**Generator**

Maximum output: ............50kw
MA range: ..................30mA~420mA
KV switch: ..........................90KV, 120KV, 140KV

**Detector**

Material: .........................Solid-State GOS
Number of elements: ........16, 128
Active elements per slice: .....672
Detector arrangement: .........24rows
Slip ring: ..........................Capacitive -1.1 Gbps transfer rate
Scan collimation: .................16x1.5mm, 12x1.5mm, 10x1.5mm,
16x0.75mm, 12x0.75mm, 10 x 0.75mm,
8x0.75mm, 2x0.75mm, 4x0.75mm
Data acquisition rate: ........1160, 2320, 4640 views/rotation
Image quality:
Spatial resolution: ..............15.0 lp/cm @ cut-off [512X512 matrix,
120KV, 250mAs, FOV 50mm, 12mm, ED,
System Phantom, 22.38 mGy]
Low contrast resolution: ........4.0 mm @ 0.3% [120kVp, 250 mAs, 9mm
250mm FOV, USA filter, 39.8mGy surface,
20 cm CATPHAN phantom]
Noise: .............................0.35%
[120kVp, 250mA, 9mm, 250mm FOV, SA filter, 20 cm water equivalent phantom]
Absorption range: ..............-1024 to +3072 Hoursfield units
Absorption rate: ................98%
CTDI: ...............................[120KV, 180mA, 1.0s, 16*1.5mm]
Head: ..............................15.8 mGy/100mAs surface
14.3 mGy/100mAs Center
Body: ...............................9.6 mGy/100mAs surface
4.6 mGy/100mAs Center
Phantom:
1. Tower phantom (7inch, 10inch) for system calibration
2. Step phantom for system calibration
3. Philips System Phantom for QA purpose

**X-Ray Tube**

Anode storage capacity: ..........5.0 MHU
Focal spots: .....................0.5x1.3mm (small)
1.0x1.3mm (large)
Anode rotate speed: ..............6300 RPMISO
Center to focal spot distance: .....570mm
Focus to detector distance: ........1040mm
Anode continuous cooling rate: ....6kWMax.
Anode heat dissipation rate: .......9.6kW (815 kHU/min)
Cooling Mode: .....................oil cooling

Dynamic Focal Spot (DFS) doubles the data sampling density effectively doubling the number of detectors and providing high spatial resolution in axial and spiral scanning.

Beam fan angle: .................52 degree
Collimator type: ..................lead, 4mm.
Filter: ..............................(Ti (Thickness: 1.2mm) + Teflon
(Thickness: 2mm)) equiv 6.68mm Al

**Gantry System**

Gantry aperture: .................700mm (700mm±10mm)
Gantry tilt: ..................+/30° (0.5°increments) accuracy +/- 2°
Scan speed(s/360°): ..............0.5s, 0.6s, 0.75s, 1.0s, 1.5s, 2s (Partial scan speed: 0.33s for 240)
Scan localizer: ....................(Laser positioning lamp) sagittal and transverse localizer

**Patient Table System**

**Longitudinal Motion**

Manual stroke: ...............1580 mm
Scannable range: ............1500 mm
Max scan range: .............1500 mm
Speed: ..........................0.1 to 100 mm/sec.
Position accuracy: ..........±0.25 mm

**Vertical Motion**

Range: ..........................430 to 970 mm above floor; 1.0 inc
Table load capacity: ..........200 kg (440 lbs.) with 0.25mm z-axis accuracy
Speed: .........................9mm~15mm/sec.
Floating tabletop: ..........Carbon-fiber tabletop with foot pedal and push button table brake release

**Scan and Image Acquisition**

**Scout Scanning**

Scan orientation: PA, AP, LAT
Scan range: ........50m~1500mm
Scan speed: ........100mm/sec.
FOV variable: ........50-500mm

**Spiral Scanning**

Multiple, bi-directional, contiguous slices acquired simultaneously with continuous table movement during scans.
Spiral exposure: .... Up to 100 sec. of uninterrupted spiral scanning (Power<36kW, acquisition time max = 102s, 36kW<Power<42kW, acquisition time max = 80s, Power>42kW, acquisition time max = 60s)
Spiral pitch: ........0.5 to 1.5 (user selectable 0.1 inc or auto pitch factor 0.5, 0.6, 0.67, 0.86, 1.0, 1.2, 1.5)
Slice thickness: .... 0.75mm, 1mm, 1.5mm, 2mm, 2.5mm, 3mm, 4mm,
5mm, 6mm, 7mm, 8mm, 9mm, 10mm

**Axial Scanning**

- Multiple-slice scan with up to 16 contiguous slices acquired simultaneously with incremental table movement between scans.
- Fused modes for reconstructing partial volume artifacts free thick slices from thin slice acquisition.
- Slice thickness: 0.75mm, 1mm, 1.5mm, 2mm, 2.5mm, 3mm, 4mm,
5mm, 6mm, 7mm, 8mm, 9mm and 12mm.

**Dynamic Multi-scanning**

Multiple (continuous) axial scanning without table movement for fast dynamic contrast study.
Dynamic scan: ........1s, 2s, 3s
Cycle time: ..............0.6s
Scan times: ........0.5, 0.6, 0.75, 1, 1.5, 2 seconds for full 360° scans

**Manual Scanning**
places slice-by-slice scans under operator, triggered by enable button or foot pedal.
Console Computer

Dell Precision™ T5400 workstation
Operating system: Windows XP
CPU frequency: >=2GHz (Xeon processor)
Graphic processor: 1 GPU
Memory: 8GB
Hard disk capability: 750GB
Max. storage of images: Storage capacity >= 400,000
DVD — RW driver: 7500 images of 512 matrix/per 4.7GB Disk with embedded DICOM viewer
User interface: CH & EN
Monitor: 19’ LCD
Monitor resolution matrix: 1280x1024
DICOM 3.0 configuration: DICOM Print/Store; DICOM send
Option configurations: DICOM MPPS/DICOM Modality Worklist (HIS/RIS)
Connectivity: 10/100/1000Mbps (10/100/1000BaseT)
UPS: APC UPS for console 1000VA, 670W, 4.5A

CT Site Planning

Dimensions & Weight
Gantry: 2244mm(L) x 890mm(W) x 1920mm(H)
Gantry weight: <=1900kg
Gantry package: 2370mm(L) x 1030mm(W) x 2250mm(H)
Couch: 2420mm(L) x 575mm(W) x 1055mm(H)
Couch weight: <=430kg
Couch package: 2570mm(L) x 970mm(W) x 1230mm(H)
Console table: 1400mm(L) x 800mm(W) x 760mm(H)

Power Supply Requirement
Power capacity: 80KVA
Input voltage: 3-phase 4-line (with isolate transformer), power supply from these options:
200/208/220/230/240/380/400/415/440/460VAC
Voltage variation: tolerance ±+10%
Drop with loading: ±5% of the rating
3-phase unbalance: ±5%
Frequency: 50Hz/60Hz±1Hz
Grounding resistance: Independent Grounding
Resistance <4Ω; Common Grounding Resistance <1Ω

Environment requirements
Minimum area of scan room: 18 m2 Min.
Area of operating room: 4.8 m2
Recommended room size: 20 m2
Minimum height of ceiling: 2300 mm
Temperature of scan room: 18ºC~24ºC
Temperature of control room: 15ºC~30ºC
Humidity of scan room: 30%~60%
Humidity of control room: 20%~80%
Atmospheric pressure: 70kPa~106kPa
Temperature of transportation and storage: -20ºC~+55ºC Shock is less than 10G with package
Humidity of transportation and storage: 10%~90% (no-condensing)
Atmospheric pressure: 50kPa~106kPa
Running noise: <70dB(A) (1 meter distance)
Heat dissipation:
Gantry: 26,638 BTU/hr
Computer: 2,561 BTU/hr