

TIMKEN**The Timken Company**

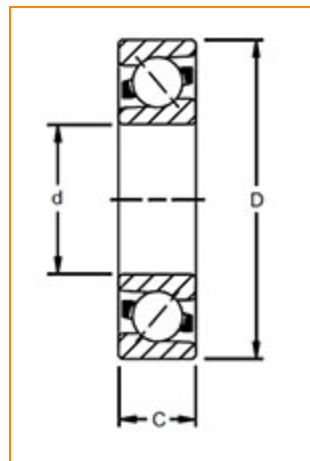
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Part Number 7309 BTN1/CN, Timken® Single Row Angular Contact Ball Bearings (7200, 7300)

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.



[Dimensions](#) | [Basic Load Ratings](#) | [Factors](#) | [Specifications](#) | [Abutment and Fillet Dimensions](#)

Dimensions

| | |
|---------------------------|------------------------|
| d - Bore | 45.00 mm 1.7717 in |
| D - Outer Diameter | 100.00 mm 3.9370 in |
| Bearing Width | 25.00 mm 0.9843 in |
| Contact Angle | 40 ° |

Basic Load Ratings



C0 - Static Radial Rating

36800 N
8271 lbf

| | |
|---------------------------------------|----------------------|
| C1 ISO - Dynamic Radial Rating | 55000 N 12362 lbf |
|---------------------------------------|----------------------|

Factors

| | |
|--------------------------------|----------|
| Limiting Speed (Grease) | 6600 rpm |
|--------------------------------|----------|

| | |
|-----------------------------|----------|
| Limiting Speed (Oil) | 8900 rpm |
|-----------------------------|----------|

Specifications

| | |
|------------------|-------|
| Ball Type | STEEL |
|------------------|-------|

| | |
|------------------|--------|
| Cage Type | Molded |
|------------------|--------|

| | |
|----------------------|-----------|
| Cage Material | Polyamide |
|----------------------|-----------|

| | |
|-----------------------|---------------------|
| Bearing Weight | 0.85 Kg 1.874 lb |
|-----------------------|---------------------|

| | |
|---------------------|--------|
| Design Units | METRIC |
|---------------------|--------|

| | |
|--------------------------------------|-----|
| R - Inner Ring "Touch" Radius | 0.6 |
|--------------------------------------|-----|

| | |
|--------------------------------------|-----|
| r - Outer Ring "Touch" Radius | 0.6 |
|--------------------------------------|-----|

| | |
|-----------------|------|
| Features | Open |
|-----------------|------|

Abutment and Fillet Dimensions

| | |
|---|---------------------|
| R - Inner Ring "To Clear" Radius¹ | 1.00 mm 0.039 in |
|---|---------------------|

| | |
|---|---------------------|
| r - Outer Ring "To Clear" Radius² | 1.00 mm 0.039 in |
|---|---------------------|

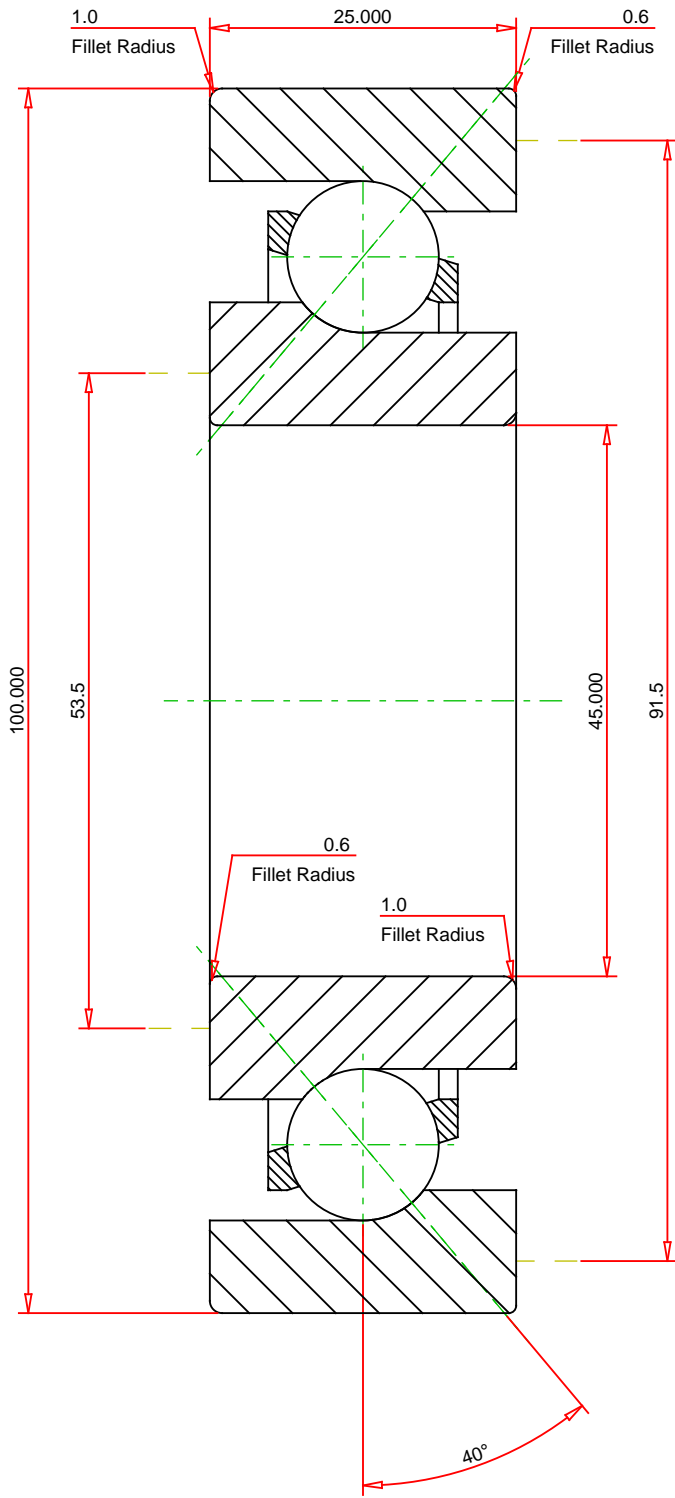
| | |
|---|---------------------|
| da - Inner Ring Backing Diameter | 53.5 mm 2.106 in |
|---|---------------------|

| | |
|--------------------------------|---------|
| Da - Outer Ring Backing | 91.5 mm |
|--------------------------------|---------|

Diameter

3.602 in

- ¹ Maximum housing fillet radius that bearing corners will clear.
- ² Maximum shaft fillet radius that bearing corners will clear.



METRIC UNITS

Number of Balls Per Row 11
 Bearing Weight 0.850 kg

TIMKEN®

7309 BTN1/CN
 Timken® Single Row Angular Contact Ball Bearings
 (7200, 7300)

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

Dynamic Radial Rating 55000 N
 Static Radial Rating 36800 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