

23944-2CS5/VT143

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. Under normal operating conditions, sealed bearings are almost maintenance-free, keeping service costs and grease consumption low. The design includes features to facilitate relubrication.



- Accommodate misalignment
- High load carrying capacity
- Sealed for increased reliability, with relubrication features
- Low friction and long service life
- Increased wear resistance

Bore type

Cylindrical



Dimensions		
d	220 mm	Bore diameter
t _{Δdmp}	-0.03 – 0.0 mm	Deviation limits of mid-range bore diameter
D	300 mm	Outside diameter
t _{ΔDmp}	-0.035 – 0.0 mm	Deviation limits of mid-range outside diameter
B	60 mm	Width
t _{ΔBs}	-0.08 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 238 mm	Shoulder diameter of inner ring
D ₁	≈ 284 mm	Shoulder/recess diameter of outer ring
b	8.3 mm	Width of lubrication groove
K	4.5 mm	Diameter of lubrication hole
r _{1,2}	min. 2.1 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 231 mm	Diameter of shaft abutment
d_a	max. 238 mm	Diameter of shaft abutment
D_a	max. 289 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	662 kN
Basic static load rating	C_0	1 080 kN
Fatigue load limit	P_u	93 kN
Limiting speed		600 r/min
Limiting value	e	0.15
Calculation factor	Y_1	4.5
Calculation factor	Y_2	6.7
Calculation factor	Y_0	4.5

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	10 μm
Maximum run-out of inner ring side face to the bore	t_{Sd}	11 μm
Range of section height at outer ring of assembled bearing	t_{Kea}	18 μm
Perpendicularity of outer ring outside surface	t_{SD}	6.5 μm
ISO tolerance class for geoal tolerances		P5

Radial internal clearance

Minimum initial clearance	140 µm
Maximum initial clearance	220 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