

PDF technical sheet

24048.EMK30W33C3

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	9.4488 "
D	14.1732 "
B	4.6457 "
D1	12.7165 "
rs min	0.1181 "
Number of lubrication holes	3
b	0.6024 "
k	0.2756 "
e	0.29
Y1	2.32
Y2	3.45
Y0	2.26
Radial clearance class	C3
Mass	144.62 oz
Brand	SNR

Product performance	
Dynamic load, C	2,020 kN
Static load, C0	3,050 kN
Fatigue limit load, Cu	172 kN
Nref	1,100 RPM
Nlim	1,700 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	8.80 Hz
Characteristic outer ring frequency, BPF0	11.12 Hz
Characteristic inner ring frequency, BPF1	13.88 Hz

Abutment dimensions	
da min	9.9370 "
Da max	13.6850 "
ra max	0.0984 "

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

Fa / Fr ≤ e		Fa / Fr > e	
X	Y	X	Y
1	Y1	0.67	Y2

Equivalent static radial load

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

X ₀	Y ₀
1	Y0

The values for e, Y1, Y2 and Y0 are shown in the above table .