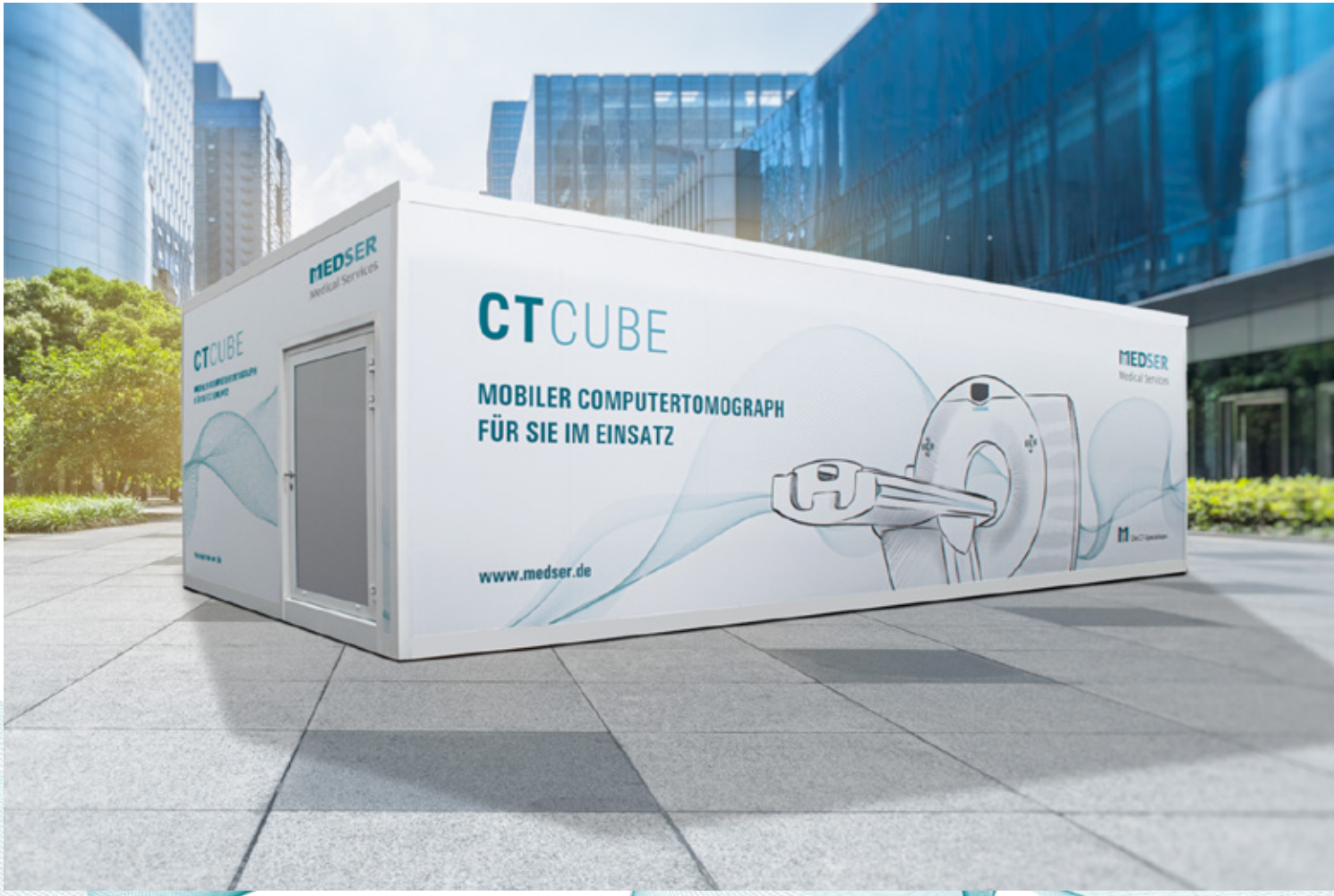
MEDSER
Medical Services

CTCUBE

Mobile CT solution for
clinics and practices



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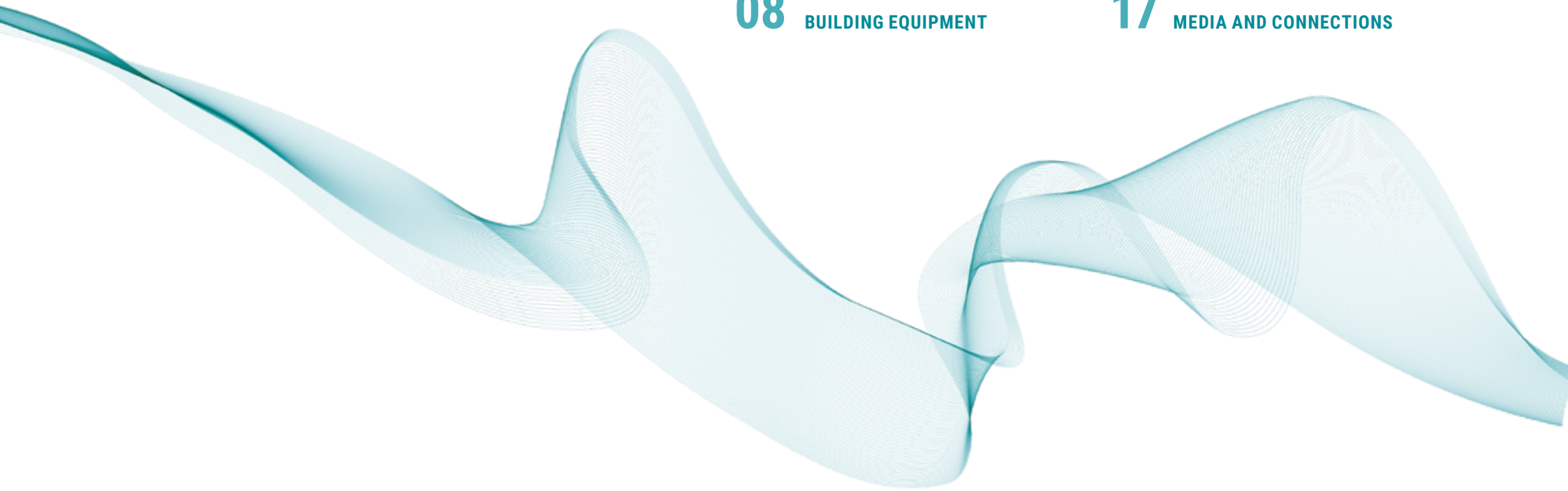
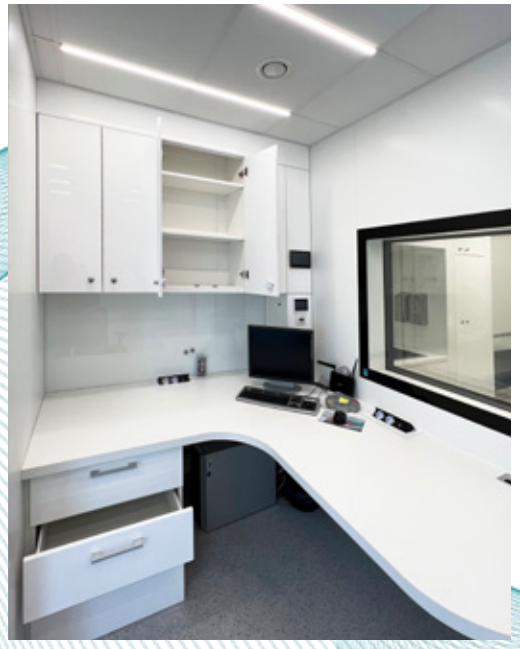
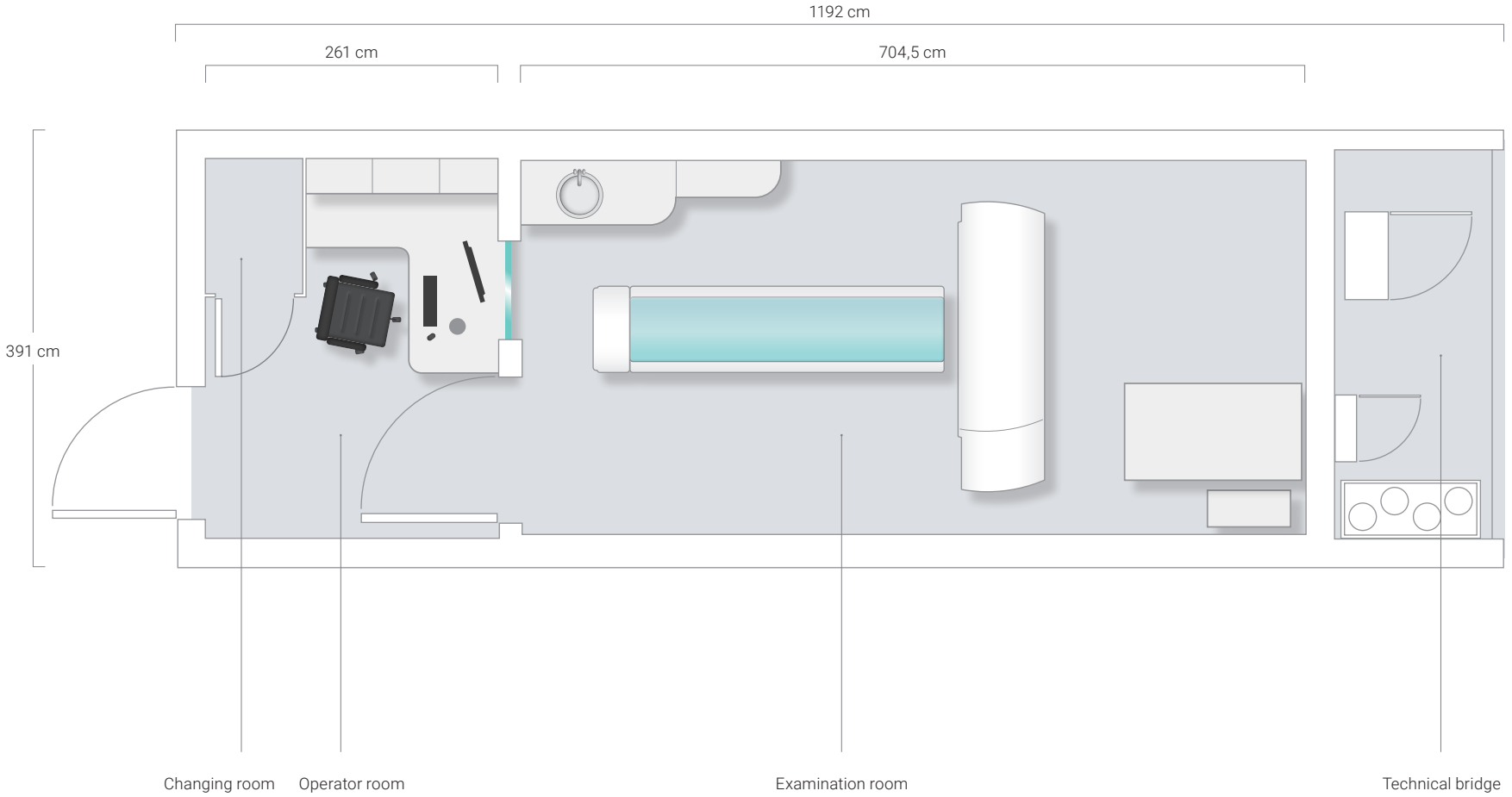


SIEMENS
SOMATOM

CTCUBE
MOBILER COMPUTERTOMOGRAPH
FÜR SIE IM EINSATZ
www.medser.de
MEDSER
Medical Services
Die CT-Spezialisten



BUILDING SPECIFICATION



BUILDING EQUIPMENT

EXAMINATION ROOM

Siemens® Definition AS 64 with examination table
Accessories such as positioning aids, phantome, etc. are easily accessible in built-in cupboards in the examination room.

Contrast medium injector
Not part of the rental property and can be supplied separately, including consumables, at an additional cost, or can be provided by the tenant.

Consumables
The consumables must be provided by the customer.

CONTROL ROOM

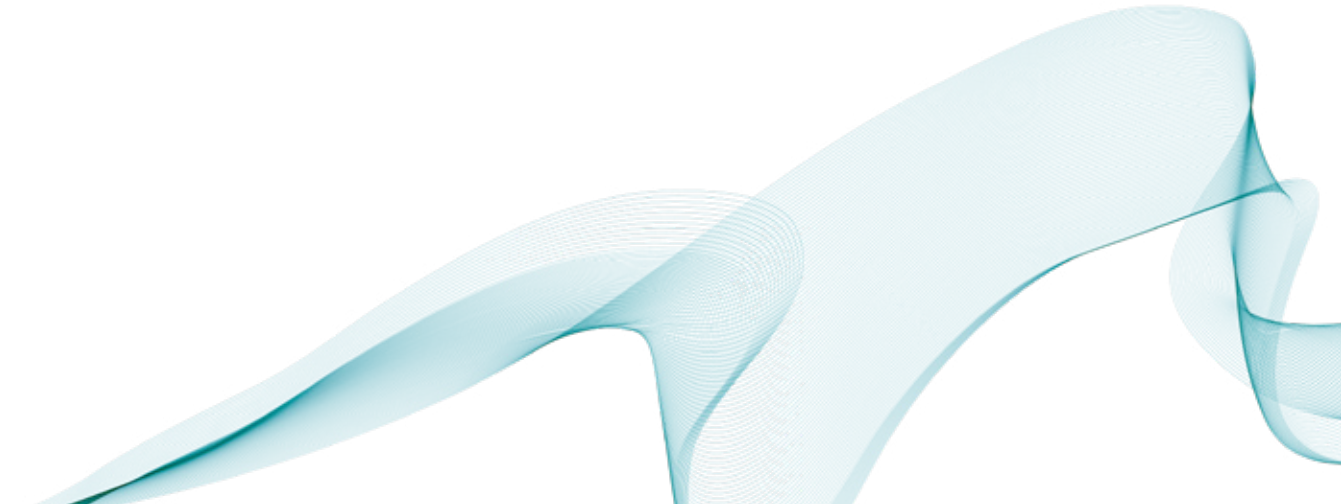
Built-in cupboards and shelves
for documents, utensils and instruction manuals

CT console

Control panel for light and climate

Emergency switch
The system has two emergency shutdown system:

De-energizing the system: In an emergency, the system is switched off, which can lead to damage to the system and loss of data.



CT SYSTEM SPECIFICATION

DEVICE: 64-Slice CT scanner
MODEL: SIEMENS® DEFINITION AS 64 #219

CONDITION: excellent – technical & optical
TUBE: Straton MX-P46

Gantry
Aperture: 78 cm
Scan Field: 50 cm
Tilt: +/- 30°
Rotational times: 0.33, 0.5, 1.0 s

Detector
Number of detector rows: 32
Elements: 23.552
Channels per slice: 1.472
Number of projections: up to 4.608 (1/360°)
Max. slices / rotation: 64
Field of view: 50, 65 HD, 80 Extended cm

Image Reconstruction
Reconstruction time: up to 40 images/s
Reconstruction slice widths: as low as 0.33 mm
Slice increment: 0.1–10 mm
Pitch factor (Volume Pitch): up to 1.5
Scan length: max. 160 cm
Spiral scan time: max. 100 s

Tube Assembly
Tube: STRATON
Tube current range: 20–800 mA
Tube voltages: 70, 80, 100, 120, 140 kV
Anode heat storage capacity:
50 MHU (cooling rate of 7.3 MHU/min)
Focal Spot size according to IEC 60336:
0.7 x 0.7 mm/7°, 0.9 x 1.1 mm/7°

Patient Table
Max. table load: 220 kg
Table speed: 2–200 mm/s
Vertical table travel range: 48–92 cm (at table top)
Vertical travel speed: 20–50 mm/s
Scanable range (metal-free): 160 cm

Installation
Examination room temperature range: 18–28° C
Heat dissipation air-cooled: max. 12 kW
Heat dissipation water-cooled: max. 12 kW
Relative air humidity (no condensation): 20–75%

Surface area for installation: 18 m² (24 m² incl. equipment room)
Generator power: 100 kW
Nominal line frequency: 50; 60 Hz
Max. power connection: <70 kVA
Power consumption system on standby: <4.0 kVA
Power consumption scanning: 125 kVA (at 80 kW)
140 kVA (at 100 kW)
Nominal voltage: 3/N~: 380-480 V in 20 V steps

Included Spacifications

CARE Applications

- Adaptive Dose Shield
- CARE Filter
- CARE Topo
- CARE Dose4D
  - Automated real-time tube current adjustment for best diagnostic image quality at lowest possible dose, independent of patient size and anatomy.
  - Fully automated dose management for adults and children with up to 60 % dose reduction
- CARE Bolus CT

FAST CARE Technology

- Faster workflow
- Lower radiation exposure
- Highly reproducible results
- Easily adjustable parameters

System Software

- Syngo Examination
- Syngo Viewing
- Syngo Filming
- Syngo Archiving & Network
- Syngo Service Solutions
- Image Filter
- SureView
- SOMATOM LifeNet
- Video Capture and Editing Tool
- Scan Protocol Assistant
- E-Logbook

Applications on Syngo Acquisition Workplace

- Real-time MPR
- Syngo 3D SSD (Surface Shaded Display)
- Syngo Volume Calculation
- Syngo Dynamic Evaluation
- Syngo VRT (Volume Rendering Technique)
- CT-Angiography
- Neuro BestContrast
- 4D Noise Reduction
- Adaptive Signal Boost
- Adaptive Signal Boost
- WorkStream4D

Slice upgradeability

- Full on-site slice configuration from 20 to 128

System Hardware

- Multislice UFC (Ultra Fast Ceramic) Detector
- Z-Sharp Technology
- 0 MHU STRATON X-ray tube

Extra Specifications

Options

- 3D advanced editor
- 3D Boneremoval
- 3D Minimum Intensity Projection
- 3D multiplanar reformatting
- 3D shaded surface display
- 3D volume editor
- 3D Volume Rendering
- Bolus-Track
- Calcium scoring
- Cardio Pro
- Cardio Retro
- CARE Dose Profile
- CTApp Cardiio Bestphase Finding
- CTApp CVF Phaseviewer
- CTApp Minimum Intensity Projection
- CTApp Volume Rendering
- Dicom modality performed procedure step support
- DICOM SR-Viewer
- Dicom Worklist
- MR-Support-i
- Osteo Evaluation
- Volume Workflow

LOCATION REQUIREMENT

Area to be provided
An on-site inspection is recommended to assess the access road and determine the area to be provided. The area to be provided is 16,00 m x 6,00 m (l x w).

Underground
Basically, a solid base with a load capacity of 25,0 t is required. If the ground is unstable, additional reinforcement is required. For example, this can be done with concrete, pavement or road surface (bound materials).
The necessary forecourt to allow patient access to the CT via the side or front entrance door does not need special reinforcement.

Setup
There are two options for system delivery:

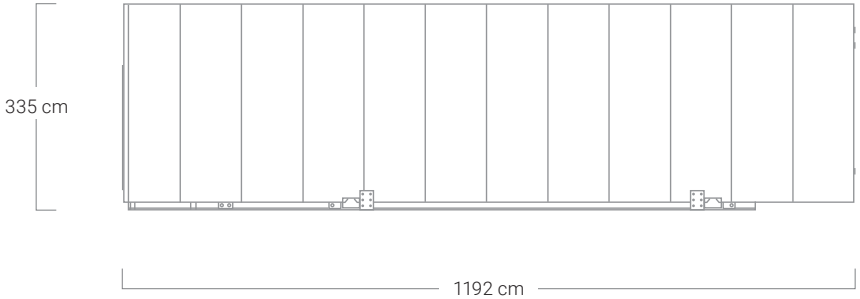
1st option:
With the help of the built-in hydraulic lifting system, the entire building (including the CT system) can be lifted in order to be loaded onto the low loader. Sufficient space in the longitudinal direction must be ensured (min. 40m). A 400V 3ph 32A CEE socket connection is required to supply the hydraulics with power.

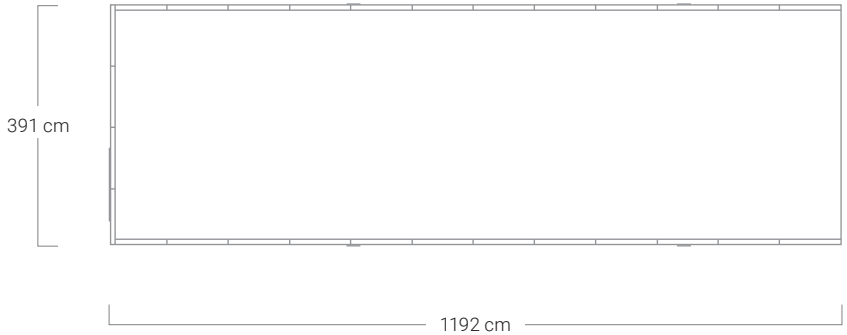
2nd option:
With the help of an additional truck crane, the building is craned from the truck low loader to the appropriate location. The additional space required for the crane must be taken into account here. (The lessee bears the costs for the crane rental.)

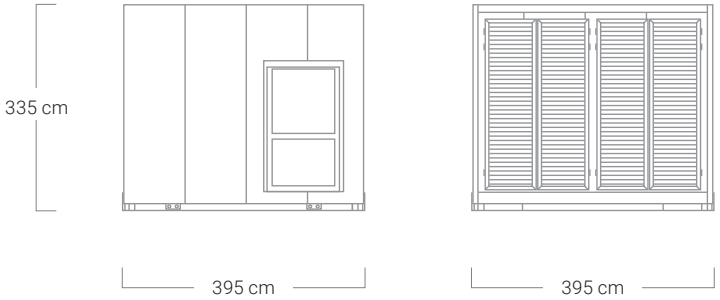
Site condition
The base must be flat and level to assure that the system can be easily positioned and trouble-free operated.
Unevenness should not exceed a gradient of 1%. In the case of larger bumps, gradients or inclinations, please be sure to contact MEDSER Medical Services.

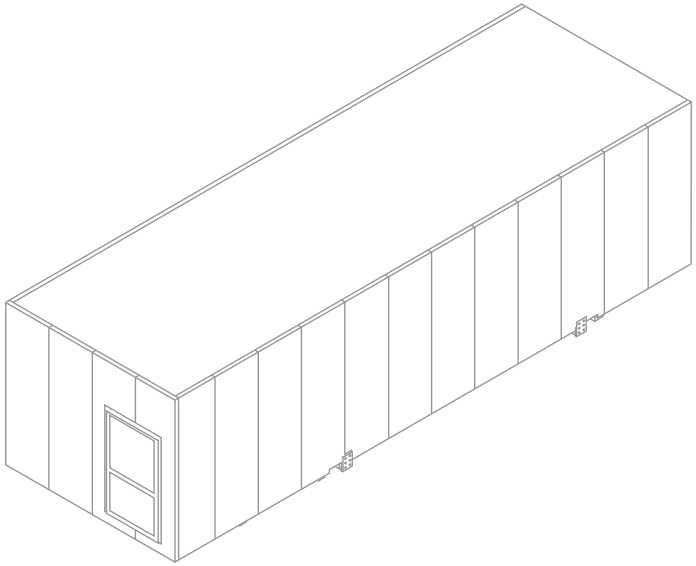
Access route
Access to the site must be passable for transport to and from the site with a low-loader including tractor (no curbstones and/or wall projections, free of snow and ice in winter).
Furthermore, the customer must ensure that no parked cars impede delivery and collection. If a crane should be necessary at the place of use, there must be sufficient space for the crane truck.

Basic dimensions

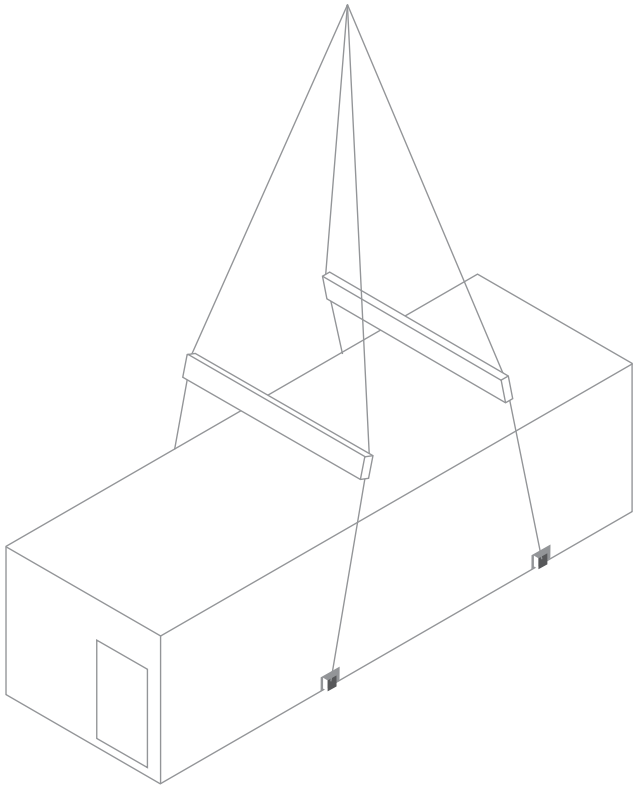


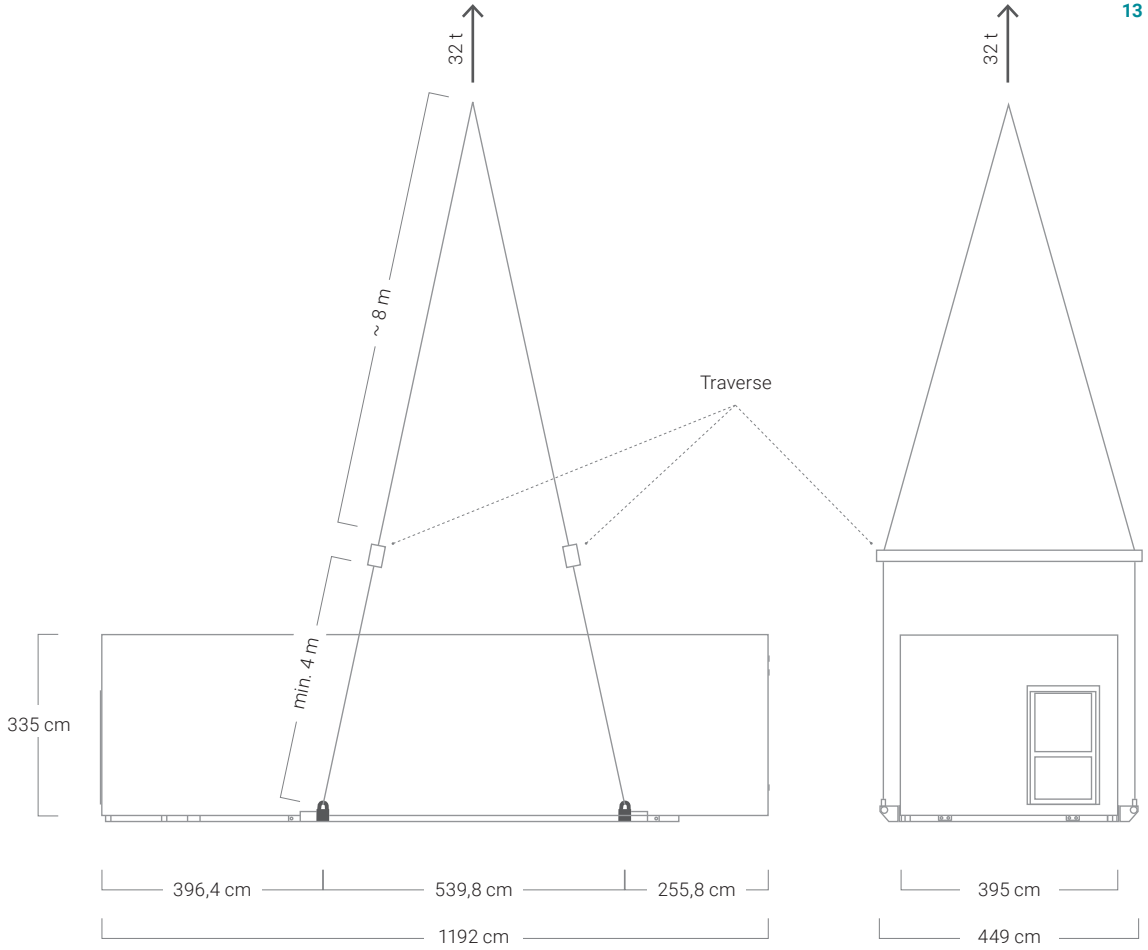


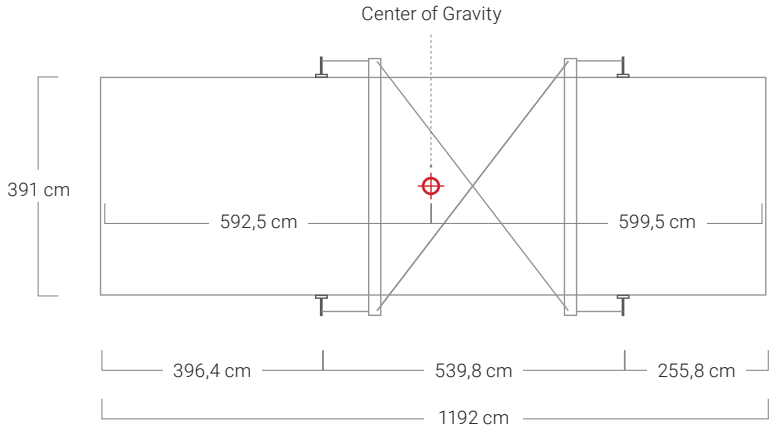




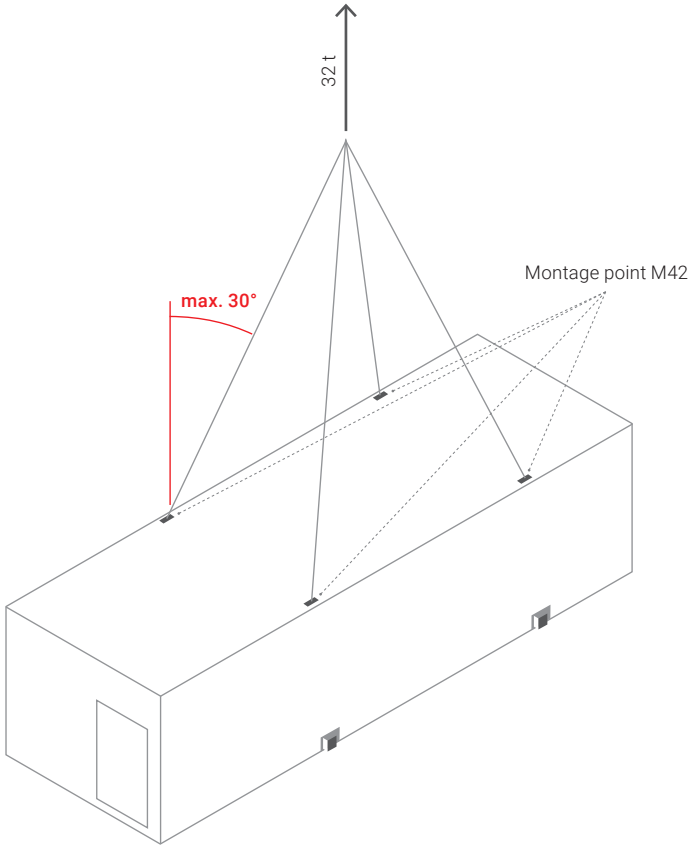
Craning – version I

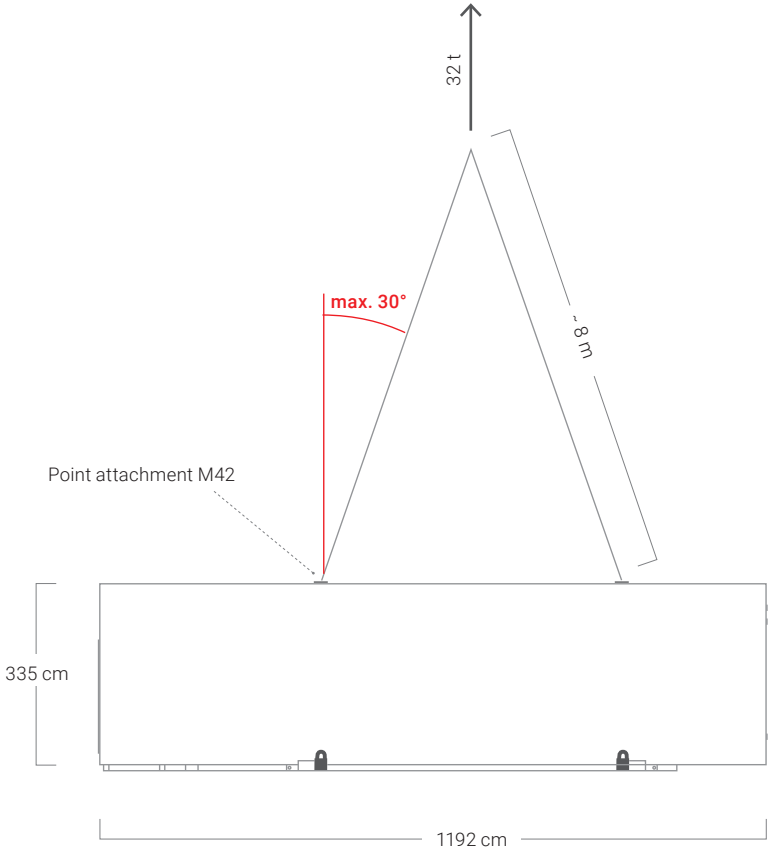


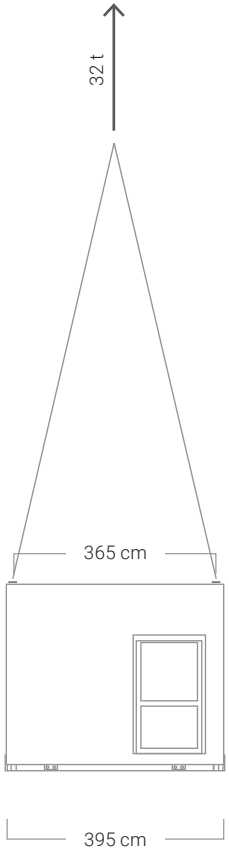


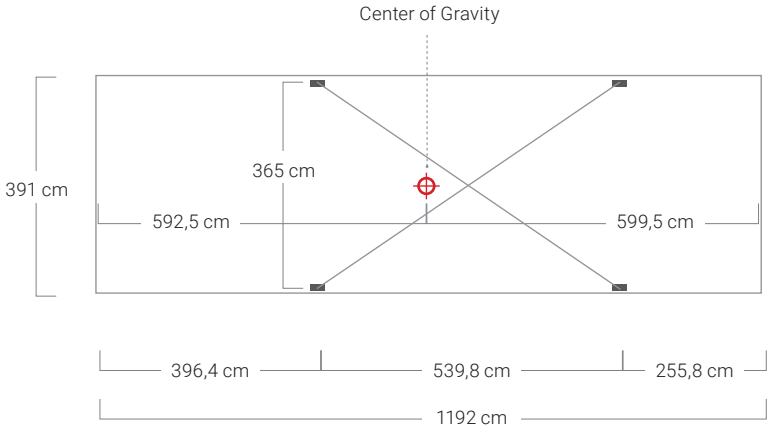


Craning – version II

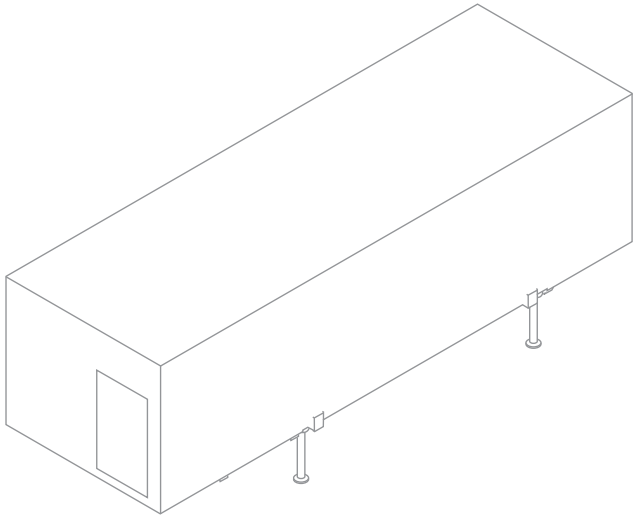


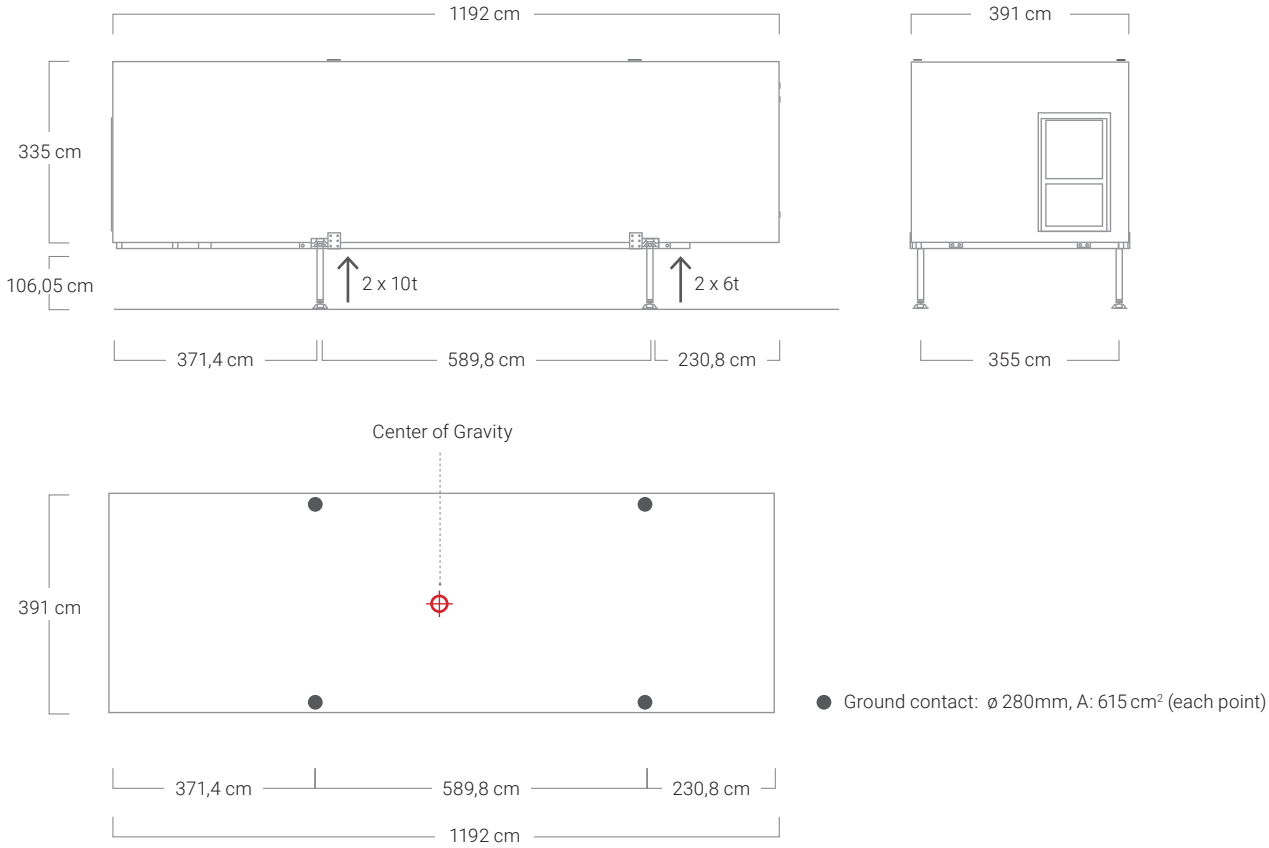




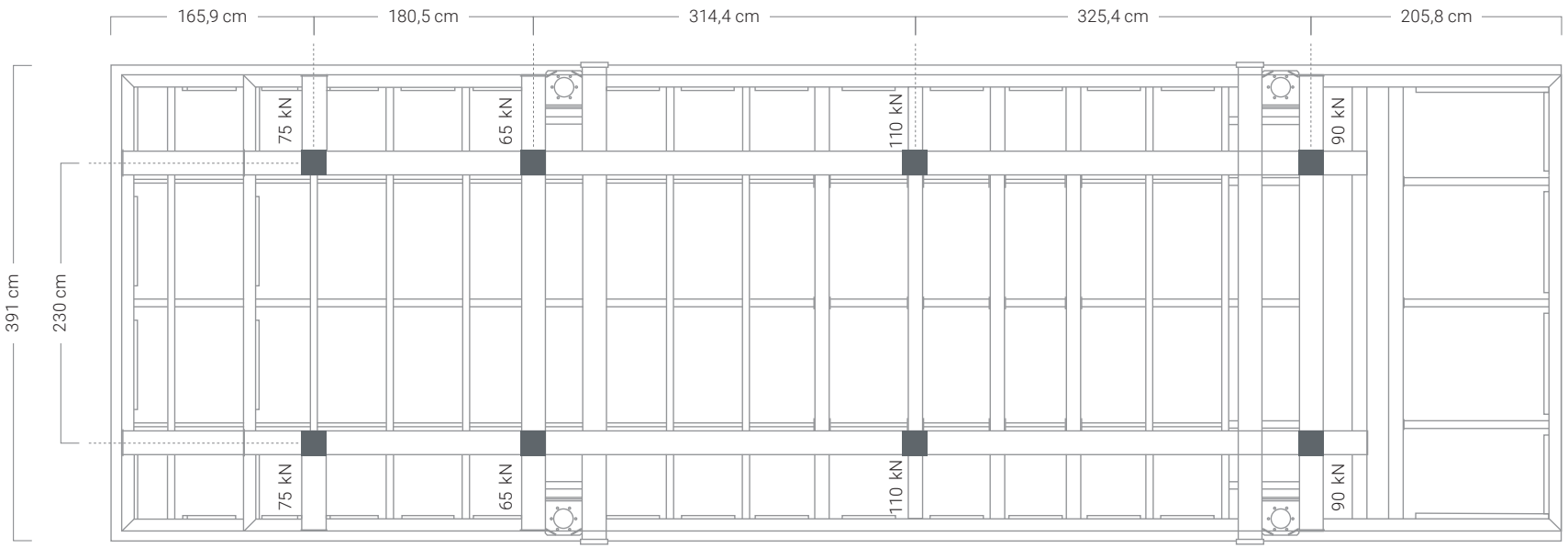


Hydraulic lifting system





Platform projection



Calculated ground loads (including snow load S_{char} = 1,0 kN/m²)

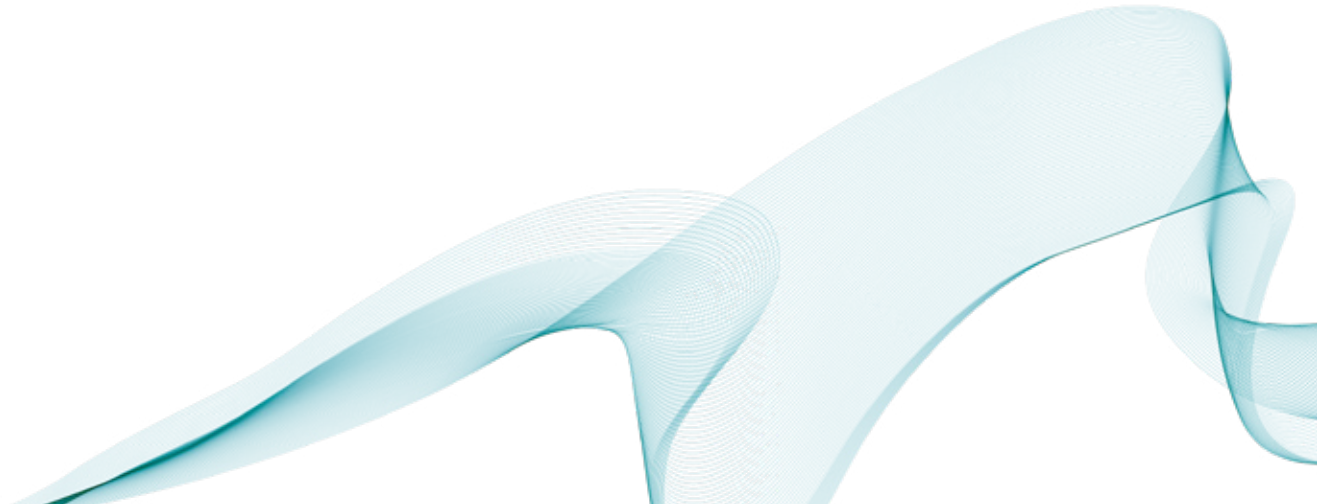
20 x 20 cm | Designed minimum ground contact

MEDIA AND CONNECTIONS

Electrical connections
- Power supply: 400 V
- Frequency: 50 Hz
- Power: 100 kVA
- Mains connection: 160A terminals
- Power cord: Must be provided by the customer
- Voltage Deviation: +/- 5%
- Frequency deviation: +/- 0.5 Hz
- Rotating field of the customer's connection: clockwise.
- Residual current circuit breaker is integrated in the container main circuit.

Network
- The system has a network connection for sending image data and storing or printing the images in the DICOM 3.0 format.
- The system-side network socket (type CAT 5) is located in the connection box (rear in the direction of travel)
- The end boxes are located in the service room.
- On the part of the customer, a connection via a freely accessible network socket (CAT 5 socket, RJ45 plug in) must be provided near the site or at the power connection.
- All measures that may be necessary (concerning hardware and software) for connecting the system to the network, are under the responsibility of the customer.
- The network cable must be provided by the customer.

Phone
- The phone must be provided by the customer .



MEDSER
Medical Services

MEDSER Medical Services GmbH & Co. KG
Seligenstädter Grund 13
63150 Heusenstamm
Germany

+49 (0) 6104 40884-12
vertrieb@medser.de

ct-cube.de