



SKF BK 0509

Drawn cup needle roller bearing with a closed end

Drawn cup needle roller bearings are typically used in applications where the housing bore cannot be used as a raceway for a needle roller and cage assembly, but where a very compact and economical bearing arrangement is required. Owing to the large number of rollers, the bearings have a high load carrying capacity and stiffness. The closed end makes them suitable for bearing arrangements where they are situated at the end of a shaft.

Technical specifications

Dimensions	
Diameter under rollers	5 mm
Outside diameter	9 mm
Width	9 mm
Depth of the drawn cup BK	7.4 mm
Chamfer dimension drawn cup (outer ring)	0.4 mm
Bore diameter of needle roller complement	5 mm

Calculation data	
Basic dynamic load rating	2.38 kN
Basic static load rating	2.08 kN
Fatigue load limit	0.22 kN
Reference speed	22000 r/min
Limiting speed	24000 r/min

Associated products	
Radial shaft seal with a low cross-sectional height, single lip	G 5x9x2 S

Performance	
Basic dynamic load rating	2.38 kN
Basic static load rating	2.08 kN
Reference speed	22000 r/min
Limiting speed	24000 r/min

Properties	
Bearing part	Bearing without inner ring
Number of rows	1
Outer ring type	Drawn cup with one closed end
Aligning feature	Without
Cage	Sheet steel
Number of flanges, outer ring	2
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without
Indicative carbon footprint for new product	0.007 kg CO ₂

Logistics	
Product net weight	0.002 kg
eClass code	23-05-09-03
UNSPSC code	31171512

SKF drawings