

241/530 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	530 mm	Bore diameter
$t_{\Delta dmp}$	-0.05 – 0.0 mm	Deviation limits of mid-range bore diameter
D	870 mm	Outside diameter
$t_{\Delta Dmp}$	-0.1 – 0.0 mm	Deviation limits of mid-range outside diameter
B	335 mm	Width
$t_{\Delta Bs}$	-0.5 – 0.0 mm	Deviation limits of ring width
d_2	≈ 623 mm	Shoulder diameter of inner ring
D_1	≈ 748 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. 7.5 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions

Abutment dimensions

d_a	min. 562 mm	Diameter of shaft abutment
D_a	max. 838 mm	Diameter of housing abutment
r_a	max. 6 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	10 909 kN
Basic static load rating	C_0	19 000 kN
Fatigue load limit	P_u	1 220 kN
Reference speed		240 r/min
Limiting speed		360 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}	70 μ m
Range of section height at outer ring of assembled bearing	t_{Kea}	140 μ m
ISO tolerance class for geoal tolerances		Normal

Radial internal clearance

Minimum initial clearance	280 μ m
Maximum initial clearance	440 μ m

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