

PDF technical sheet

24056EMK30W33C3

Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, groove and lubrication holes on outer ring, tapered bore 1:30

| Product definition | |
|-----------------------------|-----------|
| d | 11.0236 " |
| D | 16.5354 " |
| B | 5.5118 " |
| D1 | 14.8583 " |
| rs min | 0.1575 " |
| Number of lubrication holes | 3 |
| b | 0.6457 " |
| k | 0.3150 " |
| e | 0.3 |
| Y1 | 2.25 |
| Y2 | 3.34 |
| Y0 | 2.2 |
| Radial clearance class | C3 |
| Mass | 228.93 oz |
| Brand | SNR |

| Product performance | |
|---|-----------|
| Dynamic load, C | 2,720 kN |
| Static load, C0 | 4,120 kN |
| Fatigue limit load, Cu | 223 kN |
| Nref | 900 RPM |
| Nlim | 1,500 RPM |
| Min operating temperature, Tmin | 104 °C |
| Max operating temperature, Tmax | 392 °C |
| Characteristic cage frequency, FTF | 0.44 Hz |
| Characteristic rolling element frequency, BSF | 8.52 Hz |
| Characteristic outer ring frequency, BPF0 | 10.64 Hz |
| Characteristic inner ring frequency, BPF1 | 13.36 Hz |

| Abutment dimensions | |
|---------------------|-----------|
| da min | 11.5984 " |
| Da max | 15.9606 " |
| ra max | 0.1181 " |

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

| Fa / Fr ≤ e | | Fa / Fr > e | |
|-------------|----|-------------|----|
| X | Y | X | Y |
| 1 | Y1 | 0.67 | Y2 |

Equivalent static radial load

$$Po = Xo \cdot Fr + Yo \cdot Fa$$

| Xo | Yo |
|----|----|
| 1 | Y0 |

The values for e, Y1, Y2 and Y0 are shown in the above table .