Resistance Welding
PSI 6000 Series
Medium Frequency Inverters

The Drive & Control Company
Bosch Rexroth.
The Drive & Control Company

Rexroth leads the industry in the design and development of products, equipment, and devices that control movement in machinery. We have built strong partnerships with our customers, who rely on us for solutions that deliver consistency, accuracy, and repeatability in their equipment. Our drive and control solutions improve the performance and throughput of our customers’ machines, while making them easier to operate and maintain.

World-class solutions
Rexroth’s drive and control solutions are based on its complete range of best-in-class products, its applications engineering expertise, and its comprehensive knowledge of machines and the environments in which they work. Each Rexroth product is backed with sales and service offices in more than 80 countries around the world.

Bosch Rexroth Corporation is organized into six divisions:
• Industrial Hydraulics
• Electric Drives and Controls
• Linear Motion and Assembly Technologies
• Pneumatics
• Service Automation
• Mobile Hydraulics

Electric Drives and Controls
As a result of our solid heritage and our diverse technical portfolio, Rexroth has emerged as one of the world’s foremost providers of servo-based motion control systems. Our tradition of product excellence and our long-standing commitment to open systems allow us to offer total solutions for all of your drive and control needs. Our products have been successfully integrated into large and small machine control operations around the world.

Partnerships start with knowing your business
To better address your unique challenges, our products are segmented into five industry-specific system solutions:

• Machine Tool
• Food & Packaging
• Printing & Converting
• General Automation
• Mounting/Handling/Car Body

With our expertise in your industry, we are better able to partner with you to provide solutions that meet your demands for productivity, performance, and reliability. It all begins with an initial assessment involving the engineering, and even the physics of the application. Then, based on those objectives, and our experience in your markets, we design a solution that delivers the throughput, quality, precision, and performance required.
Whenever there is a demand for spot, projection or seam resistance welding control in the automotive industry, with system integrators or with machine manufacturers, Rexroth can provide a complete package solution with the PSI 6000.

The PSI 6000 concept provides parameterized functions for the resistance welding process in order to realize specific complex sequences. All units have a free slot that will accept Rexroth quality control modules. Secondary currents ranging from 250 up to 120,000 Amps are available on demand regardless of the preferred welding method. The integration of the weld timer control functions into an AC, or medium frequency inverter, provides a solid basis for modern automation tasks. The PSI 6000 concept is the amalgamation of many successful solutions in the field of resistance welding. A particularly valuable advantage of this innovative product is its enormous input and output flexibility.

All the common I/O bus systems such as Profibus-DP, INTERBUS, or DeviceNet can be used to connect to peripherals like the allocated robot control or machine control. Along with a choice of parallel or serial input and output interfaces, it is also possible to program the PSI 6000 series, archive and record data via a network such as Ethernet, Profibus FMS or INTERBUS PMS. The units are operated via Rexroth's graphical user interface, which runs on Windows®.
PSI 6025 Inverter

250 Amps – 7kA, MF-Inverter designed for precision spot weld applications. The inverter is air cooled with integrated timer function and selectable I/O board. It offers a voltage of 400 – 480 Volts, 50/60 Hz, 3-phase.

PSI 6100 Inverter

3 – 24kA, MF-Inverter designed for general purpose resistance welding applications. The inverter is air cooled, or water cooled with integrated timer function and selectable I/O board. It is available in two voltage ranges, 400 – 480 volts or 480 – 690 volts, 50/60 Hz, 3-phase.

PSI 6300 Inverter

6 – 40kA, MF-Inverter designed for short duty cycle/high current special applications, air cooled or water cooled with integrated time function and selectable I/O board. Operating voltages of 400 – 480 volts, 50/60 Hz, 3-phase are available.

PSI 6200 Inverter

9 – 60 kA, MF-Inverter designed for aluminum welding, seam and projection welding applications. The inverter is water cooled with an integrated timer function and selectable I/O board. Input voltage is 400 – 480 volts, 50/60 Hz, 3-phase.

PSI 6500 Inverter

9 – 120 kA, MF-Inverter designed for high current seam and press welding applications. The inverter is water cooled with an integrated timer function and selectable I/O board. Input voltage is 400 – 480 volts, 50/60 Hz, 3-phase.
<table>
<thead>
<tr>
<th>Inverter Type</th>
<th>Primary Current [A]</th>
<th>Physical Size inches (in)</th>
<th>Physical Weight pounds (lbs)</th>
<th>Cooling System</th>
</tr>
</thead>
<tbody>
<tr>
<td>6025 Air</td>
<td>20</td>
<td>10.41 x 18.23 x 11.02</td>
<td>approx. 40</td>
<td>Cooling Air with Bosch Rexroth fan cowl</td>
</tr>
<tr>
<td>6100 Air</td>
<td>110</td>
<td>12.36 x 18.23 x 11.02</td>
<td>approx. 44</td>
<td>Cooling Air with Bosch Rexroth fan cowl</td>
</tr>
<tr>
<td>6100 Water</td>
<td>110</td>
<td>10.39 x 18.23 x 11.02</td>
<td>approx. 55</td>
<td>Cooling Water 4 liter /min. max 30°C</td>
</tr>
<tr>
<td>6300 Air</td>
<td>110</td>
<td>12.36 x 18.23 x 11.02</td>
<td>approx. 44</td>
<td>Cooling Air with Bosch Rexroth fan cowl</td>
</tr>
<tr>
<td>6300 Water</td>
<td>110</td>
<td>10.39 x 18.23 x 11.02</td>
<td>approx. 55</td>
<td>Cooling Water 4 liter /min. max 30°C</td>
</tr>
<tr>
<td>6200 Water</td>
<td>220</td>
<td>11.42 x 25.71 x 11.02</td>
<td>approx. 121</td>
<td>Cooling Water 4 liter /min. max 30°C</td>
</tr>
<tr>
<td>6500 Water</td>
<td>650</td>
<td>14.88 x 25.71 x 11.02</td>
<td>approx. 154</td>
<td>Cooling Water 10 liter /min. max 30°C</td>
</tr>
</tbody>
</table>

**Cabinet**

Dimensions with assembled Inverter PSI 6100 or PSI 6300
32” high, 25” wide, and 16.75” deep

Dimensions with assembled Inverter PSI 6200
40” high, 30” wide, and 16.75” deep