



Note: Document originally drafted in the English language.  
注释: 文件最初用英语起草。

### Product Description

The MCS-8064 is a 9.4" (240 mm) 140 kV, 5.7 MJ (8.0 MHU) maximum anode heat content, rotating anode insert. This insert is specifically designed for GE 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 spots values:

0.9 x 0.7  
1.2 x 1.2

**Maximum Anode Cooling Rate:**  
21,800 W (30,520 HU/sec)

**Maximum continuous anode heat dissipation:**  
8,000 W (11,200 HU/sec)

**Nominal Anode Input Power:  
Load Time 1 Second**  
Small - 47 kW IEC 60613:2010  
Large - 100 kW IEC 60613:2010

**Nominal CT Anode Input Power:**  
Small - 47 kW IEC 60613:2010  
Large - 96 kW IEC 60613:2010

**Reference Axis:**  
Perpendicular to port face.

This insert is intended for use in the Varex Imaging B-680H housing.

### 产品说明

MCS-8064 是一款具有 9.4" (240 mm) 靶盘, 140 kV, 5.7 MJ (8.0 MHU) 最大阳极热容量的旋转阳极 X 线管芯。该管芯专门针对 GE CT 扫描仪而设计。该管芯的靶盘结构为 7° 靶角, 铼钨钼合金靶材, 并可与下列标称焦点一起使用:

0.9 x 0.7  
1.2 x 1.2

最大阳极冷却速率:  
21,800 W (30,520 HU/sec)

最大连续阳极热耗:  
8,000 W (11,200 HU/sec)

标称阳极输入功率:  
加载时间1秒  
小焦点 - 47 kW IEC 60613:2010  
大焦点 - 100 kW IEC 60613:2010

标称CT阳极输入功率  
小焦点 - 47 kW IEC 60613:2010  
大焦点 - 96 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-680H 管套。

Single Load Rating (Reference IEC 60613 and 21 CFR 1020.30 (h)(2)(iii))  
 单次加载额定值 (参考 IEC 60613 和 21 CFR 1020.30 (h)(2)(iii))

The single exposures are controlled by system software.

通过系统软件控制单次曝光。

最大 kV 和 mA 限制				
KV	mA Small Focal Spot	VCT Hi Power 配置	VCT 85 kW 配置	无功率选项 (72 kW 基本配置)
		mA Large Focal Spot	mA Large Focal Spot	mA Large Focal Spot
80	300	675	675	600
100	310	770	700	600
120	335	800	700	600
140	335	715	610	515

注意：并非在所有市场中都提供 72 kW 基本配置。

大焦点单次曝光的限制				
Scan Time	140 kV	120 kV	100 kV	80 kV
5	615*	800*	760*	675†
10	575†	790*	760*	675†
20	535†	645†	760*	675†
30	490	560	695†	675†
40	445	510	635†	675†
50	410	485	585	675†
60	385	460	550	675†

† Available only with VCT 85 kW Option installed. Otherwise constrained to the max mA available.

\* Available only with VCT 85 kW & VCT Hi Power Options installed. Otherwise constrained to the max mA available.

† 只有安装 VCT 85 kW 选项后才能提供。否则只能使用最大可用 mA。

\* 只有安装 VCT 85 kW 和 VCT Hi Power 选项后才能提供。否则只能使用最大可用 mA。

小焦点单次曝光的限制				
Scan Time	140 kV	120 kV	100 kV	80 kV
5	325	335	310	300
10	320	335	310	300
20	305	335	310	300
30	295	335	310	300
40	290	335	310	300

50	280	335	310	300
60	275	335	310	300

Single Load Rating (Reference IEC 60613 and 21 CFR 1020.30 (h)(2)(iii))  
 单次加载额定值 (参考 IEC 60613 和 21 CFR 1020.30 (h)(2)(iii))

The serial exposures are controlled by system software and are applicable for repeat every 10 minutes based on 3 hour wait period after tube warm up has completed.

连续曝光由系统软件控制，根据在完成预热后 3 小时的等待期，适用于每 10 分钟重复一次曝光的情况。

大焦点连续曝光的限制				
Scan Time	80 kV	100 kV	120 kV	140 kV
5	675†	770*	745*	635
10	675†	770*	675†	575
20	675†	720	600	510

小焦点单次曝光的限制				
Scan Time	80 kV	100 kV	120 kV	140 kV
5	300	310	335	335
10	300	310	335	335
20	300	310	335	305

† Available only with VCT 85 kW Option installed. Otherwise constrained to the maximum mA available.  
 \* Available only with VCT 85 kW & VCT Hi Power Options installed. Otherwise constrained to the maximum mA available.

† 只有安装 VCT 85 kW 选件后才能提供。否则只能使用最大可用 mA。  
 \* 只有安装 VCT 85 kW 和 VCT Hi Power 选件后才能提供。否则只能使用最大可用 mA。

Highest Constant Load at 4s (Reference IEC 60601-2-44 6.8.2)  
 在 4 秒时的最高持续加载 (参考 IEC 60601-2-44 6.8.2)

The system can acquire 72 kW at 120 kVp for 4 seconds scan duration. The system can acquire 84 kW at 120 kVp for 4 seconds scan duration if the 85 kW Option is enabled. The system can acquire 96 kW at 120 kVp for 4 seconds scan duration if the 85 kW and Hi Power Options are enabled. The single exposures are controlled by system software.

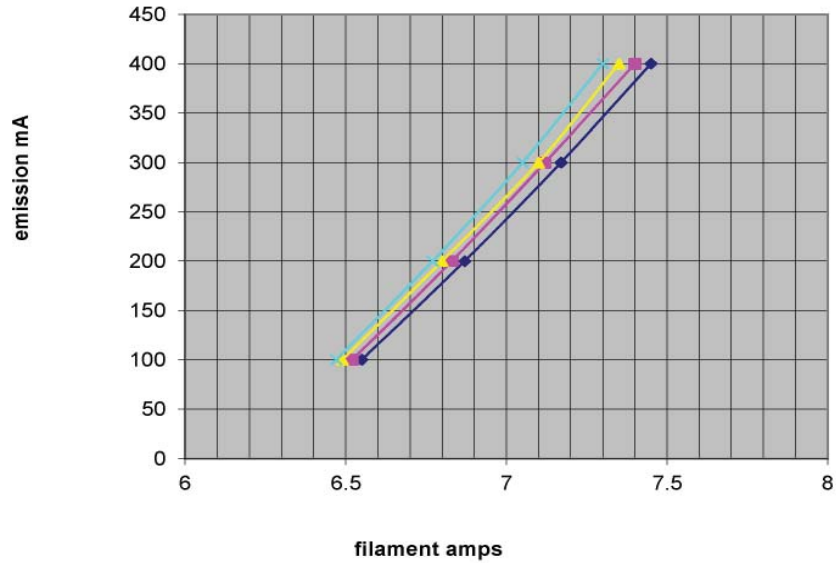
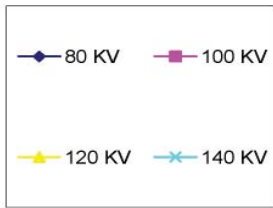
系统在 72 kW 和 120 kVp 的设置下可实现 4 秒的扫描时间。如果启用了 85 kW 选件，系统在 84 kW 和 120 kVp 的设置下可实现 4 秒的扫描时间。如果启用了 85 kW 和 Hi Power 选件，系统在 96 kW 和 120 kVp 的设置下可实现 4 秒的扫描时间。通过系统软件控制单次曝光。

3 Ø ≡

THREE PHASE EMISSION (± .15 A)

三相发射

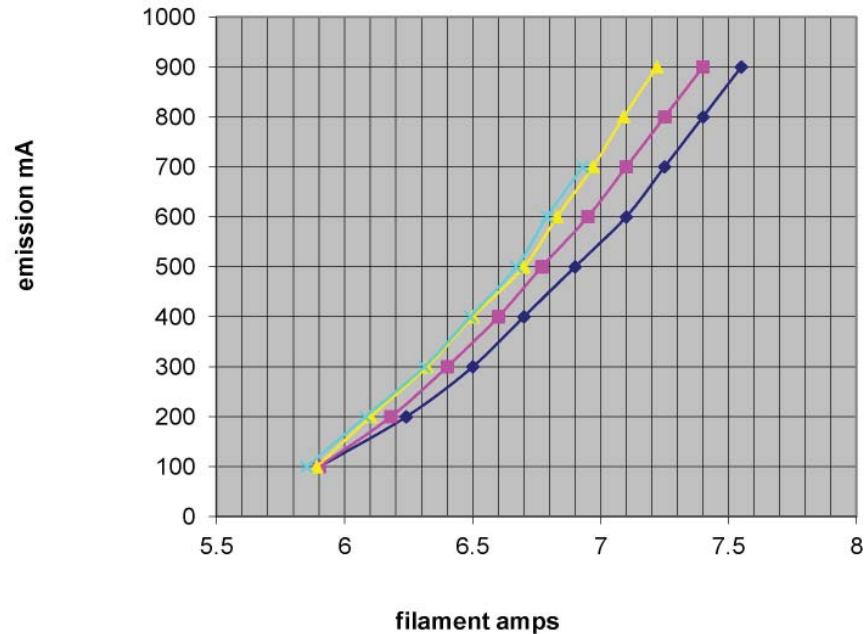
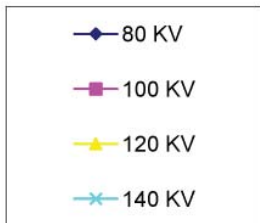
0.9 x 0.7 



THREE PHASE EMISSION (± .15 A)

三相发射

1.2 x 1.2 



**Product Description**

Maximum Peak Voltage ..... 140 kV  
 Anode to Ground ..... 0 kV  
 Cathode to Ground ..... 140 kV

Maximum X-ray Tube Assembly Heat Content  
 ..... 5.5 MJ (7.7 MHU)

Maximum Housing Temperature ..... 78°C

Maximum Continuous Heat Dissipation @ 25°C ambient  
 (Includes stator heat) ..... 8.0 kW (11.2 kHU/sec)

Maximum Heat Exchanger Dissipation  
 ..... 8.0 kW (11.2 kHU/sec)

Permanent Filtration  
 X-Ray Tube Assembly (IEC 60522) 3.25mm Al / 70kV  
 X-Ray Insert ..... .02mm Al / 70kV

Loading Factors for Leakage Radiation  
 ..... 140 kV, 57 mA

High Voltage Cable ..... Special

Ambient Air Temperature Limits for Operation  
 ..... 15°C to 45°C

Temperature Limits for Storage and Transport  
 ..... -20°C to + 75°C  
 Humidity ..... 10% to 90%  
 Atmospheric Pressure Range ..... 70 kPa to 106 kPa

Weight - Housing ..... 106 kg (234 lbs)

IEC Classification ..... Class 1

Safety Devices  
 Housing - Thermal Switch  
 Normally Closed Contacts ... Opens at 93°C ±3°C

Filament Frequency Limits ..... 50 Hz - 25 kHz

Power Supply ..... DC

**产品说明**

最大峰值电压 ..... 140 kV  
 阳极到地 ..... 0 kV  
 阴极到地 ..... 140 kV

最大 X 射线管组件热含量 ..... 5.5 MJ (7.7 MHU)

最大管套温度 ..... 78°C

最大连续散热在25°C环境温度情况下  
 (包括定子热量) ..... 8.0 kW (11.2 kHU/seg)

交换器最大热耗散 ..... 8.0 kW (11.2 kHU/seg)

固有滤过  
 X 射线管组件 (IEC 60522) ..... 3.25mm Al / 70kV  
 X 射线管芯 ..... .02mm Al / 70kV

泄漏辐射加载系数 ..... 140 kV, 57 mA

高压电缆 ..... 特别

环境气温工作限值 ..... 15°C 到 45°C

存储与运输温度限值 ..... -20°C 到 +75°C  
 湿度 ..... 10% 到 90%  
 大气压范围 ..... 70 kPa 到 106 kPa

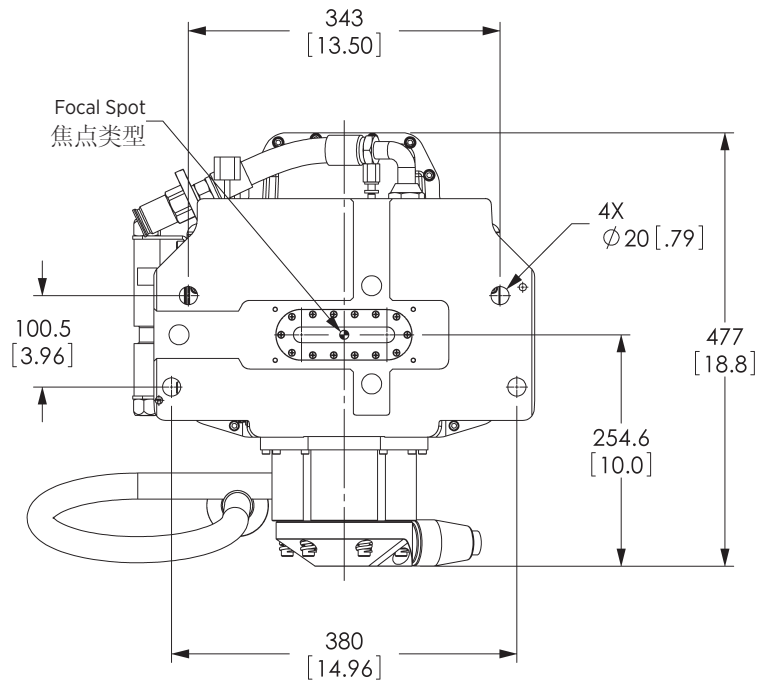
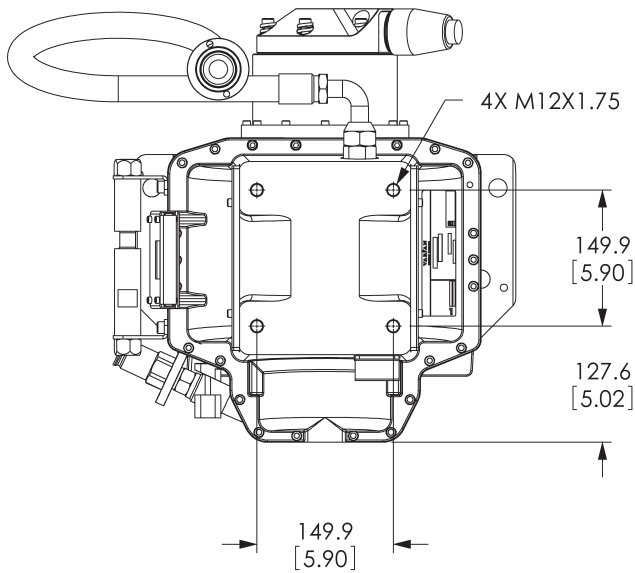
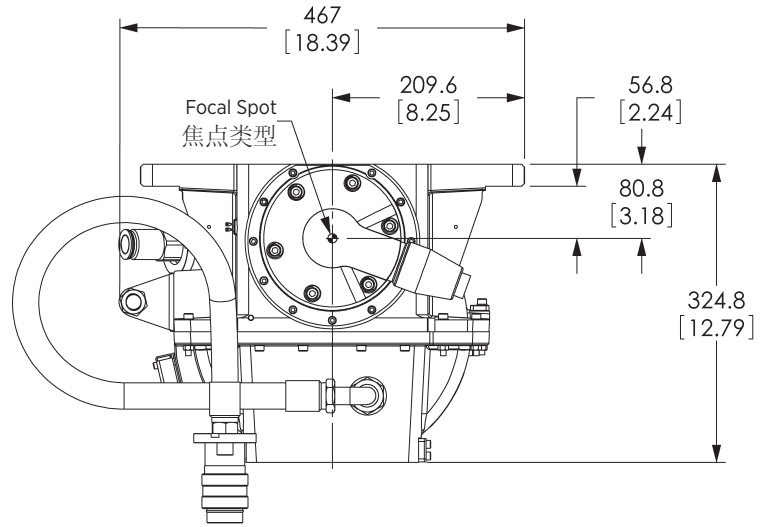
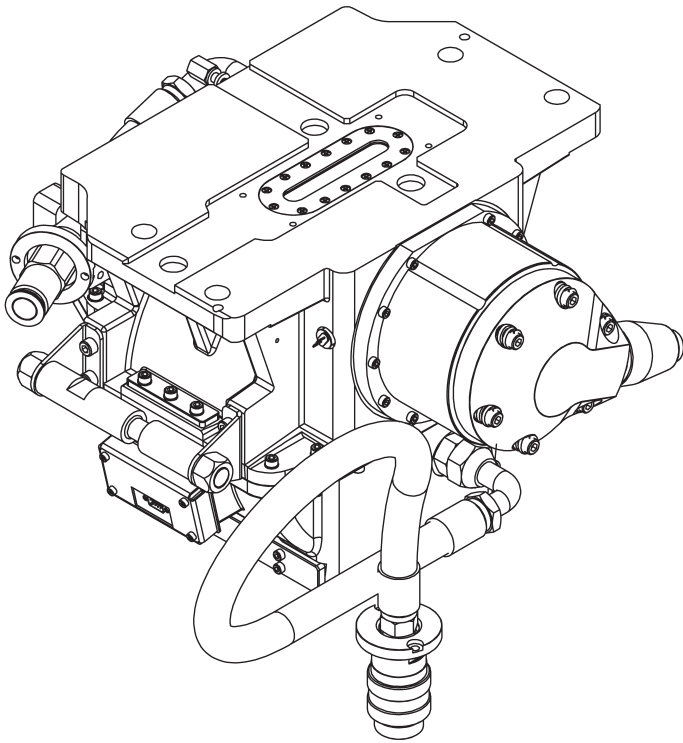
重量: 管套 ..... 106 kg (234 lbs)

IEC 分级 ..... 1 类

安全性装置  
 管套  
 热控开关: 常闭接点 ... 开启温度为 93°C ±3°C

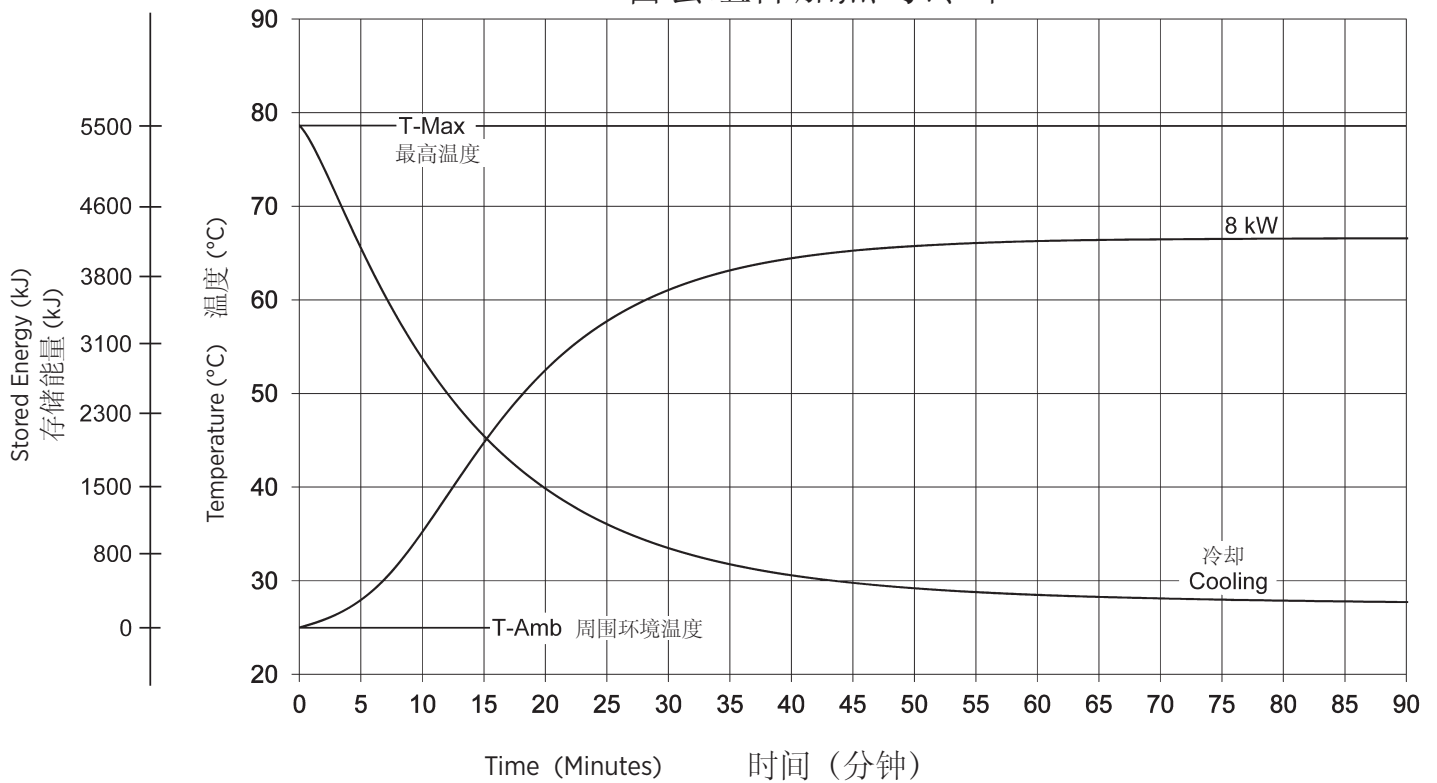
灯丝频率限值 ..... 50 Hz - 25 kHz

电源 ..... 直流



Dimensions are for reference only  
维度是供仅参考

## Tube Housing Assembly Heating and Cooling 管套组件加热与冷却



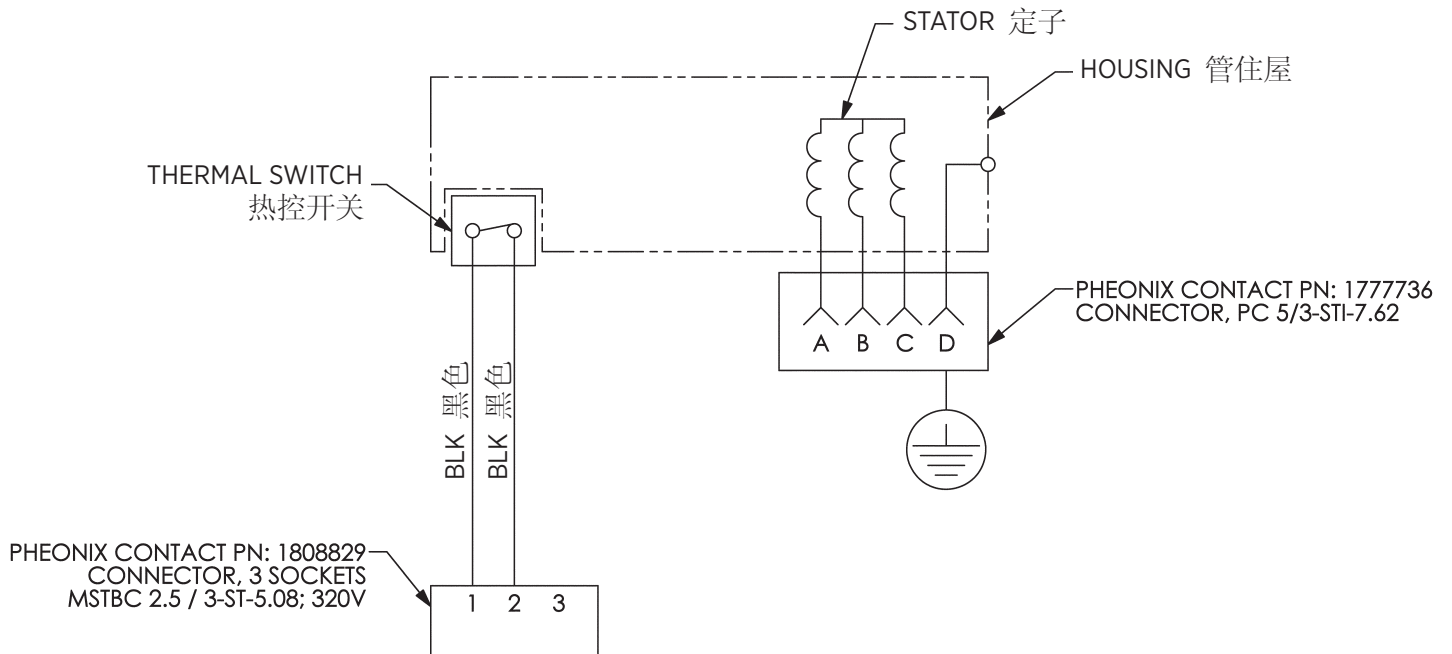
**Note:**

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。

Terminal / Wire Color Chart  
终端 / 导线颜色图

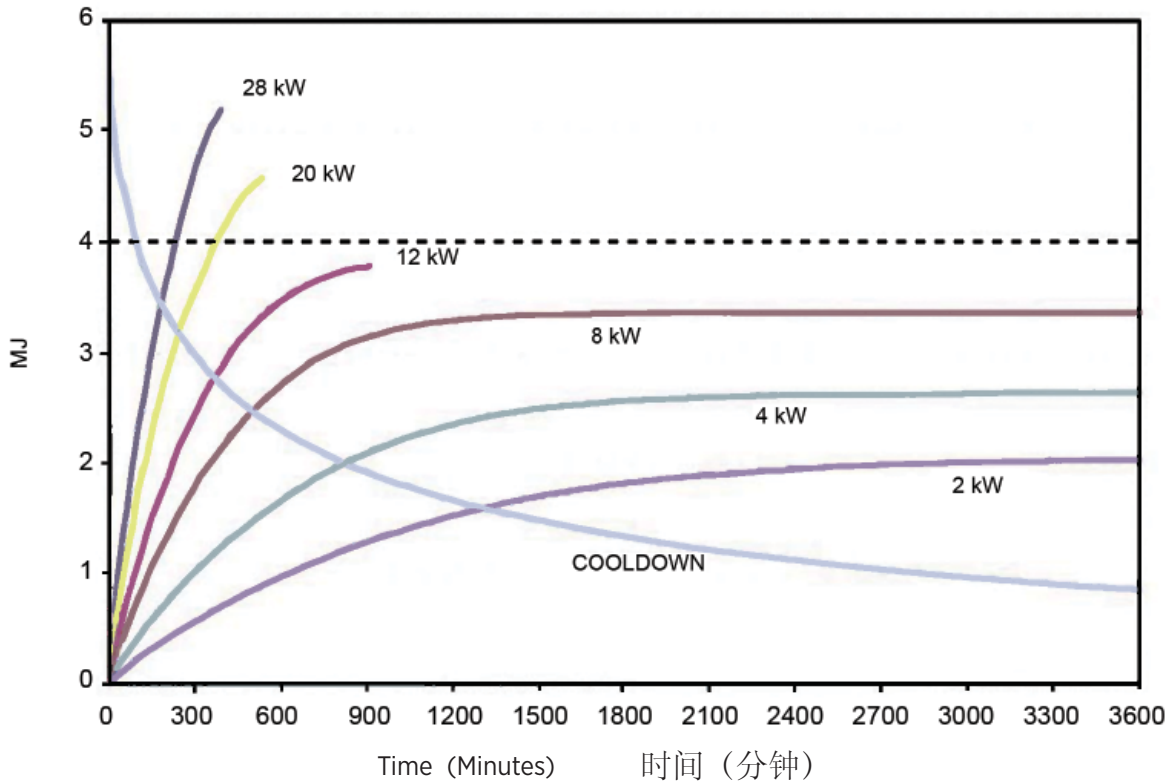


<b>Stator Type:</b> 3 Ø, 4 Pole	
<b>Stator Coil Resistance:</b>	2.3 Ohms ± 5%
<b>Starter Voltage:</b>	<b>Start</b> <b>Run</b>
	280 Hz      430 VAC    260 VAC
<b>Time to Full Speed:</b>	
140 Hz ±2 Hz in < 12 Sec.	
8400 RPM ±1120 RPM	
<b>X-Ray Tube Assembly:</b>	
MCS-8064/B-680H	IEC 60601-2-28

<b>定子类型:</b> 3 Ø, 4 pole	
<b>定子线圈电阻:</b>	2.3 Ohms ± 5%
<b>启动器电压:</b>	<b>启动</b> <b>运行</b>
	280 Hz      430 VAC    260 VAC
<b>达到全速的时间:</b>	
140 Hz. ±2 Hz. ≤12秒	
8400 RPM ±1120 RPM	
<b>X 射线管组件:</b>	
MCS-8064/B-680H	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。

