

208WG

maximum capacity ball bearings



Technical sheet of 208WG

What are the Benefits of choosing 208WG 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 :	208WG	
Main demensions :	40 mm × 80 mm × 18 mm	Bore Dia × Outside Dia × Width Dia
M kg:	0.413	Mass
HS Code :	8482102000	Bearing customs code
d mm:	40	inner ring diameter
D mm:	80	Outer ring diameter
B(T) mm:	18	Overall Width

Cr kN:	45.859	Radial dynamic load rating
C_{0r} kN:	28.245	Radial static load rating
Grease r/min:	4060	Reference speed
Oil r/min:	4895	Limiting speed

Detailed parameters and installation dimensions:

Part Number	208WG
Rows NO.	One
Tolerance class	P0 (ABEC-1)
Inner Ring Radius - R	1.1 mm 0.0433 inch
Outer Ring Radius - r	1.1 mm 0.0433 inch
Cage	Stamping steel cage
Series	LIGHT 200W SERIES
Inner Ring Backing Dia. - d _a	43.9 mm 1.7283 inch
Outer Ring Backing Dia. - D _a	72.9 mm 2.8701 inch
Design Units	Metric
Temperature - T(min)	-30 °C
Temperature - T(max)	120 °C
Manufacturer Part Code	208WGC2
Load	radial
Radial Dynamic Capacity - C _e	45859 N 10309 lbf
Radial Static Capacity - C _{0r}	28245 N 6349 lbf
Ring Material	GCr15SiMn
Speed ratings (grease) - n _B	4060 min ⁻¹
Speed ratings (oil) - n _G	4895 min ⁻¹
Features	W = maximum capacity, filling slot type
Interchangeable	FAFNIR 208WG
Bore type	Cylindrical bore
Dimension Inside - d φ	40 mm 1.5748 inch
Dimension Outside - D φ	80 mm 3.1496 inch
Dimension Width - B	18 mm 0.7087 inch
Bearing Type	maximum capacity ball bearings
Ball Material	GCr15SiMn

What are the applications of the 208WG 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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