

**ZARN60120-L-TV**

## Needle roller/axial cylindrical roller bearing

Needle roller/axial cylindrical roller bearings  
ZARN...-L, double direction, long shaft  
locating washer

## Technical information



## Your current product variant

Cage	TV	Plastic Cage made from PA66
Locating Feature , bearing outer ring	L	Stepped shaft locating washer extended on one side

## Main Dimensions &amp; Performance Data

d	60 mm	Bore diameter
D	120 mm	Outside diameter
H	103 mm	Hight
C <sub>a</sub>	187.000 N	Basic dynamic load rating, axial
C <sub>0a</sub>	550.000 N	Basic static load rating, axial
C <sub>r</sub>	44.500 N	Basic dynamic load rating, radial
C <sub>0r</sub>	92.000 N	Basic static load rating, radial
C <sub>ua</sub>	51.000 N	Fatigue load limit, axial
C <sub>ur</sub>	12.900 N	Fatigue load limit, radial
n <sub>G Oil</sub>	2.700 1/min	Limiting speed for oil lubrication
n <sub>G Grease</sub>	950 1/min	Limiting speed for grease lubrication
M <sub>RL</sub>	4,2 Nm	Bearing friction torque
≈m	4,39 kg	Weight

## Mounting dimensions

D <sub>a max</sub>	106 mm	Maximum diameter of housing shoulder
d <sub>a min</sub>	88 mm	Minimum diameter shaft shoulder



## Dimensions

H <sub>1</sub>	74,5 mm	Height outer ring over wave washer
C	25 mm	Width, outer ring
D <sub>1</sub>	105 mm	Rip diameter shaft washer
D <sub>2</sub>	90 mm	Heeldiameter wave washer long
D <sub>3</sub>	105 mm	Outside diameter wave washer long
B	17,5 mm	Width, inner ring
B <sub>1</sub>	18,5 mm	Width wave washer long
B <sub>2</sub>	18 mm	Width heel wave washer long
r <sub>min</sub>	0,3 mm	Minimum chamfer dimension
r <sub>1 min</sub>	0,6 mm	Minimum chamfer dimension

## Temperature range

T <sub>min</sub>	-30 °C	Operating temperature min.
T <sub>max</sub>	120 °C	Operating temperature max.

## Additional information

c <sub>aL</sub>	5.300 N/μm	Rigidity axial
c <sub>kL</sub>	4.300 Nm/mrad	Tilting stiffness
M <sub>m</sub>	54,5 kg*cm <sup>2</sup>	Mass moment of inertia
	1 μm	Axial runout
radial	ZMA60/98	Recommended INA precision locknut for radial locking (not included)
axial	AM60	Recommended INA precision locknut for axial locking (not included)
M <sub>A</sub>	250 Nm	Tightening torque nut
	41.144 N	Required locknut force
	90X110X12	Rotary shaft seal to DIN 3760 (not included)



### Characteristics

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Radial load



Axial load in one direction



Axial load in two directions



Grease Lubrication



Oil Lubrication



Not sealed