

**ZKLN5090-2Z-XL**

Axial angular contact ball bearing

Axial angular contact ball bearings  
ZKLN..-2Z, double direction, gap seals on both sides

X-life

## Technical information



## Your current product variant

Sealing	2Z	Minimal gap seal on both sides
Tolerance class	Standard	

## Main Dimensions &amp; Performance Data

d	50 mm	Bore diameter
	0 mm	Bore diameter upper tolerance
	-0,005 mm	Bore diameter lower tolerance
D	90 mm	Outside diameter
	0 mm	Outside diameter upper tolerance
	-0,01 mm	Outside diameter lower tolerance
B	34 mm	Width
	0 mm	Width upper tolerance
	-0,25 mm	Width lower tolerance
C <sub>a</sub>	51.000 N	Basic dynamic load rating, axial
C <sub>0a</sub>	126.000 N	Basic static load rating, axial
C <sub>ua</sub>	7.700 N	Fatigue load limit, axial
n <sub>G</sub> Grease	4.200 1/min	Limiting speed for grease lubrication
n <sub>g</sub>	3.000 1/min	Thermally safe operating speed
M <sub>R</sub>	0,45 Nm	Bearing frictional torque
≈m	0,918 kg	Weight



### Mounting dimensions

$D_{a \max}$	82 mm	Maximum diameter of housing
$d_{a \min}$	63 mm	Minimum diameter shaft

### Dimensions

$d_1$	72 mm	Rib diameter inner ring
$r_{\min}$	0,3 mm	Minimum chamfer dimension
$r_{1 \min}$	0,6 mm	Minimum chamfer dimension
$\alpha$	60 °	Contact angle

### Temperature range

$T_{\min}$	-30 °C	Operating temperature min.
$T_{\max}$	120 °C	Operating temperature max.

### Additional information

$c_{aL}$	1.250 N/ $\mu$ m	Rigidity axial
$c_{kL}$	1.000 Nm/mrad	Tilting rigidity
$M_m$	5,24 kg*cm <sup>2</sup>	Mass moment of inertia
	2,5 $\mu$ m	Axial runout
	ZM50	Recommended INA precision locknut for radial locking
	AM50	Recommended INA precision locknut for axial locking
$M_A$	85 Nm	Tightening torque for the recommended INA precision locknut
	16.280 N	Required locknut force axial



### Characteristics

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Radial load



Axial load in one direction



Axial load in two directions



Lifetime lubrication, freedom from maintenance



Grease Lubrication



Sealed on both sides