Spherical Roller Bearing
with Machined Solid Brass Cage
For General Industries Machinery

New Series With Patented Cage Technology
Superb Reliability and Performance
NEW SPHERICAL ROLLER BEARINGS WITH PATENTED CAGE DESIGN

Optimized design and advanced NSK technology to deliver a new level in performance and high load capacity across all applications.

- Features next-generation precision machined solid brass cage with contoured roller pockets
- Contoured roller pockets significantly reduce unnecessary roller motion during rotation.
- NSK design advancement packs in more rollers of larger size for world-top-class load capacity
- High cage strength (no loss in strength) with highly optimized geometry and roller guided cage design
- Higher limiting speeds compared with EA type
- High-temperature dimensional stability
- Upgrade conventional SRB to NSK’s new SRB to help achieve a reduction in total maintenance costs

CURRENT VERSUS NEW DESIGN

**FEATURES**
Performance increases over conventional CA type except special notes.

- Dynamic Load Rating: 47%up (Maximum)
- Static Load Rating: 22%up (Maximum)
- Limiting speed: +20% (*) (Maximum)
- Working Temp. up to 200°C

(*): compared with EA type

**IDEAL FOR WIDE RANGE OF INDUSTRIAL APPLICATIONS**
- Agriculture
- Gearbox
- Petrochemical
- Steel & Metal
- Cement
- Industrial Fan
- Material Handling
- Sugar Cane
- Elevator
- Palm Oil
- Mining & Construction
- Fish Industry
- Papermaking
- Timber Industry

**CURRENT VERSUS NEW DESIGN**

- A < a'
- B < b'

**NEW SPHERICAL ROLLER BEARINGS WITH PATENTED CAGE DESIGN**
- New cage
- Optimized inner ring
- Increased roller size

**DESIGN OPTIMIZATIONS AND ADVANCEMENTS**

**Conventional CA Type**
- Outer ring
- Roller
- Cage
- Inner ring

**Newly Developed ECA Type**
- New cage
- Optimized inner ring

**Optimized Cage Design**
- New design reduces cage internal stress and eliminates guide ring

**Higher Load Capacity**
- Advanced internal design delivers increased roller size

**High Temperature Operation**
- High temperature dimensional stability treatment is now standard for inner and outer ring.

**AVAILABLE RANGE**
With New Machined Brass Cage

**Bearing Numbers**
- Series
- Bore
- Extra capacity
- Internal design
- Cage
- Tapered bore
- Oil groove / holes

**Boundary Dimensions (mm)**
- d
- Bore
- D
- Outside
- B
- Width
- r
- Chamfer
- C
- Basic load rating
- C0

**Results of FEM analysis**
Load F: Energy at roller collision with 5G acceleration

**Position of maximum generated stress**
Maximum generated stress of ECA is not greater than that of CA.

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