

PDF technical sheet 231/560B



Double row spherical roller bearings

Spherical roller bearing, with central rib on inner ring, 2-part machined cage centred on inner ring, groove and lubrication holes on outer ring

Product definition	
d	22.0472 "
D	36.2205 "
B	11.0236 "
d2	26.7126 "
D1	31.5276 "
rs min	0.2953 "
Number of lubrication holes	8
b	1.2992 "
k	0.7874 "
e	0.3
Y1	2.27
Y2	3.38
Y0	2.22
Radial clearance class	CN
Brand	NTN



Product performance	
Dynamic load, C	7,650 kN
Static load, C0	15,500 kN
Fatigue limit load, Cu	892 kN
Nref	310 RPM
Nlim	560 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	8.56 Hz
Characteristic outer ring frequency, BPF0	10.20 Hz
Characteristic inner ring frequency, BPF1	12.80 Hz



Abutment dimensions

da min	23.3071 "
Da max	34.9606 "
ra max	0.2362 "

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	Y1	0.67	Y2

Equivalent static radial load

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

X_0	Y_0
1	Y0

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