

Technical data

22311EMW33

Spherical roller bearings



ULTAGE®

VISUAL (S)





PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	55 mm
D - External diameter	120 mm
B - Bearing/Inner ring width	43 mm
D1 - Inner diameter outer ring	102,9 mm
rs - Min fillet radius	2 mm
Number of lubrication holes	3
b - Groove width	7,83 mm
k - Hole diameter	3,5 mm
Radial clearance class	CN
Mass	2,34 kg

PRODUCT PERFORMANCE

C - Dynamic load	296000000 mN
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PRODUCT PERFORMANCE

C0 - Static load	274000000 mN
Cu - Fatigue limit load	33400000 mN
e - Coefficient	0.36
Y0 - Static axial load coefficient	1.83
Y1 - Lower axial load coefficient	1.87
Y2 - Upper axial load coefficient	2.79
N ref - Reference thermal speed	27600 °/s
N lim - Mechanical Limit Speed	33600 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	473,15 °K

ABUTMENT

da min - Min shoulder diameter IR	66 mm
Da max - Max shoulder diameter OR	109 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 .



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