



FAG

33109

Tapered roller bearing

Schaeffler ID:  
0167136800000Tapered roller bearings 331, main  
dimensions to DIN ISO 355 / DIN 720,  
separable, adjusted or in pairs

## Technical information



## Main Dimensions &amp; Performance Data

d	45 mm	Bore diameter
D	80 mm	Outside diameter
B	26 mm	Width, inner ring
C	20.5 mm	Width, outer ring
T	26 mm	Width, total
$C_r$	84,000 N	Basic dynamic load rating, radial
$C_{0r}$	115,000 N	Basic static load rating, radial
$C_{ur}$	14,700 N	Fatigue load limit, radial
$n_G$	8,800 1/min	Limiting speed
$n_{gr}$	4,950 1/min	Thermal speed rating
	0.539 kg	Weight

## Dimensions

$r_{1,2 \text{ min}}$	1.5 mm	Minimum chamfer dimension of inner ring back face
$r_{3,4 \text{ min}}$	1.5 mm	Minimum chamfer dimension of outer ring back face
a	19 mm	Distance between the apexes of the pressure cones
$d_1$	63.8 mm	Guidance rib diameter of inner ring

## Mounting dimensions

$d_{a \text{ max}}$	52 mm	Maximum diameter of shaft shoulder
$d_{b \text{ min}}$	52 mm	Minimum diameter of shaft shoulder
$D_{a \text{ min}}$	69 mm	Minimum diameter of housing shoulder
$D_{a \text{ max}}$	73 mm	Maximum diameter of housing shoulder
$D_{b \text{ min}}$	77 mm	Minimum diameter of housing shoulder
$C_{a \text{ min}}$	4 mm	Minimum axial space
$C_{b \text{ min}}$	5.5 mm	Minimum axial space
$r_{a \text{ max}}$	1.5 mm	Maximum fillet radius of shaft
$r_{b \text{ max}}$	1.5 mm	Maximum fillet radius of housing

**Calculation factors**

	T3CE045	Comparative designation to ISO 10317 and ISO 355
e	0.38	Limiting value of Fa/Fr for the applicability of diff. Values of factors X and Y
Y	1.57	Dynamic axial load factor
Y <sub>0</sub>	0.86	Static axial load factor

**Temperature range**

T <sub>min</sub>	-30 °C	Operating temperature min.
T <sub>max</sub>	120 °C	Operating temperature max.