

Technical data

22209EMW33

Spherical roller bearings



ULTAGE®

VISUAL (S)





PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	45 mm
D - External diameter	85 mm
B - Bearing/Inner ring width	23 mm
D1 - Inner diameter outer ring	75,6 mm
rs - Min fillet radius	1,1 mm
Number of lubrication holes	3
b - Groove width	5,83 mm
k - Hole diameter	2,5 mm
Radial clearance class	CN
Mass	0,5 kg

PRODUCT PERFORMANCE

C - Dynamic load	116000000 mN
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PRODUCT PERFORMANCE

C0 - Static load	106000000 mN
Cu - Fatigue limit load	12900000 mN
e - Coefficient	0.26
Y0 - Static axial load coefficient	2.58
Y1 - Lower axial load coefficient	2.64
Y2 - Upper axial load coefficient	3.94
N ref - Reference thermal speed	45000 °/s
N lim - Mechanical Limit Speed	58800 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	473,15 °K

ABUTMENT

da min - Min shoulder diameter IR	52 mm
Da max - Max shoulder diameter OR	78 mm
ra max - Max shaft & housing fillet radius	1 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 .

