

PDF technical sheet LM503349/310



Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

Product definition	
d	1.8105 "
D	2.9518 "
B	0.7087 "
C	0.5512 "
T	0.7087 "
d1	2.4213 "
a	0.6220 "
rs min	0.0906 "
r1s min	0.0591 "
e	0.4
Y2	1.49
Y0	0.82
Mass	1.05 oz
Brand	SNR



Product performance	
Dynamic load, C	53.40 kN
Rating life coefficient, A2	1
Static load, C0	75.40 kN
Fatigue limit load, Cu	9.20 kN
Nref	4,500 RPM
Nlim	9,000 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	8.99 Hz
Characteristic outer ring frequency, BPF0	11.17 Hz
Characteristic inner ring frequency, BPFI	13.83 Hz



Abutment dimensions

db min	2.2830 "
Da max	2.6181 "
ra max	0.0787 "
r1a max	0.0591 "

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	0	0.4	Y2

Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

X_0	Y_0
0.5	Y0

If $P_0 < F_r$, then use $P_0 = F_r$

The values for e, Y2 and Y0 are shown in the above table