

PDF technical sheet

24160VMK30W33C3

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	11.8110 "
D	19.6850 "
B	7.8740 "
D1	16.5709 "
rs min	0.1969 "
Number of lubrication holes	3
b	0.5472 "
k	0.2953 "
e	0.37
Y1	1.8
Y2	2.69
Y0	1.76
Radial clearance class	C3
Mass	564.38 oz
Brand	SNR

Product performance	
Dynamic load, C	3,350 kN
Static load, C0	6,620 kN
Fatigue limit load, Cu	307 kN
Nref	530 RPM
Nlim	1,000 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	8.22 Hz
Characteristic outer ring frequency, BPF0	10.16 Hz
Characteristic inner ring frequency, BPFI	12.84 Hz

Abutment dimensions	
da min	12.5984 "
Da max	18.8976 "
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 .