

PDF technical sheet 23164EMW33C3



Double row spherical roller bearings

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

Product definition	
d	12.5984 "
D	21.2598 "
B	6.9291 "
D1	18.8661 "
rs min	0.1969 "
Number of lubrication holes	8
b	1.0669 "
k	0.6299 "
e	0.3
Y1	2.25
Y2	3.34
Y0	2.2
Radial clearance class	C3
Mass	623.64 oz
Brand	SNR



Product performance	
Dynamic load, C	4,370 kN
Static load, C0	6,730 kN
Fatigue limit load, Cu	348 kN
Nref	690 RPM
Nlim	1,200 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	8.10 Hz
Characteristic outer ring frequency, BPF0	10.57 Hz
Characteristic inner ring frequency, BPF1	13.43 Hz



Abutment dimensions

da min	13.3858 "
Da max	20.4724 "
ra max	0.1575 "

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 .