

Technical data

23220EMW33C3

Spherical roller bearings



ULTAGE®

VISUAL (S)





PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	100 mm
D - External diameter	180 mm
B - Bearing/Inner ring width	60,3 mm
D1 - Inner diameter outer ring	158,9 mm
rs - Min fillet radius	2,1 mm
Number of lubrication holes	3
b - Groove width	9,44 mm
k - Hole diameter	4,5 mm
Radial clearance class	C3
Mass	6,53 kg

PRODUCT PERFORMANCE

C - Dynamic load	586000000 mN
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PRODUCT PERFORMANCE

C0 - Static load	661000000 mN
Cu - Fatigue limit load	72300000 mN
e - Coefficient	0.31
Y0 - Static axial load coefficient	2.13
Y1 - Lower axial load coefficient	2.18
Y2 - Upper axial load coefficient	3.24
N ref - Reference thermal speed	15600 °/s
N lim - Mechanical Limit Speed	19800 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	473,15 °K

ABUTMENT

da min - Min shoulder diameter IR	112 mm
Da max - Max shoulder diameter OR	168 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 .

