


**The Timken Company**

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## Part Number 3MMV9110HXVVDUMFS637, Fafnir® High Speed Spindle Angular Contact Ball Bearings (9300HX, 9100HX)

Timken® angular contact ball bearings are designed for combination radial and axial loading. Single-row bearings have high thrust capacity in one direction. Some single-row bearings are specifically designed for duplex mounting in sets for maximum performance.



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### Specifications

<b>Rows per Set</b>	Duplex
<b>Seal Type</b>	High Speed
<b>Design Units</b>	Metric
<b>d - Bore</b>	50 mm
<b>Ball Type</b>	STEEL
<b>Cage Type</b>	CR - Phenolic Outer Land Riding Cage
<b>Precision Rating</b>	ISO P4S (ABEC 7/9)



Dimensions

<b>D - Outer Diameter</b>	80 mm 3.1496 in
<b>Bearing Width</b>	16 mm 0.6299 in
<b>Total Width</b>	32 mm 1.2598 in
<b>Contact Angle</b>	25 °

### Basic Load Ratings

<b>C0 - Static Radial Rating (per row)</b>	11700 N 2620 lbf
<b>Ce - Dynamic Radial Rating (per row)<sup>1</sup></b>	20500 N 4600 lbf
<b>C1 ISO - Dynamic Radial Rating (per row)</b>	18600 N 4180 lbf

### Factors

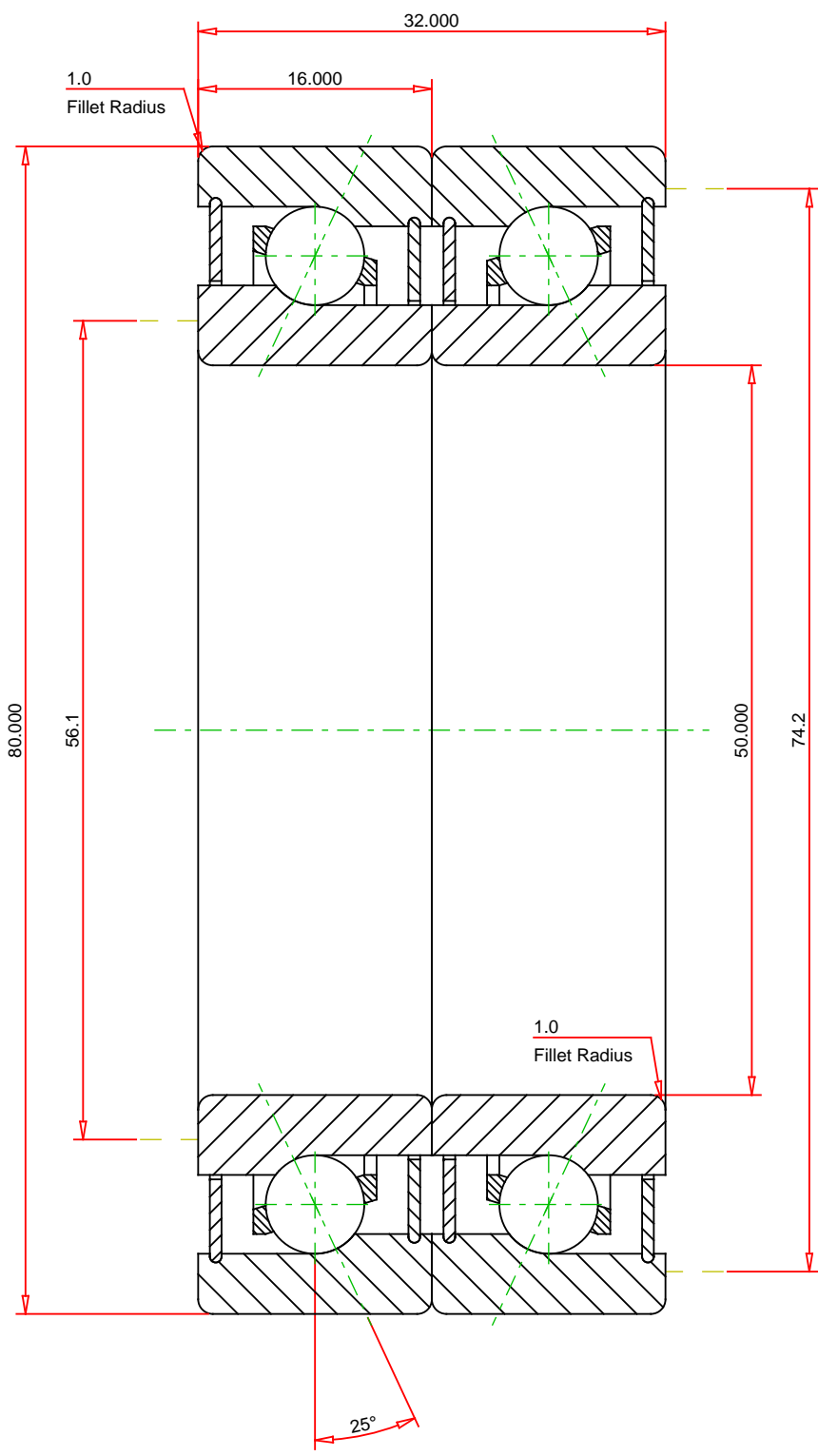
<b>Limiting Speed (Grease) (per row)</b>	19600 rpm
<b>Limiting Speed (Oil)</b>	39200 rpm

### Abutment and Fillet Dimensions

<b>R - Inner Ring "To Clear" Radius<sup>2</sup></b>	1 mm 0.039 in
<b>r - Outer Ring "To Clear" Radius<sup>3</sup></b>	1 mm 0.039 in
<b>da - Inner Ring Backing Diameter</b>	56.1 mm 2.210 in

<b>Da - Outer Ring Backing Diameter</b>	74.2 mm 2.920 in
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- <sup>1</sup> Based on  $10^6$  revolutions of calculated fatigue life.
- <sup>2</sup> Maximum housing fillet radius that bearing corners will clear.
- <sup>3</sup> Maximum shaft fillet radius that bearing corners will clear.



METRIC UNITS

Number of Balls Per Row	16
Bearing Weight	0.472 kg

**TIMKEN**®

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NORTH CANTON, OHIO USA

<b>3MMV9110HXVVDUMFS637</b>	
Fafnir® High Speed Spindle Angular Contact Ball Bearings (9300HX, 9100HX)	
Dynamic Radial Rating	20500 N
Static Radial Rating	11700 N

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

**FOR DISCUSSION ONLY**