

## PDF technical sheet

### 4T320/22X



## Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

| Product definition |          |
|--------------------|----------|
| d                  | 0.8661 " |
| D                  | 1.7323 " |
| B                  | 0.5906 " |
| C                  | 0.4528 " |
| T                  | 0.5906 " |
| d1                 | 1.3189 " |
| a                  | 0.4331 " |
| rs min             | 0.0236 " |
| r1s min            | 0.0236 " |
| e                  | 0.4      |
| Y2                 | 1.51     |
| Y0                 | 0.83     |
| Mass               | 0.37 oz  |
| ISO 355 reference  | T3CC022  |
| Brand              | NTN      |



| Product performance                           |            |
|-----------------------------------------------|------------|
| Dynamic load, C                               | 27 kN      |
| Rating life coefficient, A2                   | 1.4        |
| Static load, C0                               | 31.50 kN   |
| Fatigue limit load, Cu                        | 3.85 kN    |
| Nlim (oil)                                    | 12,000 RPM |
| Nlim (grease)                                 | 8,900 RPM  |
| Min operating temperature, Tmin               | -40 °C     |
| Max operating temperature, Tmax               | 248 °C     |
| Characteristic cage frequency, FTF            | 0.43 Hz    |
| Characteristic rolling element frequency, BSF | 6.56 Hz    |
| Characteristic outer ring frequency, BPF0     | 7.70 Hz    |
| Characteristic inner ring frequency, BPFI     | 10.30 Hz   |



### Abutment dimensions

|         |          |
|---------|----------|
| da max  | 1.0630 " |
| db min  | 1.0433 " |
| Da min  | 1.4961 " |
| Da max  | 1.5551 " |
| Db min  | 1.6142 " |
| Ca min  | 0.1181 " |
| Cb min  | 0.1378 " |
| ra max  | 0.0236 " |
| r1a max | 0.0236 " |

### Calculation factors

#### Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

| $F_a / F_r \leq e$ |   | $F_a / F_r > e$ |    |
|--------------------|---|-----------------|----|
| X                  | Y | X               | Y  |
| 1                  | 0 | 0.4             | Y2 |

#### Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

| $X_0$ | $Y_0$ |
|-------|-------|
| 0.5   | Y0    |

If  $P_0 \leq F_r$ , then use  $P_0 = F_r$

The values for e, Y2 and Y0 are shown in the above table