



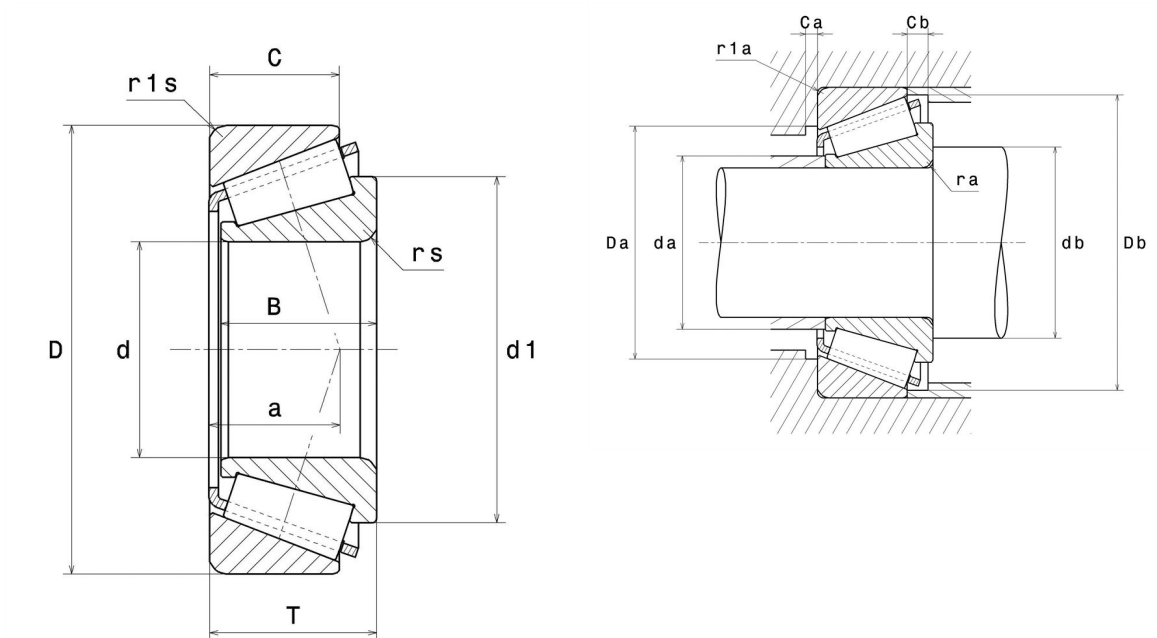
Technical data

33020U

Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

Visual(s)



Product definition

d	100 mm
D	150 mm
B	39 mm
C	32.5 mm
T	39 mm
d1	124.5 mm
a	29.5 mm
rs min	2 mm
r1s min	1.5 mm
e	0.29
Y2	2.09
Y0	1.15
Mass	2.37 kg
ISO 355 reference	T2CE100
Brand	NTN

Product performance

Dynamic load, C	224 kN
Rating life coefficient, A2	1
Static load, C0	390 kN
Fatigue limit load, Cu	44.5 kN
Nlim (oil)	3,000 Tr/min
Nlim (grease)	2,200 Tr/min
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	120 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	10.07 Hz
Characteristic outer ring frequency, BPF0	12.65 Hz
Characteristic inner ring frequency, BPFI	15.35 Hz

Abutment dimensions

da max	108 mm
db min	110 mm
Da min	135 mm
Da max	141.5 mm
Db min	143 mm
Ca min	7 mm
Cb min	6.5 mm
ra max	2 mm
r1a max	1.5 mm

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	0	0.4	Y2

Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

X_0	Y_0
0.5	Y0

If $P_0 < F_r$, then use $P_0 = F_r$

The values for e, Y2 and Y0 are shown in the above table