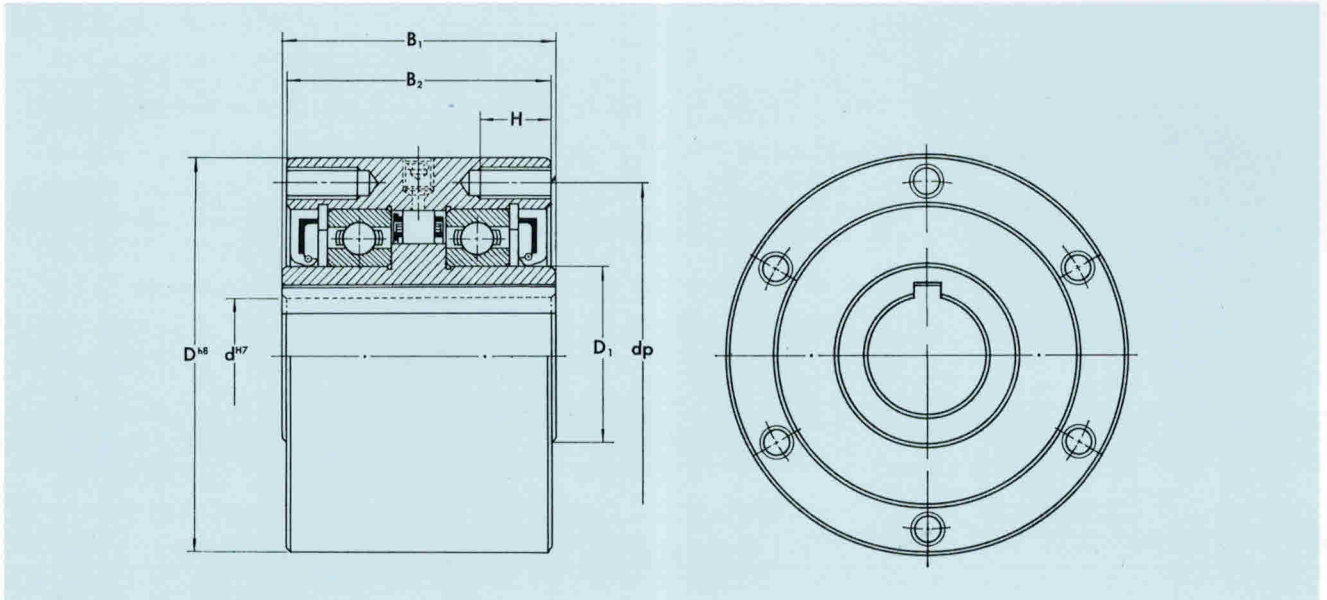




PNC-K Series

고속, 오버러닝용 (FOR HIGH SPEED, OVERRUNNING)



■ 사양 (Specification)

Dimensions—mm

Model	Max. Torque (kgf-m)	Max. Overrunning (rpm)		Stock Bore Size		D	B ₁	B ₂	dp	D ₁	No. of Tapped Holes—Dia×Pitch N-M×H	Oil (cc)	Weight (kg)	Bearing (Model No.)
		Outer Race	Inner Race	Dia (d)	Keyway									
PNC 15K	14.2	1500	2100	15	5×2.3	68	55	53	58	25	6-M5×10	12	1.2	16005
PNC 17K	19.4	1400	2000	17	5×2.3	75	63	61	64	28	6-M5×10	18	1.6	60/28
PNC 20K	33	1300	1900	20	5×2.3	80	64	62	68	30	6-M6×12	22	1.9	6006
PNC 22K	56.5	1100	1600	22	8×3.3	100	70	68	88	45	6-M8×16	38	3.2	6009
PNC 25K	56.5	1100	1600	25	8×3.3	100	70	68	88	45	6-M8×16	38	3.2	6009
PNC 30K	56.5	1100	1600	30	10×3.3	100	70	68	88	45	6-M8×16	38	3	6009
PNC 35K	72.5	1100	1500	35	10×3.3	110	78	76	95	50	6-M8×16	44	4.2	6010
PNC 40K	154	1000	1400	40	12×3.3	125	87	85	110	60	8-M8×16	59	6.1	6012
PNC 45K	154	1000	1400	45	12×3.3	125	87	85	110	60	8-M8×16	59	5.9	6012
PNC 50K	161	900	1200	50	14×3.8	155	90	88	140	80	8-M8×16	120	9.3	6016
PNC 55K	161	900	1200	55	16×4.3	155	90	88	140	80	8-M8×16	120	9	6016
PNC 60K	161	900	1200	60	18×4.4	155	90	88	140	80	8-M8×16	120	8.8	6016
PNC 65K	204	800	1100	65	18×4.4	175	105	102	162	95	8-M8×16	180	13	6019
PNC 70K	204	800	1100	70	20×4.9	175	105	102	162	95	8-M8×16	180	12	6019
PNC 75K	585	700	1000	75	20×4.9	195	115	112	175	105	10-M12×24	110	20	6922
PNC 80K	585	700	1000	80	22×5.4	195	115	112	175	105	10-M12×24	110	19	6922
PNC 85K	800	650	850	85	22×5.4	230	123	120	208	125	10-M16×32	190	30	6926
PNC 90K	800	650	850	90	22×5.4	230	123	120	208	125	10-M16×32	190	29	6926
PNC 95K	800	650	850	95	25×5.4	230	123	120	208	125	10-M16×32	190	29	6926
PNC 100K	1160	600	700	100	28×6.4	270	159	155	242	145	10-M16×32	300	53	6930
PNC 105K	1160	600	700	105	28×6.4	270	159	155	242	145	10-M16×32	300	52	6930
PNC 110K	1160	600	700	110	28×6.4	270	159	155	242	145	10-M16×32	300	51	6930
PNC 120K	1590	550	550	120	32×7.4	330	167	163	298	185	10-M20×40	410	85	6938
PNC 130K	1590	550	550	130	32×7.4	330	167	163	298	185	10-M20×40	410	82	6938
PNC 135K	1590	550	550	135	36×8.4	330	167	163	298	185	10-M20×40	410	81	6938
PNC 140K	1590	550	550	140	36×8.4	330	167	163	298	185	10-M20×40	410	79	6938
PNC 150K	2080	500	500	150	36×8.4	375	182	178	342	215	10-M22×44	540	115	6944
PNC 160K	2080	500	500	160	40×9.4	375	182	178	342	215	10-M22×44	540	112	6944
PNC 170K	2650	450	450	170	40×9.4	375	182	178	342	235	10-M22×44	540	108	6848
PNC 180K	2650	450	450	180	45×10.4	375	182	178	342	235	10-M22×44	540	104	6848
PNC 190K	3050	400	400	190	45×10.4	400	182	178	364	255	10-M24×48	540	120	6852
PNC 200K	3050	400	400	200	45×10.4	400	182	178	364	255	10-M24×48	540	115	6852

■ 특징

- ① 볼베어링이 장치된 정밀크러치이다.
- ② 고속, 내륜 오버러닝용(오일 윤활)

■ Character

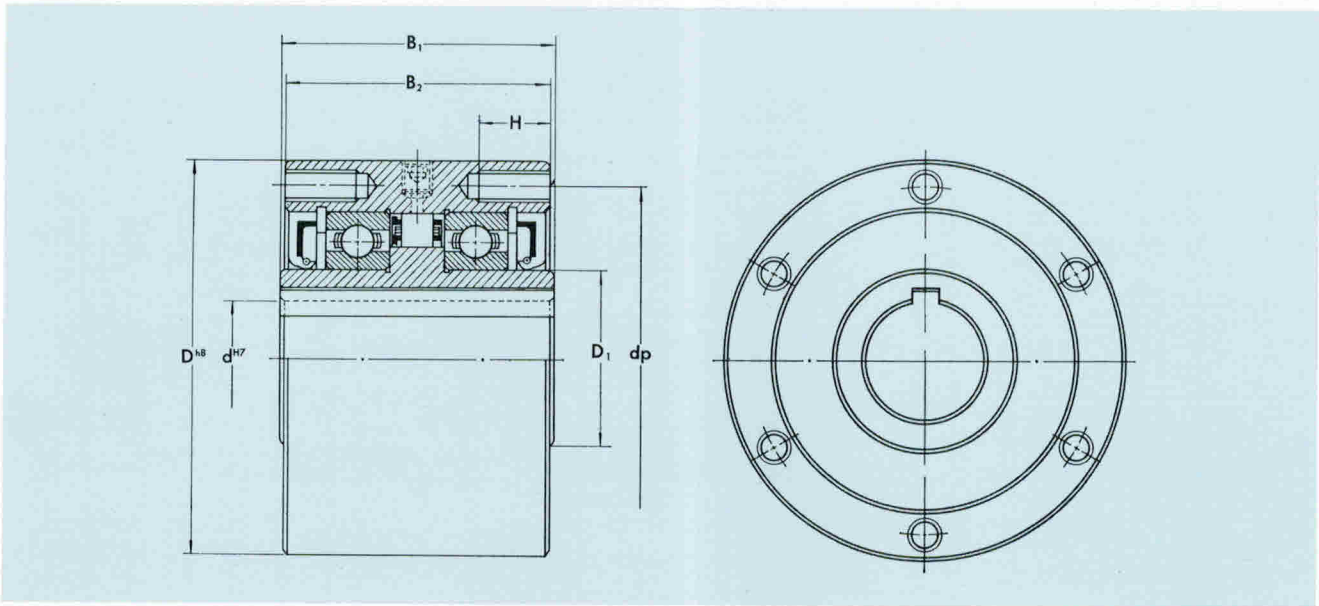
1. Precision clutches comprised ball bearing.
2. For high speed inner race overrunning application.(oil lubrication)

※참고 (Ref.) PNC-XK : ① 인덱싱용 (For Indexing applications)

② 치수는 PNC-K Series와 동일 (Dimension of PNC-XK Series is the same PNC-K Series)

PHC-K Series

고속, 중하중, 오버러닝용 (FOR HIGH SPEED, HEAVY LOAD, OVERRUNNING)



■ 사양 (Specification)

Dimensions—mm

Model	Max. Torque (kgf-m)	Max. Overrunning (rpm)		Stock Bore Size		D	B ₁	B ₂	dp	D ₁	No. of Tapped Holes-Dia×Pitch N-M×H	Oil (cc)	Weight (kg)	Bearing (Model No.)
		Outer Race	Inner Race	Dia (c)	Keyway									
PHC 15K	23.8	1500	2100	15	5×2.3	68	61	59	58	25	6-M5×10	13	1.3	16005
PHC 17K	31.5	1400	1900	17	5×2.3	80	64	62	68	30	6-M6×12	20	1.9	6006
PHC 20K	54.5	1300	1800	20	5×2.3	90	76	74	76	35	6-M8×16	28	2.9	6007
PHC 22K	68	1100	1700	22	8×3.3	95	77	75	82	40	6-M8×16	38	3.2	6008
PHC 25K	68	1100	1700	25	8×3.3	95	77	75	82	40	6-M8×16	38	3.2	6008
PHC 30K	107	1100	1500	30	10×3.3	110	82	80	95	50	6-M8×16	45	4.6	6010
PHC 35K	107	1100	1500	35	10×3.3	110	82	80	95	50	6-M8×16	45	4.4	6010
PHC 40K	196	950	1300	40	12×3.3	135	95	93	119	65	8-M10×20	71	8.0	6013
PHC 45K	196	950	1300	45	12×3.3	135	95	93	119	65	8-M10×20	71	7.7	6013
PHC 50K	310	900	1200	50	14×3.8	150	100	98	134	75	8-M10×20	100	11	6015
PHC 55K	310	900	1200	55	16×4.3	150	100	98	134	75	8-M10×20	100	9.6	6015
PHC 60K	450	800	1100	60	18×4.4	185	110	108	164	90	8-M12×24	180	17	6018
PHC 65K	450	800	1100	65	18×4.4	185	110	108	164	90	8-M12×24	180	17	6018
PHC 70K	585	700	1000	70	20×4.9	195	110	108	175	100	10-M12×24	190	18	6020
PHC 75K	950	650	700	75	20×4.9	220	169	166	197	105	10-M14×28	240	39	6022
PHC 80K	1130	650	700	80	22×5.4	220	169	166	197	105	10-M14×28	240	38	6022
PHC 85K	1250	550	550	85	22×5.4	255	187	184	230	125	10-M16×32	370	58	6026
PHC 90K	1320	550	550	90	25×5.4	255	187	184	230	125	10-M16×32	370	58	6026
PHC 95K	1400	550	550	95	25×5.4	255	187	184	230	125	10-M16×32	370	55	6026
PHC 100K	2090	450	450	100	28×6.4	290	195	191	260	145	10-M20×40	490	76	6030
PHC 105K	2320	450	450	105	28×6.4	290	195	191	260	145	10-M20×40	490	75	6030
PHC 110K	2320	450	450	110	28×6.4	290	195	191	260	145	10-M20×40	490	73	6030
PHC 120K	3000	360	360	120	32×7.4	335	204	200	300	185	10-M22×44	490	109	6938
PHC 130K	3180	360	360	130	32×7.4	335	204	200	300	185	10-M22×44	490	106	6938
PHC 135K	3180	360	360	135	36×8.4	335	204	200	300	185	10-M22×44	490	104	6938
PHC 140K	3180	360	360	140	36×8.4	335	204	200	300	185	10-M22×44	490	102	6938
PHC 150K	4160	300	300	150	36×8.4	380	219	215	344	215	10-M24×48	630	146	6944
PHC 160K	4160	300	300	160	40×9.4	380	219	215	344	215	10-M24×48	630	142	6944
PHC 170K	5300	270	270	170	40×9.4	400	219	215	364	235	10-M24×48	630	157	6848
PHC 180K	5300	270	270	180	45×10.4	400	219	215	364	235	10-M24×48	690	152	6848
PHC 190K	6100	250	250	190	45×10.4	440	235	231	403	255	10-M24×48	990	701	6952
PHC 200K	6100	250	250	200	45×10.4	440	235	231	403	255	10-M24×48	990	196	6952

■ 특징

- ① 볼베어링이 장치된 정밀크러치이다.
- ② 중하중, 내륜 오버러닝용(오일 윤활)

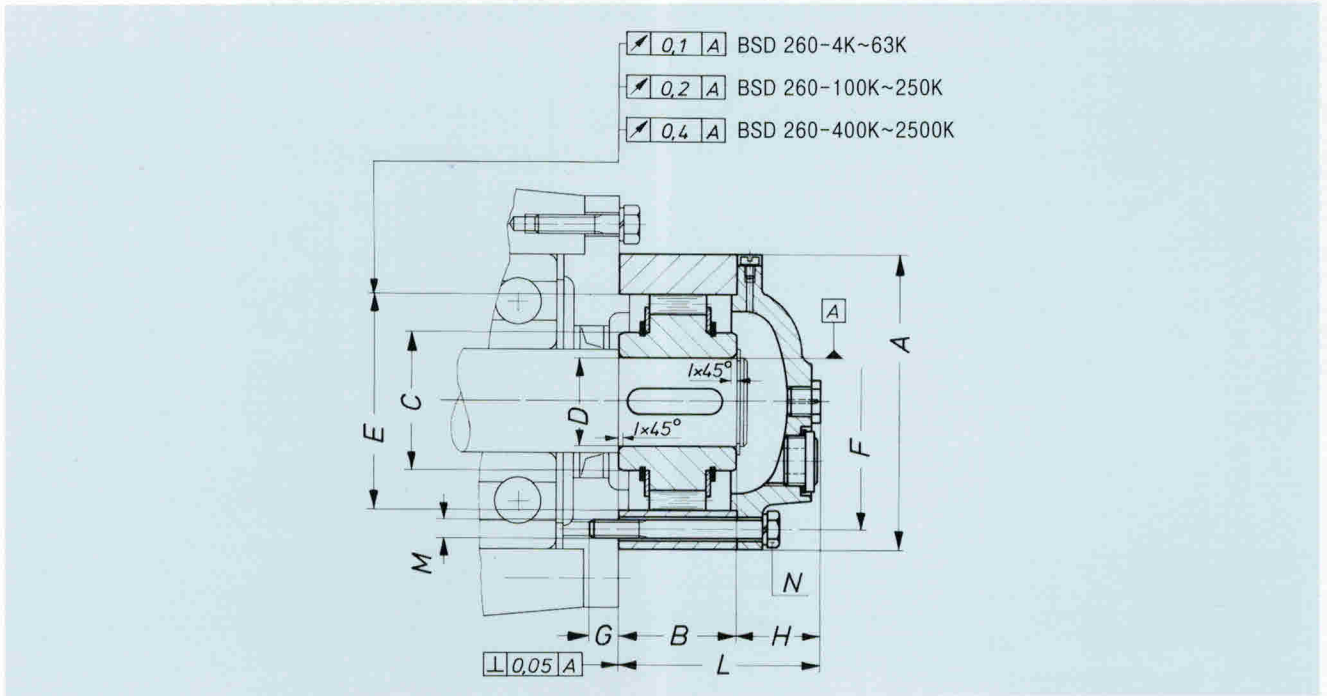
■ Character

1. Precision clutches comprised ball bearing.
2. For heavy load, inner race overrunning application.(oil lubrication)

※참고 (Ref.) PHC-XK : ① 인덱싱용 (For Indexing applications)

② 치수는 PHC-K Series와 동일 (Dimension of PHC-XK Series is the same PHC-K Series)

BSD 260-K Series



■ 사양 (Specification)

Dimensions—mm

Model	Max. Torque (kgf-m)	Max. Overrunning (rpm)	Stock Bore Size		A	C	E	F	B	G	H	I	L	No. of Holes (N-M)	Oil (cm ³)	Weight (kgf)
			Standard bore	Max. bore												
BSD 260 -4K	26	3800	16	16	67	25	47	56	34	10	19	1.0	53	4-M5	10	1.2
-6.3K	54	2550	20	20	80	30	55	68	38	11	24	1.0	62	4-M5	12	1.6
-10K	90	2400	25	25	95	40	68	82	42	12	31	1.0	73	6-M5	17	2.3
-16K	100	2200	28	30	105	45	75	90	42	12	32	1.0	74	6-M6	22	3.6
-25K	220	2000	35	40	125	55	90	107	52	12	33	1.0	85	6-M6	35	4.9
-40K	240	1750	40	45	135	60	95	115	52	14	37	1.0	89	6-M8	45	6.6
-63K	340	1450	45	50	150	70	110	130	60	16	42	1.0	102	6-M10	65	8.0
-100K	640	1200	55	60	180	85	130	155	74	22	50	1.0	124	6-M10	125	14.5
-160K	880	1000	70	75	210	100	150	180	76	26	54	1.0	130	6-M12	170	21
-250K	1520	850	80	90	245	120	180	214	85	28	65	1.0	150	8-M12	290	33
-400K	2160	720	95	100	280	140	210	245	100	29	71	1.5	171	8-M16	440	49
-630K	3720	650	110	130	320	160	240	280	115	33	90	1.5	205	8-M20	610	81
-1000K	6400	560	130	140	370	180	280	325	140	38	94	1.5	234	8-M20	780	127
-1600K	9200	480	140	150	410	200	310	360	160	38	108	2.0	268	8-M24	850	182
-2500K	13000	400	160	160	460	220	340	400	180	45	109	2.0	289	8-M30	1,300	272

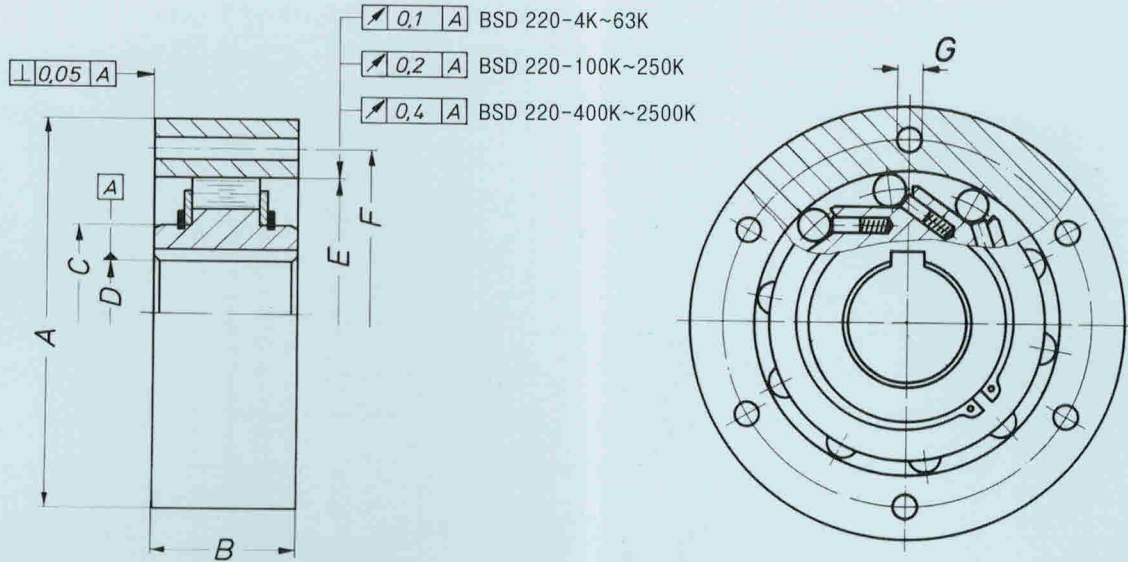
■ 특징

- ① 오일윤활.
- ② 일반적으로 감속기에 부착되어 오버러닝 용도로 사용됨.
- ③ 가능한 표준 Bore Size 적용할 것.
- ④ 키홈 치수는 DIN규격 DIN6885 Sheet1에 의거함. (참조 : 43 page)

■ Character

1. Oil lubrication
2. BSD Series can be used for overrunning with gear reducer.
3. Please use standard bore.
4. The key way is in accordance with DIN 6885 sheet 1. (Refer to page 43)

BSD 220-K Series



■ 사양 (Specification)

Dimensions—mm

Model	Max. Torque (kgf-m)	Max. Overrunning (rpm)		Stock Bore Size		A	C	E	F	B	No. of Holes (N-G)	Weight (kgf)
		Inner Race	Outer Race	Standard bore	Max. bore							
-4K	26	3800	7000	16	16	67	25	47	56	34	4-φ5.5	0.9
-6.3K	54	2400	4800	20	20	80	30	55	68	38	4-φ5.5	1.2
-10K	90	1700	3500	25	25	95	40	68	82	42	6-φ5.5	1.7
-16K	100	1400	3000	28	30	105	45	75	90	42	6-φ6.6	2.8
-25K	220	1250	2500	35	40	125	55	90	107	52	6-φ6.6	3.6
-40K	240	1100	2000	40	45	135	60	95	115	52	6-φ9	5.1
-63K	340	960	1700	45	50	150	70	110	130	60	6-φ11	5.8
-100K	640	840	1500	55	60	180	85	130	155	74	6-φ11	12
-160K	880	745	1300	70	75	210	100	150	180	76	6-φ14	17
-250K	1520	635	1150	80	90	245	120	180	214	85	8-φ14	27
-400K	2160	550	1000	95	100	280	140	210	245	100	8-φ18	37
-630K	3720	480	900	110	130	320	160	240	280	115	8-φ22	58
-1000K	6400	420	800	130	140	370	180	280	325	140	8-φ22	88
-1600K	9200	360	700	140	150	410	200	310	360	160	8-φ26	128
-2500K	13000	320	650	160	160	460	220	340	400	180	8-φ33	190
-4000K	22200	150	200	210	210	560	300	440	500	180	12-φ33	280
-6300K	37000	100	150	230	230	680	330	520	605	230	16-φ33	420

■ 특징

- ① 오일윤활.
- ② 일반적으로 감속기안에 부착되어 오버러닝 용도로 사용됨.
- ③ 가능한 표준 Bore Size 적용할 것.
- ④ 키홈 치수는 DIN규격 DIN6885 Sheet 1에 의거함. (참조 : 43 page)

■ Character

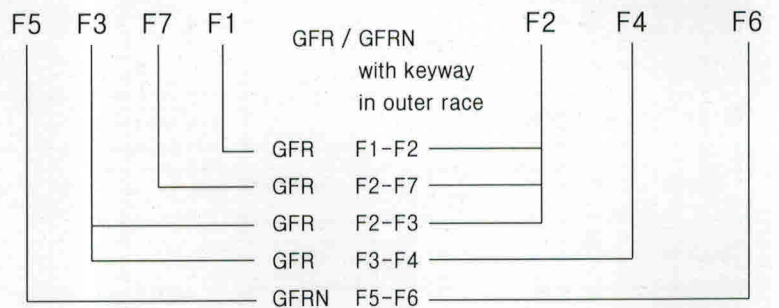
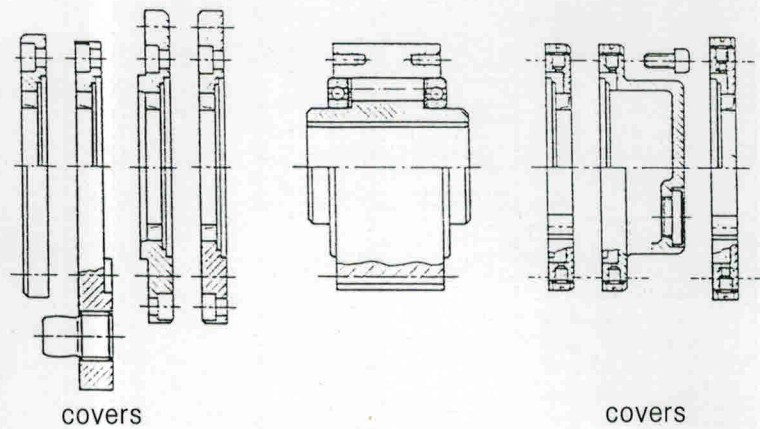
1. Oil lubrication
2. BSD Series can be used for overrunning in a gear reducer.
3. Please use standard bore.
4. The key way is in accordance with DIN 6885 Sheet 1. (Refer to page 43)

GFR-K, GFRN-K Series



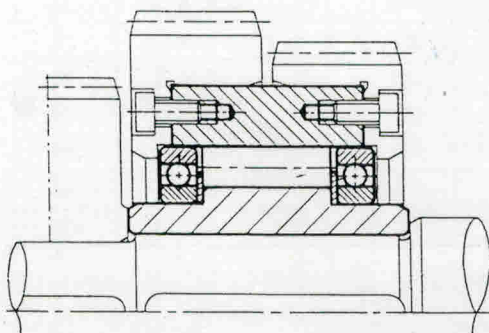
GFR-K Type

Cover and Coupling Combinations

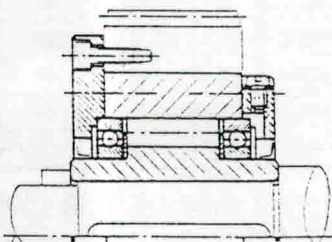


*COVER의 치수는 (주)삼보크러치 기술부에 문의요망. (Please consult SamBo Clutch for dimension of cover.)

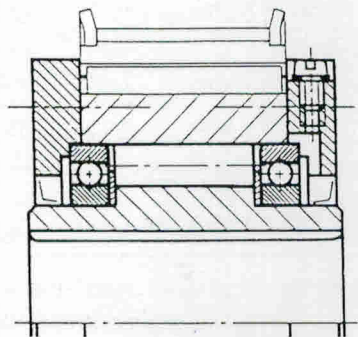
● 적용에 (Applications)



GFR-K in a transmission

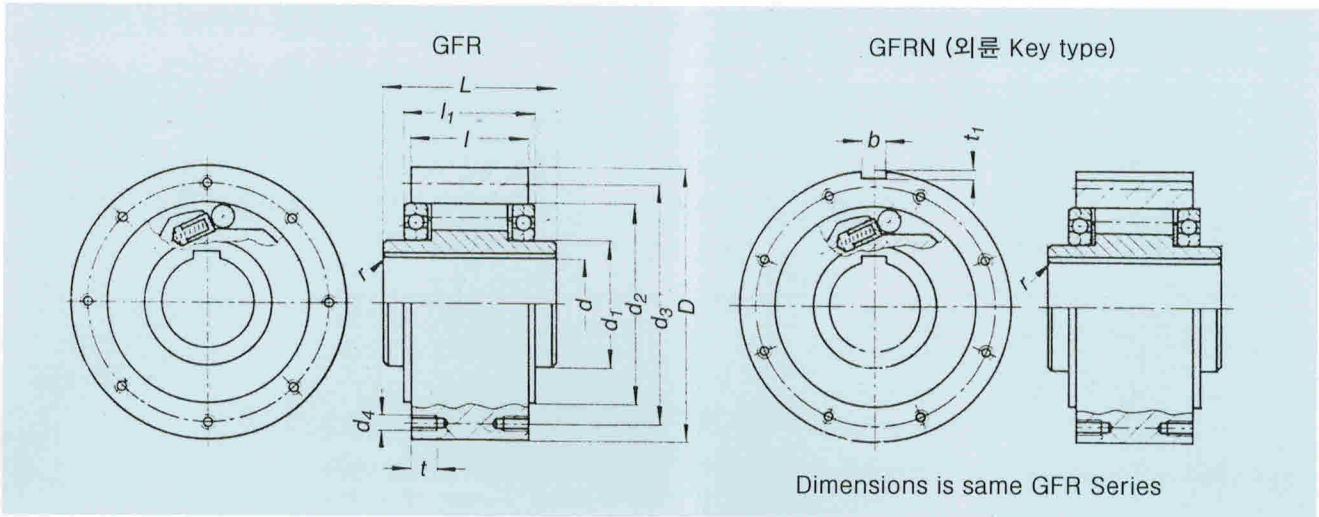


GFR F1-F2K with Gear



GFRN F5-F6K with Pulley

GFR-K, GFRN-K Series



■ 사양 (Specification)

Dimensions—mm

Model	Max. Torque (kgf-m)	Max. Overrunning (rpm)		Stock Bore Size d(H7)	d ₁	d ₂	d ₃	Outer Race			L	l	l ₁	r	No. of Tapped Holes × Dia × Pitch N × d ₄ × t	Weight (kgf)
		Inner Race	Outer Race					D (h7)	Keyway							
									b	t ₁						
GFR 12-K	2.5	3120	4720	12	20	42	51	62	4	2.5	40	20	27	0.5	3 × φ5.5	0.5
GFR 15-K	4	2800	4400	15	25	47	56	68	5	3	52	28	32	0.8	3 × M5 × 8	0.8
GFR 20-K	8	2080	4080	20	30	55	64	75	6	3.5	57	34	39	0.8	4 × M5 × 8	1.0
GFR 25-K	12	1600	3100	25	40	68	78	90	8	4	60	35	40	1.0	4 × M6 × 10	1.5
GFR 30-K	22	1280	2780	30	45	75	87	100	8	4	68	43	48	1.5	6 × M6 × 10	2.2
GFR 35-K	28	1170	2620	35	50	80	96	110	10	5	74	45	51	1.5	6 × M6 × 12	3.0
GFR 40-K	46	850	2300	40	55	90	108	125	12	5	86	53	59	1.5	6 × M8 × 14	4.6
GFR 45-K	65	740	2140	45	60	95	112	130	14	5.5	86	53	59	1.5	8 × M8 × 14	4.7
GFR 50-K	100	580	1930	50	70	110	132	150	14	5.5	94	64	72	1.5	8 × M8 × 14	7.2
GFR 55-K	125	550	1800	55	75	115	138	160	16	6	104	66	72	2.0	8 × M10 × 16	8.6
GFR 60-K	180	530	1700	60	80	125	150	170	18	7	114	78	89	2.0	10 × M10 × 16	10.5
GFR 70-K	250	500	1600	70	90	140	165	190	20	7.5	134	95	108	2.0	10 × M10 × 16	13.5
GFR 80-K	400	450	1400	80	105	160	185	210	22	9	144	100	108	2.0	10 × M10 × 16	18.2
GFR 90-K	675	380	1250	90	120	180	206	230	25	9	158	115	125	2.5	10 × M12 × 20	28.5
GFR 100-K	890	350	1100	100	140	210	240	270	28	10	182	120	131	2.5	10 × M16 × 24	42.5
GFR 130-K	1380	250	950	130	160	240	278	310	32	11	212	152	168	3	12 × M16 × 24	65.0
GFR 150-K	2300	180	750	150	200	310	360	400	36	12	246	180	194	3.5	12 × M20 × 32	138.0

■ 특징

- ① 오일윤활 방식
- ② 내경 키홈 치수는 DIN규격 DIN 6885 Sheet 1에 의거함. (참조 : 43 page)
- ③ GFR-K, GFRN-K Series는 다양한 Cover들과 결합되어 사용될 수 있다.
- ④ 외륜은 트랜스미션, 폴리, 기어 등과의 결합이 용이함.

■ Character

1. Oil lubrication.
2. The key way is in accordance with DIN 6885 sheet 1. (Refer to page 43)
3. GFR-K, GFRN-K Series can be combined with the various covers.
4. Outer race is easy to mounting transmissions, pulleys, gear. etc.