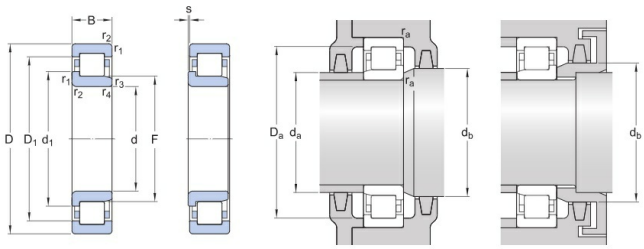
NJ 208 ECML

Single row NJ design, cylindrical roller bearing



Technical sheet of NJ 208 ECML

What are the Benefits of choosing NJ 208 ECML bearings?

- **High radial load capacity:** The rollers and raceways have line contact, resulting in a rated radial load significantly higher than that of ball bearings of the same size.
- **Good high-speed performance:** Generally employs machined or stamped cages, resulting in low friction and suitability for high-speed operation.
- **High rigidity:** Minimal elastic deformation effectively supports the shaft and housing, improving the rigidity of the transmission system.
- **Separable design:** The inner ring (with roller cage) is separable from the outer ring, facilitating installation, disassembly, and maintenance.
- **Axial displacement adaptability:** Types without inner ring flanges (such as NU and N types) allow for free axial expansion and contraction of the shaft relative to the housing, addressing thermal expansion issues.
- **Compact structure:** Small cross-sectional height saves radial space.

Type :		Single row cylindrical roller bearings
Model :		NJ 208 ECML
Main demensions :	40 mm × 80 mm × 18 mm	Bore Dia × Outside Dia × Width Dia
M kg:	0.432	Mass
HS Code :	8482500090	Bearing customs code
d mm:	40	inner ring diameter

D mm:	80	Outer ring diameter
B(T) mm:	18	Overall Width
Cr kN:	61.833	Radial dynamic load rating
C0r kN:	52.982	Radial static load rating
Grease r/min:	9473	Reference speed
Oil r/min:	15992	Limiting speed

Detailed parameters and installation dimensions:

Part Number	NJ 208 ECML
Cage	ML = Machined brass cage, window-type, inner or outer ring centred
Units	Metric
Series	NJ2 series (NJ2..ECML)
Speed ratings (grease) - n_B	9473 min^{-1}
Speed ratings (oil) - n_G	15992 min^{-1}
Seal	Open
Rows NO.	One
Bore Type	Cylindrical bore
Dimension Inside - d φ	40 mm | 1.575 inch
Accuracy class	PN
RIC	CN
Bearing Mass - m	0.432 kg | 0.952 lb
Calculation coefficient - k_r	0.23
Limiting value - e	0.2
Calculation coefficient - Y	0.6
Heat stabilized	150 °C(300 °F)
Dimension Outside - D Φ	80 mm | 3.150 inch
Dimension Width - B	18 mm | 0.709 inch
Design type	NJ = have two integral flanges on the outer ring and one on the inner ring
Internal design	EC = Optimized internal design
Radial Dynamic Capacity - C_r	61833 N | 13900 lbf
Dimension - r_3, r_4(min.)	1.1
Dimension - d_1	54 mm | 2.126 inch
Dimension - D_1	67.9 mm | 2.673 inch
Radial Static Capacity - C_{0r}	52982 N | 11910 lbf
Bearing part	Complete
Axial displacement capability	In one direction
Fatigue load limit - P_u	6581 N | 1479 lbf
Angle ring	HJ 208 EC
Manufacturer Part Code	NJ208ECML
Bearing Type	Single row NJ design, cylindrical roller bearing

Permissible axial displacement - s (max)	1.4 mm | 0.055 inch
Dimension - r_1, r_2(min.)	1.1
Dimension - F	49.5 mm | 1.949 inch
Ring	outer ring(2), inner ring(1)
Flange	No
Ring Material	GCr15SiMn
Mounting dimensions housing - D_a max	72.8 mm | 2.866 inch
Fillet radius - ra max	1 mm | 0.039 inch
Mounting dimensions spacer sleeve - d_a min.	47 mm | 1.850 inch
Mounting dimensions spacer sleeve - d_a max.	48 mm | 1.890 inch
Roller Material	GCr15SiMn
External design	No
Mounting dimensions shaft - d_b min.	56 mm | 2.205 inch
Coating	No
Lubricant	No
Relubrication	No

What are the applications of the NJ 208 ECML bearing?

- **Electric Motors and Generators:** Support high speeds and reduce frictional temperature rise.
- **Gearboxes:** Withstand high radial loads and improve transmission rigidity.
- **Pumps and Compressors:** Ensure stable rotor operation and extend service life.
- **Metallurgical Equipment:** Resistant to heavy loads and impacts, adaptable to high-temperature conditions.
- **Mining Machinery:** Resistant to vibration and dust, maintaining continuous operation.
- **Wind Power Equipment:** Reliably transmits torque and adapts to variable speed and load conditions.
- **Rail Transportation:** Withstands heavy vehicle loads and ensures safe operation.
- **Machine Tools:** Provides high-rigidity support to ensure machining accuracy.
- **Paper Machinery:** Maintains roller stability and improves paper quality.
- **Conveying Equipment:** Bears continuous loads and reduces downtime for maintenance.

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