Trusted Performance.
Smart Investment.

80 detector row Ultra Helical CT
High performance, highly economical
Increased productivity and patient safety
Maximum clinical capabilities

Are you looking for a CT scanner that helps provide better care and safer imaging in a compact, affordable package? The Aquilion Lightning is an 80 detector row scanner that delivers.

The system is designed to operate reliably and efficiently in a busy environment, producing high quality images.

Aquilion Lightning can be configured and in field upgraded from 40-80-160* slices.

Aquilion Lightning – a smart investment.

*coneXact double slice reconstruction
High performance, highly economical

The Aquilion Lightning employs cutting-edge technology to optimize patient care and to accelerate clinical decision-making. Innovative features ensure that you can acquire high-quality images routinely at very low patient dose.

New PUREViSION Detector

The system’s 80 row 0.5 mm elements balance image quality, speed and patient dose delivering isotropic images in all planes.
Ultra Helical Scanning

Shifting from 64 to 80 detector rows with up to 160* slices with the Aquilion Lightning results in shorter scan times and higher quality imaging.

*coneXact double slice reconstruction
Helping you economize on space and energy consumption

Aquilion Lightning has been thoughtfully engineered to meet today’s economic challenges. With a gantry design focusing on smaller installation space and lower energy consumption, Aquilion Lightning provides you more space to work in.

* Option
** With short couch
Power saving

Aquilion Lightning incorporates a host of innovative adaptive power management technologies, helping you to decrease energy consumption to reduce your running costs while minimizing your environmental footprint.
Increased productivity and patient safety

Aquilion Lightning incorporates the latest hardware, software and reconstruction technologies allowing you to keep pace with your busy workload while maintaining the best image quality.

The system provides streamlined workflow and easy patient setup. A fast and efficient examination with automated minimal dose selection ensures both optimal imaging results and patient experience.

- **Exam Plan**
  - **Protocol selection**
    After patient registration Aquilion Lightning selects the correct adult or child protocols automatically.
  - **Dose check**
    Aquilion Lightning helps ensure that the radiation dose limit you defined cannot be exceeded to avoid unintended high dose levels.

- **Scan**
  - **SUREExposure 3D**
    This fully integrated automatic exposure control ensures optimum image quality and patient dose.
  - **Real-time imaging**
    The system provides real-time imaging during the scan allowing you to monitor the result instantaneously – a valuable tool for saving scan time.

- **Contrast Management**
  - **SUREkV selection**
    SUREkV automatically uses the lowest kV setting for CTA examinations.
AIDR 3D Enhanced
Our Adaptive Iterative Dose Reduction (AIDR) technology can be applied to all examinations resulting in dose reductions.

Fast reconstruction*
With a reconstruction speed of up to 50 images per second* at full resolution, high patient throughput is facilitated.

*Option
Fast and efficient patient setup

The Aquilion Lightning gantry features design innovations improving the scan experience for patients while providing excellent operability and work safety for the technician.

The i-Station display provides child-friendly exam instructions and gives operators feedback for breath-holding, ECG, scan parameters and patient ID.

The spacious 780 mm wide bore and 470 mm wide patient couch allow comfortable scanning for large patients.

The couch top can be lowered to a minimum height of 312 mm for facilitating patient loading and transfer from a wheelchair or bed.
Tech Assist Lateral Slide™ offers safety and comfort by providing motorized positioning of the patient, reducing the risk of injury to the patient and the technologist.

*Option
Optimized clinical workflow

Aquilion Lightning is designed to handle busy workloads with ease. The system’s intuitive user interface guides you step by step through the examination with modern and easy-to-understand graphics and animations. A host of intelligent functions enable a fast and efficient workflow.

HybridView

Save time and storage space with our hybrid reconstruction algorithms. These advanced reconstruction algorithms provide sharp lung images and excellent soft tissue resolution in the one image. Reading times are shortened as you only need to concentrate on a single series to make a diagnosis.
Automated kV selection

Standard on Aquilion Lightning SUREkV automates kV selection based on patient’s size and clinical task. As part of our SURE Exposure technology, this function can help optimize the use of iodine contrast.

<table>
<thead>
<tr>
<th>kV</th>
<th>mA</th>
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<tbody>
<tr>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>120</td>
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<td>135</td>
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Zero-click workflows

Protocol integrated applications make complex exams easy with robust and reproducible results.

These include:
- SURE Subtraction automated bone subtraction
- Multiview automated MPR and MIP reconstruction
- AIDR 3D enhanced reconstruction
Maximum clinical capabilities

Aquilion Lightning offers our comprehensive suite of Adaptive Diagnostic imaging solutions that simplify complex protocols and provide consistent quality results.

Dose-neutral metal artifact reduction with SEMAR

Our Single Energy Metal Artifact Reduction (SEMAR) utilizes a sophisticated reconstruction technique to reduce artifacts caused by metal and improves visualization of the implant, supporting bone, and adjacent soft tissues.
Solving your clinical challenge

Automated bone and calcium subtraction
Metal artifact reduction
Tissue visualization
Prospective scanning
Arrhythmia detection

Subtraction CTA*
Superior visualization in CTA with true subtraction of bone and calcification.

SURE Subtraction Lung*
Automated Iodine Maps as a result of advanced registration and SURE Subtraction Lung algorithm.
Neuro imaging

Superb brain image quality with clear grey-white matter differentiation and significantly reduced artifacts.

CBP for evaluation of patients with cerebrovascular disease.
Chest imaging

Fast and low-dose scanning of the chest allowing for superb image quality even in challenging patients with hybrid FC.
Abdominal imaging

Reduce metal artifacts in all your patients independent of the scan acquisition using SEMAR.
Automated kV selection based on patient's size and clinical task with SURE kV.
MSK imaging

Excellent bone resolution with 0.5mm PUREVISION Detector technology.

Reduce metal artifacts without an increase in dose with SEMAR.
Outstanding image quality and fast reconstruction with fully iterative reconstruction; AIDR 3D.
**Main specifications**

<table>
<thead>
<tr>
<th>Detector</th>
<th>PUREVISION detector technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 rows of 0.5 mm</td>
<td></td>
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<table>
<thead>
<tr>
<th>Gantry</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Rotation time</td>
<td>0.6 s / 0.5 s*</td>
</tr>
<tr>
<td>Generator</td>
<td>50.4 kW / 112 kW equivalent with AIDR 3D</td>
</tr>
<tr>
<td>Bore aperture</td>
<td>78 cm</td>
</tr>
<tr>
<td>Tilt</td>
<td>± 30°</td>
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</table>

<table>
<thead>
<tr>
<th>Patient couch</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Max. load</td>
<td>300 kg (660 lbs)</td>
</tr>
<tr>
<td>Max. scan range</td>
<td>150 – 200 cm**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reconstruction speed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Helical</td>
<td>20 fps / 50 fps**</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Reconstruction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Iterative reconstruction</td>
<td>AIDR 3D Enhanced</td>
</tr>
<tr>
<td>FOV</td>
<td>500 mm</td>
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</table>

<table>
<thead>
<tr>
<th>Installation</th>
<th></th>
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<tbody>
<tr>
<td>Power capacity</td>
<td>72 kVA</td>
</tr>
<tr>
<td>Min. installation space</td>
<td>9.8 m² (short couch)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Image quality</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial resolution</td>
<td>20.0 lp/cm at MTF 0%**</td>
</tr>
</tbody>
</table>

**Disclaimer:** Any reference to X-ray exposure is intended as a reference guideline only. The guidelines in this document do not substitute for the judgment of a healthcare provider. Each scan requires medical judgment by the healthcare provider about exposing the patient to ionizing radiation. In clinical practice, the use of the AIDR 3D features may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. Due to local regulatory processes, some of the products included in this brochure may not be available in each country. Please contact your sales representative for the most current information.

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* Option

** For reference
Aquilion Lightning

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