



Brand of NTN corporation

Technical data

24122EAW33

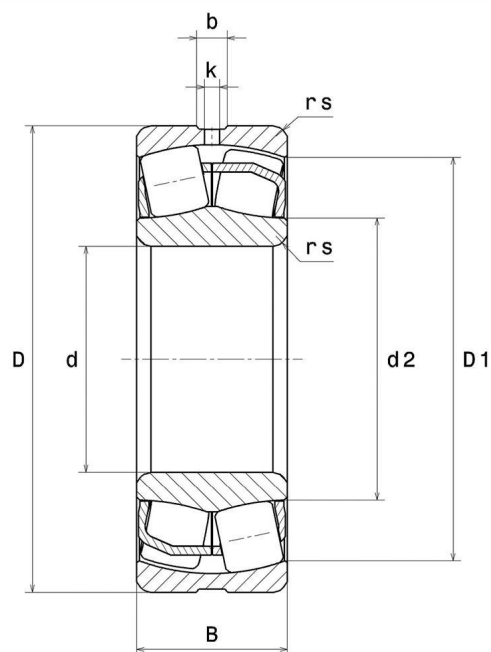
Spherical roller bearings



Spherical roller bearing, pressed steel cage, groove and lubrication holes on outer ring

ULTAGE

VISUAL (S)



NTN Europe

1 rue des Usines · BP 2017 · 74010 Annecy Cedex · France · Tel. +33 (0)4 50 65 30 00
S.A. au capital de 322 639 919 € · RCS ANNECY B 325 821 072 · Id. Fiscale : FR 48 325 821 072
SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15



PRODUCT DEFINITION

Brand	SNR
d - Internal diameter	110 mm
D - External diameter	180 mm
B - Bearing/Inner ring width	69 mm
d2 - External diameter inner ring	121,7 mm
D1 - Inner diameter outer ring	157,2 mm
rs - Min fillet radius	2 mm
Number of lubrication holes	3
b - Groove width	8,39 mm
k - Hole diameter	4 mm
Radial clearance class	CN
Mass	6,68 kg

PRODUCT PERFORMANCE



PRODUCT PERFORMANCE

C - Dynamic load	622000000 mN
C0 - Static load	769000000 mN
Cu - Fatigue limit load	83700000 mN
e - Coefficient	0.36
Y0 - Static axial load coefficient	1.86
Y1 - Lower axial load coefficient	1.9
Y2 - Upper axial load coefficient	2.83
N ref - Reference thermal speed	13200 °/s
N lim - Mechanical Limit Speed	17400 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	473,15 °K

BEARING FREQUENCIES

BPFO - Over rolling frequency on outer ring (60 rpm)	8.667 Hz
BPFI - Over rolling frequency on inner (60 rpm)	11.333 Hz
BSF - Over rolling frequency on rolling element (60 rpm)	7.168 Hz
BRF - Rotational frequency - rolling element (60 rpm)	3.584 Hz
FTF - Rotational frequency - cage (60 rpm)	0.433 Hz

ABUTMENT

da max - Max shoulder diameter IR	0 mm
da min - Min shoulder diameter IR	121 mm
Da max - Max shoulder diameter OR	169 mm
ra max - Max shaft & housing fillet radius	2 mm



INDUSTRY CALCUL 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 .

