

PDF technical sheet

230/560BL1

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	32.2835 "
B	7.6772 "
d2	25.5118 "
D1	29.1575 "
rs min	0.2362 "
Number of lubrication holes	8
b	1.0630 "
k	0.6299 "
e	0.22
Y1	3.03
Y2	4.51
Y0	2.96
Radial clearance class	CN
Brand	NTN

Product performance	
Dynamic load, C	4,800 kN
Static load, C0	10,500 kN
Fatigue limit load, Cu	838 kN
Nref	450 RPM
Nlim	620 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.46 Hz
Characteristic rolling element frequency, BSF	11.11 Hz
Characteristic outer ring frequency, BPF0	13.68 Hz
Characteristic inner ring frequency, BPFI	16.33 Hz

Abutment dimensions	
da min	22.9528 "
Da max	31.3780 "
ra max	0.1969 "

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 .