

moonRAY DUAL

English version

DATA SHEET REV.02 2023

MOONRAY DUAL

STANDARD CONFIGURATION

Product Code EMD I9M1 P



9"
IMAGE
INTENSIFIER

15 kW
ROTATING
ANODE



Stand features

SID: 1019 mm
Clearance: 819 mm
Arch depth: 670 mm
Motorised vertical excursion: 420 mm
Horizontal excursion: 200 mm
Wig-wag: $24^\circ \pm 1^\circ$
Orbital movement: $140^\circ (+92^\circ / -48^\circ)$
Rotational movement: $720^\circ (\pm 360^\circ)$
Stand length: 1898 mm
Stand width: 784 mm
Stand height: 1859 mm
C-arm weight: 328 kg
2 handles on C-arm for C-arm movement

Generator and anode features

High-frequency monoblock generator
Working voltage: 40 to 120 kV
Pulsed radiology: up to 120 mA
Snapshot radiology: up to 120 mA
Radiology with 3 dosimetric levels
Radiography: up to 150 mA
Working frequency: 0.5-1-2-4-6-12-25 fps
Maximum generator power: 15 kW
Rotating anode: up to 3000 rpm
Anode heat capacity: 150 KJoule (200 KHU)
Maximum continuous heat dissipation: 300 W
Filtration: 0.7 mm Al
focal spot: 0.3 mm and 0.6 mm
Nominal anode power: 5 kW (0.3mm); 17 kW (0.6mm)
Thermal capacity of X-ray complex: 1,600 KJoule (2,150 KHU)
HDS dissipation system

Detector and television chain characteristics of the stand

Gigabit-Ethernet CMOS camera:
Matrix: 1k x 1k pixels
IB 9"
3 fields of view
Nominal size: 23 -16-12 cm
Resolution fields: 52 - 58 - 68 Lp/cm
Max. resolution: 52 Lp/cm
DQE %: 65%.
Anti-scatter grid type: N17/70 IEC627 standard

Software GSE+

Digital matrix of dynamic images: 1k x 1k
Direct and automatic hard disk storage of dynamic sequences
Archiving at selectable frequency of 0.5-1-2-4-6-12 and 25 fps
Presentation of archived sequences as thumbnails, with recognition markers
Cine Loop' function for automatic review of dynamic sequences immediately at the end of capture, without the need for operator intervention. (Function can be activated/deactivated)
Possibility of selective deletion of individual sequences or complete sessions.
Possibility of simultaneously reviewing two different dynamic sequences or images stored on both monitors
Anatomical programmes

Collimators

Diaphragm with motorised movement and digital pre-view
Semi-transparent with digital pre-view

Safety systems and thermal status indicators

Dynamic digital X-ray tube temperature status indicator
Dynamic digital monoblock temperature indicator
Fluoroscopy timer with acoustic signal and manual reset
Luminous and acoustic exposure indicators

Trolley for display

2 x 19" B/W monitors
Monitor resolution: 1280 x 1024 pixels
Brightness: 1400 cd/m²
Contrast ratio: 1000:1
Cart weight: 123 kg

Digital memory

LIH (Last Image Hold) function
HD storage: automatic /manual
Memory capacity: up to 500,000 images
Archive divided by operating sessions, with multiple search keys
Display of archived images as thumbnails
Clipboard, for comparison of any image in memory with current images
Selective deletion of individual images or complete sessions
Export of images and sequences in formats: DICOM, BMP, AVI, SIMAD, (JPG*)



A Sago Medica Company

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Special Software Features

Inputting digital markers on monitor
Monitor measurement of lengths and angles
Insertion of text boxes within the image
Insertion of general comments on images

Dosimetric documentation

ADR (Automatic Dose Report)
DAP estimation software system
DAP (Product Area Dose) for each image/sequence
DAP report divided by radioscopy and radiography
Report printing on local medical printer (optional)
Export of report in digital mode, TXT - PDF - MDB format

Documentation of procedures and connectivity

Network card for standard TCP/IP connection
USB port for printer, compatible with Windows operating system
USB port
Integrated CD-ROM and DVD burner

Image processing

Digital image adjustment in real-time and post processing
Real-time or post-processing visualisation with grey inversion (B/W)
Digital zoom with image magnification factor
Digital image rotation
Digital high-low and right-left inversion
Digital Recursive Filter
Edge enhancement

Other features

Baked-coated metal surfaces with high-gloss finish
Removable grid

Optional Components

Camera DAP
Converter for video signal
Interface for external 'RX exposure in progress' signal light
Laser pointer integrated in Detector
Laser pointer integrated in the Generator
DVI 1k X 1k video output
C-Live Camera™
DICOM connection module: (STORAGE - PRINT - WORKLIST - QUERY & RETRIEVE - MASTER - DDR)
Remote Assistance Module
A6 or A4 thermal digital medical printer
Monitor 17" integrated on the stand
Monitor 19" on colour cart (with or without touch screen)
Sens-Or™ for patient distance detection
FDT system (Fast Dissipation Technology)

Training and technical information

User manual in digital format on a C-arm PC

Environmental operating conditions and power supply characteristics

Maximum operating temperature: +10°C to +40°C
Humidity: 10% ÷ 75%
Power supply: single-phase neutral to ground 230 Vac ± 10%; 50Hz
On request ground neutral supply 115 Vac ± 10%; 60Hz;
The Moonray system is connected to the mains power supply outside the isolation transformer via a 16 A/32 A EN60309

Certifications

The equipment is CE-marked (CE0051), complies with the EU Regulation 2017/745 concerning electromedical devices, Directive 2006/42/EC and complies with the provisions of EU directive 2013/59/Euratom.



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