



" \* " means this bearing can be lubricated through a hole on the inner ring.

Guide Way Bearing Item Number			Weight	Dimension (mm)							Load Rating		
PLB	Germany	Italy	≈(g)	dw	d	D	C	B	A	rs	Cw(KN)	Cow(KN)	Fr perm(KN)
LFR 50/4 NPP	-	-	3.5	5	4	13	6	7	8.04	0.2	1.05	0.85	1.15
LFR 50/5-4 KDD	LFR50/5KDD-4	R 50/5-4 ZZ	7.5	4	5	16	7	8	9	0.2	1.2	0.86	1.3
LFR 50/5-4 NPP	LFR50/5NPP-4	R 50/5-4 2RS	7.5	4	5	16	7	8	9	0.2	1.2	0.86	1.3
LFR 50/5 KDD	LFR50/5KDD	R 50/5-6 ZZ	8	6	5	17	7	8	10.5	0.2	1.27	0.82	1.3
LFR 50/5 NPP	LFR50/5NPP	R 50/5-6 2RS	8	6	5	17	7	8	10.5	0.2	1.27	0.82	1.3
LFR 50/8 KDD	LFR50/8KDD	R 50/8-6 ZZ	24	6	8	24	11	11	14	0.3	3.67	2.28	1.3
LFR 50/8 NPP	LFR50/8NPP	R 50/8-6 2RS	24	6	8	24	11	11	14	0.3	3.67	2.28	1.3
LFR 50/8-8 KDD			24	8	8	24	11	11	14.75	0.3	3.67	2.28	1.3
LFR 50/8-8 NPP			24	8	8	24	11	11	14.75	0.3	3.67	2.28	1.3
LFR 30/8 KDD			31	10	8	26.8	11	13	16.7	0.3	3.67	2.28	1.3
LFR 30/8 NPP			31	10	8	26.8	11	13	16.7	0.3	3.67	2.28	1.3
LFR 5201 KDD	LFR5201KDD	R 5201-10 ZZ	68	10	12	35	15.9	15.9	20.65	0.3	8.5	5.1	5.1
LFR 5201 NPP	LFR5201NPP	R 5201-10 2RS	68	10	12	35	15.9	15.9	20.65	0.3	8.5	5.1	5.1
LFR 5301 KDD	LFR5301KDD	R 5301-10 ZZ	130	10	12	42	19	19	24	0.6	13	7.7	7.5
LFR 5301 NPP	LFR5301NPP	R 5301-10 2RS	130	10	12	42	19	19	24	0.6	13	7.7	7.5
LFR 5301-20 KDD			125	20	12	42	19	19	28	0.6	13	7.7	7.5
LFR 5301-20 NPP			125	20	12	42	19	19	28	0.6	13	7.7	7.5
LFR 5302 KDD	LFR5302KDD	R 5302-10 ZZ	163	10	15	47	19	19	26.65	1	16.2	9.2	6.2

LFR 5302 NPP	LFR5302NPP	R 5302-10 2RS	163	10	15	47	19	19	26.65	1	16.2	9.2	6.2
LFR 5201-12 KDD	LFR5201-12KDD	R 5201-12 ZZ	68	12	12	35	15.9	15.9	21.75	0.3	8.4	5	5.1
LFR 5201-12 NPP	LFR5201-12NPP	R 5201-12 2RS	68	12	12	35	15.9	15.9	21.75	0.3	8.4	5	5.1
LFR 5201-14 KDD	LFR5201-14KDD	R 5201-14 ZZ	107	14	12	39.9	18	20	24	0.3	8.9	5	6.7
LFR 5201-14 NPP	LFR5201-14NPP	R 5201-14 2RS	107	14	12	39.9	18	20	24	0.3	8.9	5	6.7
LFR 5201-10.14 KDD			115	10	12	39.9	18	20	24	0.3	8.9	5	6.7
LFR 5201-10.14 NPP			115	10	12	39.9	18	20	24	0.3	8.9	5	6.7
LFR 5204-16 KDD*	LFR5204-16KDD	R 5204-16 ZZ	195	16	20	52	20.6	22.6	31.5	0.6	16.8	9.5	12.1
LFR 5204-16 NPP*	LFR5204-16NPP	R 5204-16 2RS	195	16	20	52	20.6	22.6	31.5	0.6	16.8	9.5	12.1
LFR 5206-20 KDD*	LFR5206-20KDD	R 5206-20 ZZ	435	20	25	72	23.8	25.8	41	0.6	29.5	16.6	20.7
LFR 5206-20 NPP*	LFR5206-20NPP	R 5206-20 2RS	435	20	25	72	23.8	25.8	41	0.6	29.5	16.6	20.7
LFR 5206-25 KDD*	LFR5206-25KDD	R 5206-25 ZZ	425	25	25	72	23.8	25.8	43.5	0.6	29.2	16.4	23.1
LFR 5206-25 NPP*	LFR5206-25NPP	R 5206-25 2RS	425	25	25	72	23.8	25.8	43.5	0.6	29.2	16.4	23.1
LFR 5207-30 KDD*	LFR5207-30KDD	R 5207-30 ZZ	660	30	30	80	27	29	51	1	38	20.8	21.4
LFR 5207-30 NPP*	LFR5207-30NPP	R 5207-30 2RS	660	30	30	80	27	29	51	1	38	20.8	21.4
LFR 5208-40 KDD*	LFR5208-40KDD	R 5208-40 ZZ	1360	40	40	98	36	38	62.5	1	54.8	29	55
LFR 5208-40 NPP*	LFR5208-40NPP	R 5208-40 2RS	1360	40	40	98	36	38	62.5	1	54.8	29	55
LFR 5308-50 KDD*	LFR5308-50KDD	R 5308-50 ZZ	1400	50	40	110	44	46	72.5	1.1	53	39.5	69
LFR 5308-50 NPP*	LFR5308-50NPP	R 5308-50 2RS	1400	50	40	110	44	46	72.5	1.1	53	39.5	69

### Track rollers with Gothic arch groove - type LFR

- Series **LFR** rollers are the most widely-use and economy product among the linear motion track rollers, and they can suit to the cylindrical track.
- There are two contact points between the roller and track, so the contact function is favorable.
- Rollers feature double row angular contact ball bearing in its internal structure design and a thick-walled outer ring, so rollers can accommodate higher loads.
- Rollers are made of high-quality bearing steel, processed by heat treatment and precision grind, and are filled with a long service life, high-grade and multi-purposes grease. Rollers mount the metal shield (KDD) or rubble seal (NPP) to prevent the dust. PLB also can provide the rollers with concentric or eccentric pivot. Some types of the rollers can be made from the corrosion resistance stainless steel.

### Characteristics of the guide system that series LFR rollers are applied :

#### 1. High allowable speed, low resistance, long service life

For series LFR rollers, the surface profile of the outer ring is designed as the GOTHIC ARCH.

When rollers running, there are two contact points with an angle 60 degrees between the roller and track. So the friction resistance is low and the load is in equality, thus avoiding the stresses concentration and edge effect caused by the error from installation and manufacture, making the track system has the characteristics of high speed, low energy consumption, long service life and minimum noise level.

#### 2. Easy installation

As rollers assembled the concentric or eccentric pivot, installation can be made convenient. To adjust the eccentric one's eccentricity, these rollers can get the fitting preload.

#### 3. Smooth running, minimum error and lower noise level

PLB special manufacture equipments of machine and inspection facilities make accuracy in the profile of roller. Mature manufacture techniques and critical inspection procedure make all rollers good in the Kea (radial runout) of outer ring and roundness of working surface, so the guide system in motion is smooth running, minimum error and lower running noise level.