

PDF technical sheet 21319KD1



Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, groove and lubrication holes on outer ring, tapered bore 1:12

Product definition	
d	3.7402 "
D	7.8740 "
B	1.7717 "
d2	5.1732 "
D1	6.7323 "
rs min	0.1181 "
Number of lubrication holes	4
b	0.2756 "
k	0.1575 "
Associated sleeve reference	H319
e	0.23
Y1	3
Y2	4.46
Y0	2.93
Radial clearance class	CN
Brand	NTN



Product performance	
Dynamic load, C	335 kN
Static load, C0	420 kN
Fatigue limit load, Cu	47.90 kN
Nref	3,300 RPM
Nlim	4,100 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	6.43 Hz
Characteristic outer ring frequency, BPF0	6.80 Hz
Characteristic inner ring frequency, BPF1	9.20 Hz



Abutment dimensions

da min	4.2913 "
db min	4.0157 "
Ce min	0.2756 "
Da max	7.3228 "
ra max	0.0984 "

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 .