

PDF technical sheet

24136EAK30W33

Double row spherical roller bearings

Spherical roller bearing, with central rib on inner ring, pressed steel cage, groove and lubrication holes on outer ring, tapered bore 1:30

Product definition	
d	7.0866 "
D	11.8110 "
B	4.6457 "
d2	7.8740 "
D1	10.2520 "
rs min	0.1181 "
Number of lubrication holes	3
b	0.5551 "
k	0.2362 "
e	0.38
Y1	1.78
Y2	2.66
Y0	1.74
Radial clearance class	CN
Mass	117.82 oz
Brand	SNR

Product performance	
Dynamic load, C	1,550 kN
Static load, C0	2,050 kN
Fatigue limit load, Cu	123 kN
Nref	1,200 RPM
Nlim	1,700 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	7.14 Hz
Characteristic outer ring frequency, BPF0	8.67 Hz
Characteristic inner ring frequency, BPF1	11.33 Hz

Abutment dimensions	
da min	7.6378 "
Da max	11.2598 "
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 .