



FAG

23136-E1-XL-K-TVPB-C4 [↗](#)

Spherical Roller Bearing

Spherical roller bearings 231...-E1-K, main dimensions to DIN 635-2, with tapered bore, taper 1:12

X-life

Technical information



Your current product variant

Design	E1	Without central rip
Bore type	K	Tapered, taper 1:12
Cage	TVPB	Plastic cage
Radial internal clearance	C4 (Group 4)	Internal clearance larger than C3
Relubrication	Standard	

Main Dimensions & Performance Data

d	180 mm	Bore diameter
D	300 mm	Outside diameter
B	96 mm	Width
C_r	1.420.000 N	Basic dynamic load rating, radial
C_{0r}	1.950.000 N	Basic static load rating, radial
C_{ur}	199.000 N	Fatigue load limit, radial
n_G	2.230 1/min	Limiting speed
n_{gr}	1.350 1/min	Reference speed
$\approx m$	24,738 kg	Weight



Mounting dimensions

$d_{a \min}$	194 mm	Minimum diameter shaft shoulder
$D_{a \max}$	286 mm	Maximum diameter of housing shoulder
$r_{a \max}$	2,5 mm	Maximum recess radius
$B_{a \min}$	8 mm	Minimum cavity width of the sleeve
$d_{a \max}$	204 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	191 mm	Minimum cavity diameter of the sleeve

Dimensions

r_{\min}	3 mm	Minimum chamfer dimension
D_1	264,8 mm	Bore diameter outer ring
d_2	204,1 mm	Raceway diameter of the inner ring
d_s	8 mm	Diameter lubrication hole
n_s	15 mm	Width of lubricating groove

Temperature range

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

Calculation factors

e	0,29	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	2,32	Dynamic axial load factor
Y_2	3,45	Dynamic axial load factor
Y_0	2,26	Static axial load factor

Additional information

H3136	Adapter sleeve
AH3136A	Withdrawal sleeve



Characteristics



Radial load



Axial load in one direction



Axial load in two directions



Grease Lubrication



Oil Lubrication



Not sealed



Static angular error and misalignment



Dynamic angular error and misalignment