

PDF technical sheet 23140EMKW33C4



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	13.3858 "
B	4.4094 "
D1	11.8346 "
rs min	0.1181 "
Number of lubrication holes	3
b	0.6969 "
k	0.3150 "
Associated sleeve reference	H3140
e	0.3
Y1	2.25
Y2	3.34
Y0	2.2
Radial clearance class	C4
Mass	147.09 oz
Brand	SNR



Product performance	
Dynamic load, C	1,890 kN
Static load, C0	2,510 kN
Fatigue limit load, Cu	159 kN
Nref	1,400 RPM
Nlim	1,900 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	7.17 Hz
Characteristic outer ring frequency, BPF0	9.09 Hz
Characteristic inner ring frequency, BPF1	11.91 Hz



Abutment dimensions

da min	8.4252 "
Da max	12.8346 "
ra max	0.0984 "

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 .