

24160-2CS5/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	300 mm	Bore diameter
t _{Δdmp}	-0.035 – 0.0 mm	Deviation limits of mid-range bore diameter
D	500 mm	Outside diameter
t _{ΔDmp}	-0.045 – 0.0 mm	Deviation limits of mid-range outside diameter
B	200 mm	Width
t _{ΔBs}	-0.1 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 330 mm	Shoulder diameter of inner ring
D ₁	≈ 447 mm	Shoulder/recess diameter of outer ring
b	13.9 mm	Width of lubrication groove
K	7.5 mm	Diameter of lubrication hole
r _{1,2}	min. 5 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 320 mm	Diameter of shaft abutment
d_a	max. 330 mm	Diameter of shaft abutment
D_a	max. 480 mm	Diameter of housing abutment
r_a	max. 4 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	3 881 kN
Basic static load rating	C_0	6 300 kN
Fatigue load limit	P_u	465 kN
Limiting speed		290 r/min
Limiting value	e	0.37
Calculation factor	Y_1	1.8
Calculation factor	Y_2	2.7
Calculation factor	Y_0	1.8

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	13 μm
Maximum run-out of inner ring side face to the bore	t_{Sd}	13 μm
Range of section height at outer ring of assembled bearing	t_{Kea}	23 μm
Perpendicularity of outer ring outside surface	t_{SD}	7.5 μm
ISO tolerance class for geoal tolerances		P5

Radial internal clearance

Minimum initial clearance	190 μm
Maximum initial clearance	280 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