

## PDF technical sheet 21318VMK

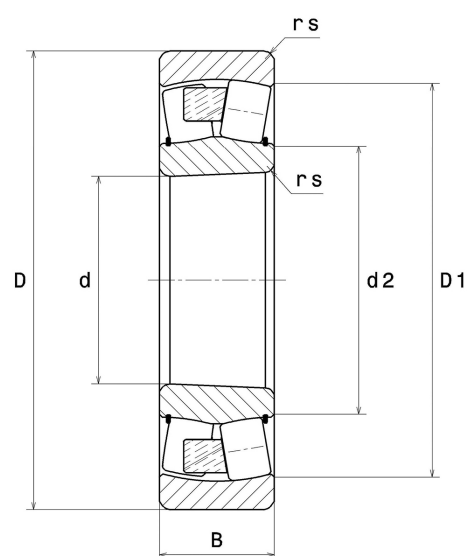


### Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, tapered bore 1:12

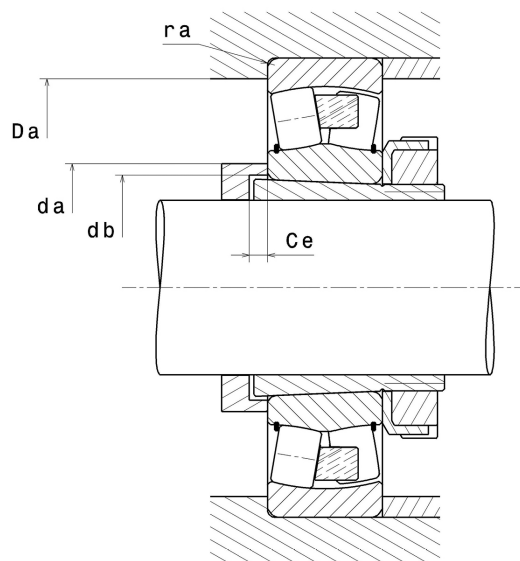
#### Product definition

|                             |          |
|-----------------------------|----------|
| d                           | 3.5433 " |
| D                           | 7.4803 " |
| B                           | 1.6929 " |
| D1                          | 6.3583 " |
| rs min                      | 0.1181 " |
| Number of lubrication holes |          |
| Associated sleeve reference | H318     |
| e                           | 0.22     |
| Y1                          | 3        |
| Y2                          | 4.47     |
| Y0                          | 2.93     |
| Radial clearance class      | CN       |
| Mass                        | 21.27 oz |
| Brand                       | SNR      |



#### Product performance

|                                               |           |
|-----------------------------------------------|-----------|
| Dynamic load, C                               | 405 kN    |
| Static load, C0                               | 398 kN    |
| Fatigue limit load, Cu                        | 48.60 kN  |
| Nref                                          | 3,400 RPM |
| Nlim                                          | 4,300 RPM |
| Min operating temperature, Tmin               | -40 °C    |
| Max operating temperature, Tmax               | 392 °C    |
| Characteristic cage frequency, FTF            | 0.42 Hz   |
| Characteristic rolling element frequency, BSF | 6.02 Hz   |
| Characteristic outer ring frequency, BPF0     | 6.72 Hz   |
| Characteristic inner ring frequency, BPF1     | 9.28 Hz   |



### Abutment dimensions

|        |          |
|--------|----------|
| da min | 4.0945 " |
| Da max | 6.9291 " |
| ra max | 0.0984 " |

### Calculation factors

#### Equivalent dynamic radial load

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

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

#### Equivalent static radial load

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

| X <sub>0</sub> | Y <sub>0</sub> |
|----------------|----------------|
| 1              | Y0             |

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