



SKF 7011 ACD/P4ADBA

Matched set of two super-precision, high-capacity, D design, single row angular contact ball bearings

These matched sets of two super-precision, high-capacity, D design, single row angular contact ball bearings are available in a variety of arrangements. They are designed for high-load capacity and relatively high speed operation and, compared to the equivalent SKF B and E design high-speed bearings, are best suited for heavier loads.

Technical specifications

General	
Universal matching bearing(s)	No
Dimensions	
Bore diameter	55 mm
Outside diameter	90 mm
Width	36 mm
Shoulder diameter of inner ring (large side face)	65.8 mm
Chamfer dimension	1.1 mm
Chamfer dimension	0.6 mm
Contact angle	25 °
Abutment dimensions	
Diameter of shaft abutment	61 mm
Diameter of housing abutment	86.8 mm
Radius of fillet	1 mm
Radius of fillet	0.6 mm
Position of oil nozzle	68.1 mm
Calculation data	
Basic dynamic load rating	60.5 kN
Basic static load rating	62 kN
Fatigue load limit	2.65 kN
Attainable speed for grease lubrication	To be calculated: Single bearing (14000) x speed reduction factor (see table below)
Attainable speed for oil-air lubrication	To be calculated: Single bearing (22000) x speed reduction factor (see table below)
Contact angle	25 °
Ball diameter	11.112 mm
Number of rows	2
Number of balls (per bearing)	18
Reference grease quantity (per bearing)	5.1 cm ³
Preload class	A
Preload	230 N
Axial stiffness	159 N/μm
Correction factor dependent on bearing series and size	1.1
Correction factor dependent on contact angle	0.99
Correction factor, preload class A	1
Correction factor for hybrid bearings	1
Axial load factor (back-to-back, face-to-face)	0.92
Axial load factor (back-to-back, face-to-face)	1.4
Axial load factor (back-to-back, face-to-face)	0.76
Radial load factor (back-to-back, face-to-face)	1
Radial load factor (back-to-back, face-to-face)	0.67
Radial load factor (back-to-back, face-to-face)	1
Performance	
Basic dynamic load rating	60.5 kN

Basic static load rating	62 kN
Note	Refer to catalogue data or contact SKF for the attainable speeds

Properties	
Contact type	Normal contact (two-point contact)
Number of rows	2
Ring type	One-piece inner and outer rings
Design	High-capacity D
Universal matching bearing	No
Matched arrangement	Back-to-back <>
Number of bearings in matched set	2
Matched condition (axial clearance/ preload)	Extra light preload
Tolerance class	P4A
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Indicative carbon footprint for new product	2.7 kg CO ₂

Logistics	
Product net weight	0.741 kg
eClass code	23-05-08-04
UNSPSC code	31171531

SKF drawings



