The intended use for this Cut Sheet is to communicate the spatial requirements as well as the basic architectural, electrical, structural, and mechanical requirements for this piece of imaging equipment. The information provided in this document is for reference only, during the pre-planning stage, and therefore does not contain any site specific detailed requirements. This information is subject to change without notice. Federal, state and/or local requirements may impact the final placement of the components. It is the customer’s responsibility to ensure that the final layout and placement of the equipment complies with all applicable requirements.
# SOMATOM X.CITE

## SPECIFICATIONS

### EQUIPMENT LEGEND

<table>
<thead>
<tr>
<th>NO</th>
<th>DESCRIPTION</th>
<th>SMS SYM</th>
<th>WEIGHT (LBS)</th>
<th>BTU/HR TO AIR</th>
<th>DIMENSIONS (INCHES)</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OPERATING CONSOLE (OPTION)</td>
<td>⚫️</td>
<td>79.5</td>
<td>---</td>
<td>47 1/4</td>
<td>36 5/8</td>
</tr>
<tr>
<td>2</td>
<td>23&quot; FLAT SCREEN CONTROL MONITOR, KEYBOARD AND CONTROL DEVICE</td>
<td>☺️</td>
<td>20</td>
<td>---</td>
<td>22 1/2</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>SOMATOM X.CITE GANTRY</td>
<td>☮️</td>
<td>4,806</td>
<td>3,412*</td>
<td>99 3/4</td>
<td>37 3/4</td>
</tr>
<tr>
<td>4</td>
<td>SOMATOM X.CITE GANTRY</td>
<td>☮️</td>
<td>4,806</td>
<td>44,357*</td>
<td>99 3/4</td>
<td>37 3/4</td>
</tr>
<tr>
<td>5</td>
<td>PATIENT TABLE – VARIO 2 (OPTION)</td>
<td>☥️</td>
<td>780</td>
<td>1,024</td>
<td>99 13/16</td>
<td>27 3/8</td>
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<tr>
<td>6</td>
<td>IMAGE RECONSTRUCTION SYSTEM</td>
<td>☥️</td>
<td>55</td>
<td>3,412</td>
<td>8 1/4</td>
<td>26 3/4</td>
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<tr>
<td>7</td>
<td>UPS WITH RACK</td>
<td>☥️</td>
<td>71</td>
<td>---</td>
<td>3 3/8</td>
<td>23 3/4</td>
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<td>8</td>
<td>WIRELESS ACCESS POINT (OPTION)</td>
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<td>9</td>
<td>HEAT EXCHANGER CABINET – WATER/AIR SPLIT (OPTION)</td>
<td>☦️</td>
<td>904</td>
<td>3,412</td>
<td>39 3/8</td>
<td>27 1/4</td>
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<tr>
<td>10</td>
<td>OUTDOOR UNIT – WATER/AIR SPLIT (OPTION)</td>
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<td>102,364</td>
<td>100 3/4</td>
<td>42 1/8</td>
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<td>11</td>
<td>EATON SURGE PROTECTIVE DEVICE PANEL (OPTION)</td>
<td>☦️</td>
<td>13.5</td>
<td>---</td>
<td>7 1/2</td>
<td>6 11/16</td>
</tr>
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<td>12</td>
<td>CARE VISION DUAL MONITOR (OPTION)</td>
<td>☦️</td>
<td>122</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>13</td>
<td>MEDRAD DISPLAY CONTROL UNIT/BASE UNIT (OPTION)</td>
<td>☦️</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
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<tr>
<td>14</td>
<td>CEILING MOUNTED MEDRAD INJECTOR (OPTION)</td>
<td>☦️</td>
<td>106</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

### FINISHED ROOM HEIGHT

- **FOR CT GANTRY ONLY**
  - Minimum: 7'-4 9/16"
- **CAREVISION MONITOR/CEILING MOUNT**
  - See detail on S-102 Sheet

### FOR MORE INFORMATION

For more detailed planning requirements for this system, see the typical final drawing set number: 19077
## POWER REQUIREMENTS

<table>
<thead>
<tr>
<th>System</th>
<th>Supply Voltage (Volts)</th>
<th>Power Consumption (kVA)</th>
<th>Supply Impedance (Ohm)</th>
<th>Main Circuit Breaker (Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gantry with Patient Table</td>
<td>3φ 415Y/277 ±10%</td>
<td>SEE Below</td>
<td>≤ 400</td>
<td>125</td>
</tr>
</tbody>
</table>

**POWER CONSUMPTION (WITH STANDARD HOSPITAL CHILLED WATER OR AIR COOLED SYSTEM):**
- CT OPERATING FOR 4 SEC - 138 kVA
- CT OPERATING AT 10 SEC - 114 kVA
- CT OPERATING AT 40 SEC - 70 kVA
- CT OPERATING AT 100 SEC - 37 kVA
- CT OPERATING AT 200 SEC - 33 kVA
- CT OPERATING > 200 SEC - 6 kVA

**POWER CONSUMPTION (WITH OPTIONAL WATER/AIR SPLIT COOLING SYSTEM):**
- CT OPERATING FOR 4 SEC - 138 kVA
- CT OPERATING AT 10 SEC - 114 kVA
- CT OPERATING AT 40 SEC - 70 kVA
- CT OPERATING AT 100 SEC - 37 kVA
- CT OPERATING AT 200 SEC - 33 kVA
- CT OPERATING > 200 SEC - 6 kVA

COOLING SYSTEM - 16kVA
COOLING SYSTEM FLOW HEATER (OPTIONAL) - 12kVA

If an on-site transformer is required to obtain CT operating voltage, it must be of sufficient capacity and characteristics to maintain supply voltage and impedance requirements (transformer and conductors).

All standard components and add-ons are supplied via the power distribution system.

Do not connect non-Siemens components such as laser cameras or film processors to the Siemens power distribution system (PDS).

The examination room should be equipped with at least one emergency power off (panic) button.

## CASEWORK & ACCESSORY NOTES

1. All casework is either existing or is to be designed, detailed, furnished and installed by the customer and/or contractor. Follow design recommendations included herewith, as they are essential for the successful installation & operation of the Siemens equipment.

2. All furniture (chairs, etc.) for the control room are to be provided by the customer.

### HOSPITAL WATER

**CHILLED WATER**

The gantry is cooled with chilled water in a closed loop connection from the on-site chilled water supply. An on-site connection to the chilled water supply must be available to supply the heat exchanger located inside the gantry. The required water temperature is 39.2 to 60.8°F. The nominal operating pressure is 29 to 87 PSI, (max. 145 PSI). The minimum flow rate depends on the water temperature. Differential pressure as related to water circulation. Heat dissipation into the water is 40,946 BTU/hr.

### WATER/AIR SPLIT

**GANTRY COOLING**

The gantry is cooled with chilled water in a closed loop connection from the heat exchanger. The heat exchanger cabinet is cooled with chilled water in a closed loop connection from an outdoor cooling unit. The ambient air temperature range required for the outdoor cooling unit is -22° to 122° (-40° to 122° with flow heater option). BTU/hr to air (exhaust) is 102,364.

### AIR-COOLED

**AIR-COOLED GANTRY**

The air-cooled gantry has integrated cooling fans for air intake and air exhaust. Room air is used as cooling air. The required air intake temperature is 64.4 to 86°F. The required air flow rate through the gantry is 70,629 cubic feet/hour. Heat dissipation into the air is 44,357 BTU/hr. The rating capacity of the room air conditioner has to take into account the structural conditions (ex. windows, building & room thermal insulation, room size, room volume, etc.) of the scan room to ensure that the temperature range of air needed for the system is maintained.
## SOMATOM X.CITE SPECIFICATIONS

### VERTICAL RADIATION SCATTER

<table>
<thead>
<tr>
<th></th>
<th>78.7</th>
<th>59.1</th>
<th>39.4</th>
<th>19.7</th>
<th>0.0</th>
<th>−19.7</th>
<th>−39.4</th>
<th>−59.1</th>
<th>−78.7</th>
<th>−98.4</th>
<th>−118.2</th>
<th>−137.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>59.1</td>
<td>0.040</td>
<td>0.030</td>
<td>0.073</td>
<td>0.024</td>
<td>0.009</td>
<td>0.184</td>
<td>0.238</td>
<td>0.054</td>
<td>0.040</td>
<td>0.028</td>
<td>0.023</td>
<td>0.017</td>
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<tr>
<td>39.4</td>
<td>0.024</td>
<td>0.073</td>
<td>0.047</td>
<td>0.036</td>
<td>1.076</td>
<td>0.069</td>
<td>0.048</td>
<td>0.033</td>
<td>0.033</td>
<td>0.033</td>
<td>0.033</td>
<td>0.033</td>
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<tr>
<td>19.7</td>
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<td>0.079</td>
<td>1.070</td>
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<td>0.171</td>
<td>0.087</td>
<td>0.031</td>
<td>0.033</td>
<td>0.033</td>
<td>0.033</td>
<td>0.033</td>
<td>0.033</td>
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<tr>
<td>0.0</td>
<td>0.041</td>
<td>0.074</td>
<td>2.282</td>
<td>0.043</td>
<td>0.080</td>
<td>0.245</td>
<td>0.054</td>
<td>0.031</td>
<td>0.023</td>
<td>0.020</td>
<td>0.017</td>
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<tr>
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<td>0.029</td>
<td>0.028</td>
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**SOMATOM X.CITE**

VERTICAL LOCAL DOSE DISTRIBUTION
MEASUREMENT IN microGray/mAs

STRAY RADIATION IS INDICATED FOR THE VERTICAL PLANE
ON THE BASIS OF THE SCANNER COORDINATE SYSTEM
(INTERSECTION OF SCANNER AXIS WITH SCAN PLANE) AT
THE MAXIMUM TUBE VOLTAGE OF 150 kV AND THE
MAXIMUM TOTAL COLLIMATION WIDTH OF 64 x 0.6 mm
(38.4 mm). A CYLINDRICAL PMMA PHANTOM, 32 cm IN
DIAMETER, 15 CM ±1 CM LONG IS CENTERED IN THE
SCAN PLANE. A 500 cm³ DOSE CHAMBER IS USED FOR
THE MEASUREMENTS.

### HORIZONTAL RADIATION SCATTER

<table>
<thead>
<tr>
<th></th>
<th>78.7</th>
<th>59.1</th>
<th>39.4</th>
<th>19.7</th>
<th>0.0</th>
<th>−19.7</th>
<th>−39.4</th>
<th>−59.1</th>
<th>−78.7</th>
<th>−98.4</th>
<th>−118.2</th>
<th>−137.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>59.1</td>
<td>0.316</td>
<td>0.020</td>
<td>0.008</td>
<td>0.023</td>
<td>0.023</td>
<td>0.010</td>
<td>0.037</td>
<td>0.048</td>
<td>0.025</td>
<td>0.020</td>
<td>0.015</td>
<td>0.019</td>
</tr>
<tr>
<td>39.4</td>
<td>0.046</td>
<td>0.067</td>
<td>0.045</td>
<td>0.036</td>
<td>1.085</td>
<td>0.069</td>
<td>0.043</td>
<td>0.025</td>
<td>0.020</td>
<td>0.015</td>
<td>0.016</td>
<td>0.016</td>
</tr>
<tr>
<td>19.7</td>
<td>0.002</td>
<td>0.071</td>
<td>1.771</td>
<td>0.437</td>
<td>0.170</td>
<td>0.083</td>
<td>0.040</td>
<td>0.031</td>
<td>0.020</td>
<td>0.017</td>
<td>0.017</td>
<td>0.017</td>
</tr>
<tr>
<td>0.0</td>
<td>0.041</td>
<td>0.074</td>
<td>2.282</td>
<td>0.043</td>
<td>0.080</td>
<td>0.245</td>
<td>0.054</td>
<td>0.031</td>
<td>0.023</td>
<td>0.020</td>
<td>0.017</td>
<td>0.017</td>
</tr>
<tr>
<td>−19.7</td>
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<td>0.083</td>
<td>0.040</td>
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<td>0.017</td>
<td>0.017</td>
<td>0.017</td>
</tr>
<tr>
<td>−39.4</td>
<td>0.040</td>
<td>0.063</td>
<td>0.042</td>
<td>0.000</td>
<td>0.000</td>
<td>0.040</td>
<td>1.077</td>
<td>0.071</td>
<td>0.029</td>
<td>0.026</td>
<td>0.015</td>
<td>0.016</td>
</tr>
<tr>
<td>−59.1</td>
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<td>0.021</td>
<td>0.008</td>
<td>0.029</td>
<td>0.030</td>
<td>0.111</td>
<td>0.036</td>
<td>0.028</td>
<td>0.026</td>
<td>0.020</td>
<td>0.018</td>
<td>0.018</td>
</tr>
</tbody>
</table>

**SOMATOM X.CITE**

HORIZONTAL LOCAL DOSE DISTRIBUTION
MEASUREMENT IN microGray/mAs

STRAY RADIATION IS INDICATED FOR THE HORIZONTAL
PLANE ON THE BASIS OF THE SCANNER COORDINATE
SYSTEM (INTERSECTION OF SCANNER AXIS WITH SCAN
PLANE) AT THE MAXIMUM TUBE VOLTAGE OF 150 kV AND
THE MAXIMUM TOTAL COLLIMATION WIDTH OF 64 x 0.6
mm (38.4 mm). A CYLINDRICAL PMMA PHANTOM, 32 cm
IN DIAMETER, 15 CM ±1 CM LONG IS CENTERED IN THE
SCAN PLANE. A 500 cm³ DOSE CHAMBER IS USED FOR
THE MEASUREMENTS.
## Somatom X.Cite Specifications

### Environmental Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Temperature</td>
<td>Minimum 64.4°F to 86°F Maximum</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>20% to 75%</td>
</tr>
<tr>
<td>Absolute Humidity</td>
<td>Maximum 30 g/m³ (No condensation at any time)</td>
</tr>
<tr>
<td>Temperature Gradient</td>
<td>Maximum 6 Kelvin per hour</td>
</tr>
<tr>
<td>Barometric Pressure</td>
<td>11.6 to 15.4 PSI</td>
</tr>
<tr>
<td>Installation Altitude</td>
<td>Maximum 6562 ft. A.S.L</td>
</tr>
</tbody>
</table>

Exterior air vents should be equipped with a filtration system of the filter class MERV 8 to filter dust particles >10 μm.

The room air should be protected against contamination by hydrogen sulphide, even in small amounts. If a danger of such contamination exists, corrective actions have to be taken, e.g., extractor fans, siphon, modification of ventilation intake, etc.

### Noise Level

<table>
<thead>
<tr>
<th>System Component</th>
<th>Decibel Level (at 3'-3&quot; Distance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gantry</td>
<td>≤70</td>
</tr>
<tr>
<td>Patient Table</td>
<td>≤60</td>
</tr>
<tr>
<td>IRS Tower</td>
<td>≤50</td>
</tr>
<tr>
<td>UPS</td>
<td>≤48</td>
</tr>
<tr>
<td>Heat Exchanger – Water/Air Split</td>
<td>&lt;60</td>
</tr>
</tbody>
</table>

1) Noise depends on the room temperature and the processor load.

### Remote System Diagnostics

Siemens Remote Services (SRS) requires a connection between the SRS remote server and Siemens systems via remote local area network access, to ensure the uptime of your system. A customer VPN capable firewall or other VPN appliance is preferred.