

Surgical C-Arm  
Rotating Anode X-Ray Tube Housing  
外科 C 型臂, 旋转阳极 X 射线管套



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

**Product Description**

The ORIII is a uniquely designed x-ray tube housing developed for use in surgical C-Arm applications. This design utilizes a high performance rotating anode tube, with inherently greater target loading capabilities than that of stationary anode tube designs. This housing provides ease of use at a nominal patient table height.

**Housing:** Shockproof, Aluminum. Lead lined; filled under vacuum with high dielectric insulating oil and hermetically sealed. The housing contains a stator for driving the rotor.

产品说明

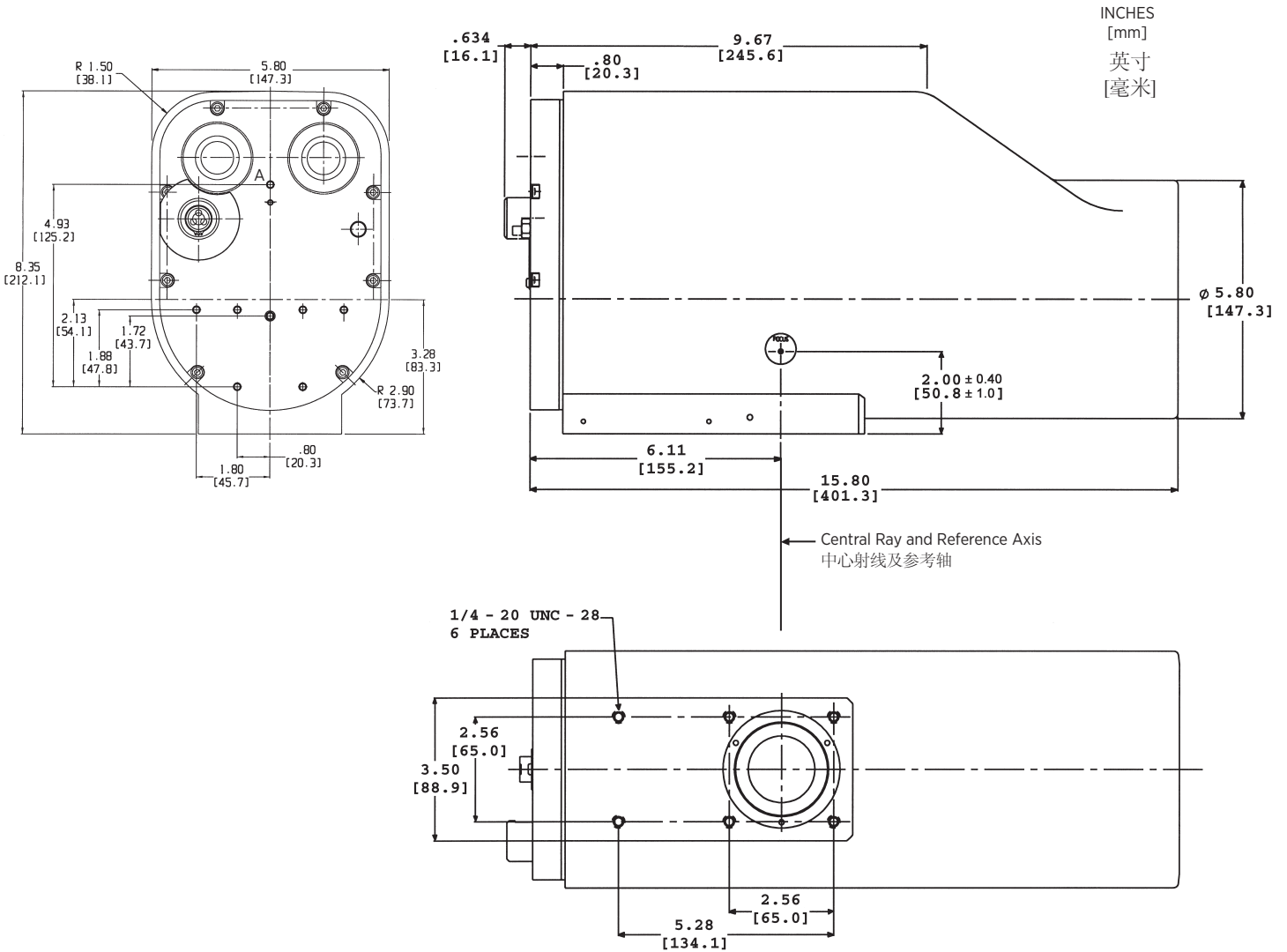
ORIII 是经设计可用于外科 C 型臂应用的唯一 X 射线管套。此设计充分利用了高性能的旋转阳极管, 以及比静止阳极管设计更大的固有靶盘负载功能。通过此管套, 在标称的患者服务台高度即可轻松使用。

管套: 防震, 铝制。铅衬; 在真空状态下填充高耐压绝缘油并进行气密封。管套带有一个定子, 用于驱动转子。

| <b>Product Description</b>  |   |
|---|---|
| <b>Maximum Peak Voltage</b>   |   |
| Anode to Cathode .....  | 125 kV  |
| Anode to Ground .....   | 62.5 kV   |
| Cathode to Ground .....   | 62.5 kV   |
| <b>Nominal Continuous Input Power</b>   |   |
| .....   | 185 W (15 kHU**/Min.)<br>IEC 60613:2010         |
| Maximum Housing Temperature .....   | 78°C  |
| X-ray tube assembly cooling provided by ambient air flow.   |   |
| <b>Thermal Characteristics</b>  |   |
| Housing heat storage capacity .....   | 1,185 kJ (1.6 MHU**)                            |
| Weight .....  | 19.5 Kg (43 lbs.) without cables or accessories |
| <b>X-Ray Tube Assembly</b>  |   |
| Permanent Filtration .....  |   |
| .....   | 0.7mm Al minimum at 75 kV - IEC 60522/1999      |
| Loading Factors for Leakage Radiation .....   |   |
| .....   | 125 kV, 1.5 mA                                  |
| <b>X-Ray Coverage:</b>  |   |
| 8.5° target - 12 in (30 cm) at 40 in (100 cm) Distance Source-Image   |   |
| 10° target - 14 in (35 cm) at 40 in (100 cm) Distance Source-Image  |   |
| <b>Thermal Switch</b>   |   |
| The switch must be used in conjunction with the control manufacturer's interlock circuitry. The thermal switch is normally closed. The switch will open when the temperature reaches 85°C ±2.8°C. |   |
| <b>CAUTION</b>  |   |
| The thermal switch does not protect the insert against overheating.   |   |
| IEC Classification .....  | Class 1   |
| **H.U. (Heat Units) = (kV) x (mA) x 1.35 x Time in seconds (3Ø operation)   |   |

| <b>产品说明</b>   |  |
|---|--|
| <b>最大峰值电压</b>   |  |
| 阳极到阴极 .....   | 125 kV                                   |
| 阳极到地 .....  | 62.5 kV                                  |
| 阴极到地 .....  | 62.5 kV                                  |
| <b>标称持续输入功率</b>   |  |
| .....   | 185 W (15 kHU.**/Min.)<br>IEC 60613:2010 |
| 最大管套温度 .....  | 78°C                                     |
| X射线管组件通过其周围空气流进行冷却。   |  |
| <b>热特性</b>  |  |
| 管套热存储容量 .....   | 1,185 kJ (1.6 MHU**)                     |
| 重量 .....  | 19.5 kg (43 lbs) (不含电缆或附件)               |
| <b>X 射线管组件</b>  |  |
| 固有滤过 .....  |  |
| .....   | 0.7mm Al 最小值为 75 kV IEC 60522/1999       |
| 泄漏辐射测试条件: .....   |  |
| .....   | 125 kV, 1.5 mA                           |
| <b>X 射线覆盖范围</b>   |  |
| 8.5° 靶盘 — 12 英寸 (30 cm) (在 40 英寸 (100 cm) 射线源 - 影像间距离下)           |  |
| 10° 靶盘 — 14 英寸 (35 cm) (在 40 英寸 (100 cm) 射线源 - 影像间距离下)            |  |
| <b>热控开关</b>   |  |
| 此开关必须与控制厂商的联锁电路结合使用。热控开关正常情况下都处于关闭状态。当温度达到 85°C ±2.8°C 时, 此开关会打开。 |  |
| <b>注意</b>   |  |
| 热控开关无法防止管芯过热。   |  |
| IEC 分级: .....   | 1 类                                      |
| **H.U. (热量单位) = (kV) x (mA) x 1.35 x 时间 (单位为秒) (3Ø 工作)            |  |

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

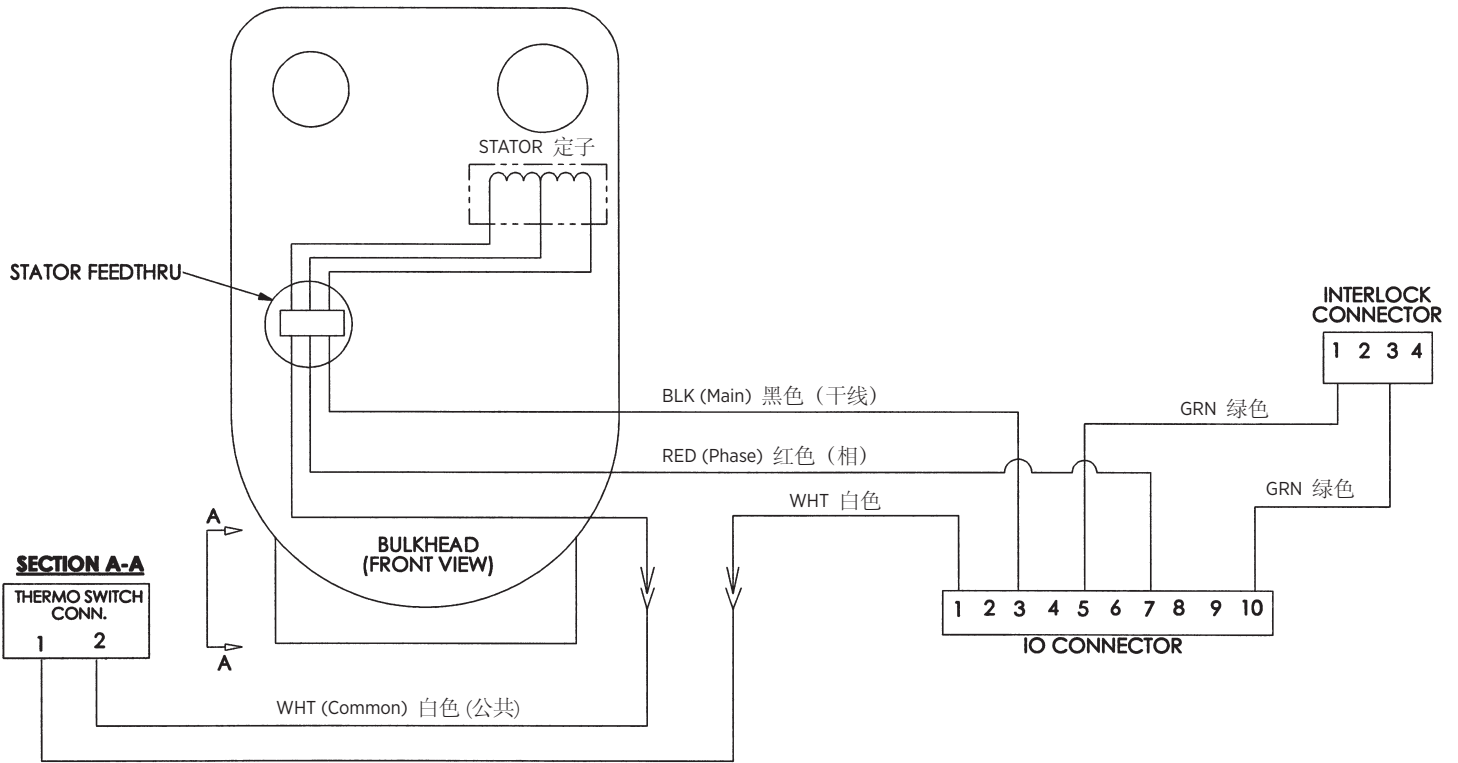


**Cable Receptacles:** Alden type, P702-1 (cathode) and P702 (anode), high voltage receptacles. The receptacles mate with Alden type (P7010S) high voltage connector and cable.

电缆插座：  
Alden 型，P702-1（阴极）和 P702（阳极），高压插座。插座与 Alden 型（P7010S）高压接头和电缆结合使用。

**Rayproofing:** Stray radiation complies with DHHS standards under the "Radiation Control for Health and Safety Act 1968" (U.S.A.)

防辐射：  
杂散辐射符合“1968 年控制辐射，确保健康安全法案”（美国）的 DHHS 标准。



| Stator Drive Frequency<br>定子驱动频率 | RPM           |
|----------------------------------|---------------|
| 50 Hz                            | 2800 - 3000   |
| 60 Hz                            | 3400 - 3600   |
| 150 Hz                           | 8500 - 9000   |
| 180 Hz                           | 9500 - 10,800 |

| "R" Stators<br>定子      | Nominal | Acceptable |
|------------------------|---------|------------|
| Black - White<br>黑 - 白 | 20 Ω    | 18 - 22    |
| White - Red<br>白 - 红   | 50 Ω    | 45 - 55    |
| Black - Red<br>黑 - 红   | 70 Ω    | 63 - 77    |

**Stator:** The ORIII housing is equipped with a standard Varex Imaging stator requiring a 30 microfarad capacitor, providing 90° phase shift for 50/60 Hz., 2,850/3,450 rpm operation.

**Stator Motor Ratings:**

| Frequency (Hz.) | Volts | Common Leg Current |
|-----------------|-------|--------------------|
| 50-60           | 60*   | Approx. = 2.0 Amps |
| 50-60           | 120   | Approx. = 4.0 Amps |
| 50-60           | 240   | Approx. = 8.0 Amps |

\*Running Voltage

**Stator Cord:** A six wire shield-grounded stator cord should be connected from the stator terminal to the motor control. All listed voltage and amperage measurements should be taken at the housing end.

If the stator cord is not provided, the cord used must be UL listed or a UL recognized component for all products used in the USA. Outside the USA, the cord used must comply with all applicable regulatory and statutory requirements for electrical and safety. The cord must have the following characteristics: six conductor, 18AWG (0.9mm<sup>2</sup>) Cu, rated 600V, 90°C minimum, shielded cable with PVC jacket 0.032 inch (0.081mm) thick minimum. Lead terminations are provided and must be used with wire that matches the above description.

定子: ORIII 管套配备有一个标准的 万睿视影像定子, 该定子需要一个 30 微法的电容, 并可提供 90° 相移 以便进行 50/60 Hz, 2,850/3,450 rpm 的运转。

定子电机额定值:

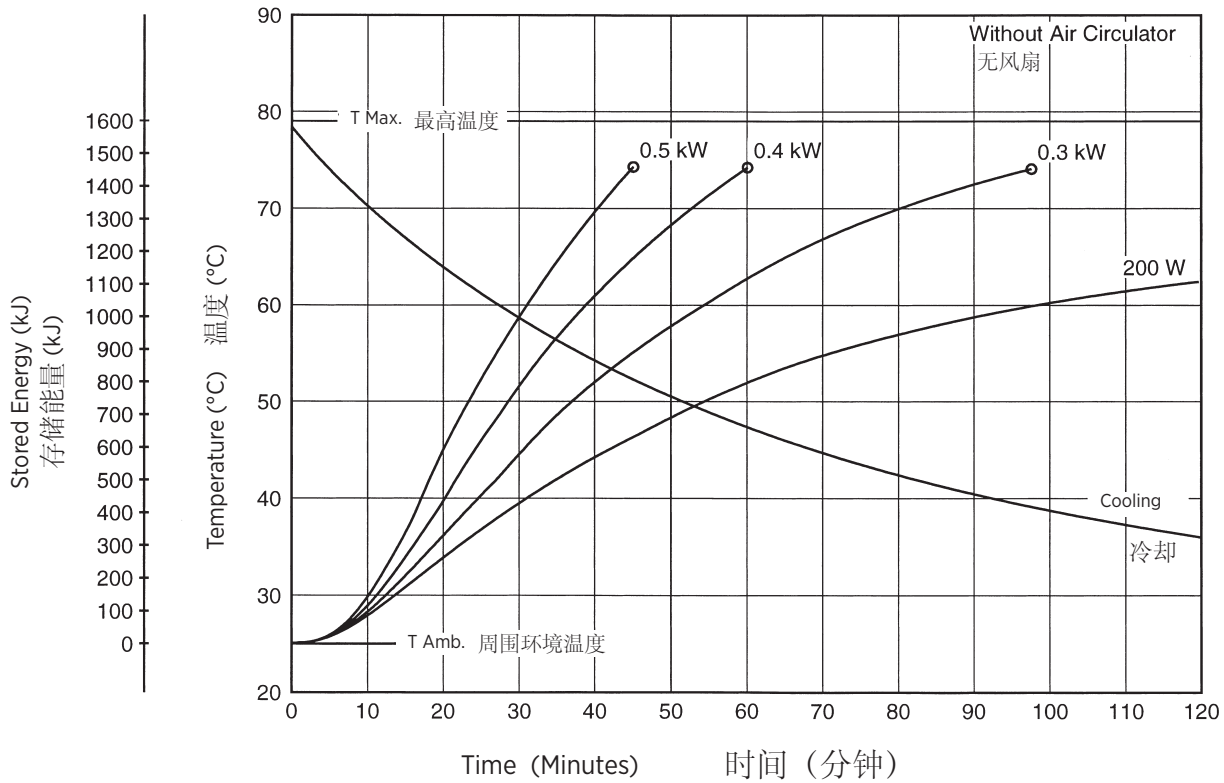
| 频率 (赫兹) | 伏特  | 标准电流         |
|---------|-----|--------------|
| 50-60   | 60* | 近似值 = 2.0 安培 |
| 50-60   | 120 | 近似值 = 4.0 安培 |
| 50-60   | 240 | 近似值 = 8.0 安培 |

\*运行电压

定子电缆: 六导线接地屏蔽定子电缆应该从定子端连接到电机控制装置。在管套端, 应该采用所列的所有电压和电流测量。

如果未提供定子电缆, 则所用的电缆必须是 UL 所列或经 UL 验证适用于美国 所用全部产品的组件。如果不在美国, 则所用的电缆必须符合所有适用的电气和安全法规要求。此电缆必须拥有下列特性: 六根导线, 18AWG (0.9mm<sup>2</sup>) 铜制, 额定电压 600V, 最低温度 90°C, 电缆上覆有最低厚度为 0.032 英寸 (0.081 mm) 的 PVC 护套。提供了 导线端子, 并且必须将其与符合上述说明的电线结合使用。

Tube Housing Assembly Heating and Cooling  
X 射线管汇编热化/冷却的曲线



**Operating Temperature**  
Minimum ambient temperature for storage and transportation is -20°C (0°F). Operating range of the ORIII housing is 16° - 72°C (60° - 167°F).

**工作温度:**  
适于存储和运输的最小环境温度为 -20°C (0°F). ORIII 管套的工作温度范围为 16° - 72°C (60° - 167°F).