Double row spherical roller bearings with cylindrical and tapered bore

Bearing Designation with Cylindrical Bore: 21305W33M
Bearing Designation with Tapered Bore (1:12): 21305KW33M

Dimensions (mm):
- d: 25
- D: 62
- B: 17,00
- r_a min: 1,1

Abutment and Fillet Dimensions (mm):
- d_a min: 32
- D_a max: 55
- r_a max: 1

Basic Load Rating (kN):
- C: 44,00
- C^0: 44,00

Limiting Speed for Lubrication (min⁻¹):
- Grease: 8500
- Oil: 10000

Weight [kg]: 0,257
Weight - K [kg]: 0,250

Corresponding:
- Adapter Sleeve: H305
- Withdrawal Sleeve: AH305
- Withdrawal Nut: KM6

Coefficients:
- e: 0,29
- Y_1: 3,4
- Y_2: 2,3
- Y_3: 2,3
### Tolerance Class

<table>
<thead>
<tr>
<th>Tolerance Class</th>
<th>Inner Ring</th>
<th>Cylindrical Bore</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Δ_{dmp}</td>
<td>μ</td>
</tr>
<tr>
<td>P0</td>
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<td>min</td>
</tr>
<tr>
<td>P6</td>
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<td>-10</td>
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<td>Δ_{dmp}</td>
<td>Δ_{dmp} − Δ_{dmp}</td>
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<tr>
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<td>P0-P6</td>
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### Radial Clearance - Cylindrical Bore

<table>
<thead>
<tr>
<th>C2</th>
<th>normal</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
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<tbody>
<tr>
<td>min</td>
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### Radial Clearance - Tapered Bore

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1) Valid in any bore radial plane
2) P0 - Valid only for bearings in diameter series 2, 3 and 4 * P6 - Valid only for bearings in diameter series 0, 1, 2, 3 and 4

Corresponds to Δ_{B_s}, V_{B_s} of the same bearing inner ring.
Tolerance Symbols and Their Meaning

- $d$ nominal bore diameter
- $d_1$ nominal diameter of larger theoretical tapered bore diameter
- $d_2$ nominal diameter of the shaft washer of double direction thrust bearings
- $\Delta_{tb}$ deviation of single bore diameter from nominal
- $\Delta_{apor}$ mean cylindrical bore diameter deviation in single radial plane
- (for tapered bore $\Delta_{apor}$ is valid for theoretical bore diameter)
- $\Delta_{a_br}$ deviation of mean larger theoretical diameter of tapered bore
- $\Delta_{a_brk}$ mean shaft washer bore diameter deviation of double direction thrust bearings in single radial plane
- $V_{brp}$ single bore diameter variation in single radial plane
- $V_{brp}$ mean cylindrical bore diameter variation
- $V_{dbr}$ shaft washer bore diameter variation of double direction thrust bearings in single radial plane
- $D$ nominal outside diameter
- $\Delta_{o_br}$ deviation of single outside diameter from the nominal dimension
- $\Delta_{o_brk}$ mean outside cylindrical surface diameter deviation in single plane
- $V_{o_brp}$ single outside cylindrical surface diameter variation in single radial plane
- $V_{o_brp}$ mean outside cylindrical surface diameter variation
- $B$ inner ring nominal width
- $T_1$ total nominal width of tapered roller bearings
- $T_2$ nominal effective width of cup sub-unit
- $T_1'$ nominal effective width of cone sub-unit
- $H_2$ rated width of unidirectional axial bearing
- $H_3'$ rated height of unidirectional ball axial bearing including the body ring
- $H_3$ rated height of bidirectional axial bearing
- $H_4'$ rated height of bidirectional axial ball bearing including body rings
- $H_4$ rated height of spherical-roller bearing
- $\Delta_{a_ib}$ inner ring single width deviation
- $\Delta_{a_ob}$ outer ring single width deviation
- $\Delta_{a_1o}$ bearing single width deviation (total)
- $\Delta_{a_2o}$ cone sub-unit effective width deviation
- $\Delta_{c1o}$ cup sub-unit effective width deviation
- $\Delta_{a_1o_s}$ height deviation of single direction axial bearings from nominal value
- $\Delta_{a_1o_s}$ height deviation of single direction axial ball bearings with spherical housing washer from nominal value
- $\Delta_{a_2o_s}$ height deviation of double direction axial bearings from nominal value
- $\Delta_{a_2o_s}$ height deviation of double direction axial ball bearings with spherical housing washer from nominal value
- $\Delta_{a_3o_s}$ height deviation of axial spherical-roller bearing from the rated value
- $C$ outer ring nominal width
- $V_{a_brp}$ inner ring single width variation
- $V_{a_brp}$ outer ring single width variation
- $K_2$ radial runout of assembled bearing inner ring
- $K_a$ radial runout of assembled bearing outer ring
- $S_1$ shaft washer raceway axial runout
- $S_2$ housing washer raceway axial runout
- $S_3'$ inner ring flat seat face axial runout of assembled bearing
- $S_3'$ outer ring flat seat face axial runout of assembled bearing
- $S_3'$ flat seat face axial runout
- $S_3'$ runout of supporting face towards seat face for single row tapered roller bearings