

**ZARN50110-TV**

Needle roller/axial cylindrical roller bearing

Needle roller/axial cylindrical roller bearings
ZARN, double direction

Technical information



Your current product variant

Cage	TV	Plastic Cage made from PA66
------	----	-----------------------------

Main Dimensions & Performance Data

d	50 mm	Bore diameter
D	110 mm	Outside diameter
H	82 mm	Hight
C _a	172.000 N	Basic dynamic load rating, axial
C _{0a}	480.000 N	Basic static load rating, axial
C _r	46.500 N	Basic dynamic load rating, radial
C _{0r}	103.000 N	Basic static load rating, radial
C _{ua}	44.500 N	Fatigue load limit, axial
C _{ur}	12.700 N	Fatigue load limit, radial
n _{G Oil}	3.100 1/min	Limiting speed for oil lubrication
n _{G Grease}	1.100 1/min	Limiting speed for grease lubrication
M _{RL}	3,8 Nm	Bearing friction torque
≈m	3,279 kg	Weight

Mounting dimensions

D _{a max}	96 mm	Maximum diameter of housing shoulder
d _{a min}	75 mm	Minimum diameter shaft shoulder



Dimensions

H ₁	53,5 mm	Height outer ring over wave washer
C	25 mm	Width, outer ring
D ₁	95 mm	Rip diameter shaft washer
B	17,5 mm	Width, inner ring
r _{min}	0,3 mm	Minimum chamfer dimension
r _{1 min}	0,6 mm	Minimum chamfer dimension

Temperature range

T _{min}	-30 °C	Operating temperature min.
T _{max}	120 °C	Operating temperature max.

Additional information

c _{aL}	4.600 N/μm	Rigidity axial
c _{kL}	2.900 Nm/mrad	Tilting stiffness
M _m	29,8 kg*cm ²	Mass moment of inertia
	1 μm	Axial runout
radial	ZMA50/92	Recommended INA precision locknut for radial locking (not included)
axial	AM50	Recommended INA precision locknut for axial locking (not included)
M _A	180 Nm	Tightening torque nut
	36.224 N	Preload force axial



Characteristics



Radial load



Axial load in one direction



Axial load in two directions



Grease Lubrication



Oil Lubrication



Not sealed