

PDF technical sheet

24084BL1

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	16.5354 "
D	24.4094 "
B	7.8740 "
d2	18.9370 "
D1	21.6575 "
rs min	0.1969 "
Number of lubrication holes	8
b	1.0630 "
k	0.6299 "
e	0.32
Y1	2.13
Y2	3.18
Y0	2.09
Radial clearance class	CN
Brand	NTN

Product performance	
Dynamic load, C	3,850 kN
Static load, C0	8,450 kN
Fatigue limit load, Cu	515 kN
Nref	470 RPM
Nlim	950 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	10.36 Hz
Characteristic outer ring frequency, BPF0	12.69 Hz
Characteristic inner ring frequency, BPFI	15.31 Hz

Abutment dimensions	
da min	17.2441 "
Da max	23.7008 "
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 .