

PDF technical sheet 23024EMKW33



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	4.7244 "
D	7.0866 "
B	1.8110 "
D1	6.4921 "
rs min	0.0787 "
Number of lubrication holes	3
b	0.3071 "
k	0.1378 "
Associated sleeve reference	H3024
e	0.22
Y1	3.14
Y2	4.67
Y0	3.07
Radial clearance class	CN
Mass	13.65 oz
Brand	SNR



Product performance	
Dynamic load, C	446 kN
Static load, C0	577 kN
Fatigue limit load, Cu	51.70 kN
Nref	3,300 RPM
Nlim	3,900 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	9.06 Hz
Characteristic outer ring frequency, BPF0	11.15 Hz
Characteristic inner ring frequency, BPF1	13.85 Hz



Abutment dimensions

da min	5.0709 "
Da max	6.7402 "
ra max	0.0787 "

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 .