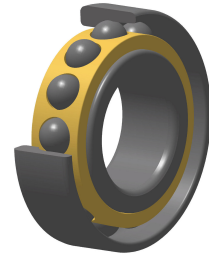


## PDF technical sheet 7315BL1G

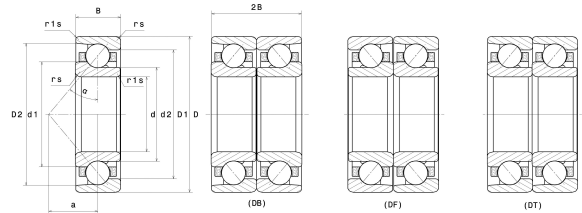


### Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, brass cage inner ring guided

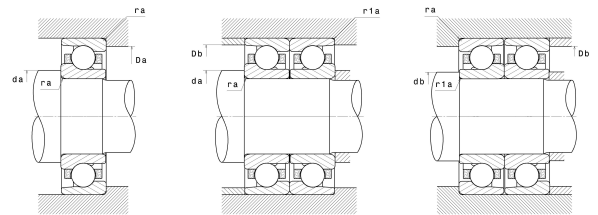
#### Product definition

d	75 mm
D	160 mm
B	37 mm
a	68 mm
Contact angle, $\alpha$	40 °
rs min	2.10 mm
r1s min	1.10 mm
Radial clearance class	CN
Mass	3.51 kg
Brand	NTN



#### Product performance

Dynamic load, C	118 kN
Static load, C0	89.30 kN
Fatigue limit load, Cu	3.75 kN
Nlim (oil)	5,400 Tr/min
Nlim (grease)	4,100 Tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.41 Hz
Characteristic rolling element frequency, BSF	4.22 Hz
Characteristic outer ring frequency, BPF0	4.53 Hz
Characteristic inner ring frequency, BPF1	6.47 Hz



#### Abutment dimensions

da min	87 mm
db min	82 mm
Da max	148 mm
Db max	153 mm
r1a max	1 mm
ra max	2 mm

### Calculation factors

#### Equivalent dynamic radial load

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

	e	Single or DT bearing arrangement				DB or DF arrangement			
		F <sub>a</sub> / F <sub>r</sub> ≤ e		F <sub>a</sub> / F <sub>r</sub> > e		F <sub>a</sub> / F <sub>r</sub> ≤ e		F <sub>a</sub> / F <sub>r</sub> > e	
		X	Y	X	Y	X	Y	X	Y
30°	0.8	1	0	0.9	0.76	1	0.78	0.63	1.24
40°	1.14			0.35	0.57		0.55	0.57	0.93

#### Equivalent static radial load

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

a	Single or DT bearing arrangement		DB or DF arrangement	
	X <sub>0</sub>	Y <sub>0</sub>	X <sub>0</sub>	Y <sub>0</sub>
30°	0.5	0.33	1	0.66
40°		0.26		0.52

For single or DT bearing arrangement :

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