

Ball Bearing Freewheel Clutch Unit FKN (2RS)



with keyway (IR)



Characteristics

Dimensions

Dimensions per bearing series 62 (DIN 625)

Width

12 / 14 / 15 / 16 / 17 / 18 mm

Operating temperature

max. 140°C

Higher temperatures on request

max. 110°C (design 2RS with RS seals)

Lubrication

Series FKN 2RS with seals

Operative lifetime grease lubrication

Series FKN without seals

Oil or grease lubrication (Pg. 60–61)

Delivered with corrosion protection.

Installation

Installation tolerances

Shaft n6; hub N7

Mating parts

Hardening and grinding of the mating parts is not necessary.

Thoroughly clean (grease free) the mating parts in the vicinity of the freewheel clutch as well as the freewheel clutch's rings before making the press fit.

Bearing

The freewheel clutch includes a ball bearing.

Additional external bearing support is not necessary.

Press fit pressure

Press fit pressure must not be applied to the balls.

Clamping direction

The arrow on the inner ring designates the inner ring's clamping direction.

Seals*

The employed RS seal reliably seal out grease and dust but are not suitable protection against the presence of liquids.

Series FKN 6203-RS has a RS seal on one side only (RS seal on the freewheel side).

Components

Freewheel clutch

insert element FE 400 Z2

+ Raceways inner ring

Bearing steel, hardened and polished

Keyway per DIN 6885, Sheet 3

(Sizes 6203-6206)

Keyway per DIN 6885, Sheet 1

(Sizes 6207-6208)

Tolerance: P9 with back clearance

Press fit

outer ring

+ Ball bearing

Integrated

- Roller bearing -

+ Lubrication

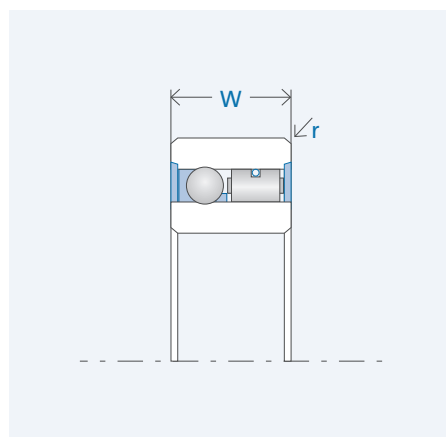
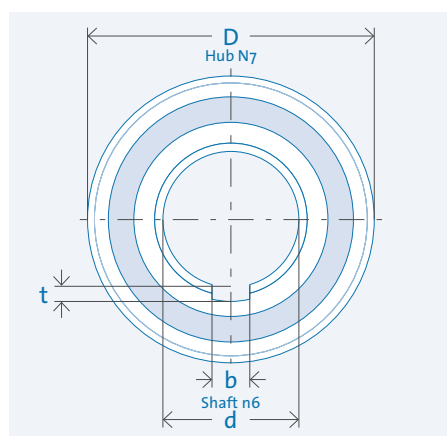
Lifetime grease lubrication*

+ Seal

RS seals*

* Series FKN 2RS (with RS seals)

Data



Drawing legend

- d = inner diameter
- D = outer diameter
- W = width
- r = edge radius
- b = keyway width IR
- t = keyway depth IR
- T = torque
- n = rotation speed
- C = load capacity

Designation	d [mm]	D [mm]	W [mm]	r [mm]	b [mm]	t [mm]	T_{nom} [Nm]	n_{max} [rpm]	$C_{dyn.}$ [N]	$C_{stat.}$ [N]	Weight [kg]	Item no.
FKN 6203	17	40	12	1	5	12	53	10,800	6,245	3,441	0.07	301112
FKN 6203-RS	17	40	12	1	5	1.2	53	3,700	6,245	3,441	0.07	301114
FKN 6204	20	47	14	1.5	6	1.6	60	7,500	6,869	4,268	0.12	301120
FKN 6204-2RS	20	47	14	1.5	6	1.6	60	3,200	6,869	4,268	0.12	301125
FKN 6205	25	52	15	1.5	8	2	104	5,400	7,448	5,146	0.15	301131
FKN 6205-2RS	25	52	15	1.5	8	2	104	2,800	7,448	5,146	0.15	301130
FKN 6206	30	62	16	1.5	8	2	148	5,100	7,859	6,066	0.23	301145
FKN 6206-2RS	30	62	16	1.5	8	2	148	2,400	7,859	6,066	0.23	301143
FKN 6207	35	72	17	1.5	10	3.3	265	3,700	8,902	7,819	0.33	301156
FKN 6207-2RS	35	72	17	1.5	10	3.3	265	1,900	8,902	7,819	0.33	301158
FKN 6208	40	80	18	1.5	12	3.3	267	3,700	8,902	7,752	0.45	301161
FKN 6208-2RS	40	80	18	1.5	12	3.3	267	1,900	8,902	7,752	0.45	301163

All specifications for series FKN 2RS (with seals) and series FKN (without seals)

The specified nominal torque is based on sufficient stiffness of mating parts (Pg. 22) and refers to the integrated insert element, not the key way.

Rotation speed n for series FKN (without seals) = insert element's inherent speed (Pg. 57)

Rotation speed n for series FKN 2RS (with seals) = speed difference of mating parts.