

24020-2RS5/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	100 mm	Bore diameter
t _{Δdmp}	-0.02 – 0.0 mm	Deviation limits of mid-range bore diameter
D	150 mm	Outside diameter
t _{ΔDmp}	-0.018 – 0.0 mm	Deviation limits of mid-range outside diameter
B	50 mm	Width
t _{ΔBs}	-0.08 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 108 mm	Shoulder diameter of inner ring
D ₁	≈ 138 mm	Shoulder/recess diameter of outer ring
b	6 mm	Width of lubrication groove
K	3 mm	Diameter of lubrication hole
r _{1,2}	min. 1.5 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 107 mm	Diameter of shaft abutment
d_a	max. 108 mm	Diameter of shaft abutment
D_a	max. 143 mm	Diameter of housing abutment
r_a	max. 1.5 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	296 kN
Basic static load rating	C_0	415 kN
Fatigue load limit	P_u	45.5 kN
Limiting speed		1 700 r/min
Limiting value	e	0.28
Calculation factor	Y_1	2.4
Calculation factor	Y_2	3.6
Calculation factor	Y_0	2.5

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	6 μ m
Maximum run-out of inner ring side face to the bore	t_{Sd}	9 μ m
Range of section height at outer ring of assembled bearing	t_{Kea}	11 μ m
Perpendicularity of outer ring outside surface	t_{SD}	5 μ m
ISO tolerance class for geoal tolerances		P5

Radial internal clearance

Minimum initial clearance	60 μm
Maximum initial clearance	100 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