

PDF technical sheet

24052VMK30W33C3

Double row spherical roller bearings

Spherical roller bearing, with central rib on inner ring, one-piece machined cage centred on inner ring, groove and lubrication holes on outer ring, tapered bore 01:30

Product definition

d	10.2362 "
D	15.7480 "
B	5.5118 "
D1	13.7047 "
rs min	0.1575 "
Number of lubrication holes	3
b	0.4370 "
k	0.2362 "
e	0.32
Y1	2.1
Y2	3.13
Y0	2.05
Radial clearance class	C3
Mass	225.40 oz
Brand	SNR

Product performance

Dynamic load, C	1,990 kN
Static load, C0	4,020 kN
Fatigue limit load, Cu	206 kN
Nref	950 RPM
Nlim	1,500 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	9.53 Hz
Characteristic outer ring frequency, BPF0	11.68 Hz
Characteristic inner ring frequency, BPF1	14.32 Hz

Abutment dimensions

da min	10.8110 "
Da max	15.1732 "
ra max	0.1181 "

Calculation factors

Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

$Fa / Fr \leq e$		$Fa / Fr > e$	
X	Y	X	Y
1	Y1	0.67	Y2

Equivalent static radial load

$$Po = Xo \cdot Fr + Yo \cdot Fa$$

Xo	Yo
1	Y0

The values for e, Y1, Y2 and Y0 are shown in the above table .