

31328 X/DFC330

Matched tapered roller bearings arranged face-to-face (X-arrangement, load lines diverge towards the bearing axis) accommodate high radial loads and axial loads in both directions. The precision manufactured intermediate ring between the outer rings enables a defined internal clearance or preload to be achieved when mounted. Matched tapered roller bearings are typically used in gearboxes, hoisting equipment, rolling mills, and machines in the mining industry.



- High radial load carrying capacity
- Designed for axial loads in both directions
- Relatively high stiffness
- Surface finish on the contact surfaces of the rollers and raceways that enhances operational reliability



| Dimensions       |             |                              |
|------------------|-------------|------------------------------|
| d                | 140 mm      | Bore diameter                |
| D                | 300 mm      | Outside diameter             |
| T                | 154 mm      | Total width                  |
| 2B               | 140 mm      | Width of inner rings         |
| b                | 20 mm       | Width of lubrication groove  |
| K                | 15 mm       | Diameter of lubrication hole |
| r <sub>3,4</sub> | min. 4 mm   | Chamfer dimension            |
| r <sub>5</sub>   | min. 1.5 mm | Chamfer dimension            |



| Abutment dimensions |             |                                                               |
|---------------------|-------------|---------------------------------------------------------------|
| d <sub>a</sub>      | max. 169 mm | Diameter of shaft abutment                                    |
| D <sub>a</sub>      | min. 235 mm | Diameter of housing abutment                                  |
| D <sub>a</sub>      | max. 284 mm | Diameter of housing abutment                                  |
| C <sub>a</sub>      | min. 9 mm   | Minimum width of space required in housing on large side face |

|       |             |                  |
|-------|-------------|------------------|
| $r_a$ | max. 5 mm   | Radius of fillet |
| $r_c$ | max. 1.5 mm | Radius of fillet |

## Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 1 264 kN    |
| Basic static load rating  | $C_0$ | 1 800 kN    |
| Fatigue load limit        | $P_u$ | 180 kN      |
| Reference speed           |       | 1 200 r/min |
| Limiting speed            |       | 2 200 r/min |
| Limiting value            | e     | 0.83        |
| Calculation factor        | $Y_1$ | 0.81        |
| Calculation factor        | $Y_2$ | 1.2         |
| Calculation factor        | $Y_0$ | 0.8         |

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal + CL7C, P5, total width
- Internal clearance: values

### BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit