

PDF technical sheet 22240EMKW33



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	7.8740 "
D	14.1732 "
B	3.8583 "
D1	12.6890 "
rs min	0.1575 "
Number of lubrication holes	3
b	0.7874 "
k	0.3937 "
Associated sleeve reference	H3140
e	0.25
Y1	2.74
Y2	4.08
Y0	2.68
Radial clearance class	CN
Mass	148.15 oz
Brand	SNR



Product performance	
Dynamic load, C	1,810 kN
Static load, C0	2,100 kN
Fatigue limit load, Cu	177 kN
Nref	1,500 RPM
Nlim	2,300 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.42 Hz
Characteristic rolling element frequency, BSF	6.04 Hz
Characteristic outer ring frequency, BPF0	7.57 Hz
Characteristic inner ring frequency, BPF1	10.43 Hz



Abutment dimensions

da min	8.5433 "
Da max	13.5039 "
ra max	0.1181 "

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 .