ORS

2 SYMBOLS OF BEARINGS

2.1 Designation of Bearings

Example: 6202 TN ZZ N P6 C3 S1

① ② ③ ④ ⑤ ⑥ ⑦

① Base Designation :

Base designation consist of symbols for the bearing series and the bearing bore.
The first two digits are symbols for the series identifying bearing type and dimensions.

The last two digits identify bearing bore diameter.

...00 Bore Diameter = 10 mm
...01 Bore Diameter = 12 mm
...02 Bore Diameter = 15 mm
...03 Bore Diameter = 17 mm
...04 Bore Diameter = 20 mm
from 04 onwards, bore diameter symbol is calculated with formula symbol x 5

For example: Bore diameter of bearing 6205 is calculated as 05 x 5 = 25mm.

② Cages :

J Pressed Steel Cage
Y Pressed Brass Cage
TN Polyamid 6.6 Plastic Cage
TN1 Glass Fibre Reinforced Polyamide 6.6 Plastic Cage
M Solid Brass Cage

③ Sealing of Bearings (Seals) :

Z shield at one side
ZZ shields at both sides
RS seal at one side
2RS seals at both sides

RSR
RS1
RSS
RDD
} Rubber Seal Types

Standard material for seals is NBR and is not shown on the designation.
"A" stands for acrylic material and "V" for viton material.

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ZN	shield at one side and snap ring groove at the other side
ZNB, **RSNB**	shield/seal and snap ring groove at the other side
ZNBR, **RSNBR**	same as ZNB / RSNB, but with snap ring

④ Inner Construction and Outer Profile :

- **B** Angular contact ball bearing with contact angle 40 °
- **K** Tapered bore bearing (taper 1:12)
- **K30** Tapered bore bearing (taper 1:30)
- **N** Snap ring groove at the outer ring
- **NR** Snap ring groove and snap ring
- **V** Oil groove at the outer ring
- **NO** Groove and O-ring

⑤ Tolerance Classes :

Tolerance classes are according to ISO 492 / TS 6269.

- **-** P 0 (not shown)
- **P6** Tighter tolerance class than P0
- **P5** Tighter tolerance class than P6
- **P4** Tighter tolerance class than P5
- **P2** Tighter tolerance class than P4

⑥ Bearing Clearance :

- **C2** Smaller radial clearance than C0
- **-** C0, normal clearance (not shown)
- **C3** Larger radial clearance than C0
- **C4** Larger radial clearance than C3
- **C5** Larger radial clearance than C4

Note: H, M and L letters indicate tight clearance

- **H** High
- **M** Medium
- **L** Low

The clearance group might be combined with the tolerance field.
For example; P63 = P6 + C3

⑦ Heat Treatment :

- **-** S0, operating temperature up to max. 150 °C (not shown) (ring hardness: Hrc 60-64)
- **S1** operating temperature between 150 °C and 200 °C (ring hardness: HRc 57- 61)
- **S2** operating temperature between 200 °C and 250 °C (ring hardness: HRc 53- 57)
- **S3** operating temperature between 250 °C and 300 °C (ring hardness: HRc 51- 55)
- **S4** operating temperature between 300 °C and 350 °C (ring hardness: HRc 50- 54)