

PDF technical sheet

23084BL1K

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 1:12

Product definition	
d	16.5354 "
D	24.4094 "
B	5.9055 "
d2	19.2126 "
D1	22.1024 "
rs min	0.1969 "
Number of lubrication holes	8
b	0.7874 "
k	0.4724 "
Associated sleeve reference	H3084
e	0.24
Y1	2.85
Y2	4.24
Y0	2.78
Radial clearance class	CN
Brand	NTN

Product performance	
Dynamic load, C	3,100 kN
Static load, C0	6,400 kN
Fatigue limit load, Cu	517 kN
Nref	640 RPM
Nlim	800 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	10.61 Hz
Characteristic outer ring frequency, BPF0	13.16 Hz
Characteristic inner ring frequency, BPFI	15.84 Hz

Abutment dimensions

da min	17.2441 "
db min	17.2047 "
Ce min	0.6299 "
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 .