

240/500 ECA/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	500 mm	Bore diameter
t _{Δdmp}	-0.045 – 0.0 mm	Deviation limits of mid-range bore diameter
D	720 mm	Outside diameter
t _{ΔDmp}	-0.075 – 0.0 mm	Deviation limits of mid-range outside diameter
B	218 mm	Width
t _{ΔBs}	-0.45 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 566 mm	Shoulder diameter of inner ring
D ₁	≈ 644 mm	Shoulder/recess diameter of outer ring
b	22.3 mm	Width of lubrication groove
K	12 mm	Diameter of lubrication hole
r _{1,2}	min. 6 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions

Abutment dimensions

d_a	min. 523 mm	Diameter of shaft abutment
D_a	max. 697 mm	Diameter of housing abutment
r_a	max. 5 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	5 777 kN
Basic static load rating	C_0	11 000 kN
Fatigue load limit	P_u	735 kN
Reference speed		430 r/min
Limiting speed		700 r/min
Limiting value	e	0.26
Calculation factor	Y_1	2.6
Calculation factor	Y_2	3.9
Calculation factor	Y_0	2.5

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	65 μm
Range of section height at outer ring of assembled bearing	t_{Kea}	120 μm
ISO tolerance class for geoal tolerances		Normal

Radial internal clearance

Minimum initial clearance	260 μm
Maximum initial clearance	410 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