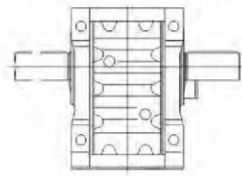
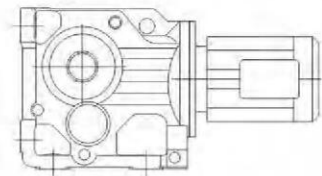


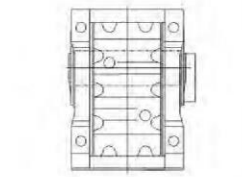
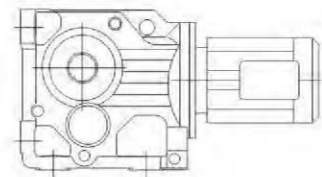
7. K Helical – Bevel Geared Motor

7.1 Versions of SUP geared motors

The following types of helical – bevel geared motor can be supplied:

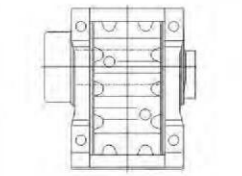
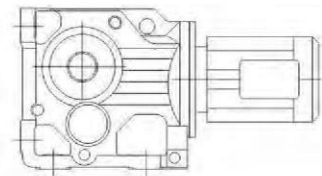


K..
Foot – mounted helical – bevel geared motor

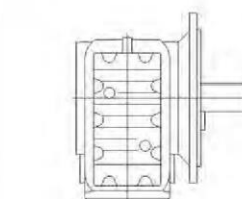
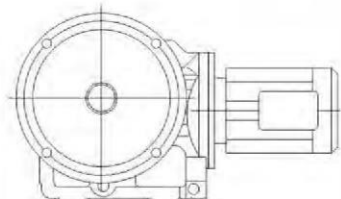


K..B
Foot – mounted helical – bevel geared motor with hollow shaft.

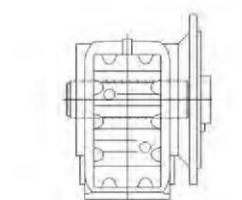
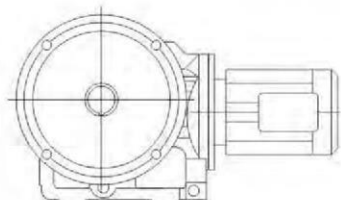
KV..B
Foot – mounted helical – bevel geared motor with hollow shaft and splined hollow shaft to DIN 5480



KH..B
Foot – mounted helical – bevel geared motor with hollow shaft and shrink disk

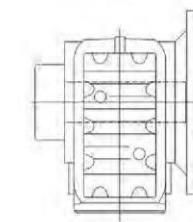
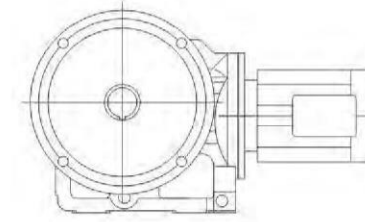


KF..
Helical – bevel geared motor in B5 flange – mounted version

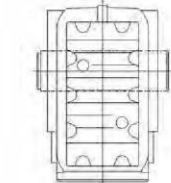
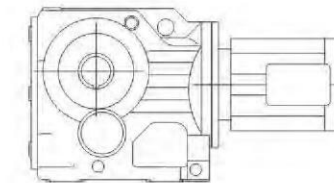


AF..
Helical – bevel geared motor in B5 flange – mounted version with hollow shaft.

KVF..
Helical – bevel geared motor in B5 flange – mounted version with hollow shaft and splined hollow shaft to DIN 5480.

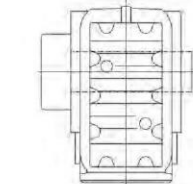
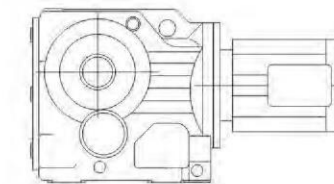


KHF..
Helical – bevel geared motor in B5 flange – mounted version with hollow shaft and shrink disk

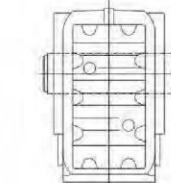
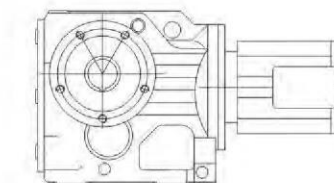


KA..
Helical – bevel geared motor with hollow shaft

KV..
Helical – bevel geared motor with hollow shaft and splined hollow shaft to DIN 5480.

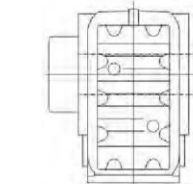
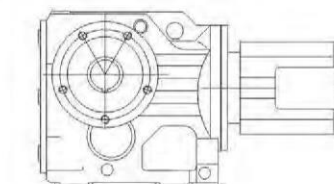


KH..
Helical – bevel geared motor with hollow shaft and shrink disk



AZ..
Helical – bevel geared motor in B14 flange – mounted version with hollow shaft

VZ..
Helical – bevel geared motor in B14 flange – mounted version with hollow shaft and splined hollow to DIN 5480.



KHZ..
Helical – bevel geared motor in B14 flange – mounted version with hollow shaft and shrink disk

K127R87, K157R97, K157R107 $n_e=1400$ 1/min

K127R87		13000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
536	2.6	13000	79200
473	3.0	13000	79200
418	3.3	13000	79200
367	3.8	13000	79200
330	4.2	13000	79200
287	4.9	13000	79200
253	5.5	13000	79200
213	6.6	13000	79200
200	7.0	13000	79700
166	8.4	13000	79700
147	9.5	13000	79700

K157R97		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
17679	0.08	18000	112200
15729	0.09	18000	112200
14721	0.10	18000	112200
13097	0.11	18000	112200
11368	0.12	18000	112200
10114	0.14	18000	112200
8718	0.16	18000	112200
7734	0.18	18000	112200
6881	0.20	18000	112200
5931	0.24	18000	112200
5074	0.28	18000	112200
4514	0.31	18000	112200
3979	0.35	18000	112200
3516	0.40	18000	112200
3051	0.46	18000	112200
2610	0.54	18000	112200
2322	0.60	18000	112200
2029	0.69	18000	112200
1805	0.78	18000	112200
1659	0.84	18000	112200
1365	1.0	18000	112200
1229	1.1	18000	112200
1093	1.3	18000	112200
942	1.5	18000	112200
854	1.6	18000	112200
756	1.9	18000	112200
661	2.1	18000	112200
567	2.5	18000	112200
504	2.8	18000	112200
434	3.2	18000	112200
379	3.7	18000	112200
333	4.2	18000	112200
291	4.8	18000	112200

K157R107		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
385	3.6	18000	112200
325	4.3	18000	111200
299	4.7	18000	111200
253	5.5	18000	112200
230	6.1	18000	111200
213	6.6	18000	111200
187	7.5	18000	112200
157	8.9	18000	111200
122	11	18000	106500
107	13	18000	100700

K167/187R97, K167/187R107 $n_e=1400$ 1/min

K167R97		32000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
19723	0.07	32000	150000
17406	0.08	32000	150000
15000	0.09	32000	150000
13238	0.11	32000	150000
11573	0.12	32000	150000
10264	0.14	32000	150000
8628	0.16	32000	150000
6562	0.21	32000	150000
5355	0.26	32000	150000
4788	0.29	32000	150000
4079	0.34	32000	150000
3376	0.41	32000	150000
2755	0.51	32000	150000
2263	0.62	32000	150000
2182	0.64	32000	150000
1704	0.82	32000	150000
1408	0.99	32000	150000
1296	1.1	32000	150000
1101	1.3	32000	150000
944	1.5	32000	150000
843	1.7	32000	150000
757	1.8	32000	150000
632	2.2	32000	150000
561	2.5	32000	150000
481	2.9	32000	150000
423	3.3	32000	150000
369	3.8	32000	150000

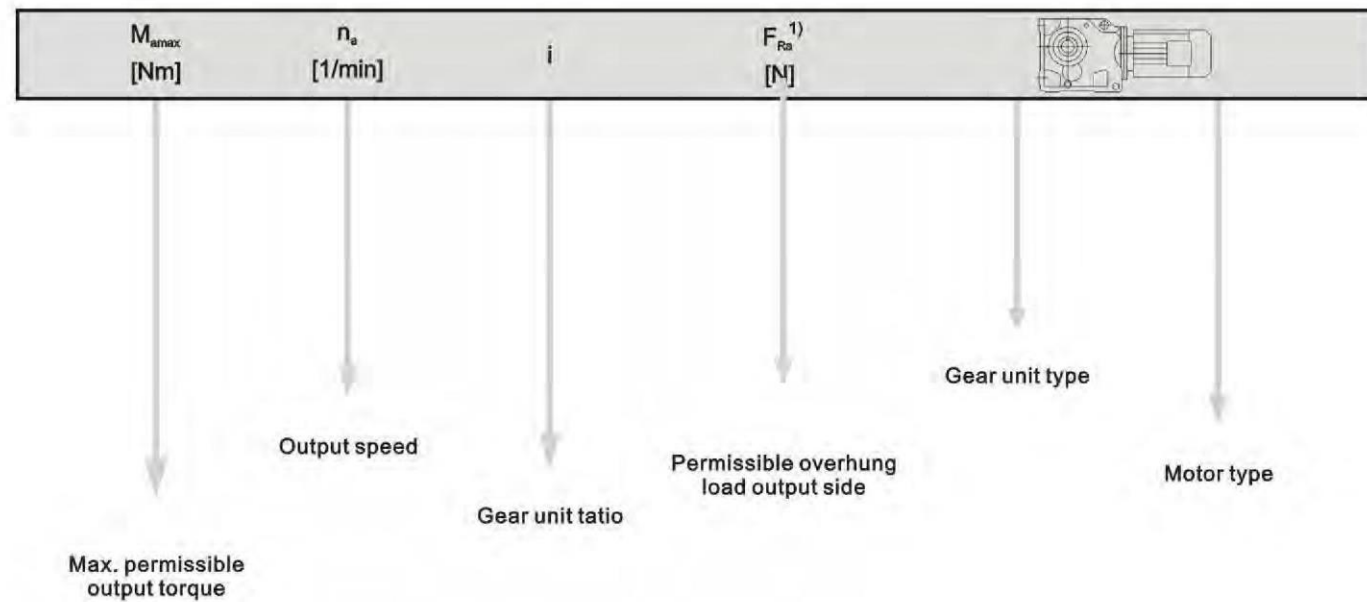
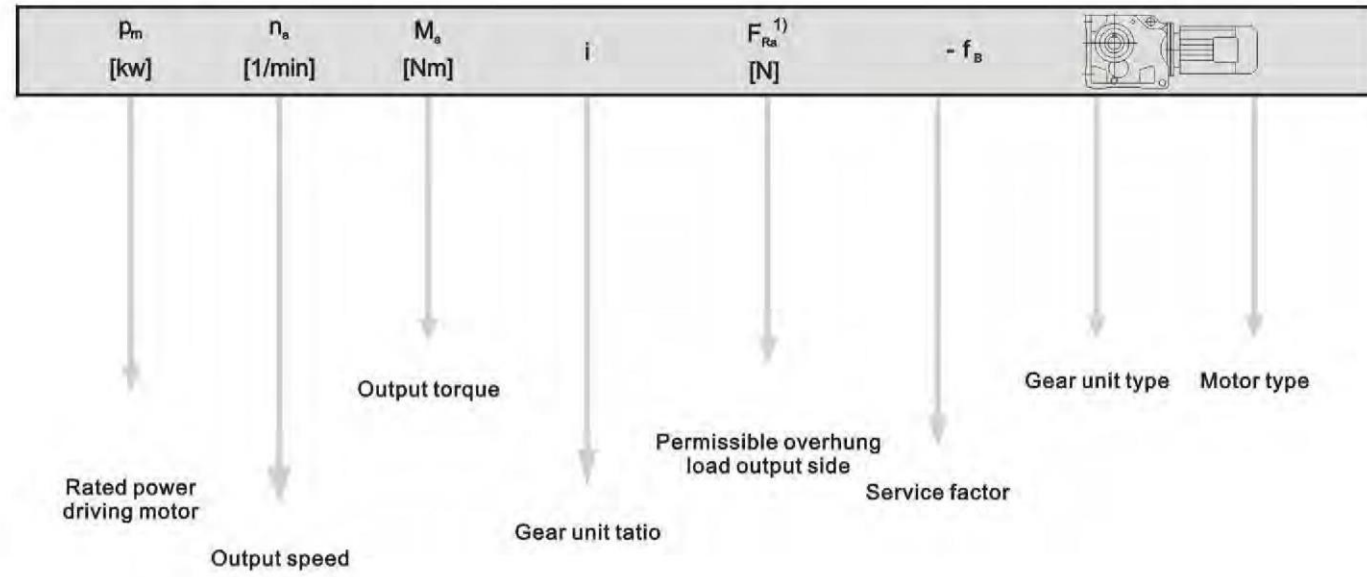
K167R107		32000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
318	4.4	32000	150000
278	5.0	32000	150000
244	5.7	32000	150000
213	6.6	32000	150000
206	6.8	32000	150000
180	7.8	32000	150000
160	8.8	32000	150000
135	10	32000	150000
118	12	32000	150000

K187R97		50000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
32625	0.04	50000	190000
27165	0.05	50000	190000
24353	0.06	50000	190000
19144	0.07	50000	190000
16978	0.08	50000	190000
14272	0.10	50000	190000
13116	0.11	50000	190000
11647	0.12	50000	190000
10413	0.13	50000	190000
9363	0.15	50000	190000
8126	0.17	50000	190000
7343	0.19	50000	190000
6747	0.21	50000	190000
5991	0.23	50000	190000
5358	0.26	50000	190000
4817	0.29	50000	190000
4370	0.32	50000	190000
3609	0.39	50000	190000
3062	0.46	50000	190000
2818	0.50	50000	190000
2519	0.56	50000	190000
2268	0.62	50000	190000
2054	0.68	50000	190000
1821	0.77	50000	190000
1605	0.87	50000	190000
1395	1.0	50000	190000
1196	1.2	50000	190000
1046	1.3	50000	190000
945	1.5	50000	190000
738	1.9	50000	190000
621	2.3	50000	190000
527	2.7	50000	190000

K187R107		50000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
835	1.7	50000	190000
729	1.9	50000	190000
622	2.3	50000	190000
520	2.7	50000	190000
454	3.1	50000	190000
355	3.9	50000	190000
261	5.4	50000	190000
221	6.3	50000	190000
193	7.3	50000	190000
163	8.6	50000	190000

7.4 Selection table

Selection table geared motors



Cuttine

※ EEXE motor is optional.

1) Overhung load specified for foot – mounted gear unit with solid shaft

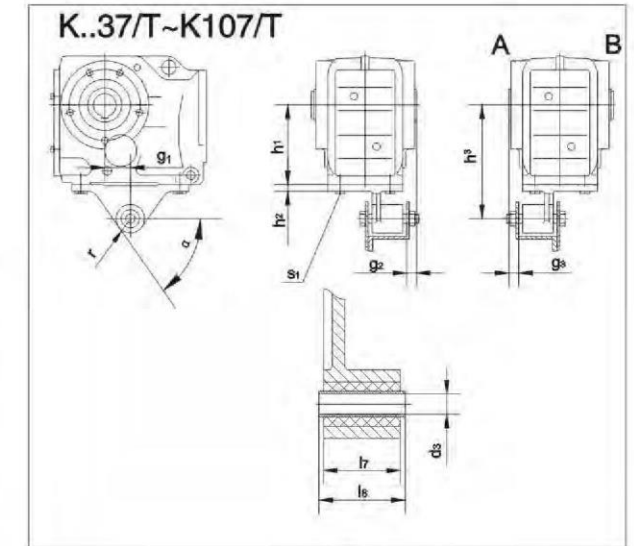
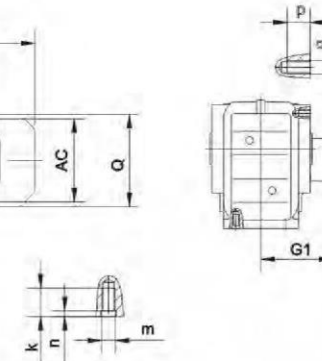
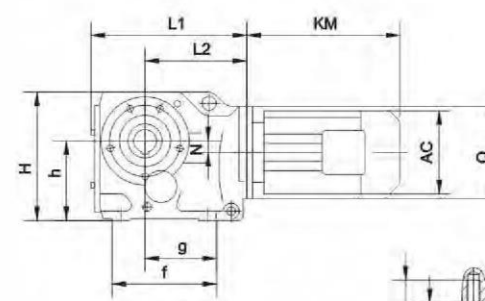
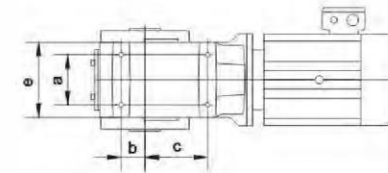
Notice:

In drives for particularly low output speeds (multi – stage geared motors), the motor power must be limited according to maximum permitted output torque of the gear unit.

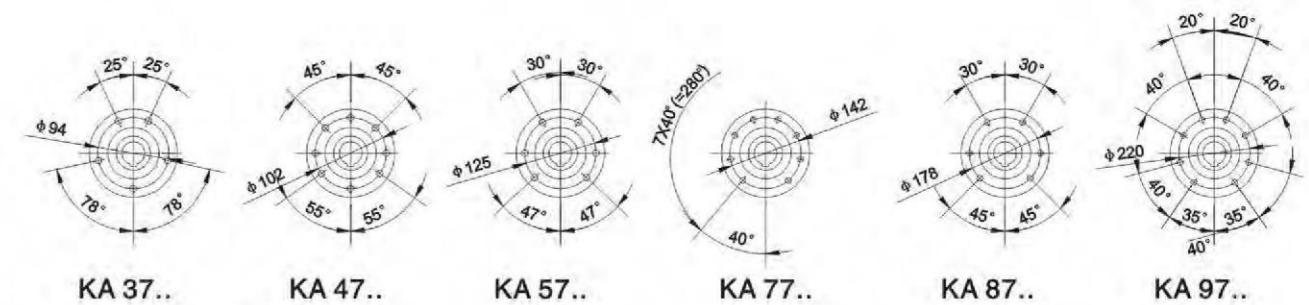
Output speed n_2 [r/min]	Output torque T_a [N·m]	Ratio i	Permitted overhung load FR2 [N]	Service factor f_B	Model
0.12kW					
0.08	11800	17550	79800	1.10	
0.09	10700	16006	80400	1.20	
0.09	9880	14975	80700	1.30	K
0.11	8010	12440	81500	1.60	KF
0.13	6920	10915	81800	1.90	KA
0.14	6320	9819	82000	2.1	KAF
0.16	5220	8443	82300	2.5	
0.18	4820	7482	82300	2.7	
0.10	9590	14311	65000	0.85	
0.11	8060	12211	65000	1.00	
0.13	6930	10677	65000	1.15	
0.14	6280	9524	65000	1.25	K
0.17	5410	8328	65000	1.50	KF
0.19	4720	7270	65000	1.70	KA
0.22	3760	6184	65000	2.1	KAF
0.24	3320	5662	65000	2.4	
0.27	3020	5138	65000	2.7	
0.32	2700	4359	65000	3.0	
0.17	5310	8054	39500	0.80	
0.20	4350	6970	40000	1.00	
0.23	3890	6027	40000	1.10	
0.26	3560	5391	40000	1.20	K
0.30	2950	4669	40000	1.45	KF
0.34	2640	4082	40000	1.65	KA
0.39	2320	3583	40000	1.85	KAF
0.44	2040	3108	40000	2.1	
0.50	1720	2757	40000	2.5	
0.57	1580	2419	40000	2.7	
0.65	1370	2123	40000	3.2	K
0.74	1220	1856	40000	3.5	KF
0.85	1000	1625	40000	4.3	KA
0.96	860	1430	40000	5.0	KAF
1.1	830	1261	40000	5.2	
1.2	725	1102	40000	5.9	
0.26	3380	5240	26300	0.80	
0.30	2850	4562	27100	0.95	K
0.34	2610	4037	27400	1.05	KF
0.38	2330	3609	27700	1.15	KA
0.44	1990	3107	28100	1.35	KAF
0.51	1700	2728	28300	1.60	
0.58	1500	2371	28500	1.80	
0.66	1380	2088	28600	1.95	
0.74	1220	1854	28700	2.2	
0.83	1090	1657	28700	2.5	K
0.97	930	1415	28800	2.9	KF
1.1	800	1229	28900	3.4	KA
1.3	695	1078	28900	3.9	KAF
1.5	585	951	29000	4.6	
1.6	505	837	29000	5.4	
1.9	435	726	29000	6.2	
0.51	1790	2717	13400	0.85	K
0.58	1510	2370	15700	1.05	KF
					KA
					KAF
0.67	1380	2050	16500	1.10	
0.78	1180	1772	17500	1.30	
0.91	1010	1514	18300	1.55	
0.99	920	1388	18600	1.70	K
1.1	810	1218	19000	1.90	KF
1.3	710	1053	19200	2.2	KA
1.5	620	924	19500	2.5	KAF
1.7	550	815	19600	2.8	
2.0	440	709	19800	3.5	
2.2	385	622	19900	4.0	
0.12kW					
1.0	930	1351	9230	0.90	
1.2	795	1171	10500	1.05	
1.3	695	1034	11300	1.20	
1.5	585	903	12000	1.40	
1.7	545	793	12200	1.50	
2.0	440	697	12700	1.85	K
2.2	390	613	12900	2.1	KF
2.5	340	542	13000	2.4	KA
2.9	315	471	13000	2.6	KAF
3.3	265	420	13000	3.1	
3.8	235	361	13000	3.5	
4.3	210	323	13000	3.9	
4.9	176	279	13000	4.7	
5.6	155	246	13000	5.3	
6.3	134	217	13000	6.1	
1.5	585	906	7750	1.05	
1.7	525	806	8220	1.15	
2.0	445	699	8690	1.35	
2.2	390	615	8930	1.55	
2.5	340	544	9120	1.75	
2.9	310	473	9250	1.95	
3.3	265	421	9420	2.3	K
3.8	235	362	9510	2.5	KF
4.3	210	319	9610	2.9	KA
4.9	176	280	9710	3.4	KAF
5.6	155	246	9770	3.9	
6.4	135	215	9830	4.4	
7.2	122	192	9860	4.9	
2.2	430	639	2520	0.95	
2.5	370	552	6350	1.10	K
2.8	315	495	6930	1.25	KF
3.2	280	426	7240	1.45	KA
3.7	235	375	7560	1.70	KAF
4.2	215	327	7670	1.85	
4.8	189	289	7830	2.1	
4.0	235	346	4840	0.85	
4.5	200	304	5640	1.00	
5.2	182	267	5830	1.10	K
5.9	157	234	6060	1.25	KF
6.7	138	205	6220	1.45	KA
7.6	120	181	6330	1.65	KAF
8.6	105	160	6420	1.90	
10	88	136	6500	2.3	
6.2	184	144.79	13000	4.4	K
					KF
					KA
					KAF
6.2	185	145.14	9680	3.2	
7.3	158	123.85	9760	3.8	K
8.3	138	108.29	9820	4.3	KF
8.8	131	102.88	9840	4.6	KA
10	115	90.26	9880	5.2	KAF
12	98	76.56	9930	6.2	
9.5	121	145.14	9870	5.0	K
11	103	123.85	9920	5.8	KF
13	90	108.29	9950	6.7	KA
13	85	102.88	9960	7.0	KAF
15	75	90.26	9990	8.0	
6.8	168	131.87	7930	2.4	K
7.4	155	121.48	7990	2.6	KF
8.6	133	104.37	8070	3.0	KA
					KAF
10	110	131.87	8140	3.7	K
11	101	121.48	8170	4.0	KF
					KA
					KAF

size	a b c	e1 e2 f	g1 g2 g3	h1 h2	j	k	m n	Shaft dimension				
								d	l	l1 l2	S	t u
K37..	115 110 100	150 143 120	32 28 60	100-0.5 63-0.5	16	11	37 38	25k6	50	5 40	M10	28 8
K47.. KA47B..	130 130 120	170 162 145	37 35 75	112-0.5 71-0.5	18	11	37 32	30k6	60	3.5 50	M10	33 8
K57.. KA57B..	150 130 130	190 172 157	45 30 88	132-0.5 80-0.5	21	13.5	43 40	35k6	70	7 56	M12	38 10
K67.. KA67B..	160 120 140	203 170 170	45 30 101	140-0.5 90-0.5	24	13.5	43 45	40k6	80	5 70	M16	43 12
K77.. KA77B..	200 150 165	263 208 200	55 40 123.5	180-0.5 112-0.5	27	17.5	55 55	50k6	100	10 80	M16	53.5 14
K87.. KA87B..	233 180 180	305 260 230	70 55 150	212-0.5 132-0.5	32	22	67 75	60m6	120	5 110	M20	64 18
K97.. KA97B..	295 240 240	372 294 290	75 75 171	265-1 160-0.5	36	26	82 60	70m6	140	7.5 125	M20	74.5 20
K107.. KA107B..	360 280 270	448 380 340	95 95 212	315-1 200-0.5	40	33	98 100	90m6	170	5 160	M24	95 25
K127.. KA127B..	420 350 330	526 440 400	110 115 253	375-1 225-0.5	45	39	111 100	110m6	210	15 180	M24	116 28
K157.. KA157B..	500 380 420	634 480 500	130 140 247	450-1 280-1	50	39	130 100	120m6	210	5 200	M24	127 32

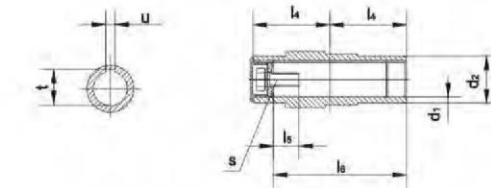
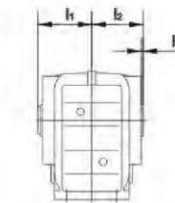
KA37..~KA107



size	hollow shaft dimension							H	L1 L2	L3	N	Q
	d1	d2	l3 l4	l5 l6	l7 l8	s1	t1 u1					
K37..	-	-	-	-	-	-	-	165	110 60	139	8.5	120
K47.. KA47B..	35 ^{H7}	50	78 75	15 3	22 132	M12x30	38.3 10	185	135 72	166	7.2	160
K57.. KA57B..	40 ^{H7}	55	86 83	18 3	29 142	M16x40	43.3 12	217	153 80	173	13.1	160
K67.. KA67B..	40 ^{H7}	55	93 90	20 3.5	29 156	M16x40	43.3 12	228	171 86.5	179	20	160
K77.. KA77B..	50 ^{H7}	70	108 105	22.5 4	32 183	M16x45	53.8 14	288	206 101	202	31.3	200
K87.. KA87B..	60 ^{H7}	85	123 120	30 4	36 210	M20x50	64.4 18	340	240 116	257	25.9	250
K97.. KA97B..	70 ^{H7}	95	153 150	30 4	34 270	M20x50	74.9 20	417	291 146	277	32.3	300
K107.. KA107B..	90 ^{H7}	118	178 175	40 2.5	40 313	M24x60	95.4 25	503	347 175	341	52	350
K127.. KA127B..	100 ^{H7}	135	208 205	40 2.5	38 373	M24x60	106.4 28	592	418 203	390	53	450
K157.. KA157B..	120 ^{H7}	155	253 250	40	36 460	M24x60	127.4 32	705	457 250	426	71.7	550

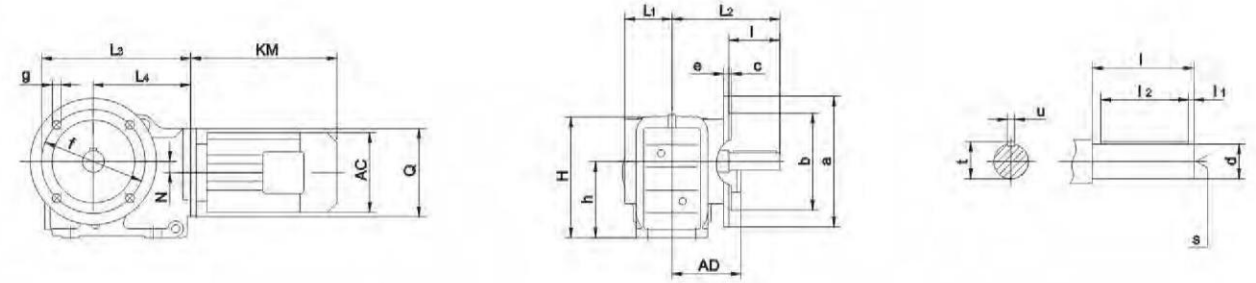


KA 37.. KA 47.. KA 57.. KA 77.. KA 87.. KA 97..



size	a b c	e f g	h	k m n	p q	Hollow shaft dimension				Torque arm form				H L ₁ L ₂	N Q
						d ₁ d ₂	l ₁ l ₂ l ₃	l ₄ l ₅ l ₆	s t u	g ₁ g ₂ g ₃	h ₁ h ₂ h ₃	d ₃ l ₇ l ₈	r S ₁ ∞		
KA 37.. K..37/T..	60	100	100-0.5	20	12 M8	30 ^{H7}	63	60	M10	23.5	100-0.5	10.4 ^{+0.1}	22.5	164	8.5 120
	35	147		M10		45	2.5	105	8	20	140 ^{+0.2} -0.7	36-0.3	60°	210	
	82	97		4		20									
KA 47.. K..47/T..	70	110	112-0.5	20	12 M8	35 ^{H7}	78	75	M12	30	112-0.5	10.4 ^{+0.1}	22.5	185	7.2 160
	40	170		M10		50	75	22	38.3	20	160 ^{+0.2} -0.7	36-0.3	55°	243	
	100	115		4		20									
KA 57.. K..57/T..	88	122	132-0.5	25	20 M12	40 ^{H7}	86	83	M16	40	132-0.5	16.4 ^{+0.08}	29	215	13.1 160
	47	182		M12		55	83	29	43.3	18	192 ^{+0.2} -0.7	60-0.3	55°	269	
	105	120		5		20									
KA 67.. K..67/T..	88	130	140-0.5	25	20 M12	40 ^{H7}	94	90	M16	45	140-0.5	16.4 ^{+0.08}	29	226	20 160
	42	182		M12		55	90	29	43.3	25	200 ^{+0.2} -0.7	60-0.3	55°	274	
	110	125		5		20									
KA 77.. K..77/T..	102	154	180-0.5	32	20 M12	50 ^{H7}	108	105	M16	52.5	180-0.5	16.4 ^{+0.08}	29	286	31.3 200
	48	204		M16		70	105	32	53.8	25	250 ^{+0.2} -0.7	60-0.3	60°	312	
	122	139		6		20									
KA 87.. K..87/T..	118	170	212-0.5	32	26 M16	60 ^{H7}	123	120	M20	60	212-0.5	25 ^{+0.08}	41	338	25.9 250
	65	280		M16		85	120	36	64.4	30	300 ^{+0.2} -0.7	80-0.3	60°	390	
	160	190		6		26									
KA 97.. K..97/T..	160	226	265-1	36	26 M16	70 ^{H7}	153	150	M20	70	265-1	25 ^{+0.08}	41	414	32.3 300
	83	298		M20		95	150	34	74.9	40	350 ^{+0.2} -1.2	100-0.3	50°	435	
	165	190		6		26									
KA 107.. K..107/T..	190	266	315-1	44	- 118	90 ^{H7}	178	175	M24	74	315-1	25 ^{+0.08}	41	500	52 350
	100	370		M24		8	175	40	95.4	45	450 ^{+0.5} -1.5	100-0.3	55°	537	
	190	230		8		-	2.5	313	25	45					

KF37..~KF157..



KAF37..~KAF157..

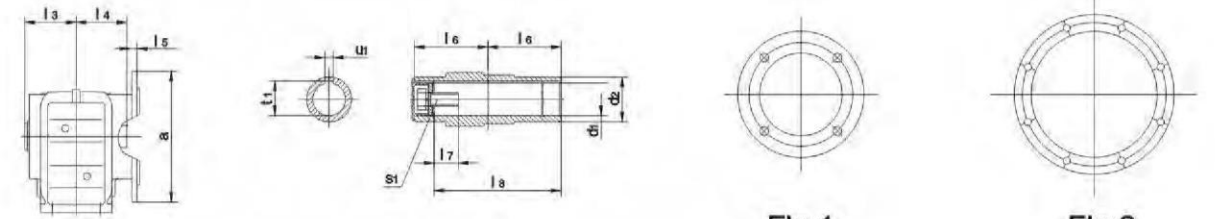


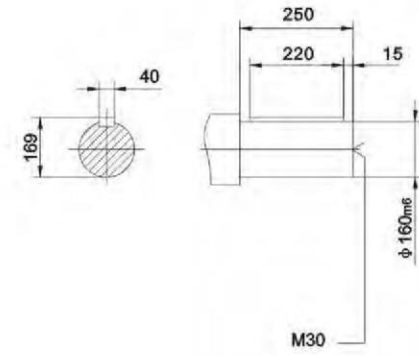
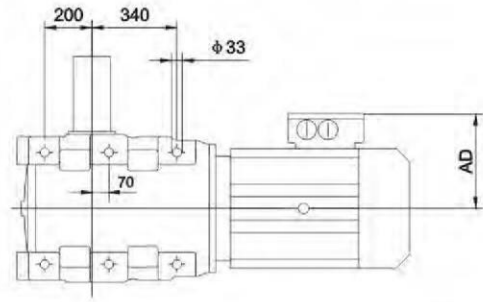
Fig.1

Fig.2

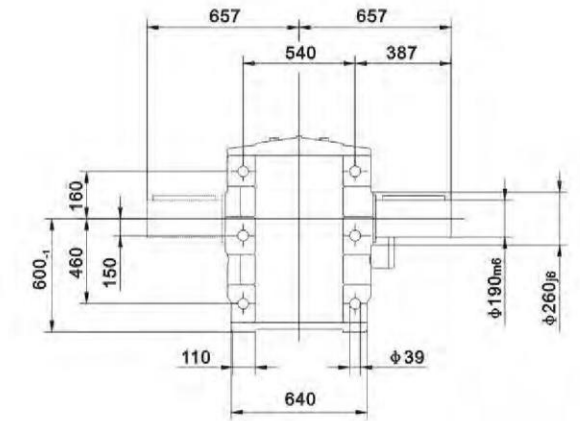
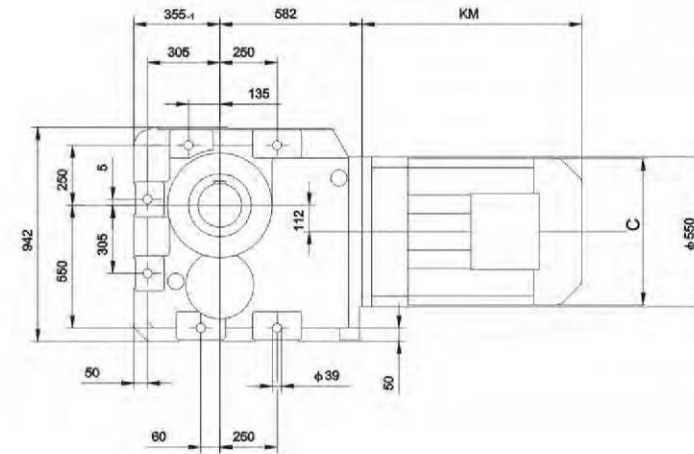
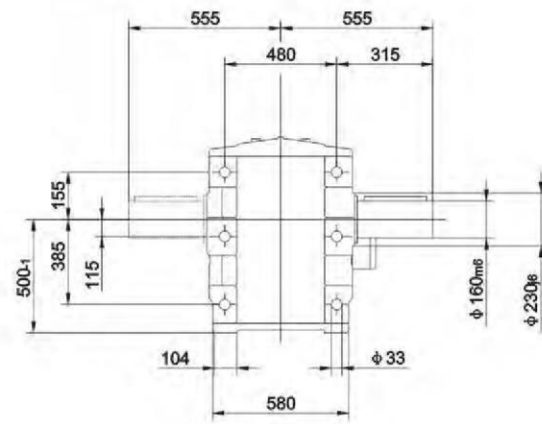
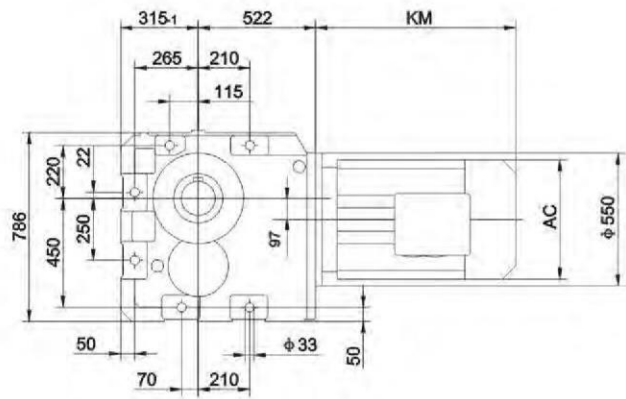
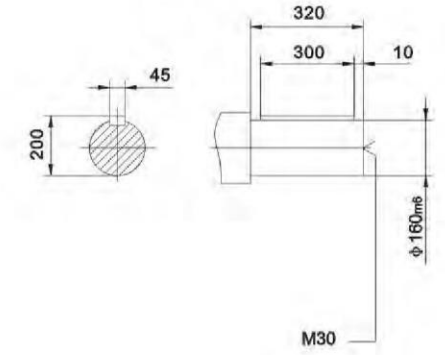
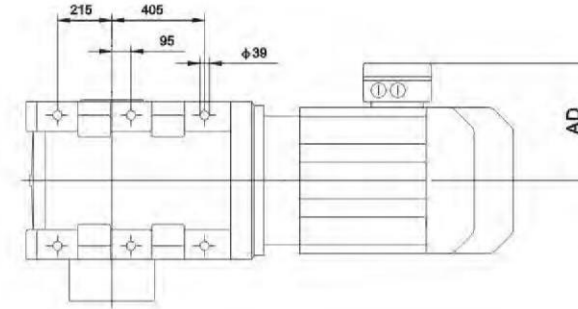
Flange form

Model	Flange form	a b	c e	f g h	Shaft dimension				Hollow Shaft dimension				H	L ₁ L ₂ L ₃	L ₄ N Q	
					d	l ₁ l ₂	S	t u	d ₁ d ₂	l ₃ l ₄ l ₅	l ₆ l ₇ l ₈	S ₁				t ₁ u ₁
KF37.. KAF37..	Fig.1	160	3.5	130	25k6	5	M10	28	30 ^{H7}	63	60	M10 x 25	33.3	164	57.5	139
		110 ₆	10	9	50	40	8	45	24	105	8	164	134	8.5	210	120
KF47.. KAF47..	Fig.1	200	3.5	165	30k6	3.5	M10	33	35 ^{H7}	78	75	M12 x 30	38.3	185	72	166
		130 ₆	10	11	60	50	8	50	25	132	10	185	160	7.2	243	160
KF57.. KAF57..	Fig.1	250	4	215	35k6	7	M12	38	40 ^{H7}	86	83	M16 x 40	43.3	215	80	173
		180 ₆	15	13.5	70	56	10	55	23.5	142	12	215	177	13.1	269	160
KF67.. KAF67..	Fig.1	250	4	215	40k6	5	M16	43	40 ^{H7}	94	90	M16 x 40	43.3	226	86.5	179
		180 ₆	15	13.5	80	70	12	55	23	156	12	226	193	20	274	160
KF77.. KAF77..	Fig.1	300	4	265	50k6	80	M16	53.5	50 ^{H7}	108	105	M16 x 45	53.8	286	101	202
		230 ₆	16	13.5	100	10	14	70	37	183	14	286	242	31.3	312	200
KF87.. KAF87..	Fig.1	350	5	300	60m6	5	M20	64	60 ^{H7}	123	120	M20 x 50	64.4	338	138	257
		250 ₆	18	17.5	120	110	18	85	30	210	18	338	270	25.9	390	250
KF97.. KAF97..	Fig.2	450	5	400	70m6	7.5	M20	74.5	70 ^{H7}	153	150	M20 x 50	74.9	414	171	277
		350 ₆	22	17.5	140	125	20	95	41.5	270	20	414	332	32.3	435	300
KF107.. KAF107..	Fig.2	450	5	400	90m6	5	M24	95	90 ^{H7}	178	175	M24 x 60	95.4	500	175	341
		350 ₆	25	17.5	170	160	25	118	41	313	25	500	386	52	537	350
KF127.. KAF127..	Fig.2	550	5	500	110m6	15	M24	116	100 ^{H7}	208	205	M24 x 60	106.4	592	203	390
		450 ₆	22	17.5	210	180	28	135	51	373	28	592	466	53	615	450
KF157.. KAF157..	Fig.2	660	6	600	120m6	5	M24	127	120 ^{H7}	253	250	M24 x 60	127.4	705	253	705
		550 ₆	28	22	210	200	32	155	60	460	32	705	520	71.7	706	550

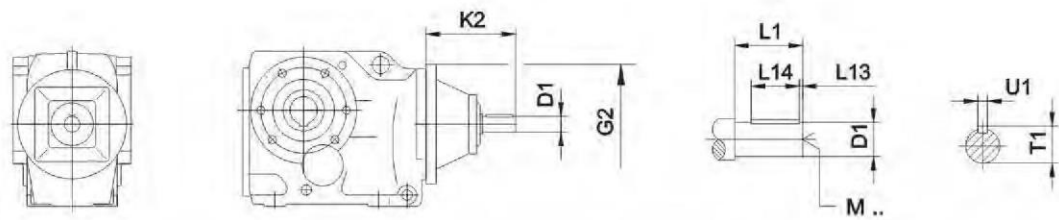
K167..



K187..



K..AD..



		G2	K2	D1	L1	L13	L14	T1	U1	M
QL..37	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
K..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
K..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
K..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16
K..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
K..127	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
	AD8		383	70	140	15	110	74.5	20	M20
K..157 K..167 K..187	AD5	550	258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20

K..AM..

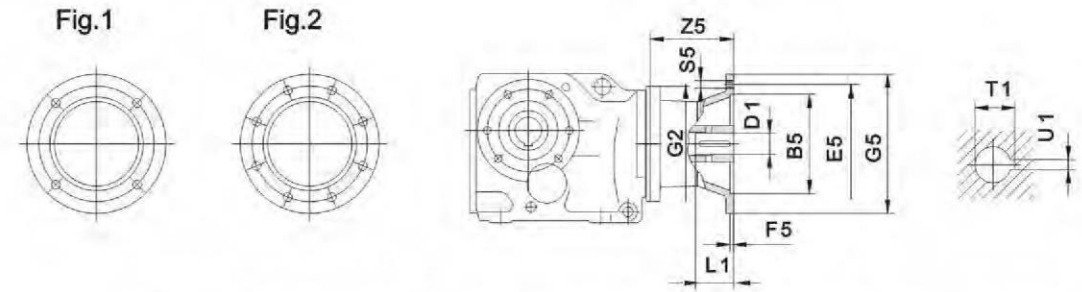


		Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1					
K..37	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4					
	AM71 ¹⁾		110	130			14			30	16.3	5						
	AM80 ¹⁾		130	165			4.5			200	M10	106	19	40	21.8	6		
	AM90 ¹⁾												24	50	27.3	8		
K..47	AM63	1	95	115	3.5	160	140	M8	66	11	23	12.8	4					
	AM71		110	130			14			30	16.3	5						
	AM80		130	165			4.5			200	M10	99	19	40	21.8	6		
	AM90												24	50	27.3	8		
	AM100 ¹⁾		180	215			5			250	M12	134	28	60	31.3	8		
	AM112 ¹⁾																	
K..77	AM63	1	95	115	3.5	200	140	M8	60	11	23	12.8	4					
	AM71		110	130			14			30	16.3	5						
	AM80		130	165			4.5			200	M10	92	19	40	21.8	6		
	AM90												24	50	27.3	8		
	AM100 ¹⁾		180	215			5			250	M12	126	28	60	31.3	8		
	AM112 ¹⁾																	
	AM132S ¹⁾		230	265			5			300	M12	179	38	80	41.3	10		
	AM132M ¹⁾																	
AM132ML ¹⁾																		
K..87	AM80	1	130	165	4.5	250	200	M10	87	19	40	21.8	6					
	AM90						250			M12	121	28	60	31.3	8			
	AM100											300	M12	174	38	80	41.3	10
	AM112																	
	AM132S AM132M AM132ML						250			300	6				350	M16	232	42
	AM160 ¹⁾											48	51.8	8				
	AM180 ¹⁾																	
K..97	AM100	1	180	215	5	300	250	M12	116	28	60	31.3	8					
	AM112																	
	AM132S AM132M AM132ML						230			265	5	300	M12	169	38	80	41.3	10
	AM160														250	300	6	350
	AM180						48			51.8	14							
	AM200 ¹⁾						300			350	7	400	268	55				
	AM225 ¹⁾						2			350	400	7	450	283	60	140	64.4	18

K..AM..

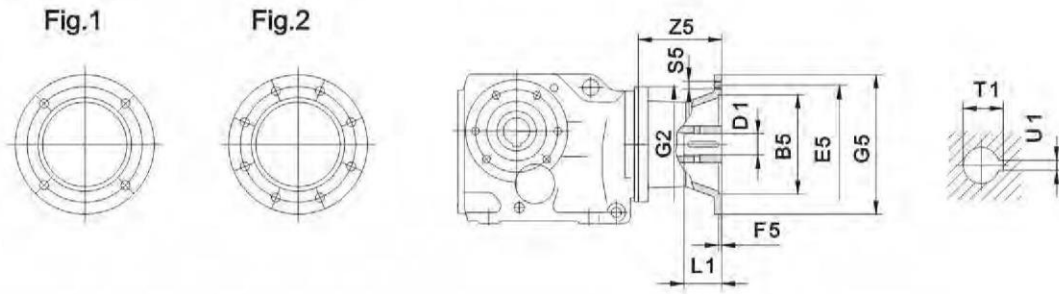
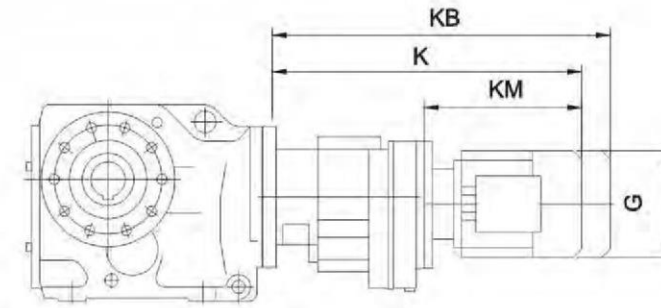


		Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
K..107	AM100	1	180	215	5	350	250	M12	110	28	60	31.3	8
	AM112												
	AM132S												
	AM132M												
	AM132ML	2	230	265	6	350	300	M12	163	38	80	41.3	10
	AM160												
	AM180												
	AM200												
AM225	2	350	400	7	350	450	M16	221	42	110	45.3	12	
AM200													
AM225													
AM225													
K..127	AM132S	1	230	265	5	450	300	M12	148	38	80	41.3	10
	AM132M												
	AM132ML												
	AM160												
	AM180	2	250	300	6	450	350	M16	206	42	110	45.3	12
	AM200												
	AM225												
	AM225												
AM250	2	300	350	7	450	400	M16	247	55	140	59.3	16	
AM225													
AM250													
AM280													
K..157 K..167 K..187	AM160	1	250	300	6	550	350	M16	198	42	110	45.3	12
	AM180												
	AM200	2	300	350	7	550	400	M16	239	55	140	59.3	16
	AM225												
	AM250												
	AM280												

K..R..



		G	K	KB	KM
K..37R17	D63..	155	368	425	193
	D71D	155	369	433	194
	D80..	155	419	483	244
K..47R17 K..67R37	D63..	155	400	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
K..57R37	D63..	155	410	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
	D90..	210	451	536	286
K..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
	D90..	210	443	528	286
K..87R57	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	210	495	559	279
	D90..	210	495	580	279
	D100M	210	545	630	329
	D100L	210	565	650	349
	D112M	240	602	682	355
K..97R57	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	490	575	279
	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364
K..107R77	D63..	155	470	527	223
	D71D	155	470	534	223
	D80..	155	520	584	273
	D90..	210	518	603	271
	D100M	210	568	653	321
	D100L	210	588	673	341
	D112M	240	602	682	355
	D132S	240	647	727	400
	D132M	285	699	811	452
	D132ML	285	719	831	472
	D160M	330	749	861	512

		G	K	KB	KM
QL..127R77	D63..	155	455	512	223
	D71D	155	455	519	223
	D80..	155	505	569	273
	D90..	210	503	588	271
	D100M	210	553	638	321
	D100L	210	573	658	341
	D112M	240	587	667	355
	D132S	240	632	712	400
	D132M	285	684	796	452
	D132ML	285	704	816	472
K..127R87	D160M	330	734	846	502
	D90..	210	547	632	267
	D100M	210	597	682	317
	DV100L	210	617	702	337
	D112M	240	630	710	350
	D132S	240	675	755	395
	D132M	285	727	839	447
	D132ML	285	747	859	467
	D160M	330	777	889	497
	DV160L	330	824	980	544
K..157R97	D180..	380	896	1052	616
	D80..	155	586	650	261
	D90..	210	586	671	261
	D100M	210	636	721	311
	D100L	210	656	741	331
	D112M	240	670	750	345
	D132S	240	715	795	390
	D132M	285	767	879	442
	D132ML	285	787	899	462
	D160M	330	817	929	492
K..157R107	D160L	330	864	1020	539
	D180..	380	936	1092	61
	D200..	420	1024	1180	699
	D100M	210	687	772	305
	D100L	210	707	792	325
	D112M	240	721	801	339
	D132S	240	766	846	384
	D132M	285	818	930	436
	D132ML	285	838	950	456
	D160M	330	868	980	486
K167R97 KH167R97	D160L	330	915	1071	533
	D180..	380	987	1143	605
	D200..	420	1075	1231	693
	D225..	470	1107	1263	725