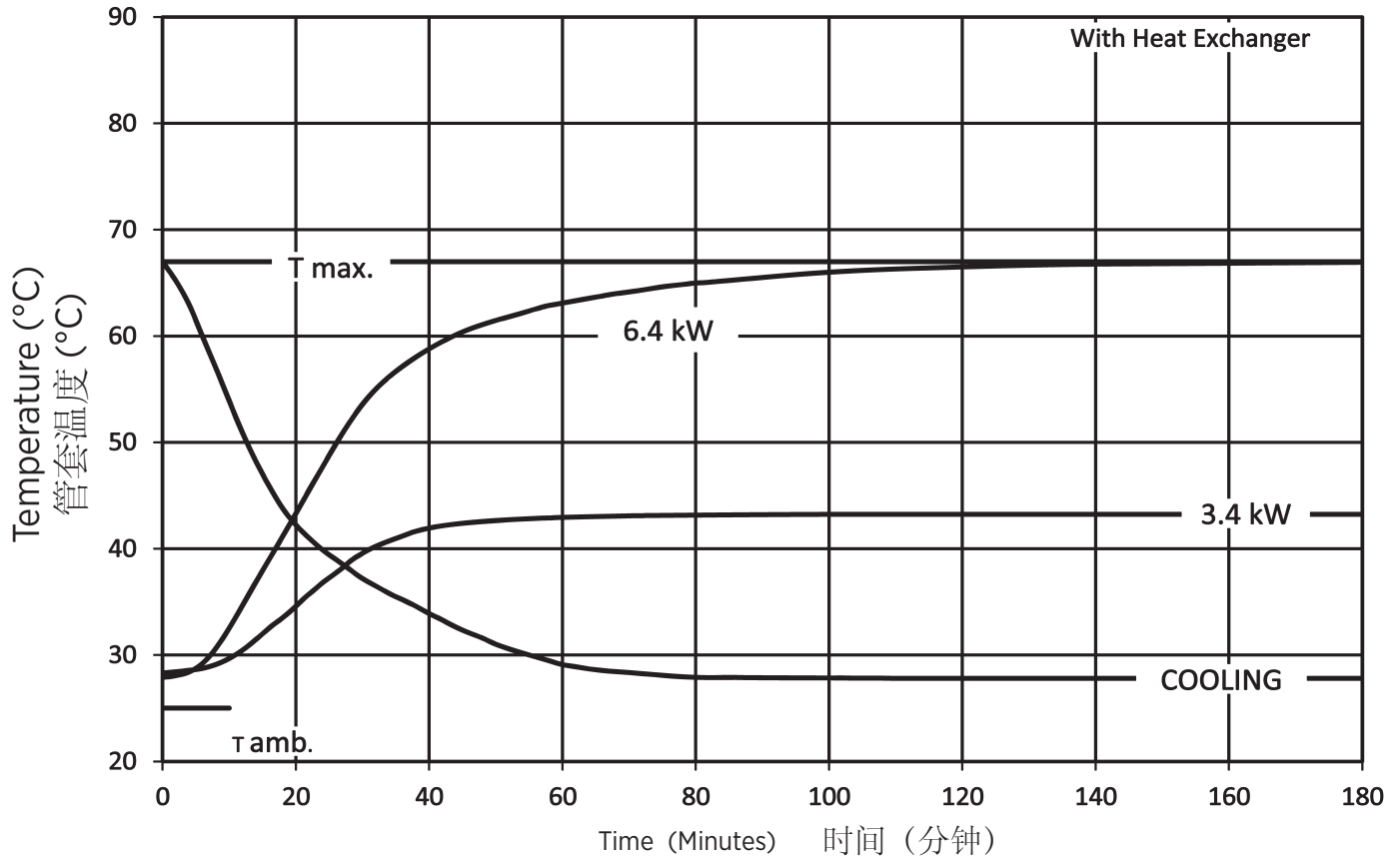
Outline

Dimensions are for reference only
维度是供仅供参考

Dimensions are in millimeters
尺寸单位为毫米



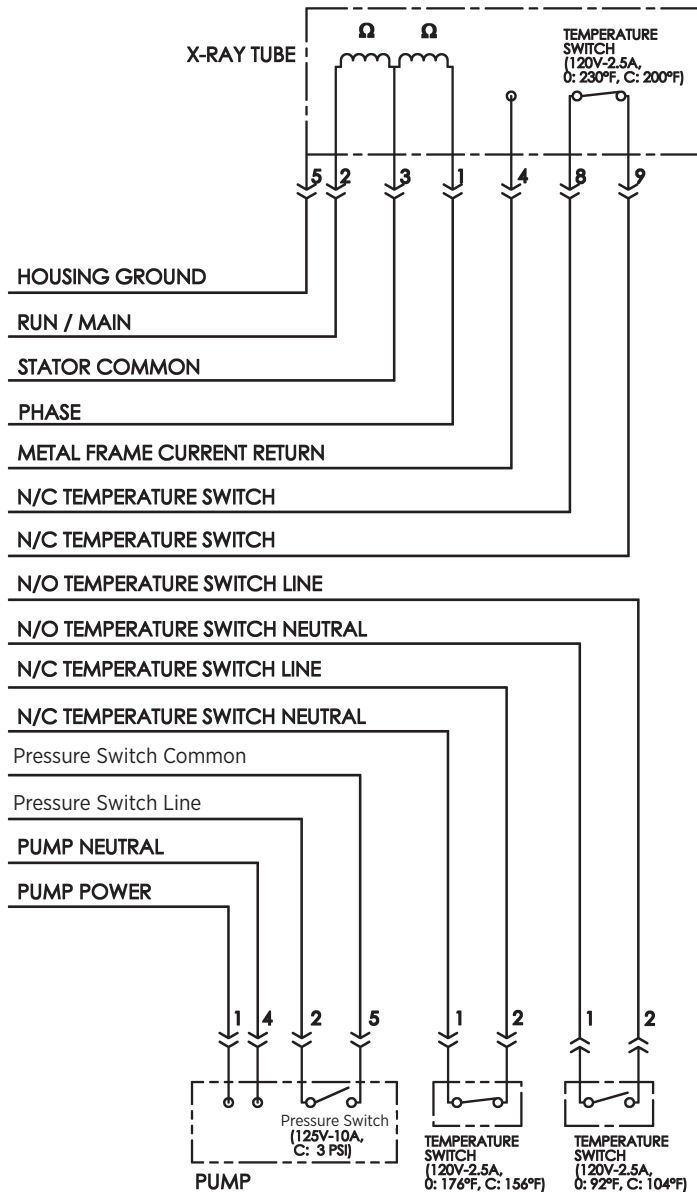
X-Ray Tube Housing Assembly Heating and Cooling
X射线管组件加热/冷却曲线



Note:
1. Heat inputs into housing include tube power, filament power, and stator power.
2. Heating curves based on no restrictions of natural convection around tube housing assembly.
3. Heating and cooling curves reflect maximum tube performance. Tube operation is ultimately limited by system software control.

注释:
1. 向管套的热量输入包括管功率、灯丝功率和定子功率。
2. 加热曲线以管套组件周围无自然对流的限制为根据。
3. 加热与冷却曲线反映了管的最高性能。管的工作状况最终受系统软件控制的限制。

Stator - Wiring Diagram
定子 - 连线图

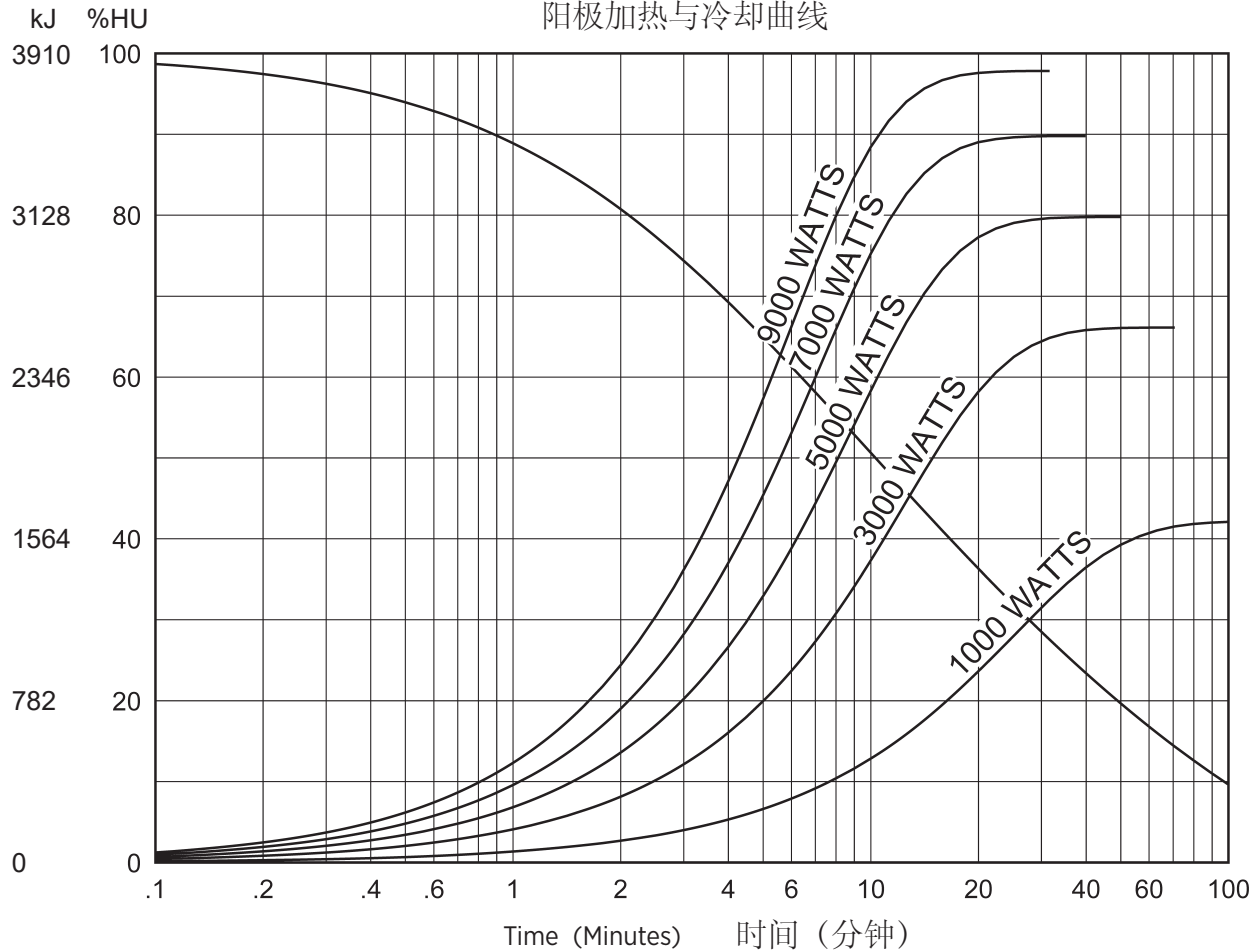


| Stator Drive Frequency 定子驱动频率 | RPM |
|----------------------------------|-------------|
| 105 Hz | 5700 - 6300 |

| | | |
|-------------------------|----------------|-------------|
| Stator Type: | | |
| Stator Coil Resistance: | | |
| Black to White | 8.3 Ω ±15% | |
| Green to White | 8.3 Ω ±15% | |
| Starter Voltage: | | |
| 105 Hz | Start 480 VAC | Run 160 VAC |
| Starter Current: | | |
| 105 Hz | Start 9 Amps | Run 3 Amps |
| Time to Full Speed: | | |
| 105 Hz | 0 - 6300 RPM | 20 Sec. |
| X-Ray Tube Assembly: | | |
| GS-5179/B-320H | IEC 60601-2-28 | |

| | | |
|----------------|----------------|------------|
| 定子的类型: | | |
| 定子线圈电阻: | | |
| 黑色到白色 | 8.3 Ω ±15% | |
| 绿色到白色 | 8.3 Ω ±15% | |
| 启动器电压: | | |
| 105 Hz | 启动 480 VAC | 运行 160 VAC |
| 启动电流: | | |
| 105 Hz | 启动 9 安培 | 运行 3 安培 |
| 达到全速的时间: | | |
| 105 Hz | 0 - 6300 RPM | 20.0 Sec. |
| X 射线管组件: | | |
| GS-5179/B-320H | IEC 60601-2-28 | |

Anode Heating and Cooling Curves
阳极加热与冷却曲线



Note:
Heating and cooling curves reflect maximum tube performance. Tube operation is ultimately limited by system software control.

注释:
加热与冷却曲线反映了管的最高性能。管的工作状况最终受系统软件控制的限制。

Manufactured by Varex Imaging Corporation
由万睿视影像有限公司生产