GENERAL

The MUX-100H series is a mobile x-ray system. It is designed for radiography examinations in any location away from the main X-Ray department. The unit consists of an inverter X-Ray generator, independent motors for drive wheels, a telescopic tube arm all in a system that can be operated cordlessly.

MUX-100H series has 2 different models, MUX-100H and MUX-100HJ. Column height of MUX-100H is 1930mm, and that of MUX-100HJ is 1780mm.
FEATURES

(1) Clear display of X-ray timing with illumination.
   The equipment clearly displays essential X-ray process information such as "Standby" and "Exposure" status using a bright, easy-to-read display.

(2) Easy movement:
   The unit is easily driven by the unique power assist system. A two motor design allows easy movement of the unit, even in small areas such as between beds or small rooms.

(3) Easy positioning:
   Because the tube arm is totally balanced, any positioning is fast and quick.

(4) Wide positioning area:
   By telescopic methods of movements, positioning flexibility is increased.

(5) Unobstructed visibility:
   Because the wide view design, it can be driven more easily and safely.

(6) Inverter type generator:
   High frequency, inverter X-ray generator provides consistent exposure output for shorter exposure times.

(7) Cordless operation:
   Due to the cordless feature, there is no concern about the available power at the patient location. An added feature of this unit is when the battery power is low, you can plug in the unit to any outlet.

(8) Sharp images:
   By utilizing a small focal spot we are able to produce very sharp images utilizing optimum exposure parameters.

(9) Self-diagnosis function:
   Messages (error codes) are displayed on the panel to notify the operator of the unit conditions.

SPECIFICATIONS OF MAIN UNIT

(1) Rating
   • Maximum tube voltage: 125kV
   • Maximum tube current: 160mA
   • Maximum power: 12.5kW (12.5kW at 0.1 sec)

(2) Power supply batteries: 12V 7.2Ah × 20pcs

(3) Setting of tube voltage 40 to 125kV in increment of 1kV

(4) Adjustment of tube voltage 40 to 125kV in increment of 1kV

(5) Maximum mAs for each kV
   40 to 90kV : 320mAs
   91 to 100kV : 280mAs
   101 to 110kV : 250mAs
   111 to 120kV : 220mAs
   121 to 125kV : 200mAs

(6) X-ray tube focal spot: 0.7mm

(7) Max. size of X-ray field:
   43cm × 43cm (SID 1m)

(8) Minimum inherent filtration
   X-ray tube assembly:
   Equivalent to 1.5mmAl, measured at 70kV
   Collimator:
   Equivalent to 1.0mmAl, measured at 70kV

(9) Drive
   Drive speed:
   Forward & Backward : Approx. 5 km/h (Maximum)
   Grade ability : Maximum 7 degrees

(10) Number of cassettes accommodated
   10 cassettes of 14inch × 17inch
   (15 cassettes of 14 inch × 17 inch : optional)

(11) This unit is not explosion-proof type.
MUX-100H series

SPECIFICATIONS OF X-RAY TUBE UNIT

(1) Max. operating voltage: 125kV
(2) Effective focal spot size: 0.7 × 0.7 mm
(3) Max. anode heat storage capacity: 300000HU (212kJ)
(4) Max. continuous input: 170HU/S (120 W)
(5) Short time (0.1s) max. input: 15.6 kW
(6) Max. filament voltage: 15 V
(7) Max. filament current *1: 5.6A
(8) Target material: Rhenium Tungsten-faced on molybdenum
(9) Target angle: 16°
(10) Focal track diameter: 58mm
(11) Anode rotation:
    Direction of rotation of anode is counter-clockwise as viewed from cathode side.
    RPM is 60 Hz: 3200 rpm (min-1) or more.
(12) Inherent filtration:
    Min. 1.5 mm Al at 70 kV
(13) X-ray protection *2:
    Less than 0.87 mGy (2.58 × 10⁻⁵ C/kg) in an hour at distance of 1 m from focus.
(14) Min. ambient temperature: -10°C
(15) Weight: Approx. 13 kg

Remarks:
*1 This is max. value which can be used at the time of adjustment of tube current.
*2 Conditions of detection for the leakage radiation are
(1) Max. used tube input 125 kV, 160 W continuously.
(2) Repeated radiographic loading to keep the average load to be 71 W (100HU/s) at the max. voltage.

CONFIGURATION

(1) Inverter type high voltage generator
(2) X-ray tube unit CIRCLEX 0.7U163CS-36
(3) Collimator R20C
(4) Cart

POWER REQUIREMENTS FOR BATTERY CHARGE

- Type: Single phase, AC
- Frequency: 50/60 Hz
- Standard voltage: 100, 110, 120, 200, 220, 230, 240 V
- Fluctuation of voltage: ±10% from standard voltage
MUX-100H series

DIMENSIONS AND WEIGHT

<table>
<thead>
<tr>
<th></th>
<th>MUX-100H</th>
<th>MUX-100HJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height during transportaion</td>
<td>Approx. 1930 mm (76.0 inch) from floor</td>
<td>Approx. 1780mm (70.0inch) from floor</td>
</tr>
<tr>
<td>Height of X-ray tube focus in radiography</td>
<td>MAX. Approx. 2010 mm (79.1 inch) from floor</td>
<td>MAX. Approx. 1860 mm (73.2 inch) from floor</td>
</tr>
<tr>
<td></td>
<td>MIN. Approx. 600 mm (23.6 inch) from floor</td>
<td>MIN. Approx. 600 mm (23.6 inch) from floor</td>
</tr>
<tr>
<td>Total weight</td>
<td>Approx. 370 kg</td>
<td></td>
</tr>
</tbody>
</table>

DIMENSIONS

![Diagram]

Units: mm

Figures in brackets are for MUX-100HJ

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.

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