

Report for 6319-J20AA All results refer to continuous 24/7 operation.

Input

Bearing data	
Designation	6319-J20AA
Design	Radial deep groove ball bearing
Series	63

Basic load ratings	
Basic static load rating (C0)	113.000 N
Basic dynamic load rating (C)	154.000 N

Load	
Load levels	moderate (C0/P approx. 10)

Bearing dimensions	
Width (B)	45 mm
Outside diameter (D)	200 mm
Inside diameter (d)	95 mm

Operating conditions	
Type of movement	rotating
Relative speed (n_rel)	1.500 1/min

Temperatures	
Operating temperature (Theta)	70 °C
Ambient temperature (t)	40 °C
Environmental influence	0.5 (heavy)

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Results sorted by relubrication interval (2/2 greases)

Non-Schaeffler High-Temperature Grease		Arcanol TEMP90	
		Mineral + PAO oil, NLGI3, Polyurea	
Initial grease quantity *	99 g/110 cm ³	Initial grease quantity *	99 g/110 cm ³
Quantity of relubrication per 365 days *	93,622 g/365 days	Quantity of relubrication per 365 days *	93,622 g/365 days
	104,025 cm ³ /365 days		104,025 cm ³ /365 days
Quantity of relubrication per 1000 operating hours *	10,687 g/1000 hours	Quantity of relubrication per 1000 operating hours *	10,687 g/1000 hours
	11,875 cm ³ /1000 hours		11,875 cm ³ /1000 hours
Grease service life *	~ 467 days	Grease service life *	~ 467 days
Quantity of relubrication per 30 days *	7,695 g/30 days	Quantity of relubrication per 30 days *	7,695 g/30 days
	8,55 cm ³ /30 days		8,55 cm ³ /30 days
Quantity of relubrication per 7 days *	1,795 g/7 days	Quantity of relubrication per 7 days *	1,795 g/7 days
	1,995 cm ³ /7 days		1,995 cm ³ /7 days
Lower temperature limit	-30 °C	Viscosity ratio [κ]	4,1
Upper temperature limit	160 °C	Base oil viscosity at 40°C	148 mm ² /s
Additive required	n.a.	Lower temperature limit	-40 °C
Effective EP-additivation	n.a.	Upper temperature limit	160 °C
Low Friction	n.a.	Additive required	no
Suitable for vibrations	n.a.	Effective EP-additivation	yes
Support for sealing	n.a.	Density	0,9 kg/dm ³
H1 registration (NSF-H1 kosher and halal certification)	n.a.	Low Friction	0 (suitable)
		Suitable for vibrations	0 (suitable)
		Support for sealing	+ (highly suitable)
		H1 registration (NSF-H1 kosher and halal certification)	no

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Errors, Warnings & Notes

Warnings

Relubrication should be carried out once a year.

- Arcanol MOTION 2
- Arcanol MULTITOP
- Arcanol MULTI3
- Arcanol LOAD150
- Arcanol LOAD400

A grease service life >3 years must be agreed with the lubricant supplier with regard to the respective application. The guide value issued in Bearinx for the grease service life is limited to 5 years. In individual cases, grease usage durations greater than 5 years are also possible. If necessary, please contact the Schaeffler engineering service, that can advise you on the basis of the practical experience.

Very high kappa values and corresponding friction losses occur at the present operating speed for the following lubricating greases:

- Arcanol LOAD1000
- Arcanol TEMP120
- Arcanol TEMP200

The operating temperature is below the recommended minimum operating temperature for the following greases:

- Arcanol TEMP120 (70.0 °C < 80.0 °C)
- Arcanol TEMP200 (70.0 °C < 150.0 °C)

Notes

As the simplified load input via load levels has been used, the thermally safe operating speed as well as the static load safety are not checked.

Calculation of the grease service life and the relubrication interval corresponds to the catalog method. The internal geometry and the internal load distribution are not taken into consideration in the calculation. If you have any questions relating to selection of a suitable grease, please contact the Schaeffler engineering service. If the axis of rotation is vertical, the supply of lubricant to the contact must be checked.

In the Grease App, fatigue life is not considered or calculated. Please check this separately.

When calculating the amount of lubricant, only the volume of the bearing is taken into account, while the free space of the surrounding construction and the volume of the supply lines are not considered.

The specified grease quantities are only guide values, which may be deviated from based on practical experience. In case of questions, please contact the Schaeffler engineering service.

For the Non-Schaeffler Greases the individual properties are unknown. Therefore, criteria on the suitability of the grease are not checked for these greases (e.g., viscosity ratio, additivation, n*dm-limits of the grease, thermally safe operating speed, suitability for the CONCEPT1 lubricator).

- Non-Schaeffler Multi-Purpose Grease
- Non-Schaeffler High-Temperature Grease

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