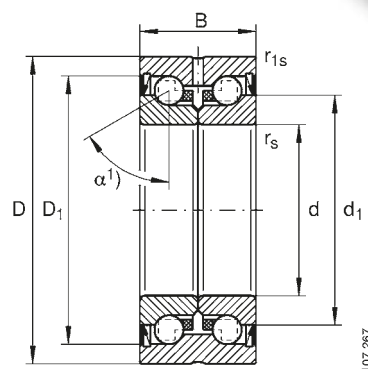


Ball screws Accessories

7.7 Angular contact ball bearing ZKLN

- Angular contact ball bearing with 60° contact angle
- Split inner ring with defined gap for matching of preload
- High limiting speeds, even with grease lubrication
- Lubricated for life for most applications
- Lubrication groove and three lubrication holes at the outside surface of the outer ring



acting on two sides
Series ZKLN...2RS, ZKLN...ZZ

Parameters of ZKLN bearing

| Shaft diameter | Code | Weight [kg] | Dimensions [mm] | | | | | | | | |
|----------------|---------------|-------------|-----------------|------------|------------|------------|-------------|-------|------|-------|-------|
| | | | d -0.005 | D -0.01 | B -0.25 | rs min. | r1s min. | d1 | D1 | Da 2) | da 2) |
| 6 | ZKLN0619-ZZ | 0.02 | 6 | 19 | 12 | 0.3 | 0.3 | 12.0 | 16.5 | 16 | 9 |
| | ZKLN0624-2RS* | 0.03 | 6 | 24 | 15 | 0.3 | 0.6 | 14.0 | 19.5 | 19 | 9 |
| | ZKLN0624-ZZ | 0.03 | 6 | 24 | 15 | 0.3 | 0.6 | 14.0 | 19.5 | 19 | 9 |
| 8 | ZKLN0832-2RS | 0.09 | 8 | 32 | 20 | 0.3 | 0.6 | 19.0 | 26.5 | 26 | 12 |
| | ZKLN0832-ZZ | 0.09 | 8 | 32 | 20 | 0.3 | 0.6 | 19.0 | 26.5 | 26 | 12 |
| 10 | ZKLN1034-2RS* | 0.10 | 10 | 34 | 20 | 0.3 | 0.6 | 21.0 | 28.5 | 28 | 14 |
| | ZKLN1034-ZZ | 0.10 | 10 | 34 | 20 | 0.3 | 0.6 | 21.0 | 28.5 | 28 | 14 |
| 12 | ZKLN1242-2RS* | 0.20 | 12 | 42 | 25 | 0.3 | 0.6 | 25.0 | 33.5 | 33 | 16 |
| | ZKLN1242-ZZ | 0.20 | 12 | 42 | 25 | 0.3 | 0.6 | 25.0 | 33.5 | 33 | 16 |
| 15 | ZKLN1545-2RS* | 0.21 | 15 | 45 | 25 | 0.3 | 0.6 | 28.0 | 36.0 | 35 | 20 |
| | ZKLN1545-ZZ | 0.21 | 15 | 45 | 25 | 0.3 | 0.6 | 28.0 | 36.0 | 35 | 20 |
| 17 | ZKLN1747-2RS* | 0.22 | 17 | 47 | 25 | 0.3 | 0.6 | 30.0 | 38.0 | 37 | 23 |
| | ZKLN1747-ZZ | 0.22 | 17 | 47 | 25 | 0.3 | 0.6 | 30.0 | 38.0 | 37 | 23 |
| 20 | ZKLN2052-2RS* | 0.31 | 20 | 52 | 28 | 0.3 | 0.6 | 34.5 | 44.0 | 43 | 25 |
| | ZKLN2052-ZZ | 0.31 | 20 | 52 | 28 | 0.3 | 0.6 | 34.5 | 44.0 | 43 | 25 |
| 25 | ZKLN2557-2RS* | 0.34 | 25 | 57 | 28 | 0.3 | 0.6 | 40.5 | 49.0 | 48 | 32 |
| | ZKLN2557-ZZ | 0.34 | 25 | 57 | 28 | 0.3 | 0.6 | 40.5 | 49.0 | 48 | 32 |
| 30 | ZKLN3062-2RS* | 0.39 | 30 | 62 | 28 | 0.3 | 0.6 | 45.5 | 54.0 | 53 | 40 |
| | ZKLN3062-ZZ | 0.39 | 30 | 62 | 28 | 0.3 | 0.6 | 45.5 | 54.0 | 53 | 40 |
| | ZKLN3072-2RS | 0.72 | 30 | 72 | 38 | 0.3 | 0.6 | 51.0 | 65.0 | 64 | 47 |
| 35 | ZKLN3072-ZZ | 0.72 | 30 | 72 | 38 | 0.3 | 0.6 | 51.0 | 65.0 | 64 | 47 |
| | ZKLN3572-2RS* | 0.51 | 35 | 72 | 34 | 0.3 | 0.6 | 52.0 | 63.0 | 62 | 45 |
| | ZKLN3572-ZZ | 0.51 | 35 | 72 | 34 | 0.3 | 0.6 | 52.0 | 63.0 | 62 | 45 |
| 40 | ZKLN4075-2RS* | 0.61 | 40 | 75 | 34 | 0.3 | 0.6 | 58.0 | 68.0 | 67 | 50 |
| | ZKLN4075-ZZ | 0.61 | 40 | 75 | 34 | 0.3 | 0.6 | 58.0 | 68.0 | 67 | 50 |
| | ZKLN4090-2RS | 0.95 | 40 | 90 | 46 | 0.6 | 0.6 | 65.0 | 80.0 | 80 | 56 |
| 50 | ZKLN4090-ZZ | 0.95 | 40 | 90 | 46 | 0.6 | 0.6 | 65.0 | 80.0 | 80 | 56 |
| | ZKLN5090-2RS* | 0.88 | 50 | 90 | 34 | 0.3 | 0.6 | 72.0 | 82.0 | 82 | 63 |
| | ZKLN5090-ZZ | 0.88 | 50 | 90 | 34 | 0.3 | 0.6 | 72.0 | 82.0 | 82 | 63 |
| 60 | ZKLN50110-2RS | 2.50 | 50 | 110 | 54 | 0.6 | 0.6 | 80.0 | 98.0 | 98 | 63 |
| | ZKLN50110-ZZ | 2.50 | 50 | 110 | 54 | 0.6 | 0.6 | 80.0 | 98.0 | 98 | 63 |
| 70 | ZKLN60110-ZZ | 2.20 | 60 | 110 | 45 | 0.6 | 0.6 | 85.0 | 100 | 100 | 85 |
| | ZKLN70120-ZZ | 2.40 | 70 | 120 | 45 | 0.6 | 0.6 | 95.0 | 110 | 110 | 92 |
| 80 | ZKLN80130-ZZ | 2.70 | 80 | 130 | 45 | 0.6 | 0.6 | 105.0 | 120 | 120 | 102 |
| 90 | ZKLN90150-ZZ | 4.50 | 90 | 150 | 55 | 0.6 | 0.6 | 120.0 | 138 | 138 | 116 |
| 100 | ZKLN100160-ZZ | 4.90 | 100 | 160 | 55 | 0.6 | 0.6 | 132.0 | 150 | 150 | 128 |

The ball cages are made from plastic, permissible operating temperature 120 °C (continuous operation).

1) Contact angle $\alpha = 60^\circ$.

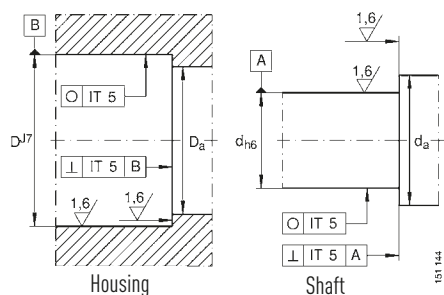
2) Minimum diameter required of installation surface.

.ZZ = Gap seal

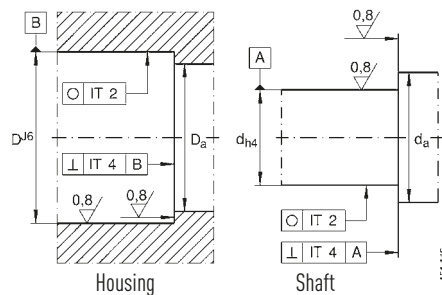
.2RS = Contact seal

Ball screws

Accessories



Housing and shaft tolerances ZKLN...2RSPE



Housing and shaft tolerances ZKLN...2RS/...2Z

Technical data of angular ball bearing unit ZKLN

| Shaft diameter | Code | Dynamic axial load | Static axial load | Max. speed | Bearing friction torque ³⁾ | Axial rigidity | Resistance to tilting | Lock nut ⁴⁾ | Tightening torque |
|----------------|---------------|-----------------------|---------------------|-----------------------------|---------------------------------------|------------------------|---------------------------|------------------------|---------------------|
| | | C _{dyn} [kN] | C _o [kN] | Grease [min ⁻¹] | M _{RL} [Nm] | C _{AL} [N/μm] | C _{KL} [Nm/mrad] | Model | M _A [Nm] |
| 6 | ZKLN0619-2Z | 4.9 | 6.1 | 14000 | 0.01 | 150 | 4 | HIR-6 | 2 |
| | ZKLN0624-2RS* | 6.9 | 8.5 | 6800 | 0.02 | 200 | 8 | HIR-6 | 2 |
| | ZKLN0624-2Z | 6.9 | 8.5 | 12000 | 0.02 | 200 | 8 | HIR-6 | 2 |
| 8 | ZKLN0832-2RS | 12.5 | 16.3 | 5100 | 0.04 | 250 | 20 | HIR-8 | 4 |
| | ZKLN0832-2Z | 12.5 | 16.3 | 9500 | 0.04 | 250 | 20 | HIR-8 | 4 |
| 10 | ZKLN1034-2RS* | 13.4 | 18.8 | 4600 | 0.06 | 325 | 25 | HIR-10 | 6 |
| | ZKLN1034-2Z | 13.4 | 18.8 | 8600 | 0.06 | 325 | 25 | HIR-10 | 6 |
| 12 | ZKLN1242-2RS* | 17.0 | 24.7 | 3800 | 0.08 | 375 | 50 | HIR-12 | 8 |
| | ZKLN1242-2Z | 17.0 | 24.7 | 7600 | 0.08 | 375 | 50 | HIR-12 | 8 |
| 15 | ZKLN1545-2RS* | 17.9 | 28.0 | 3500 | 0.10 | 400 | 65 | HIR-15 | 10 |
| | ZKLN1545-2Z | 17.9 | 28.0 | 7000 | 0.10 | 400 | 65 | HIR-15 | 10 |
| 17 | ZKLN1747-2RS* | 18.8 | 31.0 | 3300 | 0.12 | 450 | 80 | HIR-17/HIA-17 | 15 |
| | ZKLN1747-2Z | 18.8 | 31.0 | 6600 | 0.12 | 450 | 80 | HIR-17/HIA-17 | 15 |
| 20 | ZKLN2052-2RS* | 26.0 | 47.0 | 3000 | 0.15 | 650 | 140 | HIR-20/HIA-20 | 18 |
| | ZKLN2052-2Z | 26.0 | 47.0 | 5400 | 0.15 | 650 | 140 | HIR-20/HIA-20 | 18 |
| 25 | ZKLN2557-2RS* | 27.5 | 55.0 | 2600 | 0.20 | 750 | 200 | HIR-25/HIA-25 | 25 |
| | ZKLN2557-2Z | 27.5 | 55.0 | 4700 | 0.20 | 750 | 200 | HIR-25/HIA-25 | 25 |
| 30 | ZKLN3062-2RS* | 29.0 | 64.0 | 2200 | 0.25 | 850 | 300 | HIR-30/HIA-30 | 32 |
| | ZKLN3062-2Z | 29.0 | 64.0 | 4300 | 0.25 | 850 | 300 | HIR-30/HIA-30 | 32 |
| | ZKLN3072-2RS | 59.0 | 108.0 | 2100 | 0.40 | 950 | 400 | | |
| 35 | ZKLN3072-2Z | 59.0 | 108.0 | 4000 | 0.40 | 950 | 400 | | |
| | ZKLN3572-2RS* | 41.0 | 89.0 | 2000 | 0.30 | 900 | 400 | HIR-35/HIA-35 | 40 |
| | ZKLN3572-2Z | 41.0 | 89.0 | 3800 | 0.30 | 900 | 400 | HIR-35/HIA-35 | 40 |
| 40 | ZKLN4075-2RS* | 43.0 | 101.0 | 1800 | 0.35 | 1000 | 555 | HIR-40/HIA-40 | 55 |
| | ZKLN4075-2Z | 43.0 | 101.0 | 3300 | 0.35 | 1000 | 555 | HIR-40/HIA-40 | 55 |
| | ZKLN4090-2RS | 72.0 | 149.0 | 1600 | 0.65 | 1200 | 750 | | |
| 50 | ZKLN4090-2Z | 72.0 | 149.0 | 3100 | 0.65 | 1200 | 750 | | |
| | ZKLN5090-2RS* | 46.5 | 126.0 | 1500 | 0.45 | 1250 | 1000 | HIR-50/HIA-50 | 85 |
| | ZKLN5090-2Z | 46.5 | 126.0 | 3000 | 0.45 | 1250 | 1000 | HIR-50/HIA-50 | 85 |
| | ZKLN50110-2RS | 113.0 | 250.0 | 1200 | 1.30 | 1400 | 1500 | | |
| 60 | ZKLN50110-2Z | 113.0 | 250.0 | 2500 | 1.30 | 1400 | 1500 | | |
| | ZKLN60110-2Z | 84.0 | 214.0 | 2400 | 1.00 | 1300 | 1650 | HIR-60/HIA-60 | 100 |
| | ZKLN70120-2Z | 88.0 | 241.0 | 2200 | 1.20 | 1450 | 2250 | HIR-70/HIA-70 | 130 |
| 80 | ZKLN80130-2Z | 91.0 | 265.0 | 2100 | 1.40 | 1575 | 3000 | HIR-80/HIA-80 | 160 |
| 90 | ZKLN90150-2Z | 135.0 | 395.0 | 1800 | 2.30 | 1700 | 4400 | HIR-90/HIA-90 | 200 |
| 100 | ZKLN100160.2Z | 140.0 | 435.0 | 1700 | 2.60 | 1900 | 5800 | HIR-100/HIA-100 | 250 |

3) Bearing friction torque with gap seal (.2Z). With seal disc (.2RS) $\approx 2 \times M$.

4) Lock nuts are not supplied; order separately!