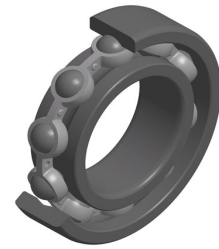


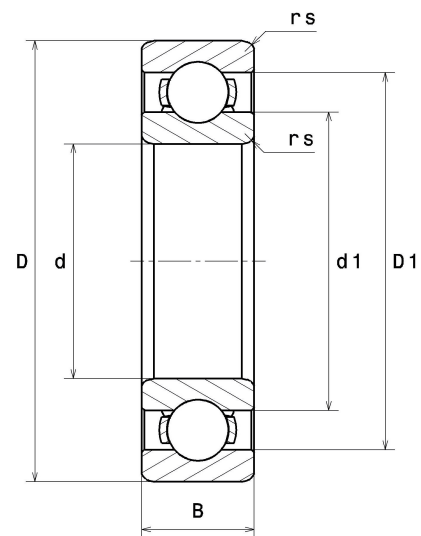
## PDF technical sheet 16020C3



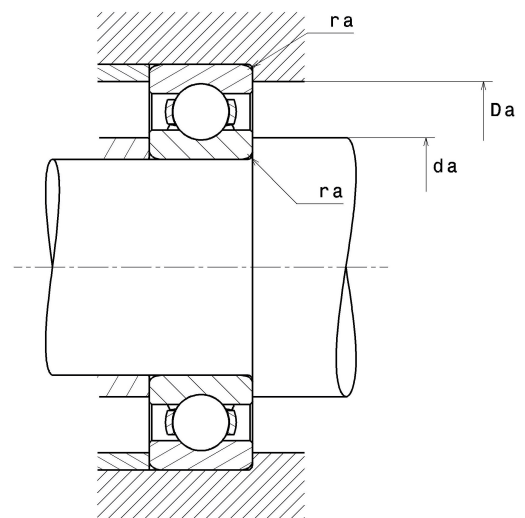
### Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, open

Product definition	
d	100 mm
D	150 mm
B	16 mm
rs min	1 mm
Radial clearance class	C3
Mass	0.91 kg
Brand	NTN



Product performance	
Dynamic load, C	35 kN
Static load, C0	36.50 kN
Fatigue limit load, Cu	1.48 kN
f0	16.4
Nlim (oil)	5,000 Tr/min
Nlim (grease)	4,200 Tr/min
Min operating temperature, Tmin	-60 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	12.03 Hz
Characteristic outer ring frequency, BPF0	9.63 Hz
Characteristic inner ring frequency, BPF1	11.37 Hz



### Abutment dimensions

da min	105 mm
Da max	145 mm
ra max	1 mm

### Calculation factors

#### Equivalent dynamic radial load

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

$\frac{f_0 F_a}{C_0}$	e	Fa / Fr ≤ e		Fa / Fr > e	
		X	Y	X	Y
0.172	0.19	1	0	0.56	2.3
0.345	0.22				1.99
0.689	0.26				1.71
1.03	0.28				1.55
1.38	0.3				1.45
2.07	0.34				1.31
3.45	0.38				1.15
5.17	0.42				1.04
6.89	0.44				1

#### Equivalent static radial load

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

X <sub>0</sub>	Y <sub>0</sub>
0.6	0.5

For single or DT bearing arrangement:

If  $P_0 < Fr$ , then use  $P_0 = Fr$