

PDF technical sheet 23138EMKW33C4



Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage, groove and lubrication holes on outer ring, tapered bore 1:12

Product definition	
d	7.4803 "
D	12.5984 "
B	4.0945 "
D1	11.1732 "
rs min	0.1181 "
Number of lubrication holes	3
b	0.6516 "
k	0.3150 "
Associated sleeve reference	H3138
e	0.29
Y1	2.32
Y2	3.45
Y0	2.26
Radial clearance class	C4
Mass	114.46 oz
Brand	SNR



Product performance	
Dynamic load, C	1,670 kN
Static load, C0	2,250 kN
Fatigue limit load, Cu	144 kN
Nref	1,500 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	7.47 Hz
Characteristic outer ring frequency, BPF0	9.58 Hz
Characteristic inner ring frequency, BPF1	12.42 Hz



Abutment dimensions

da min	8.0315 "
Da max	12.0472 "
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 .