Maximize Outcome. Minimize Dose.

SOMATOM Definition AS

International version. Not for distribution in the US.
SOMATOM Definition AS

Maximize Outcome. Minimize Dose.
With the SOMATOM Definition AS, Siemens has established a scanner that for the first time is capable of adapting to virtually every patient and every clinical question. With its great flexibility, the system has proven to be the right choice when it comes to high-end CT imaging – no matter whether it is set to be used for routine diagnostic imaging, high-end cardiac settings, or to add functional and material information to morphology with Dual Energy or dynamic datasets. Furthermore, the system can be tailored to fit specialized clinical settings like high-end surgery, a two room acute care solution with a Sliding Gantry, a dedicated radio therapy planning scenario with a large bore, or a highly efficient interventional setting with outstanding 3D capabilities. All this comes along with Siemens' unique FAST CARE technology. Outstanding clinical results and more time with your patients: it’s simply made to maximize clinical outcomes and patient-centric productivity.

In addition, the system is designed to minimize dose. From the very beginning, one of the most important topics for Siemens CT has been patient safety. In Computed Tomography, patient safety translates primarily into dose reduction. Over the years, Siemens has been highly successful in integrating many innovations into the Siemens scanners that significantly reduce radiation dose in comparison to other systems available on the CT market. Examples for this are the Adaptive Dose Shield or SAFIRE* with the capability to reduce dose by up to 60%. Along with the CARE features like CARE kV – the industry’s first automated exam-specific kV setting – the system gives users every means to minimize dose and consequently take best care of their patients’ well-being.

*In clinical practice, the use of SAFIRE 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. The following test method was used to determine a 54 to 60% dose reduction when using the SAFIRE reconstruction software: noise, CT numbers, homogeneity, low-contrast resolution, and high contrast resolution were assessed in a Gammex 438 phantom. Low dose data reconstructed with SAFIRE showed the same image quality compared to full dose data based on this test. Data on file.
Product Benefits
- Single-Click Readiness
- Your Single-Source for Right Dose
- Open for all Patients
- Added Benefits of syngo.via

Clinical Images

Core Technologies
- Unique STRATON X-ray Tube
- z-Sharp Technology
- CARE kV

Technical Information
- Customer Services
- Specifications
Product Benefits
Single-Click Readiness

Equipped with FAST CARE technology and Single Source Dual Energy, the SOMATOM Definition AS leads to faster and more reliable clinical results.

FAST CARE technology
To give medical professionals more time to take better care of their patients, our new FAST CARE technology accelerates workflow and lowers radiation exposure to previously unseen levels – to help users leverage untapped potential in patient-centric productivity. FAST CARE technology offers comprehensive software packages adjusted to customers’ needs and clinical fields.

FAST CARE technology – Be FAST
With the Fully Assisting Scanner Technologies (FAST) features, typically time-consuming and complex procedures during the scan process are simplified and automated, not only improving workflow efficiency, but optimizing the overall clinical outcome by creating reproducible results. This makes diagnosis more reliable and reduces patient burden through streamlined examinations. The technology helps the user in every step of the scan procedure – no matter if it is preparation, scanning, or reconstruction.

Efficient scan and recon planning
FAST Planning prepares the scan and recon settings based on the characteristics of the chosen organ. This not only reduces the efforts needed to set up an examination, but makes them highly reproducible and less error-prone. With FAST Adjust, parameters can be simply adjusted or, when in doubt, defined just with the push of a button. The FAST Scan Assistant offers a user-friendly, streamlined interface for adjusting and adapting scan parameters depending on the individual patient.
Focus on the patient, not the system
Unfortunately, complexity can become a source of inefficiency or, even worse, errors. Typical examples are spine exams. With conventional CT scanners, this means a lot of cumbersome, manual preparation steps, which make spine recon especially time-consuming. This is simplified to ideally just a single click with FAST Spine, saving not only valuable time, but making these tasks more reliable. At the end of the day, the SOMATOM Definition AS with FAST CARE technology helps to save highly valuable time, so that it can be spent on diagnosis and the interaction with patients.

Guided routine in cardiac CT
One of the most sophisticated examinations is cardiac CT. The SOMATOM Definition AS provides ideal specifications for cardiac CT with a rotation speed as low as 0.30 s and dedicated scan modes like Adaptive ECG Pulsing or the Adaptive Cardio Sequence. Additionally, FAST CARE technology offers a unique feature to support this particular workflow. The FAST Cardio Wizard uses a step-by-step approach showing how to achieve an optimal cardiac scan, either for training purposes or in a real-life situation, thus helping to set institutional standards and uniform quality.

Single Source Dual Energy as easy as a spiral scan
Dual energy makes it possible to add functional and material information to morphology. Now the combination of a routine-ready scan mode and enhanced low-kV image quality is available on every SOMATOM Definition AS. This offers new applications and opportunities to expand both the clinical and the research portfolio in everyday practice. And even better, the Dual Energy scan mode is as easy as a spiral scan.
Your Single Source for Right Dose

Equipped with a variety of unique dose protection and reduction features, the SOMATOM Definition AS will lead you to excellent clinical results taking CARE of the right dose.

**FAST CARE technology – Take CARE**
Applying the lowest radiation dose possible is of utmost importance both for users, and, of course, patients. With the Combined Applications to Reduce Exposure (CARE) the SOMATOM Definition AS offers an outstanding dose protection portfolio to achieve highest dose protection and reduce radiation to a level as low as possible. This satisfies the desire for the lowest possible radiation exposure while on the other hand delivering excellent image quality. And all this is fully automated and integrated into the scan process.

**Completing the picture for patient-centric imaging with CARE kV**
For decades, Siemens has put the patient in the center of the examination, especially with regard to radiation protection. CARE Dose4D™ has proven its qualities for many years with its unique real-time dose modulation that guarantees an unparalleled combination of outstanding image quality at minimum dose for every patient. A new dimension has been added with CARE kV. It automatically sets the appropriate voltage for the examination and adjusts other scan parameters according to the individual patient and selected examination type, thus delivering certainty of having highest dose efficiency in every scan.

**Dedicated pediatric imaging with 70 kV protocols**
Besides the ability to offer our customers the combination of maximum speed and exceptional image quality with no cooling delays, the STRATON X-ray tube has another unique feature: CARE Child, a dedicated pediatric CT imaging tool which includes 70 kV scan modes and specific CARE Dose4D curves and protocols, comes as a standard feature with every SOMATOM Definition AS. This makes it possible to scan even the most vulnerable patients, if necessary, with a good conscience.
In clinical practice, the use of SAIFIRE 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. The following test method was used to determine a 4 to 60% dose reduction when using the SAFIRE reconstruction software: noise, CT numbers, homogeneity, low-contrast resolution, and high-contrast resolution were assessed in a Gammex 438 phantom. Low-dose data reconstructed with SAFIRE showed the same image quality compared to full-dose data based on this test. Data on file.

Iterative reconstruction with SAFIRE
Iterative reconstruction can achieve significantly increased image quality with reduced dose. The further integration of raw data beyond the initial reconstruction process, however, posed considerable restrains regarding the computational power available – up to now: with Sinogram Affirmed Iterative Reconstruction – SAFIRE* – Siemens introduced a new and unique approach to iterative reconstruction. Raw data information is utilized to enhance the image quality or reduce dose. This is made possible by a new reconstruction algorithm, as well as an image reconstruction system, delivering the required reconstruction power.

Dose-optimized Dual Energy scan
In order to avoid doubling the dose, both scans of the Dual Energy scan are performed at approximately half the dose utilizing all dose reduction functionalities: e.g. CARE Dose4D, SAFIRE, and Adaptive Dose Shield. The result is a dose-optimized Dual Energy scan that helps to add functional and material information to morphology.

Organ-sensitive dose protection
Previous attempts at dose reduction were very successful but did not specifically take into consideration highly dose sensitive areas such as women’s breasts or the heart. Here, the SOMATOM Definition AS can selectively reduce exposure in sensitive areas with X-CARE. Furthermore, the gantry tilt protects dose sensitive organs like the eyes or the thyroid gland by moving them out of the x-ray beam in sequential or spiral scans. And finally, the Adaptive Dose Shield protects patients from unnecessary spiral over-radiation, which is crucial, for example, in cardiac examinations.
Open for all Patients

The outstanding flexibility of the SOMATOM Definition AS addresses the versatile needs of physicians and patients, thus offering a solution for every clinical demand.

Open for functional imaging
Dynamic imaging has become a new dimension in CT over recent years. With the innovative Adaptive 4D Spiral, the SOMATOM Definition AS offers whole brain perfusion or long-range CTAs. Able to cover up to 42 cm, it overcomes the limitations of a static detector design when imaging whole organs or regions. Furthermore, the system offers Siemens’ easy-to-use Dual Energy functionality with different clinical applications. This enables users to answer a wide range of diagnostic challenges and widen the clinical portfolio.

Open for every clinical demand
The SOMATOM Definition AS can be configured and customized to fit virtually any setting. Its full on-site upgradeability from 20- to 128-slice configuration permits specifying the system precisely to the customer’s clinical requirements and financial situation. It also gives investment protection and assurance to grow with future demands. With its small footprint and freely selectable air- or water-cooling, it perfectly adapts to every clinical setting, e.g. acute care where a sterile environment is of utmost importance.

Open for bariatric patients
No one should be excluded because of the limitations of a system. For bariatric patients, patient accommodation and power reserves are the key. Here, the SOMATOM Definition AS offers up to 80 cm bore diameter, 307 kg table load capacity, and a 100 kW power generator. All this results in great image quality, performance, and clinical efficiency.
Open for radiation therapy
Over recent years, computed tomography has become the preferred choice for virtual simulation. Radiation therapy is evolving towards more precise and more powerful treatment delivery techniques. With the SOMATOM Definition AS, Siemens offers an outstanding versatile large bore that fulfills the needs both of radiation therapy and general diagnostics. With the RT Pro Edition, dedicated features have been developed for high-end radiation therapy planning. On the other hand, the system can serve as a perfect back-up system for radiology if needed.

Open for specialized clinical settings
Nevertheless, there are clinical settings where a regular CT reaches barriers that seem to be insuperable. Not the SOMATOM Definition AS. The system can even be mounted as a Sliding Gantry, offering access to solutions such as two rooms being served with one gantry. Dedicated high-end surgery settings in combination with surgery tables can be realized, opening new paths into completely new directions. It enables high-resolution CT imaging to be utilized during surgical procedures without the need to move the anaesthetized patient.

Open for intervention
Intervention in CT has established itself in recent years. Over 30% of existing SOMATOM Definition AS customers use the Siemens’ unique intervention solution. It puts users in full control in any plane with 3D-guided interventions. Additionally, it delivers a more accurate overview of needle position and surrounding organs during difficult procedures. All this can be done without leaving the patient’s side, managing the entire procedure with just the touch of a button with i-Control. With 3D guided guidance for minimally invasive procedures, the system makes interventions more accurate, thus safer and, in the end, more efficient.
Added Benefits of *syngo*.via

Regardless of volume or disease, *syngo*.via helps in preparing cases, eases interdisciplinary collaboration, and helps generate a faster and more reliable diagnosis.

**syngo®.via for sustainable care**
As the number of chronic disease patients rises, the demand for high-quality, efficient care is increasing. *syngo*.via* is Siemens’ state-of-the-art imaging software, creating an exciting experience in efficiency and ease of use. *syngo*.via can help foster sustainable care by equipping physicians with workflows and applications for evaluating images from multiple modalities. In the case of cardiovascular CT, it makes possible a rule-out of coronary artery disease in less than a minute.

**Automated**
*syngo*.via helps physicians to analyze the individual case, prepares images, suggests an optimized workflow, and offers guidance when needed. For example, when a cardiac case is opened, the Automated Case Preparation has already pre-processed the images and displays them in the appropriate layout together with the right evaluation tools. Evaluation of the coronary vessels, the functional parameters, and the prepared calcium score can start immediately.

**Image networking**
*syngo*.via speeds up the way users connect and share information with clinical partners and patients – even on the go.** *syngo*.via’s client-server based nature supports a smooth, teamwork-like sharing of tasks, just as it is required in 3D labs and larger radiology departments. Images can be shared among multiple users at once, providing a sound basis for joint pre-procedural planning.
Fast answers
Using the SOMATOM Definition AS together with the CT Neuro Engine leads to unsurpassed workflow efficiency delivering fast answers to fundamental questions in stroke. These questions in stroke assessment vary: Is it caused by bleeding, what size and location has a possible clot, how big is the infarct and what does the blood flow look like in a dynamic way? The CT Neuro Engine offers a complete diagnostic stroke solution.

High precision and speed
Innovations such as whole brain CT Perfusion, Neuro BestContrast, or Dual Energy applications have dramatically changed the diagnostic approach for reading physicians by enabling new indications and improved times in the examination of patients with acute neurological diseases. In stroke evaluation, “time is brain.” The CT Neuro Engine helps users answer the key questions so they can decide on optimal treatment – with high precision and speed.

**Prerequisites include:** internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements, and adherence to local data security regulations.
Clinical Images
Cerebral CT –
Contrast enhanced axial images show a suspected meningioma extruding the pons and bilateral lacunar infarctions in the basal ganglia area.
System:
SOMATOM Definition AS+

Collimation:
32 x 1.2 mm

Scan time:
45.0 s

Scan length:
84 mm

Rotation time:
0.6 s

tube settings:
80 kV, 200 eff. mAs

CTDVol:
218.99 mGy

DLP:
2505 mGy cm

eff. dose:
5.3 mSv

Volume Perfusion CT – VPCT images show significantly reduced blood flow, along with a prolonged time to drain and a mean transit time with partially reduced blood volume in the left MCA territory.
system: SOMATOM Definition AS+
collimation: 128 x 0.6 mm
scan time: 3.5 s
scan length: 375.9 mm
rotation time: 0.5 s
tube settings: 100 kV, 90 eff. mAs
CTD1vol: 2.83 mGy
DLP: 116 mGy cm
eff. dose: 2.204 mSv

Sliding Gantry CT – allows a fast patient triage and emergency management, as for this injured young boy.
Polytrauma CT –
MPR images present multiple costal and spinal fractures with vertebral subluxation, a C2-fracture, and a right-sided pleural effusion with pulmonary atelectasis.
Spinal CT –
MPR images present a protruded disc with calcification at L4/5 and a bulging disc at L5/S1.
CT for Obesity –
MPR images show an abdominal hernia in an obese patient.
system:
SOMATOM Definition AS 64

collimation:
64 x 0.6 mm

scan time:
7.0 s

scan length:
118 mm

rotation time:
0.42 s

tube settings:
120 kV, 205 eff. mAs

CTD1vol:
13.92 mGy

DLP:
166 mGy cm

eff. dose:
2.32 mSv

Cardiac CT – VRT & Curved MPR images allow the exclusion of a coronary stenosis.
Cardiac CT – VRT & Curved MPR images reveal a stenosis in the mid-LAD.
system:
SOMATOM Definition AS+
collimation:
128 x 0.6 mm
scan time:
0.91 s
scan length:
175 mm
rotation time:
0.3 s
tube settings:
70 kV, 29 eff. mAs
CTDItvol:
0.26 mGy
DLP:
7 mGy cm
eff. dose:
0.23 mSv

CARE kV CT –
Excellently enhanced images,
using 70 kV, demonstrate
an aortic coarctation in an
8-year-old boy.
CARE kV CT –
Excellently enhanced images, using 70 kV and SAFIRE, allow reliable exclusion of a PE, although only 60 mL contrast was applied.
Whole Body CTA – VRT & MIP images show bilateral axillo-femoral bypasses – patent on the right and occluded on the left. An occlusion of left poplitean artery can also be clearly seen.
3D Interventional CT – VRT & MPR images demonstrate the RFA needle electrode in three dimensions, as it is accurately positioned into a liver tumor.
Monoenergetic CT – in comparison to images at 70 keV, those acquired at 130 keV show a significant reduction of metal artifacts, thus making possible a better evaluation of the fracture.
Dual Energy CT – 3D images of hands and feet, of a patient with chronic gout demonstrate extensive tophaceous deposits.

Nan Xi Shan Hospital, Guilin, P.R. China

system: SOMATOM Definition AS+
collimation: 128 x 0.6 mm
scan time: 5.0 s
scan length: 220.5 mm
rotation time: 1.0 s
tube settings: 80 kV / Sn 140 kV 178 / 43 eff. mAs
CTDvol: 3.32 / 4.46 mGy
DLP: 71 / 95 mGy cm
eff. dose: 0.06 / 0.08 mSv
Core Technology
Unique STRATON X-ray Tube

The unparalleled 0 MHU STRATON X-ray tube offers the combination of maximum speed and exceptional image quality eliminating the need for heat storage capacity at a compact design.

Revolutionary design
The core technology behind the SOMATOM Definition AS’ clinical excellence is the highly renowned STRATON™ tube with z-Sharp™. Its revolutionary design based on a direct anode cooling eliminates the need for heat storage and results in an unmatched compact design, thus allowing true temporal resolution of up to 150 ms.

High isotropic resolution of 0.33 m
The STRATON tube provides true isotropic resolution of 0.33 mm at any scan and rotation speed, and at any position within the scan field. This, for instance, allows to significantly reduce motion artifacts of the heart to perform accurate stenosis measurements or stent planning with outstanding precision. It facilitates fast whole body sub-mm imaging at highest pitch revealing outstanding details in long-range vascular studies or polytrauma patients. With its fast pitch of 1.5, a scan range of 2 meters is covered in approximately 10 seconds.
No cooling delays
The specific construction of the anode plate constitutes an outer wall of the rotating tube housing; it is therefore in direct contact with the cooling oil and can be efficiently cooled. This way, very high power of up to 100 kW and a very high heat dissipation rate of 7.3 MHU/min are achieved. This eliminates the need for heat storage in the anode, which consequently has a heat storage capacity close to zero (0.6 MHU). Thanks to the fast cooling, the system can perform long high-power scans in rapid succession without cooling delays. The STRATON tube completely cools down to its original state within 20 seconds.

Wide spectrum of selectable tube voltages – 70 kV
The STRATON tube offers a spectrum of selectable tube voltages from 70 kV up to 140 kV. With 70 kV, Siemens has introduced a tube voltage for optimized X-ray spectra also in the smallest patients. Low tube voltages are especially beneficial for saving dose in small patients and children who are most sensitive to radiation. It ideally partners with CARE kV, another core technology of the system.
With the STRATON’s revolutionary z-Sharp technology, resolution can be significantly increased – getting double the information in half the time and half the dose.

z-Sharp Technology

The acquisition of up to 128 slices per rotation with the SOMATOM Definition AS is possible through STRATON X-ray tube’s double z-sampling technology (z-Sharp). The tube’s electron beam is accurately and rapidly deflected by an electromagnetic field, similar to a cathode-ray tube. Two focal spots are created on the anode plate that alternate precisely 4,640 times per second in the z-direction. This double z-sampling enables two X-ray beams to pass through the body in two different angles, virtually simultaneously.

Double information in half the time and half the dose

z-Sharp doubles the X-ray projections reaching each detector element. The two overlapping projections result in an oversampling in z-direction. The resulting measurements interleave half a detector slice width, doubling the scan information. Siemens’ proprietary, high-speed UFC detector enables a virtually simultaneous readout of two projections for each detector element. Compared to conventional CT acquisition technology, each measurement requires half the time and half the dose.
Higher resolution and reduction of artifacts
The simultaneous acquisition leads to twice the number of overlapping slices, which makes possible an increase of longitudinal resolution and reduction of spiral artifacts independent of the selected pitch. Besides being more effective in increasing the resolution in z-direction, this approach is also much more flexible, since it can be utilized in virtually all scan modes. The result is the acquisition of twice the number of slices with less artifacts and higher resolution.

Eliminating windmill-artifacts
Prevention of artifacts by z-Sharp’s double z-sampling technology also facilitates neurology examinations. Up to now, windmill-artifacts often occurred in spiral CT examinations of the head, for example in CT angiography examinations for aneurysms, of the neck, and of the thorax. Without imposing restrictions to pitch, z-Sharp technology eliminates windmill-artifacts that originate when the X-ray beam penetrates the edges of bones. CTAs of the carotid arteries and the circle of Willis can now be routinely performed at a high pitch.
CARE kV

The STRATON tube in combination with FAST CARE technology provides unique features to optimize image quality and reduce dose.

Best clinical results in high-demanding environments
FAST Adjust helps to set the right system parameters like scan time, pitch, or tube current to achieve best clinical results. This is not always easy - especially when working in highly demanding environments such as an emergency department or with bariatric or pediatric patients. With an easy-to-understand and easy-to-use interface, parameters can be simply adjusted or, when in doubt, defined just with the push of a button.

CARE kV for optimized kV setting
Following the scan process, the right kV setting plays an important role in achieving optimal clinical outcome. Changing kV values, however, always comes with the need to adapt all other values according to the respective patient. Up to now, this had to be done manually and required a lot of expertise, so that the full potential for dose reduction often remained untapped. Siemens’ unique CARE kV breaks this barrier. It automatically suggests kV and eff. mAs to optimize the contrast-to-noise ratio (CNR) of the image while limiting the applied dose.
Automated kV setting for best image quality
The system’s proposal is based on the attenuation as measured in the topogram and the user-defined acquisition type (non-contrast, bone, soft tissue, vascular). The main goal is to keep the CNR, the key parameter for image quality, the same. For each patient exam, the topogram and the corresponding attenuation information are used to determine the optimal kV. Even in bariatric patients, CARE kV sets the parameters to make full use of the system’s reserves to optimize CNR and acquire the best image quality possible for the patients.

Dedicated pediatric scanner settings
Reducing the tube voltage helps to reduce radiation exposure to patients. While other tubes are limited to a minimum voltage setting of 80 kV, with the STRATON tube the voltage range is extended as low as 70 kV. This helps to further reduce radiation dose to small pediatric or neonate patients. These dedicated pediatric scan modes, bundled with CARE kV and specific pediatric CARE Dose4D curves and protocols, take care of the well-being of our youngest patients. Overall with these features, an additional dose reduction of up to 60% is possible.

Fully customizable
CARE kV is, of course, fully customizable, meaning that users can not only set their individual quality reference mAs, but can also choose the degree of system assistance between none, semi, and full. As the complete SOMATOM Definition AS system, it offers full flexibility to users and adapts to their specific needs and clinical challenges.

Example 1: For a contrast media enhanced vessel examination of a small patient, CARE kV suggests a scan with 70 kV and sets the other values accordingly.

Example 2: For a non-contrast examination of a large patient, CARE kV suggests a scan with 140 kV and sets the other values accordingly.
Customer Services

A range of innovative service solutions that provide the answers to best support users in raising quality and productivity in healthcare.

Maintainable healthcare
Providing economically viable healthcare means efficiently and productively delivering the highest quality care possible. This is why Siemens works closely with its customers, offering experience and innovative solutions to increase uptime, improve performance, and optimize workflow for maintainable healthcare. This means raised quality, better productivity, and greater cost-effectiveness.

Increased availability with System Services
Peak performances and higher uptime are achieved by proactively enabling system availability with innovative service solutions. Siemens Remote Services, for example, establishes a highly efficient, secure, and certified remote connection between CT systems and Siemens’ service organization for remote monitoring and remote fixing in order to maximize availability and performance.

Proactive maintenance
With the Siemens Guardian Program™ including TubeGuard, potential tube downtime can be predicted ahead of time. This allows healthcare institutions to schedule maintenance without impairing regular patient hours for higher system efficiency.
Improved operation with User Services
Personalized education and training are the key to more expertise, greater efficiency, and higher productivity of the system operators. In addition, dedicated consultancy services facilitate further improvement of system usage. Optimize CARE CT, for example, is a comprehensive program to help customers reduce radiation in CT scanning. The program provides expert insights, methods, and tools that help customers develop a customized roadmap towards improving their CT dose.

Optimized utilization with Management Services
Increased workflow optimization and better productivity through process optimization and consulting help improve efficiency, system utilization, and return on investment. Utilization Management Consulting combines quantitative data from the Utilization Management report with technical experience and radiological workflow management. Customers can then learn about their strengths and improvement potential across all professional groups.
SOMATOM Definition AS

Maximize Outcome. Minimize Dose.

Single-Click Readiness
FAST CARE technology and Single Source Dual Energy for better results
• Efficient scan and recon planning
• Guided scan and recon procedures
• Single Source Dual Energy as easy as a spiral scan

Your Single Source for Right Dose
Dose protection and reduction features taking CARE of the right dose
• Automated voltage setting with excellent image quality
• Dedicated pediatric imaging with 70 kV protocols
• Iterative reconstruction with SAFIRE

Open for all Patients
Outstanding flexibility offers a solution for every clinical demand
• Full on-site upgradeability
• Functional imaging with Adaptive 4D Spiral and Dual Energy
• Variety of solutions for different specialized clinical settings
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Detector</td>
<td>Ultra Fast Ceramic (UFC)</td>
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<tr>
<td>Number of acquired slices</td>
<td>20, 40, 64, 128</td>
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<tr>
<td>Rotation time</td>
<td>up to 0.3 s</td>
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<tr>
<td>Temporal resolution</td>
<td>up to 150 ms</td>
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<tr>
<td>Generator power</td>
<td>80, 100 kW</td>
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<tr>
<td>kV steps</td>
<td>70, 80, 100, 120, 140 kV</td>
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<tr>
<td>Isotropic resolution</td>
<td>0.33 mm</td>
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<tr>
<td>Cross-plane resolution</td>
<td>0.33 mm</td>
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<tr>
<td>Max. pitch</td>
<td>up to 1.5; up to 192 mm/s coverage</td>
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<tr>
<td>Table load</td>
<td>up to 307 kg / 676 lbs</td>
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<tr>
<td>Gantry opening</td>
<td>78 cm (80 cm optional)</td>
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