

231/500 CAK/W33



Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

- Accommodate misalignment
- High load carrying capacity
- Relubrication features
- Low friction and long service life
- Increased wear resistance

Bore type

Tapered 1:12

Dimensions

d	500 mm	Bore diameter
$t_{\Delta dmp}$	0.0 – 0.063 mm	Deviation limits of mid-range bore diameter
$t_{\Delta SL}$	0.0 – 0.063 mm	Deviation limits of tapered slope
D	830 mm	Outside diameter
$t_{\Delta Dmp}$	-0.1 – 0.0 mm	Deviation limits of mid-range outside diameter
B	264 mm	Width
$t_{\Delta Bs}$	-0.45 – 0.0 mm	Deviation limits of ring width
d_2	≈ 605 mm	Shoulder diameter of inner ring
D_1	≈ 726 mm	Shoulder/recess diameter of outer ring
b	22.3 mm	Width of lubrication groove
K	12 mm	Diameter of lubrication hole
$r_{1,2}$	min. 7.5 mm	Chamfer dimension
	Normal	ISO tolerance class for dimensions

Abutment dimensions

D_a	max. 798 mm	Diameter of housing abutment
r_a	max. 6 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	8 037 kN
Basic static load rating	C_0	12 900 kN
Fatigue load limit	P_u	830 kN
Reference speed		380 r/min
Limiting speed		700 r/min
Limiting value	e	0.3
Calculation factor	Y_1	2.3
Calculation factor	Y_2	3.4
Calculation factor	Y_0	2.2

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	65 μm
Range of section height at outer ring of assembled bearing	t_{Kea}	140 μm
ISO tolerance class for geoal tolerances		Normal

Radial internal clearance

Minimum initial clearance	370 μm
Maximum initial clearance	490 μm

Tolerances of run-out

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6, P5, tapered bore 1:12, tapered bore 1:30
- Radial internal clearance: cylindrical bore, tapered bore

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

AGA BEARINGS