

The *ddRAura S* is a space efficient, multifunctional, direct digital radiography system which performs all General Radiography studies on supine, seated and upright patients with high efficiency. It is extremely compact requiring minimal space with no compromise regarding features and quality. The system includes motorized vertical arm and SID adjustment. All other system positions are achieved manually, without much effort, using the push buttons on the control handle to release the electro-magnetic locks. The X-ray tube is always centered to the detector for fast, precise and convenient patient positioning.

Optionally, the system can be equipped with a Battery Assist Generator which allows it to operate without the need of a 3-Phase power supply; a single phase 230 VAC / 10 A or 110 VAC / 20 A socket is sufficient.

The 43 x 43 cm (17 x 17") amorphous silicon Flat Panel detector delivers excellent diagnostic image quality with 3.5 lp/mm spatial resolution at very low radiation dose. The *ddRAura S* includes an advanced 23" multi-language touch screen monitor which simplifies and organizes every aspect of the radiographic procedure. Furthermore, it includes remote monitoring capability to ensure high reliability.

### Technical Data

#### Stand

S-Arm rotation	-30 to +120° (150°), manual
Detector swivel range	± 45°
Central beam – floor – distance	45 to 165 cm, motorized
Source image distance (SID)	Variable: 100 to 180 cm, motorized
Tube rotation	± 90°
Off-detector imaging	Allows imaging on wireless detector or CR cassette
X-ray grids	Removable aluminum 85 L/cm 10:1, FD 150 FD 110 / 180 cm optional
Built-in AEC chamber	5-field ionization chamber



#### X-Ray HV Generator

Model	40kW/Battery	EMD EPS 50	EMD EPS 65
Max. power	40 kW Battery Assist	50 kW	65 kW
Frequency	40 kHz	up to 240 kHz	up to 240 kHz
kV range	40 to 150 kV	40 to 150 kV	40 to 150 kV
mA range	10-500 mA	10-630 mA	10-630 mA
Time range	1 to 6300 ms	1 to 10'000 ms	1 to 10'000 ms
mAs range	0.1 to 500 mAs	0.1 to 630 mAs	0.1 to 800 mAs
Power connection	1-Phase 110 / 208 / 230V	3 x 400 VAC	3 x 400 VAC
Automatic exposure control (AEC)	Yes	Yes	Yes

#### X-Ray Tube

Model	RAD14	RAD60	RAD92
Anode heat capacity	300 kHu	400 kHu	600 kHu
Dual Anode speed	2700/970 0rpm	2700/9700 rpm	2700/9700 rpm
Focal spot	0.6 / 1.2 mm	0.6 / 1.2 mm	0.6 / 1.2 mm
Target angle	12°	12°	12°
Target diameter	74 mm	100 mm	100 mm
Max. Anode cooling rate	1750 W / 60 kHu/min	100 kHu/min	140 kHu/min
Nominal X-ray tube voltage	40-150 kV	40-150 kV	40-150 kV
X-Ray Tube Housing heat content	1250 kHu	1500 kHu	1500 kHu
Nominal input power	32 / 77 kW	40 / 100 kW	40 / 100 kW

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#### Manual Collimator

Light power	White LED
Shutters	Manual operation (optional motorized or manual operation)
Integrated filters	Optional; 1 mm Al + 0.1 mm Cu, 1 mm Al + 0.2 mm Cu, 2 mm Al + 0.3 mm Cu
Collimator rotation	± 90°
Light field luminosity	> 160 lx
Integrated DAP	Optional

#### Flat Panel Detector's

Brand	Thales	Varex	iRay
<b>Model</b>	<b>Pixium RAD 4343R-C</b>	<b>PaxScan 4343R v3</b>	<b>Mars1717 (WiFi)</b>
Technology	Amorphous silicium/CsI	Amorphous silicium/CsI	Amorphous silicium/CsI
Active area	423.3 x 425.4 mm	424 x 424 mm	427 x 427 mm
Active pixel matrix	2860 x 2874	3052 x 3052	3072 x 3072
Pixel size	148 µm	139 µm	139 µm
Limiting resolution	3.38 lp/mm	3.6 lp/mm	3.6 lp/mm
DQE @ 0 lp/mm	65%	78%	66%
MTF @ 1 lp/mm	61%	56%	70%
AD conversion	16-bit	16-bit	16-bit
Detector dimensions	500 x 490 x 45.5 mm	469 x 469 x 37 mm	460 x 460 x 15.1 mm
Weight	11.7 kg	6.2 kg	4.1 kg
Ingress protection			IPX1

#### User Interface

High performance imaging console	Multi-core processor, 1TB HDD, 8 GB RAM, CD/DVD, keyboard and mouse
Imaging console monitor size	23" 2MP DICOM calibrated touchscreen monitor
Features	Avanse DR imaging software, Image copy / paste, crop and annotate, DICOM MWL, Print and store, Auto shutter, CD/DVD burn with DICOM viewer, Exposure index / Deviation index, Auto and manual image processing, Query Retrieve, Procedure mapping, MPPS, Reject analysis, Undo / Image reload, Image preview, Automated storage, Image compression

#### Standards

According to	FDA: This product complies with CDRH 21 CFR, Subchapter J, as of the date of manufacture. CE: This medical product corresponds to the "COUNCIL DIRECTIVE concerning medical devices 93/42/EEC".
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**Options**

DAP meter	Dose area product (DAP) meter to measure, record and store the applied radiation dose in the DICOM header of the patient's image.
X-ray generator	40 kW 1-phase Battery Assist, 50 kW 3-phase, 65 kW 3-phase
X-ray tube	200 kHu, 300 kHu, 400 kHu
Detector options	Wireless 35 x 43 cm (14 x 17")
Additional X-ray grids	Carbon fiber removable 85 L/cm (215 L/inch) 10:1, FD 110 cm, 150 cm, 180 cm
Weight bearing platform	Various options available
Mobile patient table	Fixed height
Barcode reader	2D codes scanner
Card access reader	Individual identification cards for effortless system login

**Environmental Conditions**

**Storage / Transport**

**Operating**

Ambient temperature	-20 °C to +55 °C (-4 °F to 131 °F)	+15 °C to +30 °C (59 °F to 86 °F)
Recommended room temperature	N/A	+20 °C to +25 °C (68 °F to 77 °F)
Relative air humidity	10 to 95%	30 to 75%
Air pressure	700 to 1060 hPa	700 to 1060 hPa

**Main Power Input - Generator**

Line voltage	1-phase, 208 to 230 VAC 50/60 Hz 3-phase, 400 / 415 / 440 and 480 VAC 50/60 Hz
Automatic line compensation	± 10%
Input power	4.6 kVA / 40 kW , 65 kVA / 50 kW, 85 kVA / 65 kW

**Main Power Input - Stand**

Line voltage	1-phase, 120 VAC or 230 VAC 50/60 Hz
Automatic line compensation	± 10%
Maximum input power	1 kVA

**Weight**

Weight	320 kg (705 lbs.)
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Mechanical Dimensions in cm

