

PDF technical sheet 22205EAKW33



Double row spherical roller bearings

Spherical roller bearing, pressed steel cage, groove and lubrication holes on outer ring, tapered bore 1:12

Product definition	
d	0.9843 "
D	2.0472 "
B	0.7087 "
d2	1.2008 "
D1	1.7913 "
rs min	0.0394 "
Number of lubrication holes	3
b	0.1181 "
k	0.0591 "
Associated sleeve reference	H305
e	0.34
Y1	2
Y2	2.98
Y0	1.96
Radial clearance class	CN
Mass	0.53 oz
Brand	SNR



Product performance	
Dynamic load, C	57.30 kN
Static load, C0	46.10 kN
Fatigue limit load, Cu	4.70 kN
Nref	13,000 RPM
Nlim	17,000 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.40 Hz
Characteristic rolling element frequency, BSF	4.85 Hz
Characteristic outer ring frequency, BPF0	5.65 Hz
Characteristic inner ring frequency, BPF1	8.36 Hz



Abutment dimensions

da min	1.2047 "
Da max	1.8268 "
ra max	0.0394 "

Calculation factors

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

Fa / Fr ≤ e		Fa / Fr > 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 .