

PDF technical sheet 21309EAKW33C3



Double row spherical roller bearings

Spherical roller bearing, pressed steel cage, groove and lubrication holes on outer ring, tapered bore 1:12

Product definition	
d	1.7717 "
D	3.9370 "
B	0.9843 "
d2	2.5591 "
D1	3.4134 "
rs min	0.0591 "
Number of lubrication holes	3
b	0.2693 "
k	0.1181 "
Associated sleeve reference	H309
e	0.23
Y1	2.9
Y2	4.31
Y0	2.83
Radial clearance class	C3
Mass	3.28 oz
Brand	SNR



Product performance	
Dynamic load, C	138 kN
Static load, C0	134 kN
Fatigue limit load, Cu	16.40 kN
Nref	5,600 RPM
Nlim	8,300 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	6.64 Hz
Characteristic outer ring frequency, BPF0	7.69 Hz
Characteristic inner ring frequency, BPF1	10.31 Hz



Abutment dimensions

da min	2.1260 "
db min	1.9685 "
Ce min	0.1969 "
Da max	3.5827 "
ra max	0.0591 "

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 .