

24144 CC/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

Cylindrical



Dimensions		
d	220 mm	Bore diameter
t _{Δdmp}	-0.03 – 0.0 mm	Deviation limits of mid-range bore diameter
D	370 mm	Outside diameter
t _{ΔDmp}	-0.04 – 0.0 mm	Deviation limits of mid-range outside diameter
B	150 mm	Width
t _{ΔBs}	-0.08 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 248 mm	Shoulder diameter of inner ring
D ₁	≈ 310 mm	Shoulder/recess diameter of outer ring
b	11.1 mm	Width of lubrication groove
K	6 mm	Diameter of lubrication hole
r _{1,2}	min. 4 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

d_a	min. 237 mm	Diameter of shaft abutment
D_a	max. 353 mm	Diameter of housing abutment
r_a	max. 3 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	2 197 kN
Basic static load rating	C_0	3 350 kN
Fatigue load limit	P_u	285 kN
Reference speed		850 r/min
Limiting speed		1 200 r/min
Limiting value	e	0.4
Calculation factor	Y_1	1.7
Calculation factor	Y_2	2.5
Calculation factor	Y_0	1.6

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}	20 μm
Perpendicularity of outer ring outside surface	t_{SD}	6.5 μm
ISO tolerance class for geol 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