6218-2Z/VA228

Deep groove ball bearing for high temperature applications with shields on both sides

Single row deep groove ball bearings for high temperature applications, with shields on both sides, are designed for challenging operating conditions, with certain variants being capable of performing at temperatures as high as 350 °C (660 °F). They have larger radial internal clearances and use graphite-based lubricants that enable operation at high temperatures. They are lubricated for the life of the bearing and the entire surface of the bearings and shields are manganese phosphate treated, which enhances adhesion of the lubricant to the metal and improves their running-in properties. As with deep groove ball bearings generally, they are particularly versatile, accommodate radial and axial loads in both directions, and are easy to mount.

- Optimized for operation at high temperatures – up to 350 °C (660 °F)
- Easily swapped with grease-lubricated bearings of corresponding ISO dimensions
- Increased reliability, reduced complexity and decreased environmental impact
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	90 mm
Outside diameter	160 mm
Width	30 mm

Performance

Basic dynamic load rating	101 kN
Basic static load rating	73.5 kN
Limiting speed	70 r/min
Maximum operating temperature	350 °C

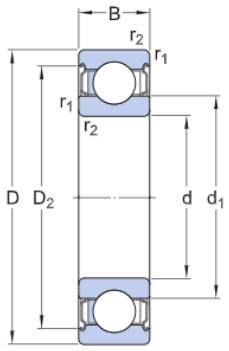
Properties

Bore type	Cylindrical
Cage	Non-metallic
Coating	Coated
Filling slots	Without
Locating feature, bearing outer ring	None
Lubricant	Solid lubricant
Matched arrangement	No
Material, bearing	High temperature steel
Number of rows	1
Radial internal clearance	Multiples of C5

Relubrication feature	Without
Sealing	Shield on both sides
Sealing type	Non-contact

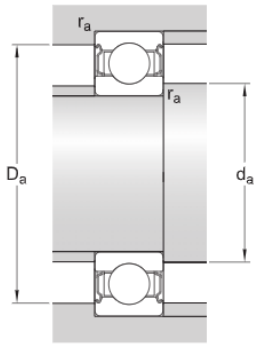
Technical Specification

Running in required	No



Dimensions

d	90 mm	Bore diameter
D	160 mm	Outside diameter
B	30 mm	Width
d_1	≈ 112.5 mm	Shoulder diameter inner ring
D_2	≈ 142.6 mm	Recess diameter outer ring shoulder
$r_{1,2}$	min. 2 mm	Chamfer dimension



Abutment dimensions

d_a	min. 101 mm	Abutment diameter shaft
d_a	max. 112 mm	Abutment diameter shaft
D_a	max. 149 mm	Abutment diameter housing
r_a	max. 2 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	101 kN
Basic static load rating	C_0	73.5 kN
Limiting speed		70 r/min
Operating temperature	T	max. 350 °C

Mass

Mass bearing	2.3 kg

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