

# 2218 SKF Calculation factor Y1 2.3 160x90x40mm Self aligning ball bearings

Bearing number	2218
Size (mm)	160x90x40
Brand	SKF
Bore Diameter (mm)	160
Outer Diameter (mm)	90
Width (mm)	40
d	90 mm
D	160 mm
B	40 mm
$d_1$	112.6 mm
$D_1$	139.5 mm
$r_{1,2} - \text{min.}$	2 mm
$d_a - \text{min.}$	101 mm
$D_a - \text{max.}$	149 mm
$r_a - \text{max.}$	2 mm
Basic dynamic load rating – C	70.2 kN
Basic static load rating – $C_0$	28.5 kN
Fatigue load limit – $P_u$	1.3 kN
Reference speed	7500 r/min
Limiting speed	5300 r/min
Calculation factor – $k_r$	0.04
Calculation factor – e	0.27

Calculation factor – Y <sub>0</sub>	2.5
Calculation factor – Y <sub>1</sub>	2.3
Calculation factor – Y <sub>2</sub>	3.6
Category	Self Aligning Ball Bearings
BDI Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	3.284
EAN	7316577002020
Product Group – BDI	B00152
Mounting Method	Shaft
Enclosure	Open
Rolling Element	Ball Bearing
Cage Material	Steel
Precision Class	ABEC 1   ISO P0
Internal Clearance	C0-Medium
Number of Rows of Balls	Double Row
Other Features	Allowable Misalignment 3 Deg
Long Description	90MM Bore; Shaft Mount; 160MM Outside Diameter; 40MM Inner Race Width; 40MM Outer Race Width; Open; Steel Cage; Double Row of Balls; ABEC 1   ISO P0; C0-Medium
Inch – Metric	Metric
Category – BDI	Self Aligning Ball Bearings
UNSPSC	31171532
Harmonized Tariff Code	8482.10.50.68
Noun	Bearing

Keyword String	Self Aligning
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Manufacturer Item Number	2218
Weight / LBS	7.233
Inner Race Width	1.575 Inch   40 Millimeter
Outer Race Width	1.575 Inch   40 Millimeter
Bore	3.543 Inch   90 Millimeter
Outside Diameter	6.299 Inch   160 Millimeter
bore diameter:	90 mm
static load capacity:	28.5 kN
outside diameter:	160 mm
precision rating:	Not Rated
overall width:	40 mm
maximum rpm:	5300 RPM
bore type:	Straight
finish/coating:	Uncoated
closure type:	Open
outer ring width:	40 mm
internal clearance:	C0
fillet radius:	2 mm
dynamic load capacity:	70.2 kN
series:	2200
$d_1 \approx$	112.6 mm
$D_1 \approx$	139.5 mm
$r_{1,2} \text{ min.}$	2 mm
$d_a \text{ min.}$	101 mm
$D_a \text{ max.}$	149 mm
$r_a \text{ max.}$	2 mm

Basic dynamic load rating C	70.2 kN
Basic static load rating $C_0$	28.5 kN
Fatigue load limit $P_u$	1.32 kN
Permissible angular misalignment $\alpha$	2.5 °
Calculation factor $k_r$	0.04
Calculation factor e	0.27
Calculation factor $Y_0$	2.5
Calculation factor $Y_1$	2.3
Calculation factor $Y_2$	3.6
Mass bearing	3.4 kg