



FAG

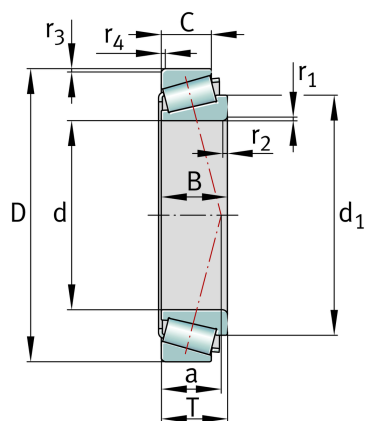
31320-X-XL

Tapered roller bearing

Schaeffler ID:
0861680450000Tapered roller bearings 313, main
dimensions to DIN ISO 355 / DIN 720,
separable, adjusted or in pairs

X-life

Technical information



Main Dimensions & Performance Data

d	100 mm	Bore diameter
D	215 mm	Outside diameter
B	51 mm	Width, inner ring
C	35 mm	Width, outer ring
T	56.5 mm	Width, total
C_r	450,000 N	Basic dynamic load rating, radial
C_{0r}	480,000 N	Basic static load rating, radial
C_{ur}	67,000 N	Fatigue load limit, radial
n_G	3,850 1/min	Limiting speed
n_{gr}	2,550 1/min	Thermal speed rating
	8.64 kg	Weight

Dimensions

$r_{1,2 \text{ min}}$	4 mm	Minimum chamfer dimension of inner ring back face
$r_{3,4 \text{ min}}$	3 mm	Minimum chamfer dimension of outer ring back face
a	68 mm	Distance between the apexes of the pressure cones
d_1	158.5 mm	Guidance rib diameter of inner ring

Mounting dimensions

$d_{a \max}$	121 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	114 mm	Minimum diameter of shaft shoulder
$D_{a \min}$	168 mm	Minimum diameter of housing shoulder
$D_{a \max}$	201 mm	Maximum diameter of housing shoulder
$D_{b \min}$	202 mm	Minimum diameter of housing shoulder
$C_{a \min}$	7 mm	Minimum axial space
$C_{b \min}$	21.5 mm	Minimum axial space
$r_{a \max}$	4 mm	Maximum fillet radius of shaft
$r_{b \max}$	3 mm	Maximum fillet radius of housing

Calculation factors

	T7GB100	Comparative designation to ISO 10317 and ISO 355
e	0.83	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y	0.73	Dynamic axial load factor
Y_0	0.4	Static axial load factor

Temperature range

T_{\min}	-30 °C	Operating temperature min.
T_{\max}	120 °C	Operating temperature max.