


The Timken Company

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Part Number 220W, Fafnir® Maximum Capacity Ball Bearings (200W, 300W)

Radial ball bearings consist of an inner and outer ring with a cage containing a complement of precision balls. The standard Conrad-type bearing has a deep-groove construction capable of handling radial and axial loads from either direction in versatile designs that permit relatively high-speed operation.

In addition to standard single-row deep groove bearings, Timken offers special designs, including a maximum capacity series and an extra large (XLS) radial series bearing.

Size range: 3 mm


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Specifications

Design Units	Metric
d - Bore	100 mm
Ball Type	STEEL
Manufacturing Part Number	220WC1

Dimensions



D - Outer Diameter 180 mm
7.0866 in

Bearing Width 34 mm
1.3386 in

Basic Load Ratings

Ce - Dynamic Radial Rating¹ 185300 N
41700 lbf

C0 - Static Radial Rating 148300 N
33400 lbf

Factors

Limiting Speed (Grease) 1786 rpm

Limiting Speed (Oil) 2143 rpm

Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius² 2.11 mm
0.083 in

r - Outer Ring "To Clear" Radius³ 2.11 mm
0.083 in

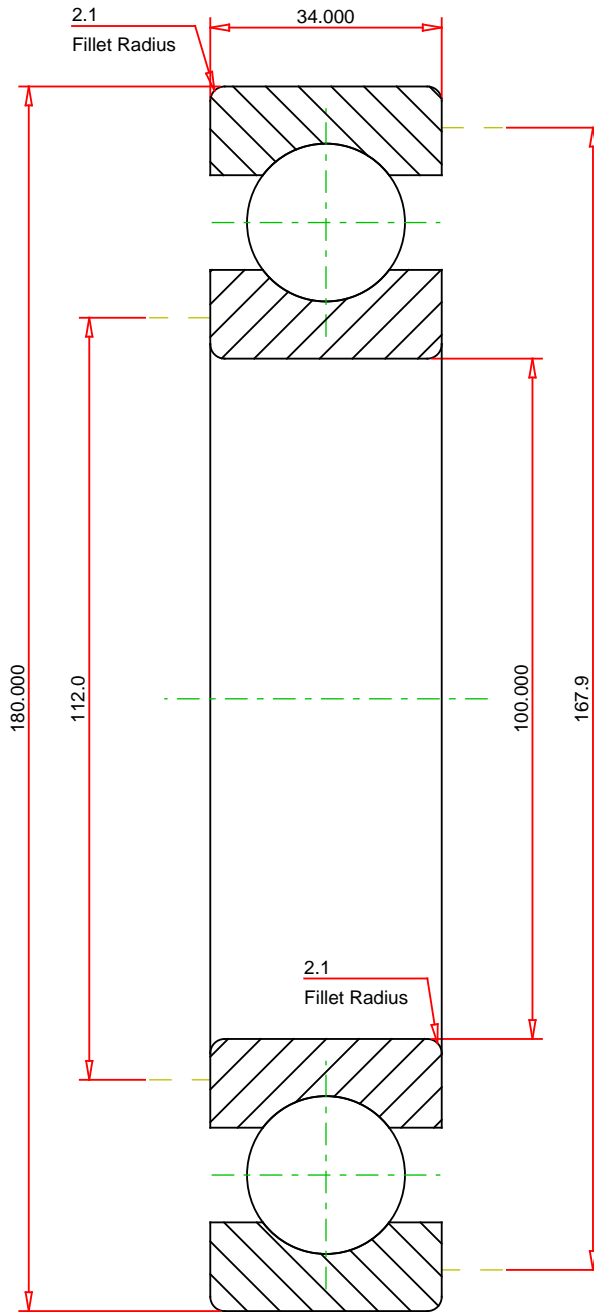
da - Inner Ring Backing Diameter 112.01 mm
4.4100 in

Da - Outer Ring Backing Diameter 167.89 mm
6.6100 in

¹ Based on 10^6 revolutions of calculated fatigue life.

² Maximum housing fillet radius that bearing corners will clear.

³ Maximum shaft fillet radius that bearing corners will clear.



METRIC UNITS

Number of Balls Per Row 16
 Bearing Weight 3.252 kg

TIMKEN®

220W
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THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

Dynamic Radial Rating 185300 N
 Static Radial Rating 148300 N

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