



FAG

23138-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 facility	Standard	

Main Dimensions & Performance Data

d	190 mm	Bore diameter
D	320 mm	Outside diameter
B	104 mm	Width
C_r	1.610.000 N	Basic dynamic load rating, radial
C_{0r}	2.220.000 N	Basic static load rating, radial
C_{ur}	222.000 N	Fatigue load limit, radial
n_G	2.070 1/min	Limiting speed
n_{gr}	1.260 1/min	Reference speed
$\approx m$	31,079 kg	Weight



Mounting dimensions

$d_{a \min}$	204 mm	Minimum diameter shaft shoulder
$D_{a \max}$	306 mm	Maximum diameter of housing shoulder
$r_{a \max}$	2,5 mm	Maximum recess radius
$B_{a \min}$	9 mm	Minimum cavity width of the sleeve
$d_{a \max}$	216 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	202 mm	Minimum cavity diameter of the sleeve

Dimensions

r_{\min}	3 mm	Minimum chamfer dimension
D_1	281,6 mm	Bore diameter outer ring
d_2	217 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	0,3	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	2,28	Dynamic axial load factor
Y_2	3,39	Dynamic axial load factor
Y_0	2,23	Static axial load factor

Additional information

H3138	Adapter sleeve
AH3138G	Withdrawal sleeve



Characteristics

-  Radial load
-  Axial load in one direction
-  Axial load in two directions
-  Grease Lubrication
-  Oil Lubrication
-  Not sealed
-  Large bearing
-  Static angular error and misalignment
-  Dynamic angular error and misalignment