



FAG

31316-XL

Tapered roller bearing

Schaeffler ID:
0854333220000Tapered 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	80 mm	Bore diameter
D	170 mm	Outside diameter
B	39 mm	Width, inner ring
C	27 mm	Width, outer ring
T	42,5 mm	Width, total
C_r	270.000 N	Basic dynamic load rating, radial
C_{0r}	270.000 N	Basic static load rating, radial
C_{ur}	39.500 N	Fatigue load limit, radial
n_G	4.550 1/min	Limiting speed
n_{gr}	3.150 1/min	Thermal speed rating
	4,045 kg	Weight

Dimensions

	T7GB080	Comparative designation to ISO 10317 and ISO 355
$r_{1,2 \text{ min}}$	3 mm	Minimum chamfer dimension of inner ring back face
$r_{3,4 \text{ min}}$	2,5 mm	Minimum chamfer dimension of outer ring back face
a	53 mm	Distance between the apexes of the pressure cones
d_1	124,4 mm	Guidance rib diameter of inner ring

Mounting dimensions

$d_{a \max}$	97 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	92 mm	Minimum diameter of shaft shoulder
$D_{a \min}$	134 mm	Minimum diameter of housing shoulder
$D_{a \max}$	158 mm	Maximum diameter of housing shoulder
$D_{b \min}$	159 mm	Minimum diameter of housing shoulder
$C_{a \min}$	6 mm	Minimum axial space
$C_{b \min}$	15 mm	Minimum axial space
$r_{a \max}$	3 mm	Maximum fillet radius of shaft
$r_{b \max}$	2,5 mm	Maximum fillet radius of housing

Calculation factors

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.