Generator Philips Optimus 50 R/F

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage range</td>
<td>400 V ± 10 %, 50/60 Hz, triphasic</td>
</tr>
<tr>
<td>Main resistance</td>
<td>0.3 Ω/145 A</td>
</tr>
<tr>
<td>Power output</td>
<td>50 kW</td>
</tr>
<tr>
<td>High voltage generation</td>
<td>yes</td>
</tr>
<tr>
<td>Fluoroscopy</td>
<td>yes</td>
</tr>
<tr>
<td>Dose monitoring</td>
<td>yes</td>
</tr>
<tr>
<td>Continual output</td>
<td>500 W (6 f/min at 50 kW; 0.1 s)</td>
</tr>
</tbody>
</table>

Image technology:

- kV, continually falling load, automatic exposure control
- kV, mA, constant load, automatic exposure control
- kV, mAs, constant load
- kV, mA, s, constant load

Maximum electricity input is achieved under the following conditions:

- Tube power: 50 kW
- Mode: kV-mAs
- Focus: Large
- High voltage: 77 kV
- Current-time product: 65 mAs
- Exposure time: 0.1 s

Adjustment range:

- X-rays without AEC automatic exposure control
  - Tube voltage: 40 kV - 150 kV, can be adjusted in 1 kV steps
  - Tube current: 1 mA - 650 mA, for kV-mA-s and kV-mAs-modes, can be adjusted in steps of 25%, 12%, 6% mAs
  - Exposures: 1 ms - 6 s (16 s), can be adjusted in steps of 25%, 12%, 6%
- X-rays with AEC automatic exposure control
  - mAs: 0.5 mAs - 600 mAs
  - Switch times: 1 ms - 4 s

Density levels can be adjusted in steps of 25%, 12%, 6%.

Fluoroscopy:

- Tube voltage: 40 kV - 125 kV, via kV/mA characteristic
- Tube current: 0.1 mA - 6 mA, via kV/mA characteristic

Tabletop extension + footrest

<table>
<thead>
<tr>
<th>Generator Philips Optimus 50 R/F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spatial planning</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>User interface</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Environmental conditions</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

He urological workstation **DURONOVA** is one of the latest generation of remote-controlled systems from our company BÖHME MEDIZINTECHNIK GmbH. With a design that meets modern standards, its simple colour and styling improve the well-being of both patients and medical personnel. Our systems are reliable, simple to operate, efficient and offer an unrivalled digital image quality.

---

**DURONOVA** The digital future in urology

---
The high degree of flexibility of the EU Guidelines 93/42 EEC (93) Medical Device Directive. DICOM-Software

The system tailored to your needs

The urological workstation has the following components:

- Urology table Uromat 3000
- X-ray generator Optimus 80 R/F
- X-ray emitter DR 1825
- Servo-controlled collimator R 503 MLP/A
- Image intensifier 36 cm, 12" CCD-camera, TV subsystem
- Live image monitor for fluoroscopy, monitor for last image hold (CD)/DICOM-software solution and image processing software

With these components the system can reliably support you.

Urology table – Work comfortably

Ergonomics has the highest priority for comfortable, non-fatiguing operation. The heart of the urological workstation is highly sensitive but nevertheless robust mechanisms which allow the table to be adjusted, swivelled and tilted in any position, smoothly and continuously. Lateral, longitudinally, from the 88° vertical to the 20° Trendelenburg position. The operators control system also allows isocentric tilting around the table end. Doctors and their assistants are thus assured of optimal operating conditions as well as allowing patients to get on the table comfortably at minimum table height.

Ergonomic operation

A manual control unit or multifunction control panel allows the table to be comfortably controlled. The memory function allows you to save three and positions during an examination and when needed the unit can be returned to these positions fully automatically. Simply the easy x-ray unit support arm can be easily moved longitudinally, the x-ray emitter can easily be moved into the park position if needed. Depending on the position of the table end, the table is available in left and right hand configurations. It can also be free-standing or installed near a wall in a space-saving configuration.

Collimator – accurate

The servo-controlled collimator adjusts the optionally round or rectangular radioscopy window to particular requirements and ensures that only the area to be examined is irradiated. This ensures that patients and medical personnel have the least possible radiation exposure.

Collimator – Round Light Field

Collimator – Rectangular Light Field

Image intensifier with TV subsystem – realistic

The image intensifier converts the x-rays into a visible, amplified image that is sent to the videocamera with a greyscale of 12 bits. This greatly simplifies digital work-up and image processing.

Monitor – razor-sharp

Even the smallest details are visible on the high resolution 27" LCD monitor thanks to a resolution of 1280 x 1024 pixels and a grayscale of 12 bits. This greatly simplifies diagnosis, including early diagnoses.

DICOM-software solution – tailored to your needs

The Optimus 80 R/F x-ray generator from Philips is simple to operate with up to 1200 individual programs for a x-ray programs, guaranteeing reliable and high quality images with reduced radiation emission and increased utilisation of the x-ray unit.

Oval program 65 R/F or 80 R/F as per client request

X-ray tube – effective

The DURONOVA – the digital future in urology.

Advantages of digital radiography:

- Reduced radiation exposure for patient and medical personnel
- Immediate access to x-ray images
- Improved diagnostic possibilities using additional image processing
- Simple archiving and report of data via DICOM
- Consequent savings in time and costs

Complete digital system for diagnostic use.

Innovative medical technology. The urological workstation

Conformity

This medical device conforms to the regulations of the EU-Guidelines 93/42 EEC (93) Medical Device Directive.

High degree of flexibility

The available profiles allow individual adjustments of the workstation to a particular type of examination and a particular patient – whether a child or an adult.