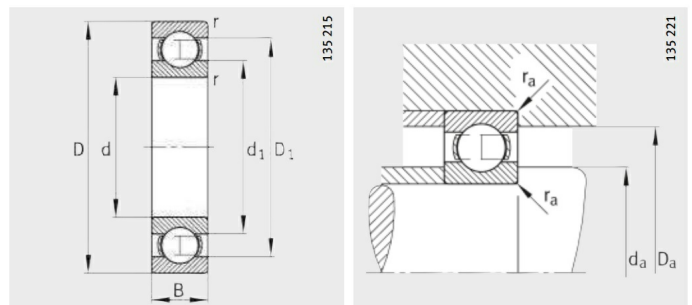


# 6302

Deep groove ball bearings open design, self-retaining



Mounting dimensions  
Open design

## Technical sheet of 6302

### What are the Benefits of choosing 6302 bearings?

- **Versatile Load Bearing:** Capable of simultaneously withstanding radial and bidirectional axial loads, suitable for high-speed and ultra-high-speed applications.
- **Low Friction and Long Life:** Optimized contact between the raceway and steel balls results in an extremely low coefficient of friction, minimal heat generation, and a long service life.
- **High Speed Capability:** Due to high operational precision, it allows for very high maximum speeds.
- **Low Maintenance Costs:** Can be designed with dust covers or sealing rings for lifetime lubrication, requiring no routine maintenance.
- **Rigid and Quiet Operation:** Provides a certain level of rotational stiffness while maintaining low operating noise and vibration levels.

Type :	Single row deep groove ball bearings	
Model :	<a href="#">6302</a>	
Old Code :	302	
Main demensions :	15 mm × 42 mm × 13 mm	Bore Dia × Outside Dia × Width Dia
M kg:	0.084	Mass
HS Code :	8482102000	Bearing customs code
d mm:	15	inner ring diameter

<b>D mm:</b>	42	Outer ring diameter
<b>B(T) mm:</b>	13	Overall Width
<b>Cr kN:</b>	11.941	Radial dynamic load rating
<b>C<sub>0r</sub> kN:</b>	5.253	Radial static load rating
<b>Grease r/min:</b>	17473	Reference speed
<b>Oil r/min:</b>	24965	Limiting speed

**Detailed parameters and installation dimensions:**

Part Number	6302
Series	63
Bearing Mass - m	0.084 kg   0.185 lb
Reference speed - $n_B$	17473 min <sup>-1</sup>
Limiting speed - $n_G$	24965 min <sup>-1</sup>
Reference From	FAG 6302
Dimension Inside - d $\phi$ (mm)	15
Dimension Outside - D $\Phi$ (mm)	42
Dimension Width - B (mm)	13
Bore Type	Z = Cylindrical bore
Bearing Type	Deep groove ball bearings open design, self-retaining
Dimension - D <sub>2</sub>	34.95 mm   1.376 inch
Dimension - r(min.)	1 mm   0.039 inch
Dimension - D <sub>1</sub>	33.49 mm   1.319 inch
Dimension - d <sub>1</sub>	23.6 mm   0.929 inch
Rows NO.	one
Mounting dimensions - d <sub>a</sub> (min.)	20.6 mm   0.811 inch
Seal	Open
Mounting dimensions - D <sub>a</sub> (max.)	36.4 mm   1.433 inch
Mounting dimensions - r <sub>a</sub> (max.)	1 mm   0.039 inch
Cage	JN = Stamping steel cage
RIC	CN
Manufacturer Part Code	6302
Radial Dynamic Capacity - C <sub>r</sub>	11941 N   2684 lbf
Radial static Capacity - C <sub>0r</sub>	5253 N   1180 lbf
Heat stabilization	SN = (up to 120 °C)
Lubricant	Without
Dimension Inside - d $\phi$ (inch)	0.591
Dimension Outside - D $\Phi$ (inch)	1.654
Dimension Width - B (inch)	0.512
Temperature - T(min)	-30°C
Temperature - T(max)	120°C
Radial Fatigue Capacity - C <sub>ur</sub>	340 N   76 lbf

Coefficient - F <sub>0</sub>	12
Ring Material	GCr15SiMn

### What are the applications of the 6302 bearing?

- **Motors/Electrical Appliances:** Used in motors and home appliances. Ensures smooth high-speed operation and low noise.
- **Automotive Industry:** Used in generators and gearboxes. Suitable for medium loads and offers high reliability.
- **General Machinery:** Used in pumps, fans, and speed reducers. Low friction, maintenance-free, and long service life.

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