

24036 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	180 mm	Bore diameter
t _{Δdmp}	-0.025 – 0.0 mm	Deviation limits of mid-range bore diameter
D	280 mm	Outside diameter
t _{ΔDmp}	-0.035 – 0.0 mm	Deviation limits of mid-range outside diameter
B	100 mm	Width
t _{ΔBs}	-0.08 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 201 mm	Shoulder diameter of inner ring
D ₁	≈ 243 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. 191 mm	Diameter of shaft abutment
D_a	max. 269 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	1 134 kN
Basic static load rating	C_0	1 730 kN
Fatigue load limit	P_u	156 kN
Reference speed		1 500 r/min
Limiting speed		2 200 r/min
Limiting value	e	0.33
Calculation factor	Y_1	2
Calculation factor	Y_2	3
Calculation factor	Y_0	2

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	8 μ m
Maximum run-out of inner ring side face to the bore	t_{Sd}	10 μ m
Range of section height at outer ring of assembled bearing	t_{Kea}	18 μ m
Perpendicularity of outer ring outside surface	t_{SD}	6.5 μ m
ISO tolerance class for geol tolerances		P5

Radial internal clearance

Minimum initial clearance	120 µm
Maximum initial clearance	180 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