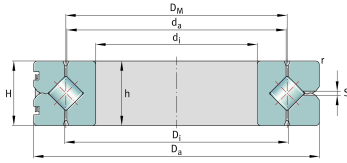


**SX011880**

Crossed roller bearing

Crossed roller bearings dimension series 18 to
DIN 616

Technical information

**Main Dimensions & Performance Data**

| | | |
|-------------|-----------|----------------------------------|
| d_1 | 400 mm | Bore Diameter |
| | 0,007 mm | Bore diameter upper tolerance |
| | -0,029 mm | Bore diameter lower tolerance |
| D_a | 500 mm | Outside Diameter |
| | 0 mm | Outside diameter upper tolerance |
| | -0,04 mm | Outside diameter lower tolerance |
| H | 46 mm | Height of the assembled bearing |
| h_i | 46 mm | Height inner ring |
| | 0,15 mm | Width upper tolerance |
| | -0,15 mm | Width lower tolerance |
| $\approx m$ | 23,221 kg | Weight |

Dimensions

| | | |
|-----------|----------|---|
| D_i | 451 mm | Inner diameter outer ring |
| D_M | 450 mm | Rolling element pitch circle diameter |
| d_a | 449 mm | Outer diameter inner ring |
| h | 46 mm | Height of individual ring |
| | 0 mm | Height of individual ring upper tolerance |
| | -0,05 mm | Height of individual ring lower tolerance |
| r_{min} | 2,1 mm | Chamfer dimension |
| S | 2,5 mm | Diameter of lubrication hole |



Temperature range

| | | |
|------------|--------|----------------------------|
| T_{\min} | -30 °C | Operating temperature min. |
| T_{\max} | 80 °C | Operating temperature max. |

Calculation factors

| | | |
|---------------------|-------------|---|
| | 0,03 mm | Running accuracy, radial |
| | 0,01 mm | Running accuracy, axial |
| $S_{r \min}$ | 0,01 mm | Minimum radial bearing clearance, at standard bearing clearance |
| $S_{r \max}$ | 0,05 mm | Maximum radial bearing clearance, at standard bearing clearance |
| $S_{k \min}$ | 0,02 mm | Minimum axial tilting clearance, at standard bearing clearance |
| $S_{k \max}$ | 0,1 mm | Maximum axial tilting clearance, at standard bearing clearance |
| C_a | 385.000 N | Basic dynamic load rating, axial |
| C_{0a} | 1.660.000 N | Basic static load rating, axial |
| C_r | 275.000 N | Basic dynamic load rating, radial (for radial load only) |
| C_{0r} | 810.000 N | Basic static load rating, radial (for radial load only) |
| $N_{G \text{ oil}}$ | 340 1/min | Limiting speed for oil lubrication with normal clearance |
| N_G Grease | 170 1/min | Limiting speed for grease lubrication with normal clearance |
| | 61880 | Dimensions identical to ISO dimension series 18 |



Characteristics



Radial load



Axial load in one direction



Axial load in two directions



Moments about all axes



Grease Lubrication



Oil Lubrication



Not sealed



Large bearing