



## TECHNICAL SPECIFICATIONS

### Installation Requirements

Phase:	Single
Voltage:	90 - 264 VAC/1300 watts peak
Frequency:	47 - 63 Hz
Battery Capacity:	Fully Charged - 2 Hours (typical)
Typical Usage:	110 - 120 V; 60 Hz
Noise:	60 dBA (1 meter distance from scanner bore) 65 dBA (scanner bore)

### Site Requirements

Operating Temperature:	15 °C to 35 °C
Storage Temperature:	-20 °C to 70 °C
Operating Altitude:	0 - 3010 m (0 - 10,000 ft)
Operating Humidity:	20 - 80 % non-condensing
Floor Flatness:	<+/- 0.120 inch (3 mm) per ft

### Geometry

Patient Opening:	32 cm
Image Field of View:	25 cm

### X-ray Generation

X-Ray Beam Shape:	Cone Beam
X-Ray Tube Voltage:	100, 120, 140 kV
X-Ray Tube Current:	1-7 mA
X-Ray Tube Cooling:	2 Minutes Max
Focal Spot Size:	1 mm x 1 mm
X-Ray Tube Type:	Fixed Anode

### X-Ray Detection

Detection System:	Solid-State Detectors
Main Detectors:	8 rows

### Connectivity

- 512 MB USB Memory Stick
- Gigabit Ethernet/Wireless (g)
- DICOM 3.1 compliant
- Compatible with Surgical Navigation, HIS, RIS, PACS

### CTI Dose

Scan Techniques for all CTDI Dose specifications are at 120 kV, 14 mAs, 2 second scan time, and 10 mm aperture. Dose is demonstrated with CTDI Methodology in compliance with Federal Regulation 21 CFR 1020.33(c). Measurements were only made with the head phantom due to the small CereTom aperture.

CTDI<sub>w</sub> = 41 mGy (average over 20 seconds)

### Non Contrast CT (Axial)

Rotation Time:	1 sec, 2 sec, 4 sec, 6 sec
Max Scan Range:	64 cm
Translate Time:	1 sec
Slice Thickness:	8 x 1.25 mm
Number of Slices per Scan:	8
Image Reconstruction Time:	1 sec/image

### CT Angiography (Helical)

Rotation Time:	1 sec
Max Scan Range:	64 cm
Max Scan Time:	64 sec
Scan Start Time Delay Range:	0 to 100 sec
Helical Scan Pitch:	1
Image Reconstruction Time:	1 sec/image
Slice Thickness:	8 x 1.25 mm

### CT Perfusion (Axial)

Rotation Time:	1 sec
Scan Range:	1 cm
Scan Time:	30 - 45 sec
Slice Thickness:	10 mm
Scan Results:	MTT/CBF/CBV
kV:	100 (only)

### Image Quality

Noise STD Less Than:	0.3 %
Low Contrast Detectability:	3 mm at 0.3 %

Measurement Basis: 140 kV, 14 mAs, 10 mm slice thickness, 8 inch CATPHAN Phantom, 49.5 mGy. Dose is measured in the center of the CTDI phantom using a pencil probe with a 10 cm chamber length (±15 % tolerance)

### High Contrast Spatial Resolution

Soft Tissue Kernel  
0.65 mm limiting resolution  
3.8 lp/cm @ 50 % MTF  
6.1 lp/cm @ 10 % MTF  
7.0 lp/cm @ 0 % MTF

### High Contrast Spatial Resolution

High Resolution Kernel  
0.35 mm limiting resolution  
9.6 lp/cm @ 50 % MTF  
12.5 lp/cm @ 10 % MTF  
15.0 lp/cm @ 0 % MTF

MTF calculated from a one-dimensional Fourier transform of the point spread function using pixel data around a 0.3 mm tungsten wire at isocenter.

Reconstruction Matrix:	512 x 512
Picture Element (Pixel) Size:	0.49 mm