Polydoros RF Rad 80 X-ray Generators

Siemens offers generators in the 30 to 100 kW output range, suitable for almost all medical X-ray applications. We can also supply generators for special applications like computed tomography, mammography and mobile C-arms. We are experienced in designing or manufacturing monoblocks to cover virtually all X-ray imaging requirements. Available features include Automatic Exposure Control (AEC), high speed starter, conventional or pulsed fluoroscopy for dose reduction and tube load computing.

General
The Polydoros RF Rad 80 X-ray generators are the standard for a wide range of radiography systems.

The modular design of the Rad 80 family incorporates high versatility and excellent adaptation to all requirements of radiography applications. The generators for standard X-ray tube assemblies are available with a nominal power from 55 kW to 80 kW.

The generator can be controlled via several interfaces (Ethernet, Can, RS 422, Parallel). The integrated processor system provides excellent accuracy and reproducibility of the radiographic data by performing all control and regulating functions.

A control console with touch panel operation is available. For DR application a Mini Console is available, which provides on/off and exposure release functionality. To optimize the service life of the tube, the required cooling interval is shown after each exposure.

A tube load computer determines the exact thermal condition of the tube. Tube load in HU’s and required cooling time are displayed (part of the plus package).

Special features
- High frequency technology
- Highly accurate radiographic parameters
- Precise reproducibility
- Fast regulation of high voltage and tube current
- Short exposure times
- Very compact design

32-bit microprocessor
Digital display of all selected data
User friendly operation
Integrated service functions for ease of service

Customizing
In order to fulfill your particular requirements, we also provide you with customized versions of this product.

Options
- Line matching transformer for 3-Ph-440 V/480 V
- External manual exposure switch
- Wall mount for control console

Accessories
- X-ray tube assembly
- Multi-leaf collimator
- High voltage cables

Control consoles
The Rad 80 generators are prepared for the connection of different control consoles.

Organ/anatomic programming
All radiographic parameters, e.g. the kV and mAs value, can be stored in the organ programs and selected at the touch of a button. The preset organ programs are easily modified by the user. For special cases, any of the technique parameters can be changed when the organ program is selected.
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<table>
<thead>
<tr>
<th>Generator Power rating</th>
<th>Polydoros RF Rad 80</th>
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<tbody>
<tr>
<td></td>
<td>55 kW</td>
</tr>
<tr>
<td>60 kV</td>
<td>1 mA to 640 mA</td>
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<tr>
<td>100 kV</td>
<td>1 mA to 550 mA</td>
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<tr>
<td>125 kV</td>
<td>1 mA to 443 mA</td>
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<tr>
<td>150 kV</td>
<td>1 mA to 367 mA</td>
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</tbody>
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Exposure voltage: From 40 kV to 150 kV

Automatic exposure control:
1-point technique with continuously falling load
2-point technique with constant load
3-point technique with constant load either mAs or mA (only with Touch Control Console)

mAs integrator: From 0.5 to 800 mAs graduated either in 33 fixed values of one or in 65 values of 1/2 Siemens exposure point

Exposure time:
1-point technique: 1 ms to 5 s with mAs-post-indication (with AEC only)
2-point technique: 1 ms to 5 s depending on mAs and kV
3-point technique: 20 ms to 5 s depending on mAs and kV

Tolerances: kV accuracy: ±5%; mAs accuracy: ±10% + 0.2 mAs, according to IEC60601-2-7/IEC60601-2-54

Power line connection:
- 380 V +15% -10%, 50/60 Hz ± 3 Hz, 3-phase, PE
- 400 V +10% -15%, 50/60 Hz ± 3 Hz, 3-phase, PE
- 440 V/480 V ± 10%, 50/60 Hz ± 3 Hz, 3-phase, PE, with optional line matching transformer

Line impedance: According to IEC60601-2-7/IEC60601-2-54

Dimensions: 1020 (l) x 570 (w) x 542 (h) mm

Block Diagram – Generator Polydoros RF Rad 80
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