

PDF technical sheet

24080BK30

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, tapered bore 1:30

Product definition	
d	15.7480 "
D	23.6220 "
B	7.8740 "
D1	20.7756 "
rs min	0.1969 "
Number of lubrication holes	8
b	1.0630 "
k	0.6299 "
e	0.32
Y1	2.09
Y2	3.11
Y0	2.04
Radial clearance class	CN
Brand	NTN

Product performance	
Dynamic load, C	3,850 kN
Static load, C0	8,400 kN
Fatigue limit load, Cu	630 kN
Nref	520 RPM
Nlim	1,000 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	
Characteristic rolling element frequency, BSF	
Characteristic outer ring frequency, BPF0	
Characteristic inner ring frequency, BPF1	

Abutment dimensions	
da min	16.4567 "
Da max	22.9134 "
ra max	0.1575 "

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 .