

SHIMADZU

PRODUCT DATA

RADspeed Pro

style edition MF Type



GENERAL

RADspeed Pro MF Type is a radiographic system that provides a comfortable examination environment for operator and patient alike.

The TM and ® symbols are omitted in this document.

FEATURES**(1) Space saving concept**

The compact, space-saving high voltage generator and tube support provides working space and flexible layout.

(2) 50kHz Inverter system

Microprocessor-controlled, maximum 50kHz High frequency inverter system creates very low ripple kV waveform with high X-ray quantum efficiency, which reduces unwanted X-rays.

(3) Preset memory

The preset memory allows the most commonly used techniques to be programmed. By pressing the program selector key, automatic selection can be made for radiographic factor, tube focus, etc.

(4) Unique Color-coded Status display (option)

A LED frame of operation console is functioning as color-coded status indicators and it changes color corresponding to the status. Operator can easily confirm when it is ready or when exposed. Illumination color code is selectable from Blue, Turquoise, Red, Purple and Light purple.

Illumination hand switch functions as well.

(5) Energy saving collimator with a bright irradiation field

LED is adopted as the light source to indicate the irradiation field. This reduces power consumption and improves brightness levels and durability.

(6) Dose Management

A calculated Dose Area Product is available. After the exposure, the calculated Dose Area Product, based on the actual exposure parameters, is displayed.

The measured exposure parameters and calculated Dose Area Product can be displayed on a Generator console and sent to RIS/PACS system. (option)

(7) Removable Grid

Removing the grid during radiography allows reducing the exposure dose level in pediatric and orthopedic applications. Radiography is also possible using phototimer.

(8) Heavy Duty 4-way floating table

The bucky table can support up to 200kg. Patient positioning is made easier with the extremely smooth-moving tabletop. Only longitudinal slide is available using dedicated switch.

(9) Upgradable to DR system

The DR^{*} system significantly improves diagnostic accuracy and workflow.

^{*}) The DR system is not a component of RADspeed Pro. Please use one belonging to your facility.

SYSTEM CONFIGURATION

The RADspeed Pro MF Type consists of X-ray high-voltage generator, X-ray tube assembly, collimator, and X-ray tube support and if necessary, X-ray radiography table and/or X-ray radiography stand.

System configuration and accompanying documents

| Component | Model Name |
|--------------------------------|--|
| Whole system | RADspeed Pro |
| X-ray high voltage generator | 80kW type: Operation Panel: GSC-2002S Control cabinet: D150BC-41 |
| | 65kW type: Operation Panel: GSC-2002S Control cabinet: D150VC-41 |
| | 50kW type: Operation Panel: GSC-2002S Control cabinet: D150LC-41 |
| X-ray tube assembly | 0.6/1.2P324DK-85, 0.6/1.2P364DK-85 |
| | 0.6/1.2P164DK-85 |
| | 0.6/1.2P323DK-85 |
| | 0.6/1.2P38DE-85, 0.6/1.2P33DK-85 |
| | 0.6/1.2P18DE-85, 0.6/1.2P13DK-85 |
| | 1/2P18DK-85, 1/2P13DK-85 |
| | 0.3/0.8P324DK-85 |
| | 0.3/0.8P323DK-85 |
| 0.3/0.8P18DK-85 | |
| Floor mount X-ray tube support | FH-20HR, FH-21HR |
| X-ray Bucky stand | BR-120M |
| X-ray Bucky table | BK-120MK |
| | BK-12HK |
| X-ray Collimator | R-20J |

SPECIFICATIONS

X-Ray High Voltage Generator
80kW type/65kW type/50kW type

| Item | | Specifications | |
|---|-----------------|--|---|
| Radiography technique | | General radiography, Bucky radiography, Digital radiography | |
| Number of connectable X-ray tubes | | 1 tube | |
| Setting range *1 *2 | Radiography | Tube voltage | 40 to 150kV |
| | | Tube current | 80kW type : 10 to 1,000mA 65kW type : 10 to 800mA 50kW type : 10 to 630mA |
| | | mAs | 0.5 to 800mAs |
| | | Time | 0.001 to 10sec |
| Nominal supply voltage (50/60Hz) | | 80kW type, 65kW type : 200/220/240/380/400/415/440/480VAC, 3-phase 50kW type : 200/220/240/380/400/415/440/480VAC, 3-phase or 200/220/240VAC, single-phase Factor depending on the waveform: 1.00 | |
| Power input | | 80kW type, 65kW type : 3-phase AC: 120kVA 50kW type : 3-phase AC: 80kVA or single-phase AC: 95kVA | |
| Rated output | | 80kW type : 80kW (100kV, 800mA) 65kW type : 65kW (100kV, 650mA) 50kW type : 50kW (100kV, 500mA) Product of tube voltage and max. current that can flow in 0.1s at 100kV tube voltage | |
| Short-time rating *1 | | 80kW type : 150kV 500mA, 125kV 630mA, 100kV 800mA, 80kV 1000mA 65kW type : 150kV 400mA, 125kV 500mA, 100kV 650mA, 80kV 800mA 50kW type : 150kV 320mA, 125kV 400mA, 100kV 500mA, 80kV 630mA | |
| Nominal max. tube voltage and max. tube current that can flow at nominal max. tube voltage *1 | | 80kW type : Short-time rating: 150kV 500mA Long-time rating: 125kV 12mA 65kW type : Short-time rating: 150kV 400mA Long-time rating: 125 kV 9mA 50kW type : Short-time rating: 150kV 320mA Long-time rating: 125kV 9mA | |
| Max. tube current and max. tube voltage to achieve max. tube current *1 | | 80kW type : Short-time rating: 80kV 1000mA Long-time rating: 75kV 20mA 65kW type : Short-time rating: 80kV 800mA Long-time rating: 125kV 9mA 50kW type : Short-time rating: 80kV 630mA Long-time rating: 125kV 9mA | |
| Tube voltage and tube current combination for max. electrical output *1 | | 80kW type : Short-time rating: 80kV 1000mA, 100kV 800mA Long-time rating: 75kV 20mA, 125kV 12mA 65kW type : Short-time rating: 100kV 650mA Long-time rating: 125kV 9mA 50kW type : Short-time rating: 80kV 630mA, 100kV 500mA Long-time rating: 125kV 9mA | |
| Dimensions | Operation panel | 308(W) x 345(H) x 65(D)mm | |
| | Control cabinet | 700(W) x 1,830(H) x 400(D)mm | |
| Mass | Operation panel | 2kg | |
| | Control cabinet | 80kW type, 65kW type : 250kg 50kW type : 240kg | |

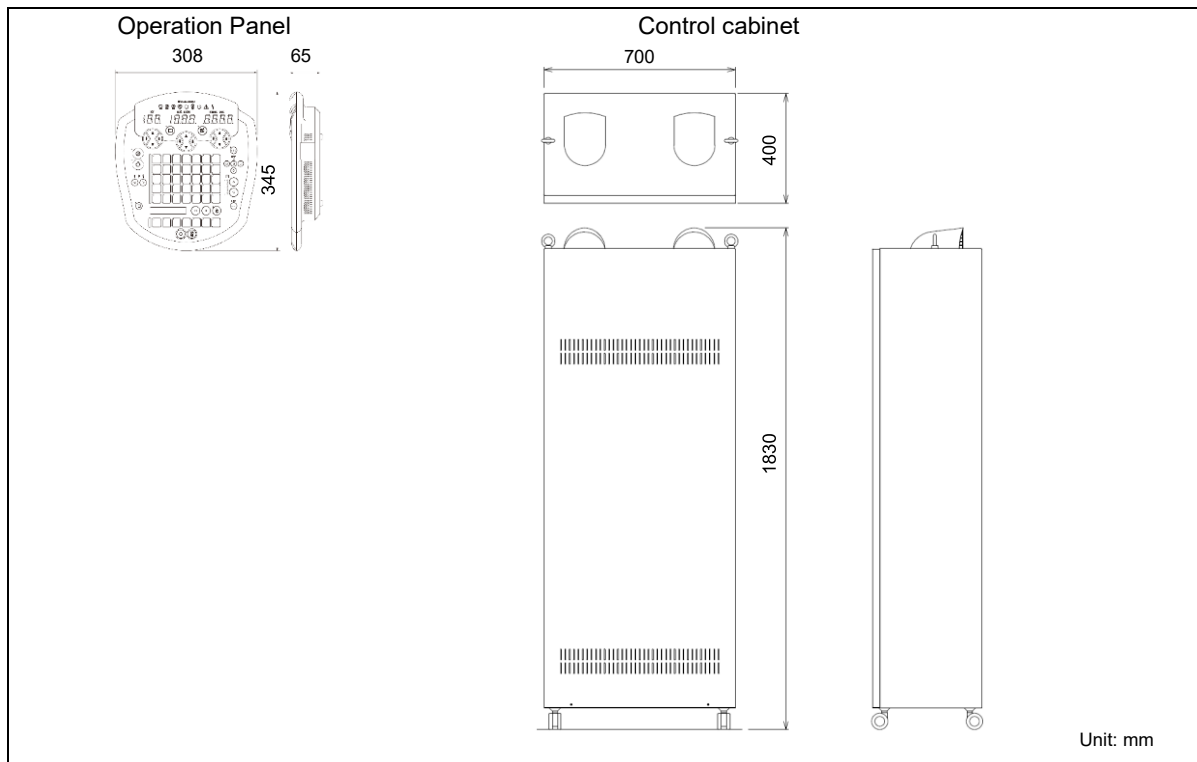
*1: Specifications are limited according to the X-ray tube type.

*2: The various conditions are as follows (conform to IEC-standards):

Tube voltage (within +/-10 %), Tube current (within +/-20 %)

mAs within +/- (10 % + 0.2 mAs), Time within +/- (10 % + 1 ms)

DIMENSIONS



Options

| Item | Specifications |
|--|--|
| Direct phototimer (AEC) radiography option | Combination with a Shimadzu receiver permits phototimer(AEC) radiography. The following types can be used: Xe detector-type phototimer receiver (SPT-XD series) Number of pick up fields: 1/3/4(3 types) Permitted combination: up to three receivers |
| Communication Unit | Permits communication of radiographic conditions with DR unit |

X-Ray Tube Assembly

0.6/1.2P324DK-85 & 0.6/1.2P364DK-85

| Item | | Specifications | |
|---|---------------------------------------|--|-------------|
| Nominal X-ray tube voltage | Long-time | 125kV | |
| | Short-time | 150kV | |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 470W (660HU/s) (with fan) | |
| X-ray tube | Max. anode heat content | 280kJ (400kHU) | |
| | Max. anode heat dissipation rate | 1600W (2200HU/s) | |
| | Max. continuous heat dissipation rate | 300W (420HU/s) | |
| Nominal focal spot | | 0.6mm | 1.2mm |
| Nominal anode input power (0.1sec, 180Hz) | | 324DK | 38kW |
| | | 364DK | 24kW |
| Anode Target | Material | Rhenium-tungsten faced molybdenum | |
| | Angle/diameter | 324DK | 12° / 100mm |
| | | 364DK | 16° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | 324DK | 350 x 350mm at SID 1m | |
| | 364DK | 350 x 350mm at SID 0.65m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

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style edition MF Type

0.6/1.2P164DK-85

| Item | | Specifications | |
|------------------------------------|---------------------------------------|--|-----------------------------------|
| Nominal X-ray tube voltage | | Long-time | 125kV |
| | | Short-time | 150kV |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 470W (660HU/s) (with fan) | |
| X-ray tube | Max. anode heat content | 280kJ (400kHU) | |
| | Max. anode heat dissipation rate | 1600W (2200HU/s) | |
| | Max. continuous heat dissipation rate | 300W (420HU/s) | |
| Nominal focal spot | | 0.6mm | 1.2mm |
| Nominal anode input power (0.1sec) | | 50Hz | 12.7kW |
| | | 60Hz | 13.8kW |
| Anode Target | | Material | Rhenium-tungsten faced molybdenum |
| | | Angle/diameter | 16° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | | 350 x 350mm at SID 0.65m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

0.6/1.2P323DK-85

| Item | | Specifications | |
|---|---------------------------------------|--|-----------------------------------|
| Nominal X-ray tube voltage | | Long-time | 125kV |
| | | Short-time | 150kV |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 470W (660HU/s) (with fan), | |
| X-ray tube | Max. anode heat content | 210kJ (300kHU) | |
| | Max. anode heat dissipation rate | 1200W (1690HU/s) | |
| | Max. continuous heat dissipation rate | 250W (350HU/s) | |
| Nominal focal spot | | 0.6mm | 1.2mm |
| Nominal anode input power (0.1sec, 180Hz) | | 38kW | 92kW |
| Anode Target | | Material | Rhenium-tungsten faced molybdenum |
| | | Angle/diameter | 12° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | | 350 x 350mm at SID 1m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

0.6/1.2P38DE-85 & 0.6/1.2P18DE-85

| Item | | Specifications | |
|------------------------------------|---------------------------------------|--|-----------------------------------|
| Nominal X-ray tube voltage | | Long-time | 125kV |
| | | Short-time | 150kV |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 235W (330HU/s) (without fan) | |
| X-ray tube | Max. anode heat content | 140kJ (200kHU) | |
| | Max. anode heat dissipation rate | 640W (900HU/s) | |
| | Max. continuous heat dissipation rate | 210W (300HU/s) | |
| Nominal focal spot | | 0.6mm | 1.2mm |
| Nominal anode input power (0.1sec) | | 50Hz (18DE) | 18kW |
| | | 60Hz (18DE) | 21kW |
| | | 180Hz (38DE) | 37kW |
| Anode Target | | Material | Rhenium-tungsten faced molybdenum |
| | | Angle/diameter | 12° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | | 350 x 350mm at SID 1m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

PRODUCT DATA RADspeed Pro
style edition MF Type

0.6/1.2P33DK-85 & 0.6/1.2P13DK-85

| Item | | Specifications | |
|------------------------------------|---------------------------------------|--|--------|
| Nominal X-ray tube voltage | Long-time | 125kV | |
| | Short-time | 150kV | |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 235W (330HU/s) (without fan) | |
| X-ray tube | Max. anode heat content | 140kJ (200kHU) | |
| | Max. anode heat dissipation rate | 640W (900HU/s) | |
| | Max. continuous heat dissipation rate | 210W (300HU/s) | |
| Nominal focal spot | | 0.6mm | 1.2mm |
| Nominal anode input power (0.1sec) | 50Hz (13DK) | 12.5kW | 34.5kW |
| | 60Hz (13DK) | 14kW | 37.5W |
| | 180Hz (33DK) | 24kW | 65kW |
| Anode Target | Material | Rhenium-tungsten faced molybdenum | |
| | Angle/diameter | 16° / 100mm | |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | | 350 x 350mm at SID 0.65m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

1/2P18DK-85

| Item | | Specifications | |
|------------------------------------|---------------------------------------|--|--------|
| Nominal X-ray tube voltage | Long-time | 125kV | |
| | Short-time | 150kV | |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 235W (330HU/s) (without fan) | |
| X-ray tube | Max. anode heat content | 140kJ (200kHU) | |
| | Max. anode heat dissipation rate | 640W (900HU/s) | |
| | Max. continuous heat dissipation rate | 210W (300HU/s) | |
| Nominal focal spot | | 1mm | 2mm |
| Nominal anode input power (0.1sec) | 50Hz | 35kW | 68.5kW |
| | 60Hz | 39kW | 75kW |
| Anode Target | Material | Rhenium-tungsten faced molybdenum | |
| | Angle/diameter | 12° / 100mm | |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | | 350 x 350mm at SID 1m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

1/2P13DK-85

| Item | | Specifications | |
|------------------------------------|---------------------------------------|--|------|
| Nominal X-ray tube voltage | Long-time | 125kV | |
| | Short-time | 150kV | |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) | |
| | Nominal continuous input power | 235W (330HU/s) (without fan) | |
| X-ray tube | Max. anode heat content | 140kJ (200kHU) | |
| | Max. anode heat dissipation rate | 640W (900HU/s) | |
| | Max. continuous heat dissipation rate | 210W (300HU/s) | |
| Nominal focal spot | | 1mm | 2mm |
| Nominal anode input power (0.1sec) | 50Hz | 27.5kW | 64kW |
| | 60Hz | 30kW | 70W |
| Anode Target | Material | Rhenium-tungsten faced molybdenum | |
| | Angle/diameter | 16° / 100mm | |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) | |
| Permanent Filtration | | 1.0mm Al / 75kV | |
| X-ray radiation field | | 350 x 350mm at SID 0.65m | |
| Mass (w/o Support ring and Fan) | | 21kg | |

PRODUCT DATA RADspeed Pro
style edition MF Type

0.3/0.8P324DK-85

| Item | | Specifications |
|---|---------------------------------------|--|
| Nominal X-ray tube voltage | Long-time | 125kV |
| | Short-time | 150kV |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) |
| | Nominal continuous input power | 470W (660HU/s) (with fan), |
| X-ray tube | Max. anode heat content | 280kJ (400kHU) |
| | Max. anode heat dissipation rate | 1600W (2200HU/s) |
| | Max. continuous heat dissipation rate | 300W (420HU/s) |
| Nominal focal spot | | 0.3mm 0.8mm |
| Nominal anode input power (0.1sec, 180Hz) | | 11kW 54kW |
| Anode Target | Material | Rhenium-tungsten faced molybdenum |
| | Angle/diameter | 12° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) |
| Permanent Filtration | | 1.0mm Al / 75kV |
| X-ray radiation field | | 350 x 350mm at SID 1m |
| Mass (w/o Support ring and Fan) | | 21kg |

0.3/0.8P323DK-85

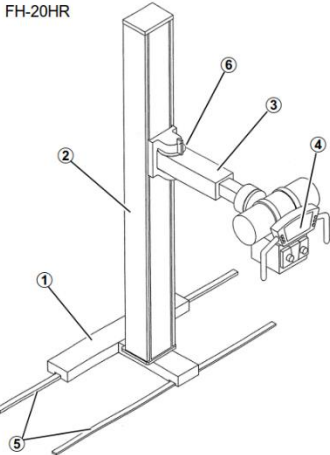
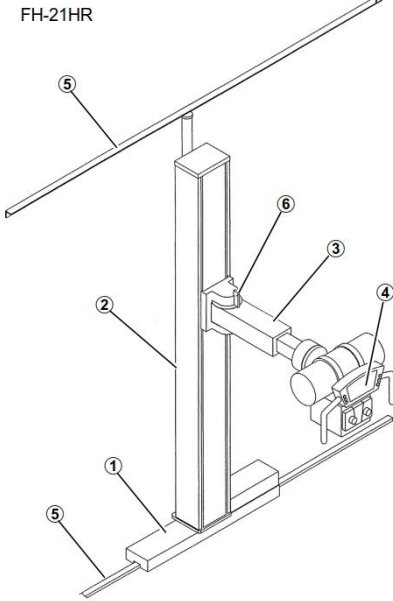

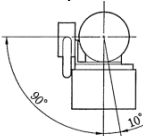
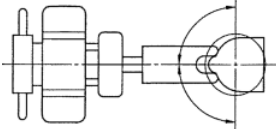
| Item | | Specifications |
|---|---------------------------------------|--|
| Nominal X-ray tube voltage | Long-time | 125kV |
| | Short-time | 150kV |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) |
| | Nominal continuous input power | 470W (660HU/s) (with fan), |
| X-ray tube | Max. anode heat content | 210kJ (300kHU) |
| | Max. anode heat dissipation rate | 1200W (1690HU/s) |
| | Max. continuous heat dissipation rate | 250W (350HU/s) |
| Nominal focal spot | | 0.3mm 0.8mm |
| Nominal anode input power (0.1sec, 180Hz) | | 11kW 54kW |
| Anode Target | Material | Rhenium-tungsten faced molybdenum |
| | Angle/diameter | 12° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) |
| Permanent Filtration | | 1.0mm Al / 75kV |
| X-ray radiation field | | 350 x 350mm at SID 1m |
| Mass (w/o Support ring and Fan) | | 21kg |

0.3/0.8P18DK-85

| Item | | Specifications |
|------------------------------------|---------------------------------------|--|
| Nominal X-ray tube voltage | Long-time | 125kV |
| | Short-time | 150kV |
| X-ray tube assembly | Max. heat content | 1100kJ (1600kHU) |
| | Nominal continuous input power | 235W (330HU/s) (without fan) |
| X-ray tube | Max. anode heat content | 140kJ (200kHU) |
| | Max. anode heat dissipation rate | 640W (900HU/s) |
| | Max. continuous heat dissipation rate | 210W (300HU/s) |
| Nominal focal spot | | 0.3mm 0.8mm |
| Nominal anode input power (0.1sec) | 50Hz | 6kW 28kW |
| | 60Hz | 6.4kW 31.2kW |
| Anode Target | Material | Rhenium-tungsten faced molybdenum |
| | Angle/diameter | 12° / 100mm |
| Minimum total Filtration | | 1.7mm Al / 75kV (including added filter) |
| Permanent Filtration | | 1.0mm Al / 75kV |
| X-ray radiation field | | 350 x 350mm at SID 1m |
| Mass (w/o Support ring and Fan) | | 21kg |

X-Ray Tube Support

FH-20HR/21HR

| Item | Specifications |
|--|--|
|  <p>FH-20HR</p> <p>① Base ② Column ③ Arm ④ Control Panel ⑤ Guide rail ⑥ Rotation lock/release lever</p> |  <p>FH-21HR</p> <p>③ Arm ⑥ Rotation lock/release lever</p> |
| Maximum supportable weight | 35kg |
| Balancing system | Counter weight-balanced type |
| Vertical travel | 400 – 1,950mm (floor to focus) |
| Longitudinal travel | 2,500mm |
| Transverse travel | 250mm |
| Rotation around horizontal axis  | ±180°, continuous (click stops at 90° intervals) |
| Rotation of X-ray tube unit (longer axis)  | 90° upward 10° downward continuously variable |
| Rotation around vertical axis  | stop at three points -90°, 0°, +90° |
| Operation | Manual, electromagnetic lock(off lock) |

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| Item | Specifications |
|---------------------------------|--|
| Ceiling height | FH-20HR : 2,300mm FH-21HR : 2350 – 2900mm |
| Required space for installation | 1,600(W) x 3,600(L) mm |
| Mass | 140kg (excluding X-ray tube assembly and collimator) |
| Power source | Single phase, AC100V, 0.3kVA, 50/60Hz |

Collimator
R-20J

| Item | Specifications | |
|---|---|--|
| Max. voltage used for applicable X-ray tube | 150kV | |
| Radiation field | Shape | Rectangular |
| | Maximum field | 43 x 43cm @SID 100cm |
| | Minimum field | 0 x 0cm |
| Radiation field indication | Average brightness | 160lx @SID 100cm |
| | Accuracy | Less than 2% of SID |
| | Center of the field | Dark hair cross |
| | Light source | LED |
| | Period of indication | 30 sec (timer-controlled) |
| Opening indication | SID | 1, 1.5, 2m |
| | Field size indication | 20,23,25,28,30,36,43cm 8,9,10,11,12,14,17inch |
| Drive of leaves | Manual | |
| Lead equivalent of leaves | Shielding leaves(H and V-leaves) | 3mm Pb eq. |
| | Middle leaves | 2mm Pb eq. |
| Filtration | Inherent filtration | 1.0 mm Al eq. / 75kV |
| | Additional filter | 0.5mm Al. plate |
| Turning mechanism | +/- 45° | |
| External dimensions | 224(W) x 271(D) x 221(H)mm | |
| Mass | 6kg | |
| Power supply | AC 12V : 50/60Hz : 100VA or DC24V 100VA | |

Options

| Item | Description |
|-------------------------|---|
| Line marker | Used to align the center positions of the Bucky device and the equipment, and to set the radiography position for long view radiography |
| Detent | Fitted at the home position of the turning mechanism and serves to confirm the home position when the collimator is turned. |
| DAP adapter for VACUTEC | This is an adapter kit for DAP meter manufactured by VACUTEC. DAP can be displayed on the console of DAP meter. |

**X-ray Radiography Table
 BK-120MK**

| Item | Specifications | |
|---|--------------------------------------|---|
| ① Main Body ② Floating Table Top Assembly ③ Bucky device ④ Grid indicator ⑤ Transformer unit Optional Items ⑥ Compression belt ⑦ Lateral cassette holder ⑧ Grip switch ⑨ Drip holder (not shown) ⑩ CFRP table top (not shown) | | |
| | unit:mm | |
| | | |
| | | |
| | | |
| Main Body | Size of Tabletop | 810(Width) x 2,350(Length)mm |
| | Material of tabletop | Wood CFRP(option) |
| | Attenuation equivalent for table | 1.7mmAl. eq. (Wood) 0.7mmAl. eq. (CFRP) |
| | Longitudinal movement | 1,100mm Manual operation |
| | Lateral movement | +/- 125mm Manual operation |
| | Tabletop Lock | Electromagnetic lock (off-lock) |
| | Vertical moving range | 315mm Motor drive |
| | Distance between tabletop and floor | 535 to 850mm (The tabletop stops once at Approx. 700mm.)*1 |
| | Distance between tabletop and a film | 73mm |
| | Maximum allowable load | 200kgf |

| Item | | Specifications | | |
|-------------------------|---------------------------------|---|--|--|
| Bucky Device | Cassette fixing position | Center position | | |
| | Bucky device moving stroke | 380mm (+/- 190mm) | | |
| | X-ray grid (Moving grid) | Dimensions | 438mm x 479mm | |
| | | Intermediate material | Al | |
| | | Density, ratio Note) Select one of the listed Grids | 40 lines/cm 10:1 100cm 40 lines/cm 10:1 150cm | |
| Mounting/removing grid | | Possible | | |
| Installation Conditions | Required space for installation | 5,000(W) x 3,500(L)mm (to combine with the X-ray support device) | | |
| | Mass | 320kg | | |
| | Power Supply | Single-phase AC200, 220, 230, 240V 1.0kVA, 50/60Hz | | |

*1 When installing, the stop position can be adjusted within a height range of 600 to 700mm.

Options

| Item | Description |
|-------------------------|---|
| Compression belt | This belt to be attached to the sides of the tabletop secures the patient's radiography region to the tabletop |
| Lateral cassette holder | This holder to be attached to the side of the tabletop holds a cassette in lateral radiography. |
| Grip switch | This switch to be attached to the side of the tabletop operates the floating tabletop. |
| CFRP tabletop | This tabletop is made of CFRP (Carbon Fiber Reinforced Plastic). |
| Hand grip | Equipped with tabletop side and grasped by patient so that the patient position keeps steady. |
| Drip stand | Attached to the tabletop side and suspends the drip bins. |
| FPD rotation tray | The FPD tray can be rotated 90 degree to change the orientation of FPD. (Portrait↔Landscape) This option is only for 14 x 17 inch (35 x 43 cm) FPD. |

BK-12HK

| Item | Specifications | | |
|---|--------------------------------------|--|--|
| ① Main Body ② Floating Table Top Assembly ③ Bucky device ④ Grid indicator Optional Items ⑤ Compression belt ⑥ Lateral cassette holder ⑦ Grip switch ⑧ Drip holder (not shown) ⑨ CFRP table top (not shown) | | | |
| | unit:mm | | |
| | | | |
| Main Body | Size of Tabletop | 810(Width) x 2,350(Length)mm | |
| | Material of tabletop | Wood CFRP(option) | |
| | Attenuation equivalent for table | 1.7mmAl. eq. (Wood) 0.7mmAl. eq. (CFRP) | |
| | Longitudinal movement | 1100mm | |
| | Lateral movement | +/- 125mm Manual operation | |
| | Tabletop Lock | Electromagnetic lock (off-lock) | |
| | Vertical moving range | 315mm Motor drive | |
| | Distance between tabletop and floor | 700mm | |
| | Distance between tabletop and a film | 73mm | |
| | Maximum allowable load | 200kgf | |
| Bucky Device | Cassette fixing position | Center position | |
| | Bucky device moving stroke | 380mm (+/- 190mm) | |
| | X-ray grid (Moving grid) | Dimensions | 438mm x 479mm |
| | | Density, ratio Note) Select one of the listed Grids | Al 40 lines/cm 10:1 100cm 40 lines/cm 10:1 150cm |

PRODUCT DATA RADspeed Pro

style edition MF Type

| Item | | Specifications | |
|-------------------------|---------------------------------|---|----------|
| | | Mounting/removing grid | Possible |
| Installation Conditions | Required space for installation | 5,000(W) x 3,500(L)mm (to combine with the X-ray support device) | |
| | Mass | 120kg | |
| | Power Supply | Single-phase AC100V, 0.1kVA, 50/60Hz | |

Options

| Item | Description |
|-------------------------|---|
| Compression belt | This belt to be attached to the sides of the tabletop secures the patient's radiography region to the tabletop |
| Lateral cassette holder | This holder to be attached to the side of the tabletop holds a cassette in lateral radiography. |
| Grip switch | This switch to be attached to the side of the tabletop operates the floating tabletop. |
| CFRP tabletop | This tabletop is made of CFRP (Carbon Fiber Reinforced Plastic). |
| Hand grip | Equipped with tabletop side and grasped by patient so that the patient position keeps steady. |
| Drip stand | Attached to the tabletop side and suspends the drip bins. |
| FPD rotation tray | The FPD tray can be rotated 90 degree to change the orientation of FPD. (Portrait ↔ Landscape) This option is only for 14 x 17 inch (35 x 43 cm) FPD. |

Digitally signed by Botnaru Andrei
 Date: 2022.07.05 13:05:59 EEST
 Reason: MoldSign Signature
 Location: Moldova



**X-Ray Radiography Stand
 BR-120M**

| Item | Specifications | | |
|--|--|---|---|
| ① Stand ② Bucky Device | | | |
| Bucky device | Distance between Bucky device guathal hub and floor | $h = 627(643) - 2,127(2,143)$ mm (Manual operation) (Figures in parentheses are dimensions when mounted on a base plate) | |
| | Operation | Manual Electromagnetic lock (off lock) | |
| | Distance between Bucky device guathal hub and center of detector | 247mm | |
| | Distance between Bucky device front face and a film | 33.5mm | |
| | Cassette fixing position | Center reference, Top reference or bottom reference | |
| | X-ray grid (Moving grid) | Dimensions | 438mm x 479mm |
| | | Interspacer material | Al |
| | | Density, ratio Note) Select one of the listed Grids | 40 lines/cm 10:1, 150cm 40 lines/cm 12:1, 170cm 40 lines/cm 12:1, 180cm |
| Mounting/removing | | Possible | |
| Attenuation equivalent for front panel | 0.63mm Al eq. | | |
| Installation conditions | Required space | 650mm(L) x 400mm(D) | |
| | Required ceiling height | 2,350mm | |
| | Mass | 120kg | |
| | Power Supply | Single-phase AC100V, 0.2kVA, 50/60Hz | |

Options

| Item | Description |
|----------------------|---|
| Overhead hand grip | For lateral chest exam to grip overhead, adjust the height by the position of gripping. |
| Cassette holder | Cassette unit is attached on bucky device and holds a film cassette. |
| Base plate | Base plate is installed when the equipment cannot be mounted in the standard holes. |
| Wall mounting option | Fix the top of column to wall. Use when the fixation to floor is difficult. |
| Side hand grips | For P-A chest exam. to grip both hands, a pair of left and right. |
| Compression belt | This belt fixes the radiography area of a patient on the Bucky device. |

Operation Environment

| Item | Specifications |
|----------------------|----------------------------|
| Ambient temperature | 10 to 40 degree C |
| Relative humidity | 30 to 85% (non condensing) |
| Atmospheric pressure | 800 to 1060hPa |

Power Supply

| Item | Specifications |
|--|--|
| Phase | 3-phase, single-phase |
| Frequency | 50/60Hz |
| Standard voltages | 3-phase 200/220/240/380/400/415/440/480V Single-phase 200/220/230/240V |
| Permitted voltage range | +/- 10% of standard voltage |
| Supply capacity (Digital Radiography system is not included.) | 80kW / 65kW type: 3-phase 120kVA Single-phase 8.5kVA 50kW type: 3-phase 80kVA Single-phase 8.5kVA or Single-phase 95kVA |

Remarks

- * Every value in this Product Data Sheet is a standard value, and it may vary a little from the actual at each site.
- * The appearances and specifications are subject to change for reasons of improvement without notice.
- * Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.

LABEL Description: RADspeed Pro

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Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2015 Quality Management Systems and ISO13485:2016 Medical Devices Quality Management Systems.

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- Certain configurations may not be available pending regulatory clearance.
- Contact your sales representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction Manual.