

Leading manufacturer and expert in Slew Ring Bearing



KAVITSU

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Slew Ring Bearing - 16

G = GREASE NIPPLE EQ. SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

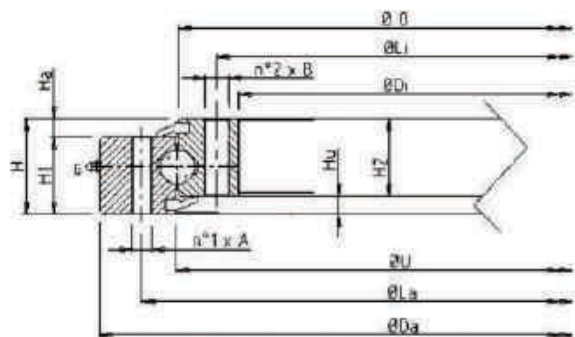
BEARING UNGEARED															
MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]
111-16-0100-FF	180	40	35	140	60	6	M 10	6	Ø11	-	1	97	103	30	30
111-16-0200-FF	280	140	35	240	160	12	M 10	12	Ø11	-	1	197	203	30	30
111-16-0300-FF	380	240	35	340	260	20	M 10	20	Ø11	-	1	297	303	30	30
111-16-0400-FF	480	340	35	440	360	24	M 10	24	Ø11	-	2	397	403	30	30
111-16-0500-FF	580	440	35	540	460	28	M 10	28	Ø11	-	2	497	503	30	30

BEARING WITH EXTERNAL GEAR															
112-16-0100-FF	180	40	35	140	60	6	M 10	6	Ø11	-	1	97	103	30	30
112-16-0200-FF	280	140	35	240	160	12	M 10	12	Ø11	-	1	197	203	30	30
112-16-0300-FF	380	240	35	340	260	20	M 10	20	Ø11	-	1	297	303	30	30
112-16-0400-FF	480	340	35	440	360	24	M 10	24	Ø11	-	2	397	403	30	30
112-16-0500-FF	580	440	35	540	460	28	M 10	28	Ø11	-	2	497	503	30	30

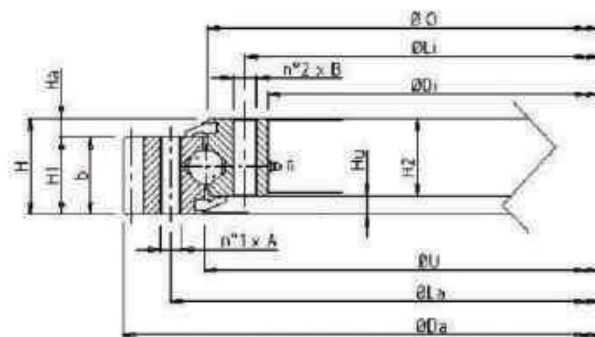
NOMENCLETURE :-

1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF
1 -FOR BALL TYPE	1-FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING	
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING	

Without Gear



With External Gear



BEARING UNGEARED

DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
5	5	-	-	-	-	-	-	-	-	53	107	73	65	≤ 0.4	≤ 0.2	5
5	5	-	-	-	-	-	-	-	-	103	211	101	89	≤ 0.4	≤ 0.2	10
5	5	-	-	-	-	-	-	-	-	154	314	119	105	≤ 0.4	≤ 0.2	14
5	5	-	-	-	-	-	-	-	-	205	418	132	116	≤ 0.4	≤ 0.2	19
5	5	-	-	-	-	-	-	-	-	255	521	144	126	≤ 0.4	≤ 0.2	24

BEARING WITH EXTERNAL GEAR

5	5	30	172	4	43	0	0	10.0	17.0	53	107	73	65	≤ 0.4	≤ 0.2	5
5	5	30	272	4	68	0	0	10.2	18.0	103	211	101	89	≤ 0.4	≤ 0.2	9
5	5	30	372	4	93	0	0	10.2	18.8	154	314	119	105	≤ 0.4	≤ 0.2	14
5	5	30	472	4	118	0	0	10.4	19.0	205	418	132	116	≤ 0.4	≤ 0.2	18
5	5	30	572	4	143	0	0	10.4	19.5	255	521	144	126	≤ 0.4	≤ 0.2	22

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
	C -FOR COLLER TYPE	C -FOR COLLER TYPE
	F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

Slew Ring Bearing - 20 FF

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING
AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1-FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING UNGEARED

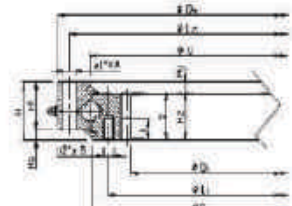
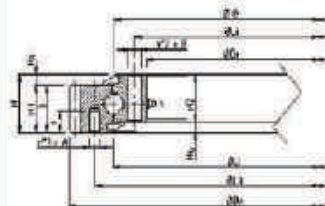
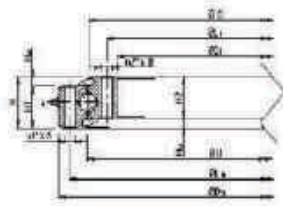
MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]
111-20-0314-FF	386	242	56	360	268	20	Ø14	20	Ø14	-	4	312.5	315.5	45.5	45.5
111-20-0414-FF	486	342	56	460	368	24	Ø14	24	Ø14	-	4	412.5	415.5	45.5	45.5
111-20-0544-FF	616	472	56	590	498	32	Ø14	32	Ø14	-	4	542.5	545.5	45.5	45.5
111-20-0644-FF	716	572	56	690	598	36	Ø14	36	Ø14	-	4	642.5	645.5	45.5	45.5
111-20-0744-FF	816	672	56	790	698	40	Ø14	40	Ø14	-	4	742.5	745.5	45.5	45.5
111-20-0844-FF	916	772	56	890	798	40	Ø14	40	Ø14	-	4	842.5	845.5	45.5	45.5
111-20-0944-FF	1016	872	56	990	898	44	Ø14	44	Ø14	-	4	942.5	945.5	45.5	45.5
111-20-1094-FF	1166	1022	56	1140	1048	48	Ø14	48	Ø14	-	4	1092.5	1095.5	45.5	45.5

BEARING WITH EXTERNAL GEAR

112-20-0314-FF	404.0	242	56	355	268	20	Ø14	20	Ø14	20	4	312.5	315.5	45.5	45.5
112-20-0414-FF	504.0	342	56	455	368	20	Ø14	24	Ø14	20	4	412.5	415.5	45.5	45.5
112-20-0544-FF	640.8	472	56	585	498	28	Ø14	32	Ø14	20	4	542.5	545.5	45.5	45.5
112-20-0644-FF	742.8	572	56	685	598	32	Ø14	36	Ø14	20	4	642.5	645.5	45.5	45.5
112-20-0744-FF	838.8	672	56	785	698	36	Ø14	40	Ø14	20	4	742.5	745.5	45.5	45.5
112-20-0844-FF	950.4	772	56	885	798	36	Ø14	40	Ø14	20	4	842.5	845.5	45.5	45.5
112-20-0944-FF	1046.4	872	56	985	898	40	Ø14	44	Ø14	20	4	942.5	945.5	45.5	45.5
112-20-1094-FF	1198.4	1022	56	1135	1048	44	Ø14	48	Ø14	20	4	1092.5	1095.5	45.5	45.5

BEARING WITH INTERNAL GEAR

113-20-0314-FF	386	225	56	360	275	20	Ø14	24	M 12	20	4	312.5	315.5	45.5	45.5
113-20-0414-FF	486	325	56	460	375	24	Ø14	24	M 12	20	4	412.5	415.5	45.5	45.5
113-20-0544-FF	616	444	56	590	505	32	Ø14	32	M 12	20	4	542.5	545.5	45.5	45.5
113-20-0644-FF	716	546	56	690	605	36	Ø14	36	M 12	20	4	642.5	645.5	45.5	45.5
113-20-0744-FF	816	648	56	790	705	40	Ø14	40	M 12	20	4	742.5	745.5	45.5	45.5
113-20-0844-FF	916	736	56	890	805	40	Ø14	40	M 12	20	4	842.5	845.5	45.5	45.5
113-20-0944-FF	1016	840	56	990	905	44	Ø14	44	M 12	20	4	942.5	945.5	45.5	45.5
113-20-1094-FF	1166	984	56	1140	1055	48	Ø14	48	M 12	20	4	1092.5	1095.5	45.5	45.5



BEARING UNGEARED

DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
10.5	10.5	-	-	-	-	-	-	-	-	195	452	143	144	≤ 0.28	≤ 0.24	23
10.5	10.5	-	-	-	-	-	-	-	-	257	596	159	160	≤ 0.28	≤ 0.24	31
10.5	10.5	-	-	-	-	-	-	-	-	337	784	176	178	≤ 0.30	≤ 0.26	39
10.5	10.5	-	-	-	-	-	-	-	-	398	928	187	189	≤ 0.30	≤ 0.26	46
10.5	10.5	-	-	-	-	-	-	-	-	460	1072	197	199	≤ 0.30	≤ 0.26	54
10.5	10.5	-	-	-	-	-	-	-	-	522	1216	207	209	≤ 0.30	≤ 0.26	61
10.5	10.5	-	-	-	-	-	-	-	-	583	1360	216	218	≤ 0.30	≤ 0.26	68
10.5	10.5	-	-	-	-	-	-	-	-	676	1576	227	229	≤ 0.30	≤ 0.26	79

BEARING WITH EXTERNAL GEAR

	10.5	10.5	45.5	395	5	79	-	-0.5	13.8	25.5	195	452	143	144	≤ 0.28	≤ 0.24	25
	10.5	10.5	45.5	495	5	99	-	-0.5	13.8	25.5	257	596	159	160	≤ 0.28	≤ 0.24	34
	10.5	10.5	45.5	630	6	105	-	-0.6	19.5	34.7	337	784	176	178	≤ 0.30	≤ 0.26	45
	10.5	10.5	45.5	732	6	122	-	-0.6	19.5	34.7	398	928	187	189	≤ 0.30	≤ 0.26	54
	10.5	10.5	45.5	828	6	138	-	-0.6	19.5	34.7	460	1072	197	199	≤ 0.30	≤ 0.26	60
	10.5	10.5	45.5	936	8	117	-	-0.8	29.9	52.3	522	1216	207	209	≤ 0.30	≤ 0.26	73
	10.5	10.5	45.5	1032	8	129	-	-0.8	29.9	52.3	583	1360	216	218	≤ 0.30	≤ 0.26	79
	10.5	10.5	45.5	1184	8	148	-	-0.8	29.9	52.3	676	1576	227	229	≤ 0.30	≤ 0.26	92

BEARING WITH INTERNAL GEAR

	10.5	10.5	45.5	235	5	47	-	-	13.9	24.7	195	452	143	144	≤ 0.28	≤ 0.24	24
	10.5	10.5	45.5	335	5	67	-	-	13.9	24.7	257	596	159	160	≤ 0.28	≤ 0.24	33
	10.5	10.5	45.5	456	6	76	-	-	19.5	34.9	337	784	176	178	≤ 0.30	≤ 0.26	45
	10.5	10.5	45.5	558	6	93	-	-	19.5	34.9	398	928	187	189	≤ 0.30	≤ 0.26	52
	10.5	10.5	45.5	660	6	110	-	-	19.5	34.9	460	1072	197	199	≤ 0.30	≤ 0.26	59
	10.5	10.5	45.5	752	8	94	-	-	30.0	52.5	522	1216	207	209	≤ 0.30	≤ 0.26	71
	10.5	10.5	45.5	856	8	107	-	-	30.0	52.5	583	1360	216	218	≤ 0.30	≤ 0.26	77
	10.5	10.5	45.5	1000	8	125	-	-	30.0	52.5	676	1576	227	229	≤ 0.30	≤ 0.26	93

Slew Ring Bearing - 22 CC

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING UNGEARED

MODEL DISCRPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DIAMETER	DIAMETER	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	J [mm]	P [mm]	H1 [mm]
111-20-0314-FF	418	204	56	390	232	8	Ø18	12	Ø18	-	4	312.5	315.5	353	269	45.5
111-20-0414-FF	518	304	56	490	332	8	Ø18	12	Ø18	-	4	412.5	415.5	453	369	45.5
111-20-0544-FF	648	434	56	620	462	10	Ø18	14	Ø18	-	4	542.5	545.5	583	499	45.5
111-20-0644-FF	748	534	56	720	562	12	Ø18	16	Ø18	-	4	642.5	645.5	683	599	45.5
111-20-0744-FF	848	634	56	820	662	12	Ø18	16	Ø18	-	4	742.5	745.5	783	699	45.5
111-20-0844-FF	948	734	56	920	762	14	Ø18	18	Ø18	-	4	842.5	845.5	883	799	45.5
111-20-0944-FF	1048	834	56	1020	862	16	Ø18	20	Ø18	-	4	942.5	945.5	983	899	45.5
111-20-1094-FF	1198	984	56	1170	1012	16	Ø18	20	Ø18	-	4	1092.5	1095.5	1133	1049	45.5

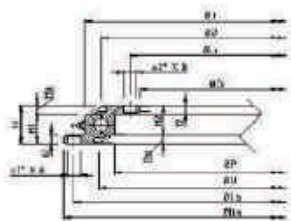
BEARING WITH EXTERNAL GEAR

112-20-0314-FC	404.0	204	56	355	232	10	M 12	12	Ø18	20	4	312.5	315.5	-	269	45.5
112-20-0414-FC	504.0	304	56	455	332	10	M 12	12	Ø18	20	4	412.5	415.5	-	369	45.5
112-20-0544-FC	640.8	434	56	585	462	14	M 12	14	Ø18	20	4	542.5	545.5	-	499	45.5
112-20-0644-FC	742.8	534	56	685	562	16	M 12	16	Ø18	20	4	642.5	645.5	-	599	45.5
112-20-0744-FC	838.8	634	56	785	662	18	M 12	16	Ø18	20	4	742.5	745.5	-	699	45.5
112-20-0844-FC	950.4	734	56	885	762	18	M 12	18	Ø18	20	4	842.5	845.5	-	799	45.5
112-20-0944-FC	1046.4	834	56	985	862	20	M 12	20	Ø18	20	4	942.5	945.5	-	899	45.5
112-20-1094-FC	1198.4	984	56	1135	1012	22	M 12	20	Ø18	20	4	1092.5	1095.5	-	1049	45.5

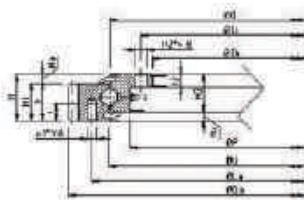
BEARING WITH INTERNAL GEAR

113-20-0314-CF	418	225	56	390	275	8	Ø18	12	M 12	20	4	312.5	315.5	353	-	45.5
113-20-0414-CF	518	325	56	490	375	8	Ø18	12	M 12	20	4	412.5	415.5	453	-	45.5
113-20-0544-CF	648	444	56	620	505	10	Ø18	16	M 12	20	4	542.5	545.5	583	-	45.5
113-20-0644-CF	748	546	56	720	605	12	Ø18	18	M 12	20	4	642.5	645.5	683	-	45.5
113-20-0744-CF	848	648	56	820	705	12	Ø18	20	M 12	20	4	742.5	745.5	783	-	45.5
113-20-0844-CF	948	736	56	920	805	14	Ø18	20	M 12	20	4	842.5	845.5	883	-	45.5
113-20-0944-CF	1048	840	56	1020	905	16	Ø18	22	M 12	20	4	942.5	945.5	983	-	45.5
113-20-1094-CF	1198	984	56	1170	1055	16	Ø18	24	M 12	20	4	1092.5	1095.5	1133	-	45.5

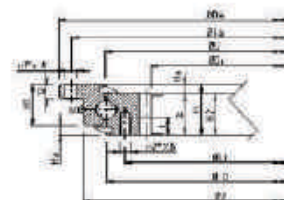
Without Gear



With External Gear



With Internal Gear



BEARING UNGEARED

DISTANCE	DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
											STATIC		DYNAMIC				
H2 [mm]	Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
45.5	10.5	10.5	-	-	-	-	-	-	-	-	92	211	144	144	≤ 0.5	≤ 0.5	21
45.5	10.5	10.5	-	-	-	-	-	-	-	-	121	278	160	160	≤ 0.5	≤ 0.5	27
45.5	10.5	10.5	-	-	-	-	-	-	-	-	158	365	177	178	≤ 0.5	≤ 0.5	35
45.5	10.5	10.5	-	-	-	-	-	-	-	-	187	432	188	189	≤ 0.5	≤ 0.5	42
45.5	10.5	10.5	-	-	-	-	-	-	-	-	215	499	198	199	≤ 0.5	≤ 0.5	48
45.5	10.5	10.5	-	-	-	-	-	-	-	-	244	566	208	209	≤ 0.5	≤ 0.5	54
45.5	10.5	10.5	-	-	-	-	-	-	-	-	272	633	217	218	≤ 0.5	≤ 0.5	60
45.5	10.5	10.5	-	-	-	-	-	-	-	-	315	733	228	229	≤ 0.5	≤ 0.5	70

BEARING WITH EXTERNAL GEAR

45.5	10.5	10.5	45.5	395	5	79	-	-0.5	13.8	25.5	92	211	144	144	≤ 0.5	≤ 0.5	25
45.5	10.5	10.5	45.5	495	5	99	-	-0.5	13.8	25.5	121	278	160	160	≤ 0.5	≤ 0.5	32
45.5	10.5	10.5	45.5	630	6	105	-	-0.6	19.5	34.7	158	365	177	178	≤ 0.5	≤ 0.5	44
45.5	10.5	10.5	45.5	732	6	122	-	-0.6	19.5	34.7	187	432	188	189	≤ 0.5	≤ 0.5	55
45.5	10.5	10.5	45.5	828	6	138	-	-0.6	19.5	34.7	215	499	198	199	≤ 0.5	≤ 0.5	58
45.5	10.5	10.5	45.5	936	8	117	-	-0.8	29.9	52.3	244	566	208	209	≤ 0.5	≤ 0.5	70
45.5	10.5	10.5	45.5	1032	8	129	-	-0.8	29.9	52.3	272	633	217	218	≤ 0.5	≤ 0.5	77
45.5	10.5	10.5	45.5	1184	8	148	-	-0.8	29.9	52.3	315	733	228	229	≤ 0.5	≤ 0.5	89

BEARING WITH INTERNAL GEAR

45.5	10.5	10.5	45.5	235	5	47	-	-	13.9	24.7	92	211	144	144	≤ 0.5	≤ 0.5	23
45.5	10.5	10.5	45.5	335	5	67	-	-	13.9	24.7	121	278	160	160	≤ 0.5	≤ 0.5	30
45.5	10.5	10.5	45.5	456	6	76	-	-	19.5	34.9	158	365	177	178	≤ 0.5	≤ 0.5	41
45.5	10.5	10.5	45.5	558	6	93	-	-	19.5	34.9	187	432	188	189	≤ 0.5	≤ 0.5	48
45.5	10.5	10.5	45.5	660	6	110	-	-	19.5	34.9	215	499	198	199	≤ 0.5	≤ 0.5	54
45.5	10.5	10.5	45.5	752	8	94	-	-	30.0	52.5	244	566	208	209	≤ 0.5	≤ 0.5	65
45.5	10.5	10.5	45.5	856	8	107	-	-	30.0	52.5	272	633	217	218	≤ 0.5	≤ 0.5	71
45.5	10.5	10.5	45.5	1000	8	125	-	-	30.0	52.5	315	733	228	229	≤ 0.5	≤ 0.5	85

Slew Ring Bearing - 25

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING
AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1-FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING UNGEARED

MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]
111-25-0455-FF	555	355	63	515	395	18	Ø22	18	Ø22	-	4	453	457	54	54
111-25-0555-FF	655	455	63	615	495	20	Ø22	20	Ø22	-	4	553	557	54	54
111-25-0655-FF	755	555	63	715	595	24	Ø22	24	Ø22	-	4	653	657	54	54
111-25-0755-FF	855	655	63	815	695	24	Ø22	24	Ø22	-	4	753	757	54	54
111-25-0855-FF	955	755	63	915	795	28	Ø22	28	Ø22	-	4	853	857	54	54
111-25-0955-FF	1055	855	63	1015	895	30	Ø22	30	Ø22	-	4	953	957	54	54
111-25-1055-FF	1155	955	63	1115	995	30	Ø22	30	Ø22	-	4	1053	1057	54	54
111-25-1155-FF	1255	1055	63	1215	1095	36	Ø22	36	Ø22	-	4	1153	1157	54	54
111-25-1255-FF	1355	1155	63	1315	1195	42	Ø22	42	Ø22	-	4	1253	1257	54	54
111-25-1355-FF	1455	1255	63	1415	1295	42	Ø22	42	Ø22	-	4	1353	1357	54	54
111-25-1455-FF	1555	1355	63	1515	1395	48	Ø22	48	Ø22	-	4	1453	1457	54	54

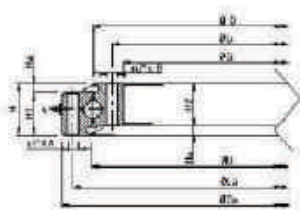
BEARING WITH EXTERNAL GEAR

112-25-0455-FF	590.4	355	80	516	395	18	M 20	18	Ø22	40	4	453	457	71	54
112-25-0555-FF	694.4	455	80	616	495	20	M 20	20	Ø22	40	4	553	557	71	54
112-25-0655-FF	798.4	555	80	716	595	24	M 20	24	Ø22	40	4	653	657	71	54
112-25-0755-FF	898	655	80	816	695	24	M 20	24	Ø22	40	4	753	757	71	54
112-25-0855-FF	997	755	80	916	795	28	M 20	28	Ø22	40	4	853	857	71	54
112-25-0955-FF	1096	855	80	1016	895	30	M 20	30	Ø22	40	4	953	957	71	54
112-25-1055-FF	1198	955	80	1116	995	30	M 20	30	Ø22	40	4	1053	1057	71	54
112-25-1155-FF	1298	1055	80	1216	1095	36	M 20	36	Ø22	40	4	1153	1157	71	54
112-25-1255-FF	1398	1155	80	1316	1195	42	M 20	42	Ø22	40	4	1253	1257	71	54
112-25-1355-FF	1498	1255	80	1416	1295	42	M 20	42	Ø22	40	4	1353	1357	71	54
112-25-1455-FF	1598	1355	80	1516	1395	48	M 20	48	Ø22	40	4	1453	1457	71	54

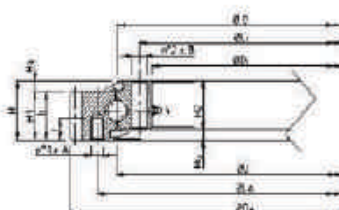
BEARING WITH INTERNAL GEAR

113-25-0455-FF	555	304	80	515	394	18	Ø22	18	M 20	40	4	453	457	54	71
113-25-0555-FF	655	416	80	615	494	20	Ø22	20	M 20	40	4	553	557	54	71
113-25-0655-FF	755	512	80	715	594	24	Ø22	24	M 20	40	4	653	657	54	71
113-25-0755-FF	855	610	80	815	694	24	Ø22	24	M 20	40	4	753	757	54	71
113-25-0855-FF	955	710	80	915	794	28	Ø22	28	M 20	40	4	853	857	54	71
113-25-0955-FF	1055	810	80	1015	894	30	Ø22	30	M 20	40	4	953	957	54	71
113-25-1055-FF	1155	910	80	1115	994	30	Ø22	30	M 20	40	4	1053	1057	54	71
113-25-1155-FF	1255	1010	80	1215	1094	36	Ø22	36	M 20	40	4	1153	1157	54	71
113-25-1255-FF	1355	1110	80	1315	1194	42	Ø22	42	M 20	40	4	1253	1257	54	71
113-25-1355-FF	1455	1210	80	1415	1294	42	Ø22	42	M 20	40	4	1353	1357	54	71
113-25-1455-FF	1555	1310	80	1515	1394	48	Ø22	48	M 20	40	4	1453	1457	54	71

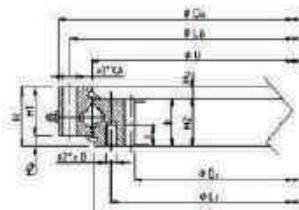
Without Gear



With External Gear



With Internal Gear



BEARING UNGEARED

DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
9	9	-	-	-	-	-	-	-	-	455	1215	252	293	≤ 0.4	≤ 0.25	55
9	9	-	-	-	-	-	-	-	-	555	1482	271	315	≤ 0.4	≤ 0.25	67
9	9	-	-	-	-	-	-	-	-	655	1748	287	335	≤ 0.4	≤ 0.25	78
9	9	-	-	-	-	-	-	-	-	754	2015	303	353	≤ 0.4	≤ 0.25	92
9	9	-	-	-	-	-	-	-	-	854	2282	319	371	≤ 0.4	≤ 0.25	103
9	9	-	-	-	-	-	-	-	-	954	2548	331	386	≤ 0.4	≤ 0.25	117
9	9	-	-	-	-	-	-	-	-	1053	2815	343	400	≤ 0.4	≤ 0.25	130
9	9	-	-	-	-	-	-	-	-	1153	3082	354	413	≤ 0.4	≤ 0.25	141
9	9	-	-	-	-	-	-	-	-	1242	3348	367	428	≤ 0.4	≤ 0.25	152
9	9	-	-	-	-	-	-	-	-	1352	3615	377	439	≤ 0.4	≤ 0.25	165
9	9	-	-	-	-	-	-	-	-	1452	3881	386	451	≤ 0.4	≤ 0.25	176

BEARING WITH EXTERNAL GEAR

9	26	71	576	8	72	-	-0.8	29	53	455	1215	252	293	≤ 0.4	≤ 0.25	76
9	26	71	680	8	85	-	-0.8	29	53	555	1482	271	315	≤ 0.4	≤ 0.25	95
9	26	71	784	8	98	-	-0.8	29	53	655	1748	287	335	≤ 0.4	≤ 0.25	113
9	26	71	882	9	98	-	-1	37	66	754	2015	303	353	≤ 0.4	≤ 0.25	127
9	26	71	981	9	109	-	-1	37	66	854	2282	319	371	≤ 0.4	≤ 0.25	147
9	26	71	1080	9	120	-	-1	37	66	954	2548	331	386	≤ 0.4	≤ 0.25	157
9	26	71	1180	10	118	-	-1	44	77	1053	2815	343	400	≤ 0.4	≤ 0.25	173
9	26	71	1280	10	128	-	-1	44	77	1153	3082	354	413	≤ 0.4	≤ 0.25	188
9	26	71	1380	10	138	-	-1	44	77	1242	3348	367	428	≤ 0.4	≤ 0.25	203
9	26	71	1480	10	148	-	-1	44	77	1352	3615	377	439	≤ 0.4	≤ 0.25	220
9	26	71	1580	10	158	-	-1	44	77	1452	3881	386	451	≤ 0.4	≤ 0.25	235

BEARING WITH INTERNAL GEAR

26	9	71	320	8	40	-	-	33	65	455	1215	252	293	≤ 0.4	≤ 0.25	66
26	9	71	432	8	54	-	-	33	65	555	1482	271	315	≤ 0.4	≤ 0.25	78
26	9	71	528	8	66	-	-	33	65	655	1748	287	335	≤ 0.4	≤ 0.25	104
26	9	71	630	10	63	-	-	48	87	754	2015	303	353	≤ 0.4	≤ 0.25	121
26	9	71	730	10	73	-	-	48	87	854	2282	319	371	≤ 0.4	≤ 0.25	139
26	9	71	830	10	83	-	-	48	87	954	2548	331	386	≤ 0.4	≤ 0.25	151
26	9	71	930	10	93	-	-	48	87	1053	2815	343	400	≤ 0.4	≤ 0.25	167
26	9	71	1030	10	103	-	-	48	87	1153	3082	354	413	≤ 0.4	≤ 0.25	182
26	9	71	1130	10	113	-	-	48	87	1242	3348	367	428	≤ 0.4	≤ 0.25	197
26	9	71	1230	10	123	-	-	48	87	1352	3615	377	439	≤ 0.4	≤ 0.25	214
26	9	71	1330	10	133	-	-	48	87	1452	3881	386	451	≤ 0.4	≤ 0.25	229

Slew Ring Bearing - 40

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING

AXIAL CLEARANCE = TILTING CLEARANCE

BEARING WITH EXTERNAL GEAR

MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]
112-40-1400-FF	1593.6	1266	94	1482	1318	36	Ø26	36	Ø26	-	6	1398	1402	85	81
112-40-1600-FF	1803.2	1466	94	1682	1518	40	Ø26	40	Ø26	-	8	1598	1602	85	81
112-40-1800-FF	1999.2	1666	94	1882	1718	44	Ø26	44	Ø26	-	11	1798	1802	85	81

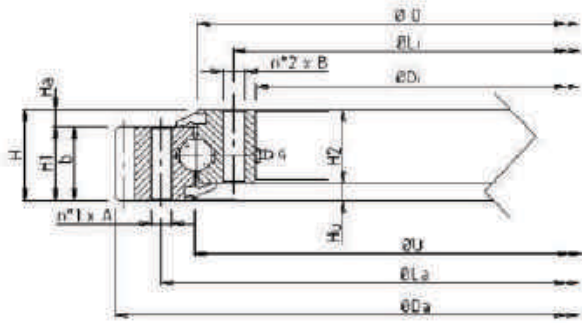
BEARING WITH INTERNAL GEAR

113-40-1500-FF	1634	1308	94	1582	1418	40	Ø26	40	Ø26	-	8	1498	1502	81	85
113-40-1700-FF	1834	1498	94	1782	1618	44	Ø26	44	Ø26	-	11	1698	1702	81	85

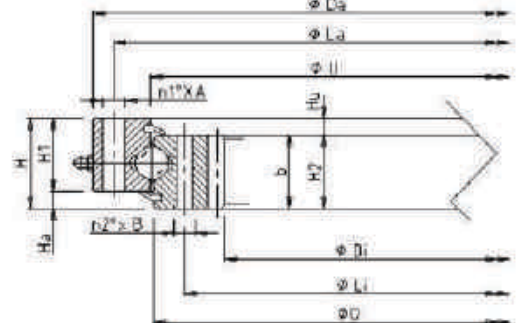
NOMENCLETURE :-

1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF	1 1 1 - 20 - 0414 – CF
1 -FOR BALL TYPE	1-FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING	
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING	

With External Gear



With Internal Gear



BEARING WITH EXTERNAL GEAR

DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
9	13	85	1560	12	130	+6.0	-1.2	66.1	130.2	2147	5745	568	662	≤ 0.7	≤ 0.4	405
9	13	85	1764	14	126	+7.0	-1.4	76.5	151.5	2455	6570	648	757	≤ 0.7	≤ 0.4	480
9	13	85	1960	14	140	+7.0	-1.4	76.5	151.5	2761	7387	729	852	≤ 0.7	≤ 0.4	532

BEARING WITH INTERNAL GEAR

13	9	85	1320	12	110	-6.0	-	66.0	130.2	2301	6156	607	709	≤ 0.7	≤ 0.4	412
13	9	85	1512	14	108	-7.0	-	76.5	151.5	2607	6976	688	803	≤ 0.7	≤ 0.4	477

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
	C -FOR COLLER TYPE	C -FOR COLLER TYPE
	F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

Slew Ring Bearing - 50

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING

AXIAL CLEARANCE = TILTING CLEARANCE

BEARING WITH EXTERNAL GEAR

MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]
112-50-1900-FF	2139.2	1729	109	2005	1795	36	Ø33	36	Ø33	-	9	1898	1902	100	99
112-50-2130-FF	2380.8	1959	109	2235	2025	48	Ø33	48	Ø33	-	8	2128	2132	100	99
112-50-2355-FF	2604.8	2184	109	2460	2250	54	Ø33	54	Ø33	-	9	2353	2357	100	99
112-50-2645-FF	2892.8	2474	109	2750	2540	60	Ø33	60	Ø33	-	12	2643	2647	100	99

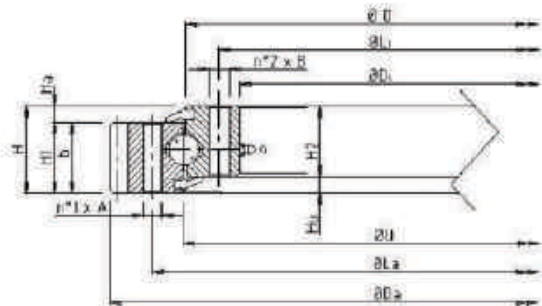
BEARING WITH INTERNAL GEAR

113-50-1800-FF	1971	1554	109	1905	1695	36	Ø33	36	Ø33	-	9	1798	1802	99	100
113-50-2000-FF	2171	1764	109	2105	1895	40	Ø33	40	Ø33	-	8	1998	2002	99	100
113-50-2240-FF	2411	1984	109	2345	2135	48	Ø33	48	Ø33	-	8	2238	2242	99	100
113-50-2490-FF	2661	2240	109	2595	2385	54	Ø33	54	Ø33	-	9	2488	2492	99	100
113-50-2800-FF	2971	2544	109	2905	2695	60	Ø33	60	Ø33	-	12	2798	2802	99	100

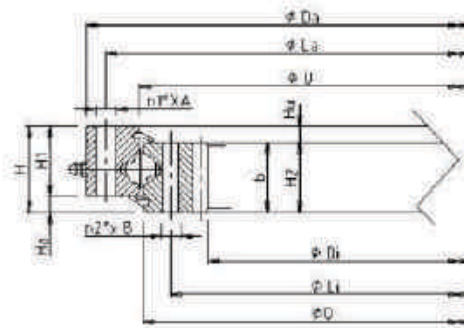
NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1-FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING	
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING	

With External Gear



With Internal Gear



BEARING WITH EXTERNAL GEAR

DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
9	10	100	2100	14	150	+7.0	-1.4	134	231	3326	8895	1132	1319	≤ 0.65	≤ 0.30	822
9	10	100	2336	16	146	+8.0	-1.6	157	275	3728	9972	1180	1375	≤ 0.65	≤ 0.30	933
9	10	100	2560	16	160	+8.0	-1.6	157	275	4121	11024	1226	1429	≤ 0.65	≤ 0.30	1026
9	10	100	2848	16	178	+8.0	-1.6	157	275	4627	12382	1282	1494	≤ 0.65	≤ 0.30	1144

BEARING WITH INTERNAL GEAR

10	9	100	1568	14	112	-7.0	-	143.0	256.0	3151	8427	1108	1290	≤ 0.65	≤ 0.30	764
10	9	100	1778	14	127	-7.0	-	143.0	256.0	3460	9363	1156	1347	≤ 0.65	≤ 0.30	845
10	9	100	2000	16	125	-8.0	-	168.0	292.0	3920	10486	1201	1399	≤ 0.65	≤ 0.30	963
10	9	100	2256	16	141	-8.0	-	168.0	292.0	4357	11656	1253	1260	≤ 0.65	≤ 0.30	1055
10	9	100	2560	16	160	-8.0	-	168.0	292.0	4899	13107	1304	1520	≤ 0.65	≤ 0.30	1207

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
	C -FOR COLLER TYPE	C -FOR COLLER TYPE
	F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

Slew Ring Bearing - 111 (Non Standard)

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING

AXIAL CLEARANCE = TILTING CLEARANCE

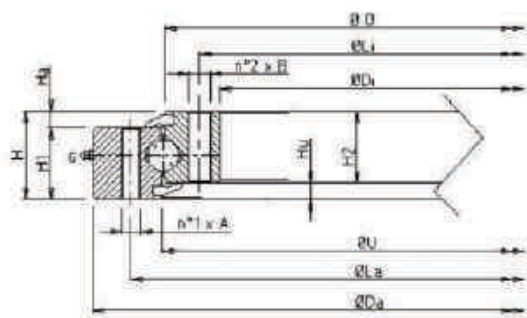
NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1-FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING WITH EXTERNAL GEAR

MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]
111-6.35-0080-FF	112	48	20.24	97	63	8	M6	8	M6	-	1	73	82.4	18.52	18.56
111-6.35-0100-FF	138	62	22	120	80	8	M8	8	M8	-	1	92.5	103	20	20
111-12.7-101.6-FF	152.4	50.8	41.3	133.35	69.85	8	M10	8	M10	-	1	98.75	104.5	38.1	38.1
111-12-0120-FF	170	70	30	148	90	6	Ø 9	6	M 8	17	2	118.5	121.5	29	30
111-16-0179-FF	234	124.5	35	214	144.5	12	M12	12	M 12	-	2	178	180	30	30
111-12-0222-FF	300	140	36	270	170	12	M16	12	Ø18	-	2	220	224	30	30
111-20-0220-FF	302	138	46	270	170	10	Ø18	10	Ø18	-	2	219	221	41	41
111-20-0260-FF	329	191	46	305	215	16	Ø14	16	Ø14	-	2	259	261	41	41
111-16-0325-FF	380	270	35	360	290	24	Ø11	24	Ø11	-	2	324	326	30	30
111-22-0308-FF	390	230	65	358	259	24	Ø14.5	28	Ø14.5	-	4	306	310	58	58
111-20-0310-FF	403.5	235	55	358	259	24	13	28	13	-	2	308	312	45	45
111-25-0371-FF	471	286	63	438	320	16	Ø18	16	Ø18	-	2	369.5	372.5	54	54
111-22-0404-FF	474	336	46	450	360	30-1	Ø14	30	Ø14	-	2	402	406	41	41
111-25-0380-FF	485	275	55	453	307	16	Ø18	16	Ø18	-	4	379	381	50	50
111-32-0474-FF	577	370	75	540	410	24	Ø17.5	24	Ø17.5	-	4	472	476	63	63
111-32-0550-FF	650	450	75	615	485	24	Ø22	24	Ø22	-	4	548	552	65	65
111-32-0574-FF	672	479	77	640	508	36	Ø18	36-1	Ø18	-	2	572.5	575.5	64	64
111-32-0680-FF	800	560	82	755	605	24	Ø22	24	Ø22	-	8	678.5	681.5	73	73
111-32-0675-FF	816	573	90	753	604	36	Ø18	36-1	Ø18	-	4	673	677	73	73
111-32-0780-FF	900	666	85	858	710	32	Ø22	32	Ø22	-	4	778	782	76	76

Without Gear



BEARING WITH EXTERNAL GEAR

DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
1.72	1.68	-	-	-	-	-	-	-	-	20	54	29	34	≤ 0.12	≤ 0.10	1.1
2	2	-	-	-	-	-	-	-	-	25	68	37	43	≤ 0.12	≤ 0.10	1.7
3.2	3.2	-	-	-	-	-	-	-	-	28	80	42	52	≤ 0.14	≤ 0.12	4.5
1	0	-	-	-	-	-	-	-	-	31	82	45	54	≤ 0.14	≤ 0.12	5
5	5	-	-	-	-	-	-	-	-	80	213	91	107	≤ 0.23	≤ 0.14	8
6	6	-	-	-	-	-	-	-	-	158	421	88	104	≤ 0.14	≤ 0.10	12
5	5	-	-	-	-	-	-	-	-	183	489	179	209	≤ 0.40	≤ 0.20	17
5	5	-	-	-	-	-	-	-	-	153	407	145	170	≤ 0.33	≤ 0.20	16
5	5	-	-	-	-	-	-	-	-	144	384	116	136	≤ 0.23	≤ 0.14	13
7	7	-	-	-	-	-	-	-	-	187	498	174	204	≤ 0.15	≤ 0.10	29
10	10	-	-	-	-	-	-	-	-	191	448	139	140	≤ 0.15	≤ 0.10	27
9	9	-	-	-	-	-	-	-	-	394	1054	300	350	≤ 0.41	≤ 0.25	42
5	5	-	-	-	-	-	-	-	-	244	653	195	229	≤ 0.15	≤ 0.15	23
5	5	-	-	-	-	-	-	-	-	284	759	228	267	≤ 0.41	≤ 0.25	44
12	12	-	-	-	-	-	-	-	-	383	1023	321	375	≤ 0.48	≤ 0.30	69
10	10	-	-	-	-	-	-	-	-	516	1381	341	398	≤ 0.52	≤ 0.32	76
13	13	-	-	-	-	-	-	-	-	539	1441	346	404	≤ 0.15	≤ 0.10	78
9	9	-	-	-	-	-	-	-	-	638	1706	367	429	≤ 0.52	≤ 0.32	121
17	17	-	-	-	-	-	-	-	-	901	2410	488	569	≤ 0.20	≤ 0.10	132
9	9	-	-	-	-	-	-	-	-	732	1956	387	452	≤ 0.50	≤ 0.30	126

Slew Ring Bearing - 112 (Non Standard)

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING WITH EXTERNAL GEAR (TYPE - A)

MODEL DISCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DIAMETER	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	Ds [mm]	H1 [mm]
112-16-0235-FF	318.6	171	40	275	195	12	Ø13	12	Ø13	-	2	233.5	236.5	-	35
112-25-0309-FF	408.4	235	60	359	259	24	Ø13	24-1	Ø13	-	4	308	310	-	52.5
112-25-0537-FF	688.8	417	72	605	469	30	Ø26	30-1	Ø26	-	2	535.5	538.5	-	63
112-32-0675-FF	838	573	90	753	604	36	Ø22	36-1	Ø22	-	3	673.5	676.5	-	73
112-25-0693-FF	838	599	91	752	634	42	Ø18	42	Ø18	-	4	690	696	-	68
112-40-1298-FF	1483.2	1168	105	1380	1216	60	Ø26	60-1	Ø26	-	4	1296.5	1299.5	-	95
112-32-1600-FF	1803.2	1466	94	1682	1518	40	Ø26	40	Ø26	-	8	1598.5	1601.5	-	85

BEARING WITH EXTERNAL GEAR (TYPE - B)

112-22-0635-FF	742.8	546	70	685	582	40	M 16	40	Ø17.5	25	4	633.5	636.5	-	60
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BEARING WITH EXTERNAL GEAR (TYPE - C)

112-25-0716-FF	838.8	622	68	775	657	40	Ø17.5	40	Ø17.5	-	4	714.5	717.5	810	59
112-32-0823-FF	979	715	100	893	753	36	Ø22	36-1	Ø22	-	4	821.5	824.5	935	79

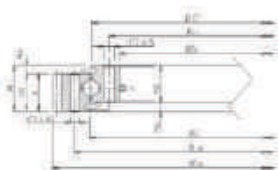
BEARING WITH EXTERNAL GEAR (TYPE - D)

112-16-0188-FF	259.36	135	35	222	154	16	M 10	16-1	M 10	20	2	187	189	238	30
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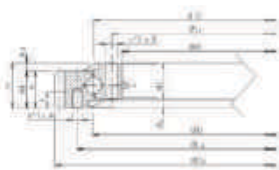
BEARING WITH EXTERNAL GEAR (TYPE - E)

112-30-0375-FF	510	260	83	440	305	14	M 16	16	Ø22	25	2	372	378	475	73
112-30-0430-FF	563.2	314	83.5	495	360	16	M 16	24-1	Ø22	25	2	427	433	530	73.5
112-31.75-0430-FF	563.2	314	88	495	360	16	M 16	24-1	Ø22	25	2	427	433	530	78
112-31.75-0525-FF	685.9	380	96	600	450	18	M 20	20	Ø22	45	2	521	529	644	86
112-32-0957-FF	1138	840	131	1030	885	42	M 20	42-1	Ø22	45	3	955.5	958.5	1082	107
112-25-1845-FF	1966.4	1745	68	1900	1785	36	M 16	36	Ø17.5	24	6	1843	1847	1929	59

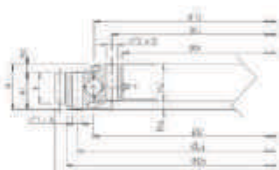
Type - A



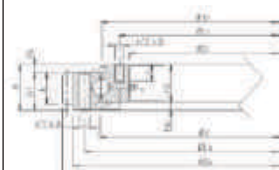
Type - B



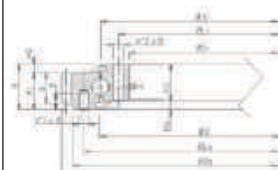
Type - C



Type - D



Type - E



BEARING WITH EXTERNAL GEAR (TYPE - A)

DISTANCE	DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
											STATIC		DYNAMIC				
H2 [mm]	Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
35	5	5	35	312	4	78	-	0.6	7	13.5	145	387	134	156	≤ 0.26	≤ 0.16	15
52.5	7.5	7.5	52.5	400	5	80	-	0.8	12	21.5	231	617	211	245	≤ 0.41	≤ 0.25	32
59	9	13	63	672	6	112	+3.0	0.6	26	46	570	1522	346	403	≤ 0.41	≤ 0.25	93
70	17	20	73	810	10	81	+5.0	1	70	119	901	2409	488	568	≤ 0.21	≤ 0.10	139
68	23	23	68	810	10	81	+5.0	1	66	113	516	1379	287	335	≤ 0.41	≤ 0.25	134
82	10	23	95	1440	12	120	+10.8	1.2	109	187	1678	4488	588	685	≤ 0.54	≤ 0.30	364
81	9	13	85	1764	14	126	+7.0	1.4	87	147	1499	4008	505	589	≤ 0.52	≤ 0.32	481

BEARING WITH EXTERNAL GEAR (TYPE - B)

60	10	10	60	732	6	122	-	0.6	25	45	538	1437	307	358	≤ 0.30	≤ 0.10	81
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BEARING WITH EXTERNAL GEAR (TYPE - C)

59	9	9	46	828	6	138	-	0.6	16	29	533	1425	289	337	≤ 0.30	≤ 0.10	98
82	21	18	63	940	10	94	+10.0	-1.5	67	114	772	2063	395	461	≤ 0.52	≤ 0.32	179

BEARING WITH EXTERNAL GEAR (TYPE - D)

30	5	5	26	248	4	62	+2.0	0.32	10	18	145	387	123	144	≤ 0.20	≤ 0.10	9.5
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BEARING WITH EXTERNAL GEAR (TYPE - E)

65	10	18	57.5	498	6	83	-	-	24	44	453	1215	255	285	≤ 0.48	≤ 0.30	68
65	10	18.5	57.5	552	6	92	-	0.4	24	44	540	1390	280	340	≤ 0.55	≤ 0.35	72
70	10	18	57.5	552	6	92	-	0.4	24	44	551	1475	297	355	≤ 0.55	≤ 0.35	71
72	10	24	75	672	7	96	-	0.05	29	54	672	1800	363	435	≤ 0.45	≤ 0.25	128
104.5	24	26.5	92	1092.0	12	91	+12.84	1.84	110	189	1461	3909	555	647	≤ 0.52	≤ 0.32	326
59	9	9	55	1952	8	244	-	0.80	29	50	1953	5223	545	636	≤ 0.52	≤ 0.32	263

Slew Ring Bearing - 113 (Non Standard)

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING WITH INTERNAL GEAR (TYPE - A)

MODEL DISCRPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	Ds [mm]	H1 [mm]	H2 [mm]
113-16-0288-FF	340	216	39	324	252	20	Ø9	20	Ø9	-	2	286.5	289.5	-	34	34
113-16-0344-FF	410	256	39	386	302	16	Ø14	16	Ø14	-	2	342.5	345.5	-	34	34
113-16-0420-FF	486	332	39	462	378	16	Ø14	16	Ø14	-	2	418.5	421.5	-	34	34
113-30-0684-FF	774	554	76	742	623	24	Ø17	24	Ø17	-	3	682.5	685.5	-	60	63
113-30-1100-FF	1193	963	85	1160	1040	36	Ø17	36	Ø19	-	4	1102	1098.0	-	72	70
113-32-1128-FF	1260	933	90	1210	1045	40	Ø28	40	M27	-	4	1126.5	1129.5	-	72	80
113-22-1131-FF	1213	1015	66	1181	1081	40	M16	40	Ø18	-	4	1129	1133	-	56	54
113-32-1159-FF	1286	980	94	1234	1084	42	Ø26	42	Ø26	-	4	1157	1161	-	76	75
113-32-1384-FF	1517	1176	102	1465	1305	48	Ø26	48	M24	-	6	1382	1386	-	68	93
113-32-1400-FF	1512	1224	89	1468	1332	60	Ø25	60	M24	-	6	1398	1402	-	63	80
113-32-1582-FF	1722	1360	95	1670	1500	60	Ø26	60	M24	-	5	1580	1584	-	77	85

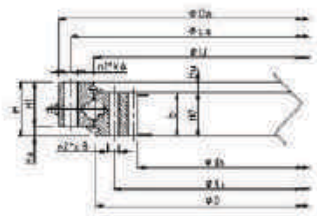
BEARING WITH INTERNAL GEAR (TYPE - B)

113-22-0782-FF	868	656	77	834	730	24	Ø18	24	M16	-	4	780	784	694	50	70
113-22-0850-FF	936	738	75	902	800	24	Ø18	24	M16	-	4	848	852	767	50	65

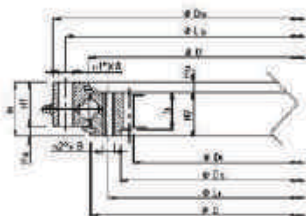
BEARING WITH INTERNAL GEAR (TYPE - C)

113-25-0889-FF	980	784	82	944	850	36	Ø17.5	36	M16	25	4	887	891	822	67	72
113-30-1212-FF	1310	1083	105.5	1275	1169	36	Ø21	36	M20	36	2	1213	1213	-	71	95

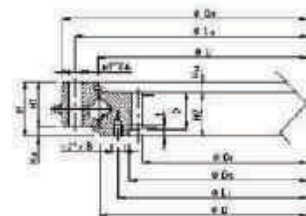
Type - A



Type - B



Type - C



BEARING WITH INTERNAL GEAR (TYPE - A)

	DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
	Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	STATIC		DYNAMIC				
											Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
	5	5	34	224	4	56	-	-	5.5	12.5	128	341	110	130	≤ 0.20	≤ 0.10	14
	5	5	34	264	4	66	-	-	10	18	264	706	156	183	≤ 0.20	≤ 0.10	26
	5	5	34	340	4	85	-	-	6	13	186	495	126	149	≤ 0.26	≤ 0.16	26
	16	13	63	568	8	71	-	1	25	47	745	1994	324	378	≤ 0.28	≤ 0.18	96
	13	15	70	980	10	98	-	1.5	48	87	1030	2756	432	506	≤ 0.60	≤ 0.30	192
	18	10	80	924	12	77	-15.0	-	63	102	1057	2827	444	519	≤ 0.60	≤ 0.30	282
	10	12	54	1022	7	146	-3.5	-	30	54	680	1819	286	335	≤ 0.40	≤ 0.22	129
	18	19	75	1000	10	100	-	-	66	114	1086	2905	449	525	≤ 0.52	≤ 0.32	271
	34	9	93	1190	14	85	-7.0	-	111	185	1297	3468	479	560	≤ 0.52	≤ 0.32	434
	26	9	80	1236	12	103	-6.0	-	83	140	1867	4994	637	744	≤ 0.41	≤ 0.25	291
	18	9	85	1376	16	86	-8.0	-	124	206	2417	6460	669	782	≤ 0.52	≤ 0.32	471

BEARING WITH INTERNAL GEAR (TYPE - B)

27	7	64	656	8	82	-8.0	-	33	57	471	1259	250	293	≤ 0.25	≤ 0.10	105
25	10	57	744	6	124	-3.0	-	23	42	616	1646	258	302	≤ 0.25	≤ 0.10	102

BEARING WITH INTERNAL GEAR (TYPE - C)

15	10	66	800	8	100	-	-	43	76	662	1770	314	367	≤ 0.41	≤ 0.25	128
34.5	10.5	95	1104	12	92	-	1.5	105	192	1140	3050	471	551	≤ 0.52	≤ 0.32	241

Slew Ring Bearing - Double Row Ball Type

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

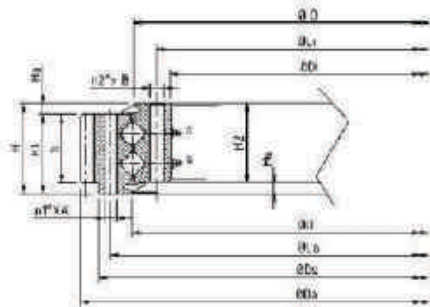
BEARING WITH EXTERNAL GEAR

MODEL DISCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	Ds [mm]	H1 [mm]	H2 [mm]
122-25-0384-FF	504	300	95	436	330	16	Ø17	16	Ø17	-	8	383	385	466	87	87
122-25-0475-FF	608	382	95	540	410	24	Ø17	24	Ø17	-	8	473	477	570	87	87
122-25-0575-FF	712	470	98	640	508	24	Ø17	24	Ø17	-	8	573	577	670	88	88
122-22-0968-FF	1080	893	92	1015	922	30	Ø17	30	Ø17	-	8	966	970	1042	83	83
122-25-1077-FF	1200	976	98	1135	1012	36	Ø19	36	Ø19	-	8	1075	1079	1163	88	88

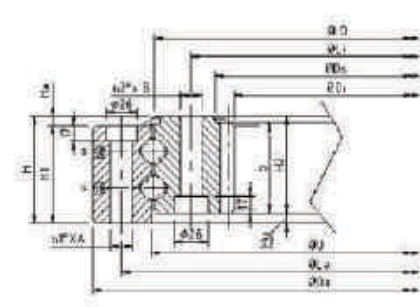
BEARING WITH INTERNAL GEAR

123-22-0897-FF	973	786	97	944	850	36	Ø17	36	Ø17	-	8	895	899	820	88	88
123-22-1088-FF	1165	962	97	1134	1040	36	Ø17	36	Ø17	-	8	1086	1090	1010	88	88
123-25-1100-FF	1200	963.5	110	1160	1040	36	Ø21	36	Ø21	-	8	1098	1102	1010	96	96
123-30-1223-FF	1345	1061.6	108	1290	1150	48	Ø21	48	Ø21	-	8	1221	1225	1115	98	98
123-30-1614-FF	1750	1418.4	120	1705	1525	48	Ø25	48	Ø25	-	8	1612	1616	1470	110	110

With External Gear



With Internal Gear



BEARING WITH EXTERNAL GEAR

	DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
											STATIC		DYNAMIC				
	Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
	8	8	75	488	8	61	-	-	33	64	503	1347	196	229	≤ 0.30	≤ 0.20	67
	8	8	75	592	8	74	-	-	42	82	623	1667	243	283	≤ 0.30	≤ 0.20	87
	10	10	75	696	8	87	-	-	43	84	754	2018	294	343	≤ 0.30	≤ 0.20	105
	9	9	76	1064	8	133	-	-	34	66	988	2644	386	449	≤ 0.40	≤ 0.30	152
	10	10	77	1184	8	148	-	-	34	66	1358	3634	531	617	≤ 0.40	≤ 0.30	213

BEARING WITH INTERNAL GEAR

	9	9	80	800	8	100	-	-	38.2	74.4	914	2450	356	416	≤ 0.40	≤ 0.30	143
	9	9	80	980	10	98	-	-	47	92	1013	2714	394	463	≤ 0.40	≤ 0.30	190
	14	14	88	980	10	98	-	-	52	102	1441	3861	561	656	≤ 0.40	≤ 0.30	232
	10	10	88	1080	10	108	-	-	70.9	139.8	1775	4755	691	809	≤ 0.40	≤ 0.30	329
	10	10	98	1440	12	120	-	-	94.0	186.0	2343	6275	913	1067	≤ 0.50	≤ 0.40	566

Slew Ring Bearing - Three Row Roller Dia 20

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

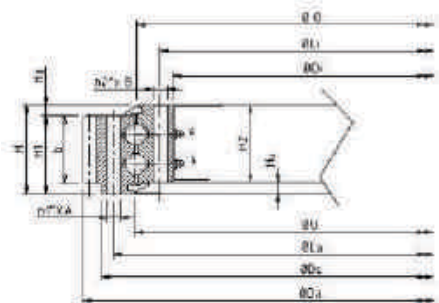
BEARING WITH EXTERNAL GEAR

MODEL DISCIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	Dc [mm]	H1 [mm]	H2 [mm]
232-20-1250-FF	1461.6	1103	132	1355	1155	36	Ø26	36	Ø26	-	12	1280	1282	-	106	123
232-20-1400-FF	1635.2	1253	132	1505	1305	36	Ø26	36	Ø26	-	12	1430	1432	-	106	123
232-20-1600-FF	1831.2	1453	132	1705	1505	40	Ø26	40	Ø26	-	12	1630	1632	-	106	123
232-20-1800-FF	2044.8	1653	132	1905	1705	46	Ø26	46	Ø26	-	12	1830	1832	-	106	123
232-20-2000-FF	2236.8	1853	132	2105	1905	54	Ø26	54	Ø26	-	12	2030	2032	-	106	123

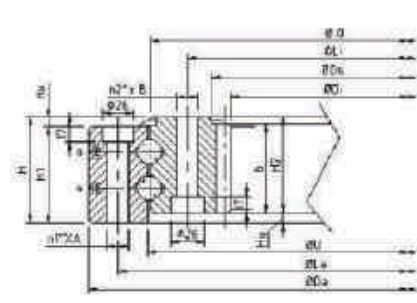
BEARING WITH INTERNAL GEAR

233-20-1250-FF	1397	1032	132	1345	1145	36	Ø26	36	Ø26	-	12	1218	1219	-	106	123
233-20-1400-FF	1547	1162	132	1495	1295	36	Ø26	36	Ø26	-	12	1368	1369	-	106	123
233-20-1600-FF	1747	1372	132	1695	1495	40	Ø26	40	Ø26	-	12	1568	1569	-	106	123
233-20-1800-FF	1947	1552	132	1895	1695	46	Ø26	46	Ø26	-	12	1768	1769	-	106	123
233-20-2000-FF	2147	1760	132	2095	1895	54	Ø26	54	Ø26	-	12	1968	1969	-	106	123

With External Gear



With Internal Gear



BEARING WITH EXTERNAL GEAR

	DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
	Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	STATIC		DYNAMIC				
											Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
	26	9	106	1428	12	119	+6.0	-1.2	118	235	590	7387	413	1469	≤ 0.20	≤ 0.10	545
	26	9	106	1596	14	114	+7.0	-1.4	137	274	663	8274	439	1563	≤ 0.20	≤ 0.10	650
	26	9	106	1792	14	128	+7.0	-1.4	137	274	760	9455	472	1679	≤ 0.25	≤ 0.10	735
	26	9	106	2000	16	125	+8.0	-1.6	164	314	857	10636	503	1794	≤ 0.25	≤ 0.10	850
	26	9	106	2192	16	137	+8.0	-1.6	164	314	954	11817	532	1891	≤ 0.25	≤ 0.10	915

BEARING WITH INTERNAL GEAR

	9	26	106	1044	12	87	-6.0	-	118	235	628	7388	427	1469	≤ 0.20	≤ 0.10	544
	9	26	106	1176	14	84	-7.0	-	147	271	701	8274	452	1563	≤ 0.20	≤ 0.10	635
	9	26	106	1386	14	99	-7.0	-	147	271	798	9455	484	1679	≤ 0.25	≤ 0.10	710
	9	26	106	1568	16	98	-8.0	-	176	321	895	10636	514	1794	≤ 0.25	≤ 0.10	834
	9	26	106	1776	16	111	-8.0	-	176	321	992	11817	543	1891	≤ 0.25	≤ 0.10	905

Slew Ring Bearing - Three Row Roller Dia 25

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

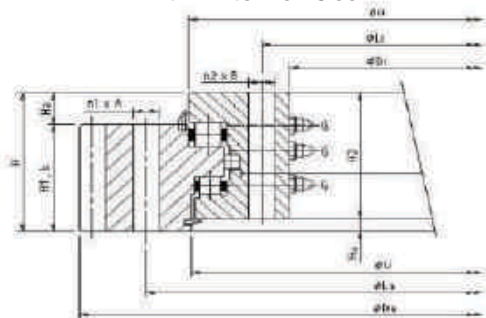
1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

BEARING WITH EXTERNAL GEAR

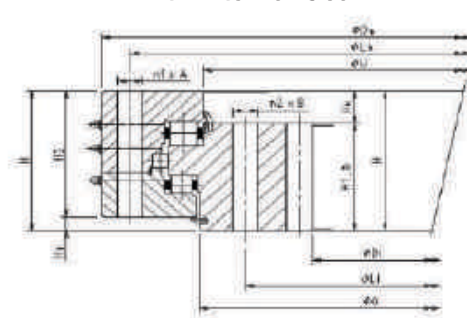
MODEL DISCIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DIAMETER	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	Dc [mm]	H1 [mm]	H2 [mm]
232-25-1800-FF	2076.8	1619	147	1925	1685	36	Ø33	36	Ø33	-	18	1836	1826	-	117	138
232-25-2000-FF	2268.8	1819	147	2125	1885	44	Ø33	44	Ø33	-	18	2036	2026	-	117	138
232-25-2240-FF	2516.4	2059	147	2366	2125	48	Ø33	48	Ø33	-	18	2276	2266	-	117	138
232-25-2500-FF	2786.4	2319	147	2625	2385	54	Ø33	54	Ø33	-	18	2536	2526	-	117	138
232-25-2800-FF	3096.0	2619	147	2925	2685	60	Ø33	60	Ø33	-	18	2836	2826	-	117	138

BEARING WITH INTERNAL GEAR

233-25-1800-FF	1981	1520	147	1915	1675	36	Ø33	36	Ø33	-	18	1774	1763	-	117	138
233-25-2000-FF	2181	1728	147	2115	1875	44	Ø33	44	Ø33	-	18	1974	1963	-	117	138
233-25-2240-FF	2421	1944	147	2355	2115	48	Ø33	48	Ø33	-	18	2214	2203	-	117	138
233-25-2500-FF	2681	2214	147	2615	2375	54	Ø33	54	Ø33	-	18	2474	2463	-	117	138
233-25-2800-FF	2981	2500	147	2915	2675	60	Ø33	60	Ø33	-	18	2774	2763	-	117	138



With Internal Gear



BEARING WITH EXTERNAL GEAR

	DISTANCE	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
											STATIC		DYNAMIC				
	Ha [mm]	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
	30	9	117	2032	16	127	+8.0	-1.6	173	327	1351	13011	731	2437	≤ 0.25	≤ 0.10	1130
	30	9	117	2224	16	139	+8.0	-1.6	173	327	1505	14456	775	2583	≤ 0.25	≤ 0.10	1220
	30	9	117	2466	18	137	+9.0	-1.8	203	368	1690	16190	824	2739	≤ 0.35	≤ 0.12	1380
	30	9	117	2736	18	152	+9.0	-1.8	203	368	1890	18069	873	2899	≤ 0.35	≤ 0.12	1570
	30	9	117	3040	20	152	+10.0	-2.0	233	409	2121	20237	929	3082	≤ 0.45	≤ 0.14	1788

BEARING WITH INTERNAL GEAR

	9	30	117	1536	16	96	+8.0	-	188	347	1427	13011	754	2437	≤ 0.25	≤ 0.10	1105
	9	30	117	1744	16	109	+8.0	-	188	347	1580	14456	796	2583	≤ 0.25	≤ 0.10	1205
	9	30	117	1962	18	109	+9.0	-	220	399	1766	16190	835	2739	≤ 0.35	≤ 0.12	1410
	9	30	117	2232	18	124	+9.0	-	220	399	1966	18069	892	2899	≤ 0.35	≤ 0.12	1548
	9	30	117	2520	20	126	+10.0	-	251	454	2197	20237	946	3082	≤ 0.45	≤ 0.14	1770

Slew Ring Bearing - HH & ZZ SERIES

G = GREASE NIPPLE EQ SPACED

NOTE - IF LOCATION ARE REQUIRED ON STANDARD BEARINGS, IT IS ESSENTIAL THAT THIS IS INDICATED AT THE TIME OF ORDERING.

AXIAL CLEARANCE = TILTING CLEARANCE

NOMENCLETURE :-

1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF	1 1 1 - 20 - 0414 - CF
1 -FOR BALL TYPE	1- FOR SINGLE TRACK	1 -FOR WITHOUT GEARING	BALL OR ROLLER DIAMETER	BALL OR ROLLER DIAMETER	OUTER RACE	INNER RACE
2- FOR ROLLER TYPE	2- FOR DOUBLE TRACK	2 -FOR EXTERNAL GEARING			C -FOR COLLER TYPE	C -FOR COLLER TYPE
	3 -FOR TRIPLE TRACK	3 -FOR INTERNAL GEARING			F -FOR FLANGE TYPE	F -FOR FLANGE TYPE

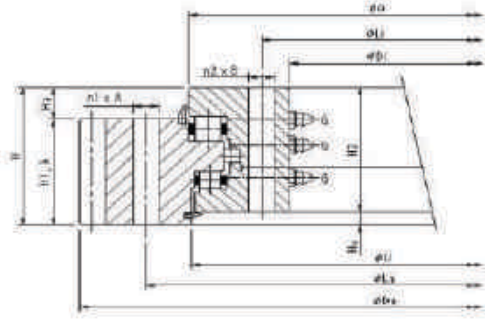
BEARING UNGEARED

MODEL DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	OVERALL HEIGHT	OUTER RING CLAMPING BOLT P.C.D.	INNER RING CLAMPING BOLT P.C.D.	NO. OF HOLES ON OUTER RING	OUTER RACE BOLT HOLE DIA.	NO. OF HOLES ON INNER RING	INNER RACE BOLT HOLE DIA.	THREADING LENGTH	NUMBER OF GREASE NIPPLES	DIAMETER	DIAMETER	DISTANCE	DISTANCE	DISTANCE
	Da [mm]	Di [mm]	H [mm]	La [mm]	Li [mm]	n1	A [mm]	n2	B [mm]	t [mm]	G	O [mm]	U [mm]	H1 [mm]	H2 [mm]	Ha [mm]
111-12-0228-HH	295	200	55	270	270	8	11	8	11	6	1	295	220	-	-	-
111-12-0318-HH	400	292	55	375	375	8	11	8	11	6	1	400	310	-	-	-
111-12-0418-HH	500	392	55	475	475	12	13	12	13	6	1	500	410	-	-	-
111-14-0516-HH	600	485	65	575	575	12	13	12	13	7	2	600	510	-	-	-
111-14-0566-HH	650	535	65	625	625	12	13	12	13	7	2	650	560	-	-	-
111-14-0616-HH	700	585	65	675	675	16	13	16	13	7	2	700	610	-	-	-
111-14-0666-HH	750	635	65	725	725	16	13	16	13	7	2	750	660	-	-	-
111-14-0716-HH	800	685	65	775	775	16	13	16	13	7	2	800	710	-	-	-
111-14-0766-HH	850	735	65	825	825	20	13	20	13	8	2	850	760	-	-	-
111-14-0816-HH	900	785	65	875	875	20	13	20	13	8	2	900	810	-	-	-
111-14-0866-HH	950	835	65	925	925	20	13	20	13	8	2	950	860	-	-	-
111-14-0916-HH	1000	885	65	975	975	24	13	24	13	8	2	1000	910	-	-	-
111-14-0966-HH	1050	935	65	1025	1025	24	13	24	13	8	2	1050	960	-	-	-
111-16-0794-HH	890	762	80	852	852	20	13	20	13	9	2	890	780	-	-	-
111-16-0914-HH	1010	882	80	972	972	24	13	24	13	9	2	1010	900	-	-	-
111-16-1004-HH	1100	972	80	1060	1060	24	13	24	13	9	2	1100	990	-	-	-

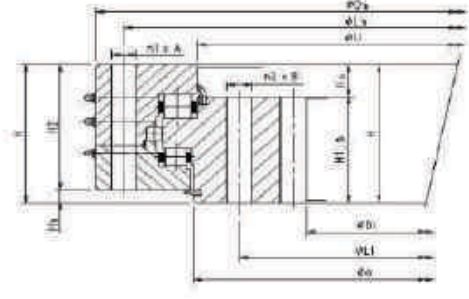
BEARING UNGEARED

111-16-0307-ZZ	400	215	52	375	260	8	11	8	11	8	4	338	281	-	-	-
111-16-0407-ZZ	500	315	52	475	340	12	13	12	13	8	4	434	381	-	-	-
111-16-0557-ZZ	650	465	52	625	490	12	13	12	13	8	4	584	531	-	-	-
111-16-0657-ZZ	750	565	52	725	590	16	13	16	13	8	4	684	631	-	-	-
111-16-0757-ZZ	850	665	52	825	690	20	13	20	13	8	4	784	731	-	-	-
111-16-0857-ZZ	950	765	52	925	790	20	13	20	13	8	4	884	831	-	-	-
111-16-0957-ZZ	1050	865	52	1025	890	24	13	24	13	8	4	984	931	-	-	-

With External Gear



With Internal Gear



BEARING UNGEARED

	DISTANCE	TOOTH WIDTH	GEAR P.C.D.	MODULE	NUMBER OF TEETH	ADDENDUM MODIFICATION	ADDENDUM REDUCTION	PERMISSIBLE TANGENTIAL FORCE (NORMAL)	PERMISSIBLE TANGENTIAL FORCE (MAXIMUM)	LOAD RATING				BEARING CLEARANCE		WEIGHT
										STATIC		DYNAMIC				
	Hu [mm]	b [mm]	d [mm]	m	z	x.m [mm]	k.m [mm]	[kN]	[kN]	Co rad [kN]	Co ax [kN]	C rad [kN]	C ax [kN]	axial [mm]	radial [mm]	[kg]
	-	-	-	-	-	-	-	-	-	-	5	-	-	≤ 0.28	≤ 0.24	6
	-	-	-	-	-	-	-	-	-	-	7.7	-	-	≤ 0.28	≤ 0.24	8
	-	-	-	-	-	-	-	-	-	-	11	-	-	≤ 0.30	≤ 0.26	12
	-	-	-	-	-	-	-	-	-	-	17	-	-	≤ 0.30	≤ 0.26	18
	-	-	-	-	-	-	-	-	-	-	17.2	-	-	≤ 0.30	≤ 0.26	20
	-	-	-	-	-	-	-	-	-	-	23	-	-	≤ 0.30	≤ 0.26	22
	-	-	-	-	-	-	-	-	-	-	23.2	-	-	≤ 0.30	≤ 0.26	24
	-	-	-	-	-	-	-	-	-	-	25	-	-	≤ 0.30	≤ 0.26	26
	-	-	-	-	-	-	-	-	-	-	31	-	-	≤ 0.30	≤ 0.26	28
	-	-	-	-	-	-	-	-	-	-	37	-	-	≤ 0.30	≤ 0.26	30
	-	-	-	-	-	-	-	-	-	-	37	-	-	≤ 0.30	≤ 0.26	32
	-	-	-	-	-	-	-	-	-	-	42	-	-	≤ 0.35	≤ 0.28	34
	-	-	-	-	-	-	-	-	-	-	47	-	-	≤ 0.35	≤ 0.28	36
	-	-	-	-	-	-	-	-	-	-	53	-	-	≤ 0.35	≤ 0.28	37
	-	-	-	-	-	-	-	-	-	-	62	-	-	≤ 0.35	≤ 0.28	44
	-	-	-	-	-	-	-	-	-	-	68	-	-	≤ 0.35	≤ 0.28	52

BEARING UNGEARED

-	-	-	-	-	-	-	-	-	-	-	15	-	-	≤ 0.28	≤ 0.24	16
-	-	-	-	-	-	-	-	-	-	-	19	-	-	≤ 0.28	≤ 0.24	18
-	-	-	-	-	-	-	-	-	-	-	25	-	-	≤ 0.30	≤ 0.26	24
-	-	-	-	-	-	-	-	-	-	-	32	-	-	≤ 0.30	≤ 0.26	26
-	-	-	-	-	-	-	-	-	-	-	37	-	-	≤ 0.30	≤ 0.26	31
-	-	-	-	-	-	-	-	-	-	-	41	-	-	≤ 0.35	≤ 0.28	34
-	-	-	-	-	-	-	-	-	-	-	52	-	-	≤ 0.35	≤ 0.28	39

KAVITSU

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