

PDF technical sheet

24138EAK30W33

Double row spherical roller bearings

Spherical roller bearing, with central rib on inner ring, pressed steel cage, groove and lubrication holes on outer ring, tapered bore 1:30

Product definition	
d	7.4803 "
D	12.5984 "
B	5.0394 "
d2	8.3858 "
D1	10.9409 "
rs min	0.1181 "
Number of lubrication holes	3
b	0.5591 "
k	0.2362 "
e	0.38
Y1	1.76
Y2	2.62
Y0	1.72
Radial clearance class	CN
Mass	144.62 oz
Brand	SNR

Product performance	
Dynamic load, C	1,850 kN
Static load, C0	2,480 kN
Fatigue limit load, Cu	141 kN
Nref	1,100 RPM
Nlim	1,600 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	6.98 Hz
Characteristic outer ring frequency, BPF0	8.64 Hz
Characteristic inner ring frequency, BPF1	11.36 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 .