1. TEMPERATURE/ROTATIONAL SPEED CURVE

The newly developed LX seal reduces the generation of heat.

Test conditions:
- Bearing designation: BSTU3080LLX/Gnp4U/L588
- Rotational speed: up to 5,000 min⁻¹
- Lubricant: special grease L588

2. TORQUE

The LX seal has only a minimal influence on the breakout torque of the bearing.

Test conditions:
- Bearing designation: BSTU3080LLX/Gnp4U/L588
- Lubricant: special grease L588

3. BEARING RIGIDITY

BSTU bearings offer a very high rigidity, thanks to the use of a maximum number of large diameter balls.

Test conditions:
- Bearing designation: BSTU3080LLX/Gnp4U/L588
- Axial thrust load: up to 20 kN

4. GREASE

The BSTU bearings are filled with special long-life polyurea-based grease (L588).

This grease is very effective in reducing standstill wear and fretting corrosion of the bearing. Ball/plate tests proved the wear-reducing properties of this grease.

Test conditions:
- Bearing designation: BSTU3080LLX/Gnp4U/L588
- Rotational speed: up to 2,200 min⁻¹
- Lubricant: special grease L588
- Dirt particles: diameter: 5 to 75 µm
- Components: SiO₂, Fe₂O₃, Al₂O₃ and others
- Color of dirt particles: Brown
- Test duration: 1 hour

5. SEAL

A spindle ball bearing is constantly subjected to cooling liquids and metal shavings. After the test, no contamination was detected on the inside of the BSTU bearing.

Test conditions:
- Bearing designation: BSTU3080LLX/Gnp4U/L588
- Rotational speed: up to 2,200 min⁻¹
- Lubricant: special grease L588
- Dirt particles: Diameter: 5 to 75 µm
- Components: SiO₂, Fe₂O₃, Al₂O₃ and others
- Color of dirt particles: Brown
- Test duration: 1 hour
The BSTU series produced by NTN are characterized by the highest basic load rating, which ensures a long service life. In this way, NTN contributes to the protection of the environment. In addition, BSTU bearings are very simple to install. 

- Long service life and rigidity
- High precision
- Low temperature development
- Low frictional torque

**Technical characteristics**

### 1. HIGHEST BASIC LOAD RATING

BSTU bearings by NTN realize the highest basic load rating available. NTN achieved this by optimizing the inner bearing geometry. In addition to a larger ball diameter, BSTU bearings are equipped with a larger quantity of balls.

### 2. LIGHT CONTACT-TYPE SEAL

- Optimum sealing effect
- Lowest frictional torque

The sealing lip of the LX seal represents the optimum solution in regard to sealing effect and frictional torque. BSTU bearings by NTN are equipped with these seals on both sides of the bearing.

### 3. APPLICATION-OPTIMISED GREASE

A special precision-based long-life grease ensures standard and vibration-robust bearing (housing contact).

### 4. SIMPLE MOUNTING PROCESS

BSTU bearings can be simply installed to the housing, thanks to the pre-drilled through-holes.

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### BSTU designation

![BSTU designation diagram](image)

### BSTU Table

![BSTU Table](image)

### Fitting of modification parts

<table>
<thead>
<tr>
<th>Parts</th>
<th>S5</th>
<th>P6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bearing</td>
<td>940</td>
<td>125</td>
</tr>
<tr>
<td>Motor</td>
<td>940</td>
<td>125</td>
</tr>
</tbody>
</table>

### Dynamically equivalent load

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4U</td>
<td>1.15</td>
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<tr>
<td>P42U</td>
<td>0.7</td>
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</tbody>
</table>

### Statically equivalent load

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>3.38</td>
</tr>
</tbody>
</table>

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(1) All dimensions are in millimeters (mm). All tolerances are in accordance with ISO 286-1. The table includes standard dimensions and tolerances. For more information, refer to the NTN catalog or contact NTN. The table includes standard dimensions and tolerances. For more information, refer to the NTN catalog or contact NTN.