

PDF technical sheet 24040EMW33C3



Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, groove and lubrication holes on outer ring

Product definition	
d	7.8740 "
D	12.2047 "
B	4.2913 "
D1	11.1535 "
rs min	0.0827 "
Number of lubrication holes	3
b	0.5000 "
k	0.2362 "
e	0.33
Y1	2.06
Y2	3.07
Y0	2.01
Radial clearance class	C3
Mass	103.00 oz
Brand	SNR



Product performance	
Dynamic load, C	1,520 kN
Static load, C0	2,120 kN
Fatigue limit load, Cu	135 kN
Nref	1,400 RPM
Nlim	2,000 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.44 Hz
Characteristic rolling element frequency, BSF	8.12 Hz
Characteristic outer ring frequency, BPF0	10.14 Hz
Characteristic inner ring frequency, BPF1	12.86 Hz



Abutment dimensions

da min	8.2756 "
Da max	11.8031 "
ra max	0.0787 "

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 .