

PDF technical sheet

24044EMK30W33C3

Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, groove and lubrication holes on outer ring, tapered bore 1:30

Product definition	
d	8.6614 "
D	13.3858 "
B	4.6457 "
D1	11.9449 "
rs min	0.1181 "
Number of lubrication holes	3
b	0.5551 "
k	0.2362 "
e	0.31
Y1	2.18
Y2	3.25
Y0	2.13
Radial clearance class	C3
Mass	133.34 oz
Brand	SNR

Product performance	
Dynamic load, C	1,930 kN
Static load, C0	2,750 kN
Fatigue limit load, Cu	161 kN
Nref	1,200 RPM
Nlim	1,800 RPM
Min operating temperature, Tmin	104 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	7.94 Hz
Characteristic outer ring frequency, BPF0	10.10 Hz
Characteristic inner ring frequency, BPFI	12.90 Hz

Abutment dimensions	
da min	9.1496 "
Da max	12.8976 "
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 .