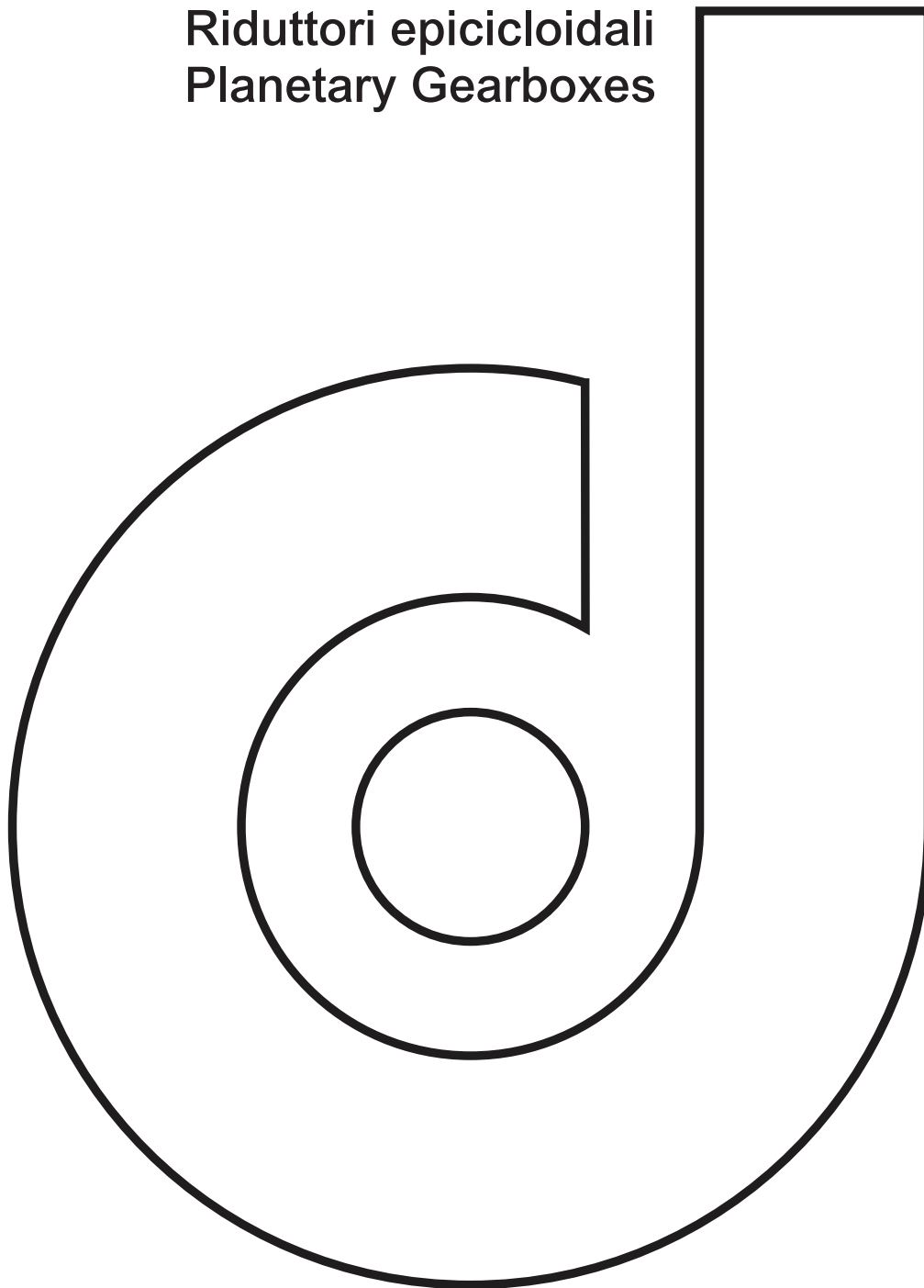
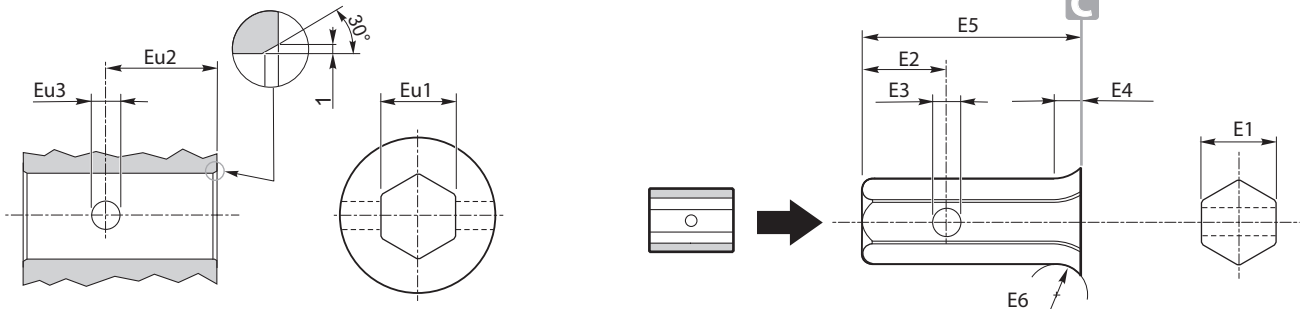
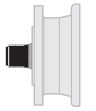


Riduttori epicicloidali
Planetary Gearboxes



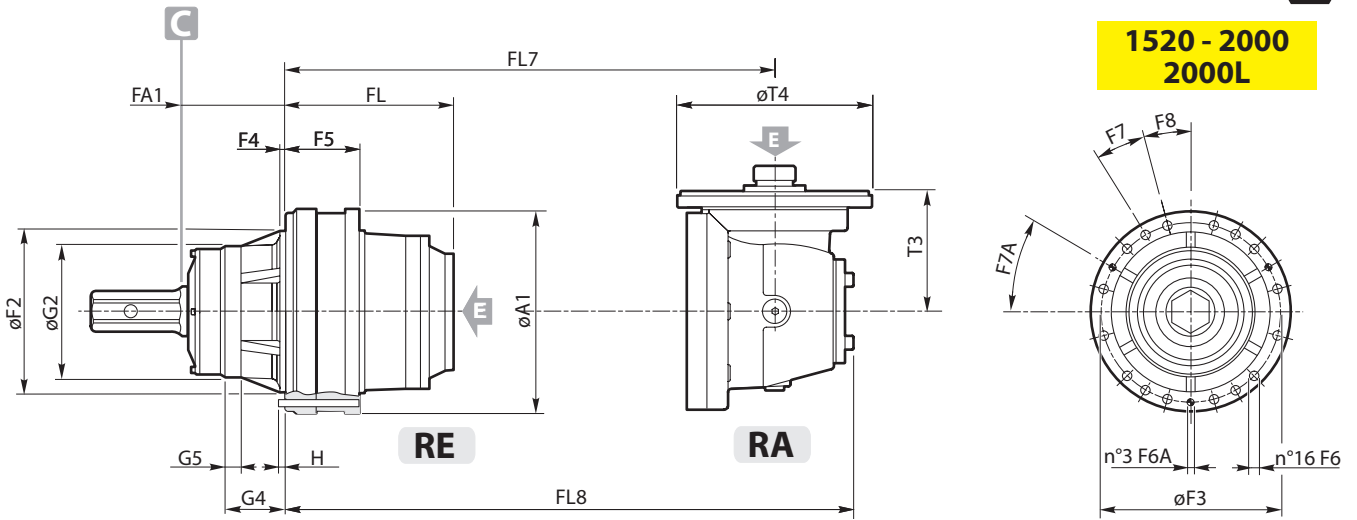


		RE - RA				
		1520	2000	2000L	2520	3000
HE	E1	70	70	70	100	100
	E2	65	65	65	170.5	170.5
	E3	Ø 22	Ø 22	Ø 22	Ø 32	Ø 32
	E4	25	25	25	20	20
	E5	142.5	142.5	142.5	160	160
	E6	r 30	r 30	r 30	r 35	r 35
	Eu1	70	70	70	100	100
	Eu2	50	50	50	65	65
	Eu3	Ø 22	Ø 22	Ø 22	Ø 32	Ø 32

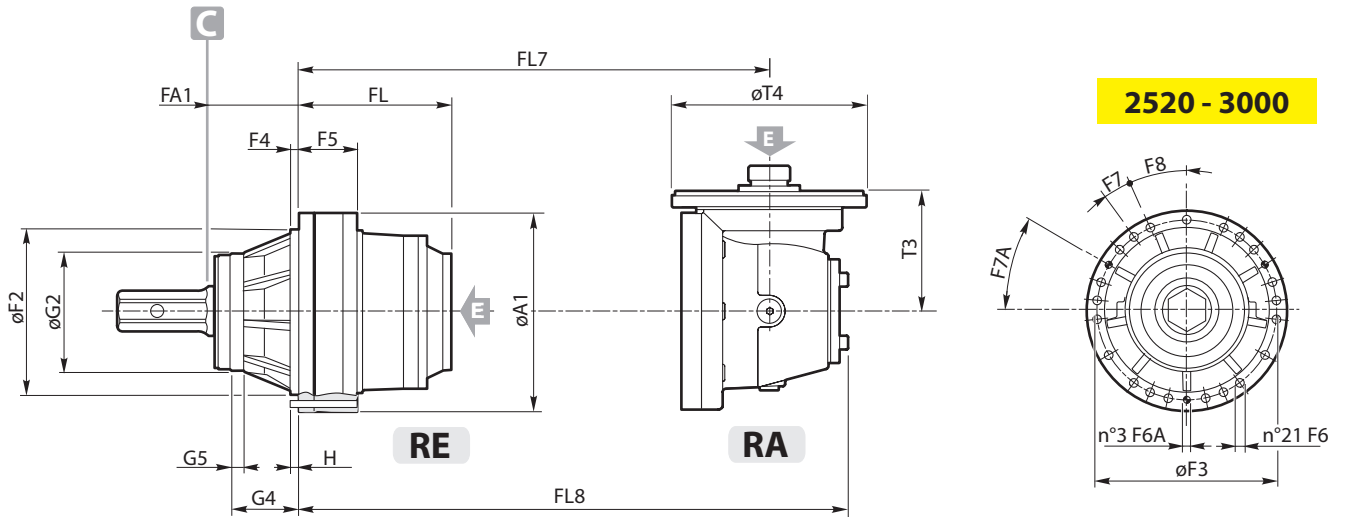
		RE - RA				
	stages	1520	2000	2000L	2520	3000
A1		350	350	350	409	409
FA1		176.5	176.5	176.5	210	210
F2		278 f7	278 f7	278 f7	340 f7	340 f7
F3		314	314	314	370	370
F4		10	10	10	17	17
F5		133	133	133	131	131
F6		Ø16.5	Ø16.5	Ø16.5	Ø17	Ø17
		M... - 12.9				
		M16	M16	M16	M16	M16
F6A		Ø12	Ø12	Ø12	Ø16	Ø16
F7		15°	15°	15°	12°	12°
F7A		30°	30°	30°	30°	30°
F8		15°	15°	15°	24°	24°
FL	1	107	107	107	98	98
	2	200	200	200	209	226
	3	264.5	258.5	264.5	276	311
	4	307.5	311	307.5	328.5	375.5
FL7	2	313	313	313	292	292
	3	322	322	322	351	368
FL8	2	345.5	380.5	345.5	398	433
	3	441	441	441	420	420
	4	413	413	413	459	476
G2		225 f7	225 f7	225 f7	245 f7	245 f7
G4		104.5	104.5	104.5	142	142
G5		27.5	27.5	27.5	29	29
H		15	15	15	29	29
T3	2	310	310	310	310	310
	3	171	171	171	227	227
	4	113.8	171	113.8	171	171
T4	2	293	293	293	293	293
	3	183	183	183	242	242
	4	184	183	184	183	183

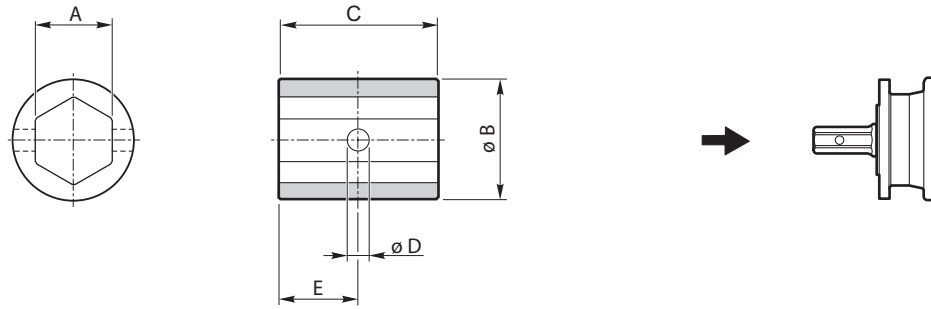


**1520 - 2000
2000L**



2520 - 3000

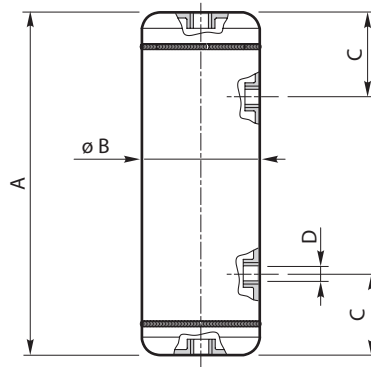


ES


	VERSION	A	ø B	C	ø D	E	CODE
RE 110-210	NE	50	80	108	18	54	40001831
RE 240	TE	50	80	108	18	54	40001831
RE 310-510-610	NE	50	80	108	18	54	40001831
RE 310-510-610	TE-TLE	70	100	115	—	—	40001813
RE 810	TE	70	100	115	—	—	40001813
RE 1020-1520-2000	TE	70	100	115	—	—	40001813

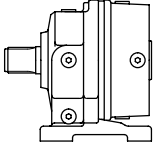
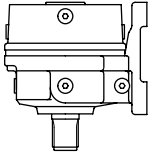
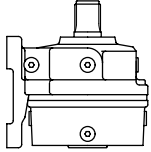
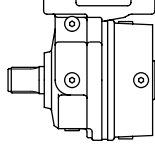
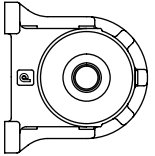
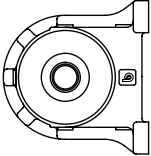
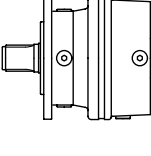
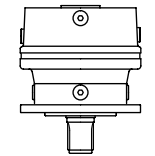
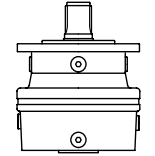
On demand for different size

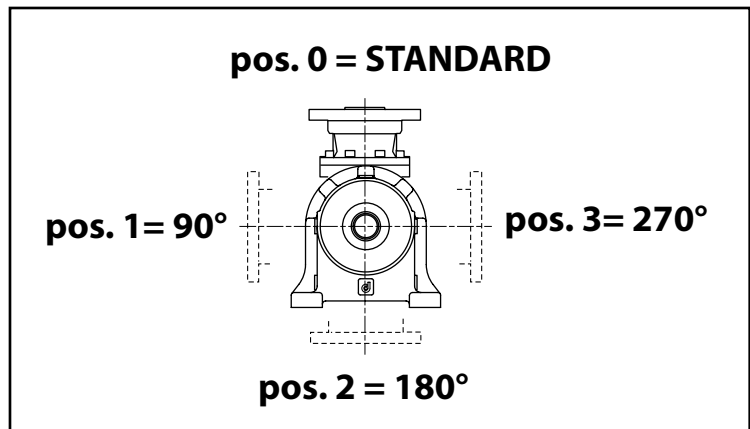
VE

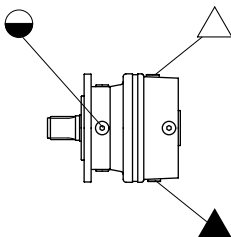
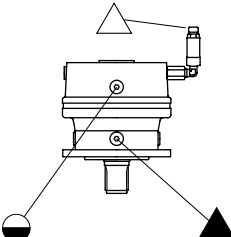
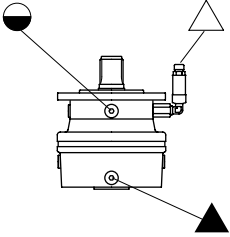
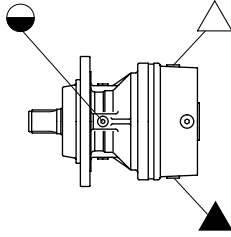
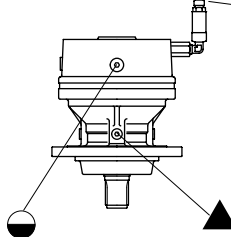
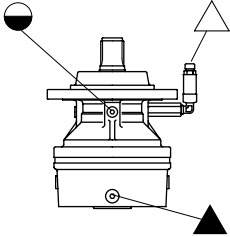
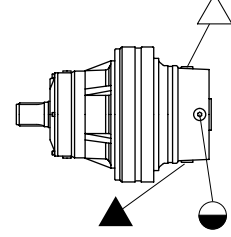
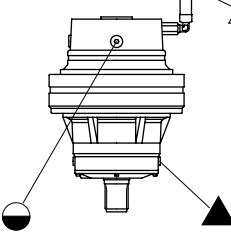
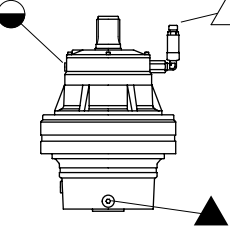
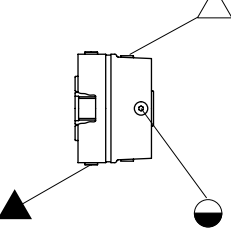
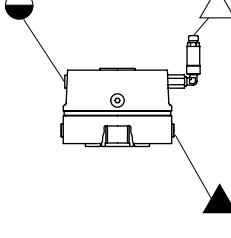
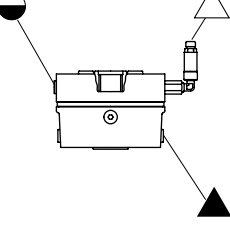
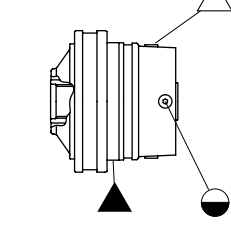
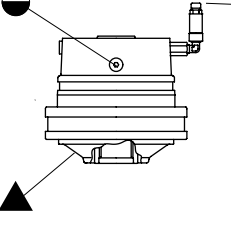
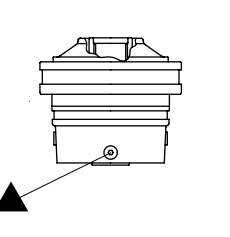


A	ø B	C	D	Capacity [Liters]	CODE
230	80	55	1/4" GAS (4)	1.0	40000712
330	130	85	1/4" GAS (4)	3.8	40000711
330	160	85	1/4" GAS (4)	5.5	40000710
510	150	85	1/4" GAS (4)	7.7	40000704
690	150	85	1/4" GAS (4)	10.7	40000706

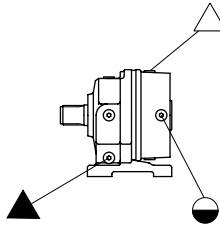
On demand for different size

			
B3	V5	V6	B8
			
B6	B7	B5	V1
			
V3			

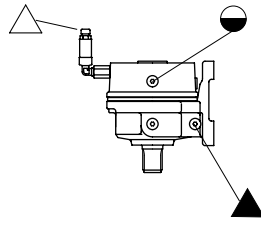


N	 <p>B5</p>	 <p>V1</p>	 <p>V3</p>
110÷1520			
T-TL-TR	 <p>B5</p>	 <p>V1</p>	 <p>V3</p>
110÷810			
H	 <p>B5</p>	 <p>V1</p>	 <p>V3</p>
1520÷130000			
F	 <p>B5</p>	 <p>V1</p>	 <p>V3</p>
110÷810			
F	 <p>B5</p>	 <p>V1</p>	 <p>V3</p>
1020÷1520			

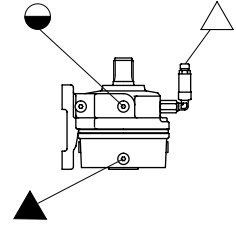
P



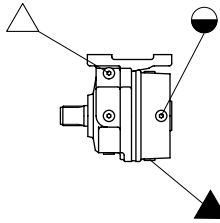
B3



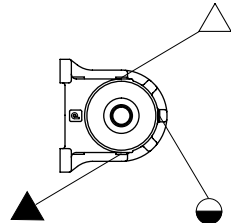
V5



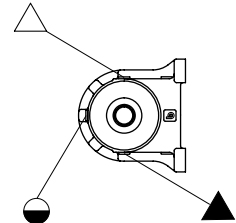
V6



B8



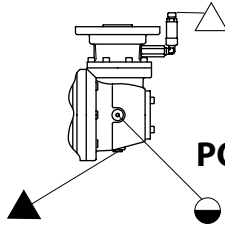
B6



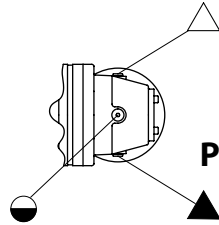
B7

110÷810

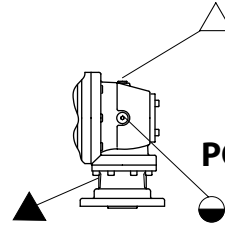
RAS



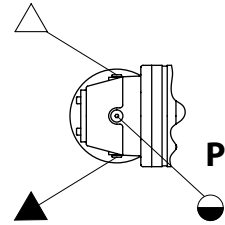
POS.0



POS.1



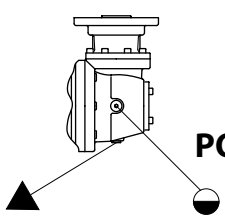
POS.2



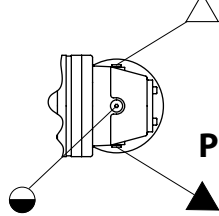
POS.3

110÷510

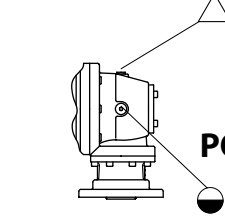
RAD



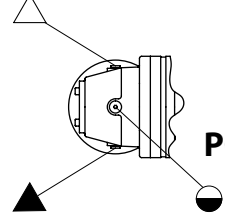
POS.0



POS.1


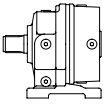
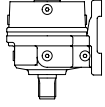
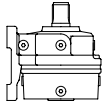
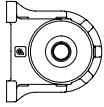
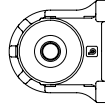
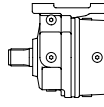
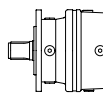
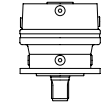
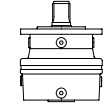


POS.2




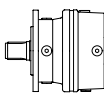
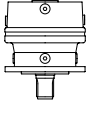
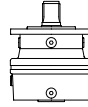
POS.3


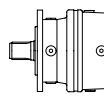
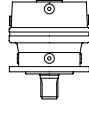
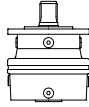
110÷510

[Liters]	B3	V5	V6	B6	B7	B8	B5	V1	V3
									
RE 111	0.7	1.4	1.4	0.7	1.4	1.4	0.4	0.8	0.8
RE 112	0.9	1.8	1.8	0.9	1.8	1.8	0.5	1	1
RE 113	1.1	2.2	2.2	1.1	2.2	2.2	0.7	1.4	1.4
RE 114	1.3	2.6	2.6	1.3	2.6	2.6	0.8	1.6	1.6
RE 211	0.8	1.6	1.6	0.8	1.6	1.6	0.5	1	1
RE 212	1	2	2	1	2	2	0.6	1.2	1.2
RE 213	1.2	2.4	2.4	1.2	2.4	2.4	0.7	1.4	1.4
RE 214	1.4	2.8	2.8	1.4	2.8	2.8	0.9	1.8	1.8
RE 241	0.8	1.6	1.6	0.8	1.6	1.6	0.5	1	1
RE 242	1	2	2	1	2	2	0.6	1.2	1.2
RE 243	1.2	2.4	2.4	1.2	2.4	2.4	0.7	1.4	1.4
RE 244	1.4	2.8	2.8	1.4	2.8	2.8	0.9	1.8	1.8
RE 311	1.4	2.8	2.8	1.4	2.8	2.8	1	2	2
RE 312	1.6	3.2	3.2	1.6	3.2	3.2	1.2	2.4	2.4
RE 313	1.7	3.4	3.4	1.7	3.4	3.4	1.3	2.6	2.6
RE 314	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RE 511	1.5	3	3	1.5	3	3	1.1	2.2	2.2
RE 512	1.7	3.4	3.4	1.7	3.4	3.4	1.3	2.6	2.6
RE 513	1.8	3.6	3.6	1.8	3.6	3.6	1.5	3	3
RE 514	1.9	3.8	3.8	1.9	3.8	3.8	1.6	3.2	3.2
RE 611	1.6	3.2	3.2	1.6	3.2	3.2	1.2	2.4	2.4
RE 612	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RE 613	1.9	3.8	3.8	1.9	3.8	3.8	1.6	3.2	3.2
RE 614	20	40	40	20	40	40	1.7	3.4	3.4
RE 811	1.8	3.6	3.6	1.8	3.6	3.6	1.5	3	3
RE 812	2	4	4	2	4	4	1.7	3.4	3.4
RE 813	2.2	4.4	4.4	2.2	4.4	4.4	1.9	3.8	3.8
RE 814	2.3	4.6	4.6	2.3	4.6	4.6	2	4	4
RE 1021	2.4	4.8	4.8	2.4	4.8	4.8	2.1	4.2	4.2
RE 1022	2.6	5.2	5.2	2.6	5.2	5.2	2.3	4.6	4.6
RE 1023	2.7	5.4	5.4	2.7	5.4	5.4	2.4	4.8	4.8
RE 1024	2.9	5.8	5.8	2.9	5.8	5.8	2.6	5.2	5.2

[Liters]	B5	V1	V3
RE 1521	2.7	5.4	5.4
RE 1522	3	6	6
RE 1523	3.2	6.4	6.4
RE 1524	3.4	6.8	6.8
RE 2001	2.7	5.4	5.4
RE 2002	3	6	6
RE 2003	3.3	6.6	6.6
RE 2004	3.4	6.8	6.8
RE 2002L	3	6	6
RE 2003L	3.1	6.2	6.2
RE 2004L	3.2	6.4	6.4
RE 2521	3.9	7.7	7.7
RE 2522	4.5	9	9
RE 2523	4.7	9.4	9.4
RE 2524	5	9.9	9.9
RE 3001	3.8	7.6	7.6
RE 3002	4.6	9.1	9.1
RE 3003	4.8	9.5	9.5
RE 3004	5	10	10
RE 3511	4.9	9.8	9.8
RE 3512	5.7	11.4	11.4
RE 3513	6	12	12
RE 3514	6.2	12.4	12.4
RE 4801	4.7	9.4	9.4
RE 4802	6.8	13.6	13.6
RE 4803	7.2	14.4	14.4
RE 4804	7.4	14.8	14.8
RE 6001	7.5	15	15
RE 6002	8.5	17	17
RE 6003	9	18	18
RE 6004	9.3	18.6	18.6
RE 6002L	8.5	17	17
RE 6003L	9	18	18

[Liters]	B5	V1	V3
RE 6004L	9.2	18.4	18.4
RE 8001	8.3	16.6	16.6
RE 8002	10.2	20.4	20.4
RE 8003	11	22	22
RE 8004	11.5	23	23
RE 8005	11.7	23.4	23.4
RE 8002L	10.2	20.4	20.4
RE 8003L	10.8	21.6	21.6
RE 8004L	11.4	22.8	22.8
RE 8005L	11.6	23.2	23.2
GB 12011	13.5	27	27
GB 12012	15.5	31	31
GB 12013	16.5	33	33
GB 12014	16.8	33.6	33.6
GB 12015	17	34	34
GB 12012L	15.5	31	31
GB 12013L	16.3	32.6	32.6
GB 12014L	16.7	33.4	33.4
GB 12015L	17	34	34
GB 16001	14.5	29	29
GB 16002	18	36	36
GB 16003	19.2	38.4	38.4
GB 16004	19.6	39.2	39.2
GB 16005	19.8	39.6	39.6
GB 16002L	17	34	34
GB 16003L	18	36	36
GB 16004L	18.5	37	37
GB 16005L	18.7	37.4	37.4
GB 21001	20	40	40
GB 21002	23.5	47	47
GB 21003	24.5	49	49
GB 21004	25	50	50
GB 21005	25.5	51	51

[Liters]	B5	V1	V3
			
GB 26001	20	40	40
GB 26002	25.5	51	51
GB 26003	27.5	55	55
GB 26004	28.5	57	57
GB 26005	29	58	58
GB 31001	38	76	76
GB 31002	46.5	93	93
GB 31003	48.5	97	97
GB 31004	49.5	99	99
GB 31005	50	100	100
GB 40001	41	82	82
GB 40002	49	98	98
GB 40003	51	102	102
GB 40004	52	104	104
GB 40005	52	104	104
GB 45001	41	82	82
GB 45002	50	100	100
GB 45003	53.5	107	107
GB 45004	55	110	110
GB 45005	55.5	111	111
GB 53001	70	140	140
GB 53002	80	160	160
GB 53003	85	170	170
GB 53004	86.5	173	173
GB 53005	87	174	174
GB 61001	70	140	140
GB 61002	80	160	160
GB 61003	85	170	170
GB 61004	86.5	173	173
GB 61005	87	174	174
GB 85001	75	150	150
GB 85002	87.5	175	175
GB 85003	93	186	186

[Liters]	B5	V1	V3
			
GB 85004	95	190	190
GB 85005	95.5	191	191
GB 110001	145	290	290
GB 110002	170	340	340
GB 110003	180	360	360
GB 110004	183	366	366
GB 110005	185	370	370
GB 130001	144	288	288
GB 130002	172	344	344
GB 130003	181	362	362
GB 130004	185	370	370
GB 130005	186	372	372
GB 150001	143	286	286
GB 150002	172	344	344
GB 150003	185	370	370
GB 150004	187	374	374
GB 150005	188	376	376
GB 205001	255	510	510
GB 205002	300	600	600
GB 205003	318	636	636
GB 205004	326	652	652
GB 205005	329	658	658
GB 235001	255	510	510
GB 235002	300	600	600
GB 235003	335	670	670
GB 235004	345	690	690
GB 235005	247	494	494

[Liters]




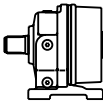
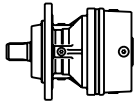
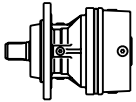
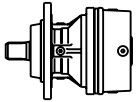
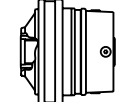
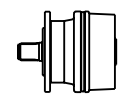
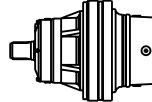
	B3-1	V5	V6	B6-1	B7	B8	B5-1	V1	V3
RA 112	1.5	3	3	1.5	3	3	1.2	2.4	2.4
RA 113	1.7	3.4	3.4	1.7	3.4	3.4	1.3	2.6	2.6
RA 114	1.9	3.8	3.8	1.9	3.8	3.8	1.5	3	3
RA 212	1.6	3.2	3.2	1.6	3.2	3.2	1.3	2.6	2.6
RA 213	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RA 214	2	4	4	2	4	4	1.5	3	3
RA 242	1.6	3.2	3.2	1.6	3.2	3.2	1.3	2.6	2.6
RA 243	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RA 244	2	4	4	2	4	4	1.5	3	3
RA 312	2.5	5	5	2.5	5	5	2.1	4.2	4.2
RA 313	2.4	4.8	4.8	2.4	4.8	4.8	2	4	4
RA 314	2.5	5	5	2.5	5	5	2.1	4.2	4.2
RA 512	2.6	5.2	5.2	2.6	5.2	5.2	2.2	4.4	4.4
RA 513	2.5	5	5	2.5	5	5	2.1	4.2	4.2
RA 514	2.6	5.2	5.2	2.6	5.2	5.2	2.3	4.6	4.6
RA 612	2.7	5.4	5.4	2.7	5.4	5.4	2.3	4.6	4.6
RA 613	2.9	5.8	5.8	2.9	5.8	5.8	2.5	5	5
RA 614	2.7	5.4	5.4	2.7	5.4	5.4	2.4	4.8	4.8
RA 812	3.8	7.6	7.6	3.8	7.6	7.6	3.5	7	7
RA 813	3.1	6.2	6.2	3.1	6.2	6.2	2.8	5.6	5.6
RA 814	3	6	6	3	6	6	2.7	5.4	5.4
RA 1022	4.4	8.8	8.8	4.4	8.8	8.8	4.1	8.2	8.2
RA 1023	3.7	7.4	7.4	3.7	7.4	7.4	3.4	6.8	6.8
RA 1024	3.5	7	7	3.5	7	7	3.2	6.4	6.4

[Liters]	B5-1	V1	V3
RA 1522	5.7	11.4	11.4
RA 1523	4.1	8.2	8.2
RA 1524	4	8	8
RA 2002	5.7	11.4	11.4
RA 2003	4.1	8.2	8.2
RA 2004	4.1	8.2	8.2
RA 2003L	4.1	8.2	8.2
RA 2004L	3.9	7.8	7.8
RA 2522	10.7	21.4	21.4
RA 2523	11	22	22
RA 2524	10.5	21	21
RA 3002	10.6	21.2	21.2
RA 3003	11.1	22.2	22.2
RA 3004	10.6	21.2	21.2
RA 3512	14.9	29.8	29.8
RA 3513	7.7	15.4	15.4
RA 3514	7.1	14.2	14.2
RA 4802	14.7	29.4	29.4
RA 4803	9.8	19.6	19.6
RA 4804	8.3	16.6	16.6
RA 6002	17.5	35	35
RA 6003	11.5	23	23
RA 6004	10.1	20.2	20.2
RA 6003L	11.5	23	23
RA 6004L	10.1	20.2	20.2
RA 8002	18.3	36.6	36.6
RA 8003	13.2	26.4	26.4
RA 8004	13	26	26
RA 8003L	13.2	26.4	26.4
RA 8004L	12.8	25.6	25.6
GBA 12013	18.5	37	37
GBA 12014	18.5	37	37
GBA 12015	17.9	35.8	35.8
GBA 12013L	18.5	37	37
GBA 12014L	18.3	36.6	36.6
GBA 12015L	18	36	36
GBA 16003	28	56	56
GBA 16004	22.2	44.4	44.4
GBA 16005	20.7	41.4	41.4

[Liters]	B5-1	V1	V3
GBA 16003L	27	54	54
GBA 16004L	21	42	42
GBA 16005L	19.6	39.2	39.2
GBA 21003	33.5	67	67
GBA 21004	27.5	55	55
GBA 21005	26.1	52.2	52.2
GBA 26003	35.5	71	71
GBA 26004	30.5	61	61
GBA 26005	30.5	61	61
GBA 31004	51.5	103	103
GBA 31005	51.5	103	103
GBA 40004	54	108	108
GBA 40005	54	108	108
GBA 45004	63.5	127	127
GBA 45005	58.5	117	117
GBA 53004	96.5	193	193
GBA 53005	90	180	180
GBA 61004	95	190	190
GBA 61005	89.5	179	179
GBA 61006	88	176	176
GBA 85004	103	206	206
GBA 85005	98	196	196
GBA 85006	97	194	194
GBA 110005	186	372	372
GBA 110006	187	374	374
GBA 130005	380	760	388
GBA 130006	189	378	378


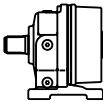
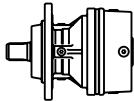
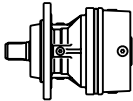
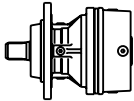
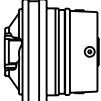
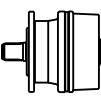
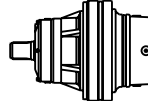
CC		
[Liters]		
CC30	1.6	Complete filling
CC120	2.2	
CC350	4	
CC600	6	
CC1000	16	

	P	T	TL	TR	F	N	H
RE 111	23	20	—	20	14	17	—
RE 112	29.5	26.5	—	26.5	21	24	—
RE 113	36.5	33.5	—	33.5	27.5	30.5	—
RE 114	43	40	—	40	34	37	—
RE 211	25	22	—	22	16	19	—
RE 212	32	29	—	29	23	26	—
RE 213	38	35	—	35	30	32	—
RE 214	45	42	—	42	37	39	—
RE 241	25	—	—	22	—	—	—
RE 242	32	—	—	29	—	—	—
RE 243	38	—	—	35	—	—	—
RE 244	45	—	—	42	—	—	—
RE 311	52	47	47	—	24	35	—
RE 312	59	54	54	—	31	42	—
RE 313	66	61	61	—	38	49	—
RE 314	72	67	66	—	45	56	—
RE 511	57	52	52	—	29	40	—
RE 512	66	61	61	—	38	49	—
RE 513	73	68	68	—	45	56	—
RE 514	80	75	75	—	52	63	—
RE 611	58	53	53	—	30	41	—
RE 612	72	67	67	—	44	55	—
RE 613	79	74	74	—	51	62	—
RE 614	86	81	81	—	58	69	—
RE 811	80	70	—	—	—	67	—
RE 812	94	84	—	—	—	80	—
RE 813	100	90	—	—	—	87	—
RE 814	107	97	—	—	—	94	—
RE 1021	100	90	—	—	60	—	—
RE 1022	117	107	—	—	77	—	—

	P	T	TL	TR	F	N	H
							
RE 1023	126	116	—	—	86	—	—
RE 1024	133	123	—	—	93	—	—
RE 1521	—	123	—	—	84	—	130
RE 1522	—	141	—	—	102	—	148
RE 1523	—	149	—	—	110	—	156
RE 1524	—	156	—	—	117	—	163
RE 2001	—	124	—	—	85	—	131
RE 2002	—	142	—	—	104	—	150
RE 2003	—	156	—	—	118	—	163
RE 2004	—	163	—	—	125	—	170
RE 2002L	—	137	—	—	99	—	145
RE 2003L	—	149	—	—	111	—	156
RE 2004L	—	153	—	—	115	—	160
RE 2521	—	—	—	—	151	—	185
RE 2522	—	—	—	—	180	—	214
RE 2523	—	—	—	—	194	—	228
RE 2524	—	—	—	—	201	—	235
RE 3001	—	—	—	—	152	—	186
RE 3002	—	—	—	—	199	—	233
RE 3003	—	—	—	—	207	—	241
RE 3004	—	—	—	—	216	—	250
RE 3511	—	—	—	—	225	—	239
RE 3512	—	—	—	—	260	—	274
RE 3513	—	—	—	—	278	—	292
RE 3514	—	—	—	—	287	—	301
RE 4801	—	—	—	—	226	—	240
RE 4802	—	—	—	—	311	—	325
RE 4803	—	—	—	—	330	—	344
RE 4804	—	—	—	—	339	—	353

	H	F
RE 6002L	365	340
RE 6003L	375	350
RE 6004L	382	357
RE 6001	315	290
RE 6002	370	345
RE 6003	390	365
RE 6004	395	370
RE 8001	410	380
RE 8002	500	470
RE 8003	540	510
RE 8004	555	525
RE 8005	560	530
RE 8002L	485	455
RE 8003L	520	490
RE 8004L	530	500
RE 8005L	535	505
GB 12011	650	615
GB 12012	750	715
GB 12013	785	750
GB 12014	800	765
GB 12015	810	775
GB 12012L	700	665
GB 12013L	745	710
GB 12014L	750	715
GB 12015L	757	722
GB 16001	690	655
GB 16002	860	825
GB 16003	915	880
GB 16004	935	900
GB 16005	940	905
GB 16002L	860	825
GB 16003L	865	830
GB 16004L	885	850
GB 16005L	890	855
GB 21001	930	880
GB 21002	1115	1065
GB 21003	1165	1115
GB 21004	1190	1140
GB 21005	1205	1155
GB 26001	980	920
GB 26002	1230	1170
GB 26003	1330	1270
GB 26004	1360	1300
GB 26005	1380	1320
GB 31001	1900	1750
GB 31002	2280	2130
GB 31003	2375	2225
GB 31004	2410	2260
GB 31005	2425	2275
GB 40001	2030	1880

	H	F
GB 40002	2400	2250
GB 40003	2500	2350
GB 40004	2530	2380
GB 40005	2540	2390
GB 45001	2030	1880
GB 45002	2435	2285
GB 45003	2610	2460
GB 45004	2665	2515
GB 45005	2682	2532
GB 53001	3550	3200
GB 53002	4060	3710
GB 53003	4250	3900
GB 53004	4350	4000
GB 53005	4370	4020
GB 61001	3550	3200
GB 61002	4060	3710
GB 61003	4250	3900
GB 61004	4350	4000
GB 61005	4370	4020
GB 85001	3850	3450
GB 85002	4410	4010
GB 85003	4650	4250
GB 85004	4750	4350
GB 85005	4785	4385
GB 110001	7520	6620
GB 110002	8780	7880
GB 110003	9155	8255
GB 110004	9250	8350
GB 110005	9285	8385
GB 130001	7535	6635
GB 130002	8800	7900
GB 130003	9210	8310
GB 130004	9380	8480
GB 130005	9430	8530
GB 150001	7550	6650
GB 150002	8795	7895
GB 150003	9280	8380
GB 150004	9460	8560
GB 150005	9500	8600
GB 205001	12240	11790
GB 205002	14330	13880
GB 205003	15040	14590
GB 205004	15410	14960
GB 205005	15500	15050
GB 235001	12250	11800
GB 235002	14580	14130
GB 235003	15830	15380
GB 235004	16200	15750
GB 235005	16300	15850

	P	T	TL	TR	F	N	H
							
RA 112	43	40	—	40	34	37	—
RA 113	49.5	46.5	—	46.5	41	44	—
RA 114	56.5	53.5	—	53.5	47.5	50.5	—
RA 212	45	42	—	42	36	39	—
RA 213	52	49	—	49	43	46	—
RA 214	58	55	—	55	50	52	—
RA 242	45	—	—	42	—	—	—
RA 243	52	—	—	49	—	—	—
RA 244	58	—	—	55	—	—	—
RA 312	102	97	97	—	74	85	—
RA 313		74	74	—	51	62	—
RA 314	86	81	81	—	58	69	—
RA 512	107	102	102	—	79	90	—
RA 513	86	81	81	—	58	69	—
RA 514	93	88	88	—	65	76	—
RA 612	108	103	103	—	80	91	—
RA 613	122	117	117	—	94	105	—
RA 614	99	94	94	—	71	82	—
RA 812	170	160	—	—	—	157	—
RA 813	144	134	—	—	—	130	—
RA 814	120	110	—	—	—	107	—
RA 1022	190	180	—	—	150	—	—
RA 1023	167	157	—	—	127	—	—
RA 1024	146	136	—	—	106	—	—
RA 1522	—	258	—	—	219	—	265
RA 1523	—	191	—	—	152	—	198
RA 1524	—	169	—	—	130	—	176
RA 2002	—	259	—	—	220	—	266
RA 2003	—	192	—	—	154	—	200
RA 2004	—	176	—	—	138	—	183
RA 2003L	—	187	—	—	149	—	195
RA 2004L	—	169	—	—	131	—	176
RA 2522	—	—	—	—	286	—	320
RA 2523	—	—	—	—	270	—	304
RA 2524	—	—	—	—	214	—	248
RA 3002	—	—	—	—	287	—	321
RA 3003	—	—	—	—	289	—	323
RA 3004	—	—	—	—	257	—	291
RA 3512	—	—	—	—	575	—	589
RA 3513	—	—	—	—	350	—	364
RA 3514	—	—	—	—	398	—	412
RA 4802	—	—	—	—	576	—	590
RA 4803	—	—	—	—	446	—	460
RA 4804	—	—	—	—	380	—	394

	H	F
RA 6002	665	640
RA 6003	505	480
RA 6004	440	415
RA 6003L	500	475
RA 6004L	425	400
RA 8002	760	730
RA 8003	635	605
RA 8004	630	600
RA 8003L	620	590
RA 8004L	610	580
GBA 12013	885	850
GBA 12014	875	840
GBA 12015	850	815
GBA 12013L	835	800
GBA 12014L	835	800
GBA 12015L	800	765
GBA 16003	1210	1175
GBA 16004	1050	1015
GBA 16005	985	950
GBA 16003L	1210	1175
GBA 16004L	1000	965
GBA 16005L	935	900
GBA 21003	1465	1415
GBA 21004	1300	1250
GBA 21005	1240	1190
GBA 26003	1580	1520
GBA 26004	1465	1405
GBA 26005	1450	1390
GBA 31004	2510	2360
GBA 31005	2500	2350
GBA 40004	2635	2485
GBA 40005	2620	2470
GBA 45004	2960	2810
GBA 45005	2800	2650
GBA 53004	4600	4250
GBA 53005	4485	4135
GBA 61004	4600	4250
GBA 61005	4485	4135
GBA 61006	4420	4070
GBA 85004	5000	4600
GBA 85005	4885	4485
GBA 85006	4875	4475
GBA 110005	9385	8485
GBA 110006	9375	8475
GBA 130005	9730	8830
GBA 130006	9365	8665

CC	
CC30	35
CC120	50
CC350	90
CC600	135
CC1000	350

RE 1520



	ie	n ₁ = 750 RPM			n ₁ = 900 RPM			n ₁ = 1450 RPM			n ₁ = 2900 RPM			T _{2max} [Nm]	P _t [kW]
		n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]		
RE 1521	4.09	183	193	9800	220	219	9280	354	306	8040	—	—	—	39000	44 (T)
	5.25	143	158	10300	171	179	9730	276	250	8430	—	—	—	30500	36 (H)
	6.23	120	114	8780	144	135	8690	233	211	8460	—	—	—	24200	28 (F)
RE 1522	14.73	51	78	13900	61	89	13200	98	124	11400	197	201	9270	39000	25 (T) 21 (H) 16 (F)
	17.39	43.1	68	14400	52	78	13600	83	108	11800	167	176	9590	39000	
	21.82	34.4	53	14100	41.3	64	14000	66	90	12300	133	146	9990	38900	
	25.36	29.6	38.9	11900	35.5	46.2	11800	57	72	11500	114	130	10400	32900	
	28.00	26.8	35.9	12200	32.1	42.7	12100	52	67	11700	104	129	11300	30500	
	32.55	23.0	31.2	12300	27.6	37.0	12200	44.5	58	11800	89	112	11400	30500	
	33.23	22.6	24.0	9700	27.1	28.5	9570	43.6	44.7	9310	87	86	8950	24200	
	39.38	19.0	25.2	12000	22.9	29.9	11900	36.8	46.9	11600	74	90	11100	30500	
	46.73	16.0	17.4	9900	19.3	20.7	9750	31.0	32.4	9490	62	62	9120	24200	
RE 1523	51.25	14.6	27.2	16400	17.6	31.7	16000	28.3	44.2	13800	57	72	11200	39000	17 (T) 15 (H) 12 (F)
	60.50	12.4	23.2	16600	14.9	27.6	16400	24.0	43.2	16000	47.9	72	13300	39000	
	62.78	11.9	22.4	16600	14.3	26.6	16400	23.1	37.8	14500	46.2	61	11800	39000	
	74.12	10.1	19.2	16800	12.1	22.8	16600	19.6	35.7	16200	39.1	61	13900	39000	
	80.57	9.3	13.6	12900	11.2	16.2	12800	18.0	25.3	12500	36.0	49	12000	30500	
	93.01	8.1	14.0	15300	9.7	16.6	15200	15.6	26.0	14800	31.2	50	14200	38900	
	100.31	7.5	14.1	16700	9.0	16.8	16600	14.5	26.3	16100	28.9	48.1	14700	39000	
	109.04	6.9	10.2	13200	8.3	12.1	13000	13.3	19.0	12700	26.6	36.6	12200	30500	
	125.87	6.0	10.5	15600	7.2	12.5	15500	11.5	19.6	15000	23.0	37.6	14500	38900	
	146.33	5.1	7.6	13200	6.2	9.1	13100	9.9	14.2	12700	19.8	27.4	12200	32900	
	157.09	4.8	8.2	15100	5.7	9.7	15000	9.2	15.2	14600	18.5	29.2	14000	38900	
	182.62	4.1	6.2	13400	4.9	7.4	13200	7.9	11.6	12900	15.9	22.2	12400	32900	
	201.60	3.7	6.0	14400	4.5	7.1	14000	7.2	10.7	13100	14.4	20.5	12600	30500	
	234.36	3.2	5.3	14700	3.8	6.2	14300	6.2	9.3	13300	12.4	17.8	12700	30500	
	239.26	3.1	4.0	11400	3.8	4.7	11100	6.1	7.1	10400	12.1	13.7	10000	24200	
278.14	2.7	3.5	11600	3.2	4.1	11300	5.2	6.2	10500	10.4	11.9	10100	24200		
RE 1524	210.56	3.6	8.0	19400	4.3	9.4	18900	6.9	14.0	17600	13.8	26.3	16500	39000	14 (T) 12 (F) 9 (P)
	218.49	3.4	7.8	19500	4.1	9.1	19000	6.6	13.6	17700	13.3	25.4	16500	39000	
	257.94	2.9	6.7	20000	3.5	7.9	19500	5.6	11.8	18100	11.2	21.7	16700	39000	
	280.40	2.7	4.7	15100	3.2	5.5	14700	5.2	8.2	13700	10.3	15.4	12900	30500	
	315.99	2.4	5.6	20400	2.8	6.6	20100	4.6	9.9	18700	9.2	17.9	16900	39000	
	349.06	2.1	5.1	20500	2.6	6.1	20300	4.2	9.1	19000	8.3	16.5	17100	39000	
	396.53	1.9	3.7	16700	2.3	4.3	16500	3.7	6.8	16100	7.3	13.1	15400	38900	
	452.05	1.7	4.1	21400	2.0	4.9	21100	3.2	7.3	19700	6.4	13.2	17800	39000	
	508.89	1.5	2.8	16500	1.8	3.3	16100	2.8	4.9	15000	5.7	8.9	13500	30500	
	578.69	1.3	2.8	18500	1.6	3.3	18300	2.5	5.2	17800	5.0	9.9	17100	39000	
	629.07	1.2	2.4	17100	1.4	2.8	16600	2.3	4.1	15500	4.6	7.4	13900	30500	
	722.20	1.0	2.3	18700	1.2	2.7	18500	2.0	4.2	18000	4.0	8.1	17300	39000	
	800.57	0.94	1.9	17700	1.1	2.2	17200	1.8	3.4	16000	3.6	6.1	14400	30500	
	906.29	0.83	1.8	18600	0.99	2.1	18100	1.6	3.1	16800	3.2	6.0	16200	38900	
	999.11	0.75	1.6	18300	0.90	1.9	17800	1.5	2.8	16600	2.9	5.0	14900	30500	
	1156.68	0.65	1.3	17300	0.78	1.5	17100	1.3	2.4	16700	2.5	4.4	15300	30500	
	1285.79	0.58	0.99	14700	0.70	1.2	14300	1.1	1.7	13300	2.3	3.1	12000	24200	
	1451.52	0.52	1.2	19400	0.62	1.4	18900	1.0	2.0	17500	2.0	3.7	15800	30500	
	1635.58	0.46	0.83	15700	0.55	0.97	15300	0.89	1.5	14300	1.8	2.8	13800	30500	
	1722.68	0.44	0.77	15300	0.52	0.90	14900	0.84	1.4	13900	1.7	2.4	12500	24200	
2041.20	0.37	0.69	16200	0.44	0.81	15800	0.71	1.2	14700	1.4	2.3	13900	30500		

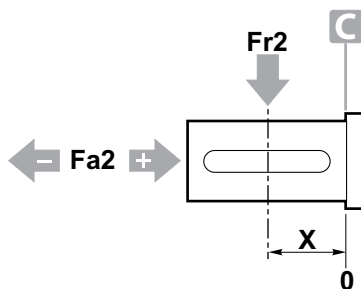
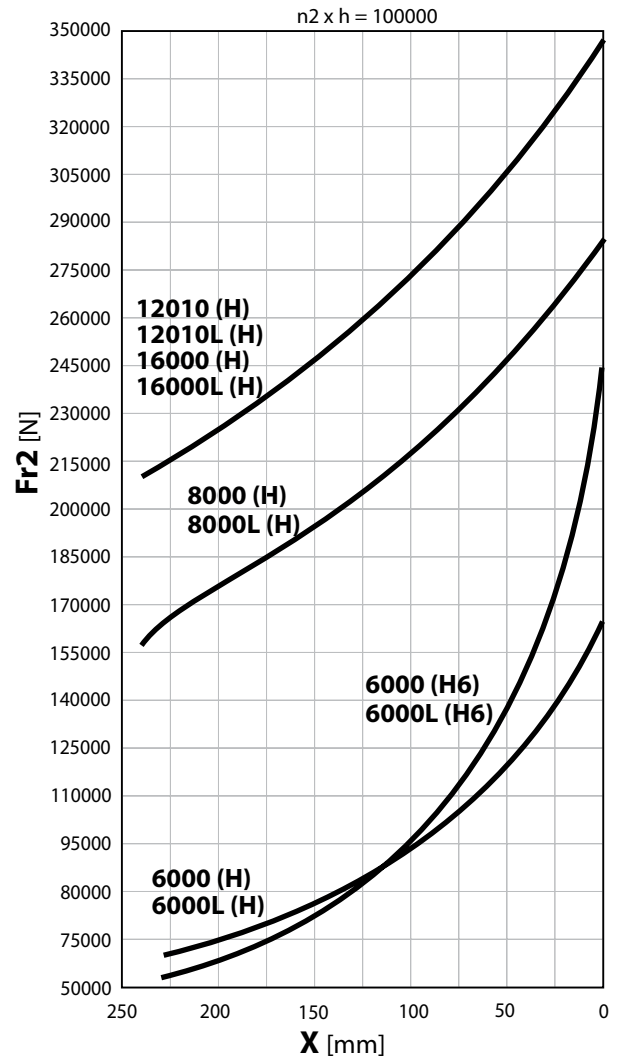
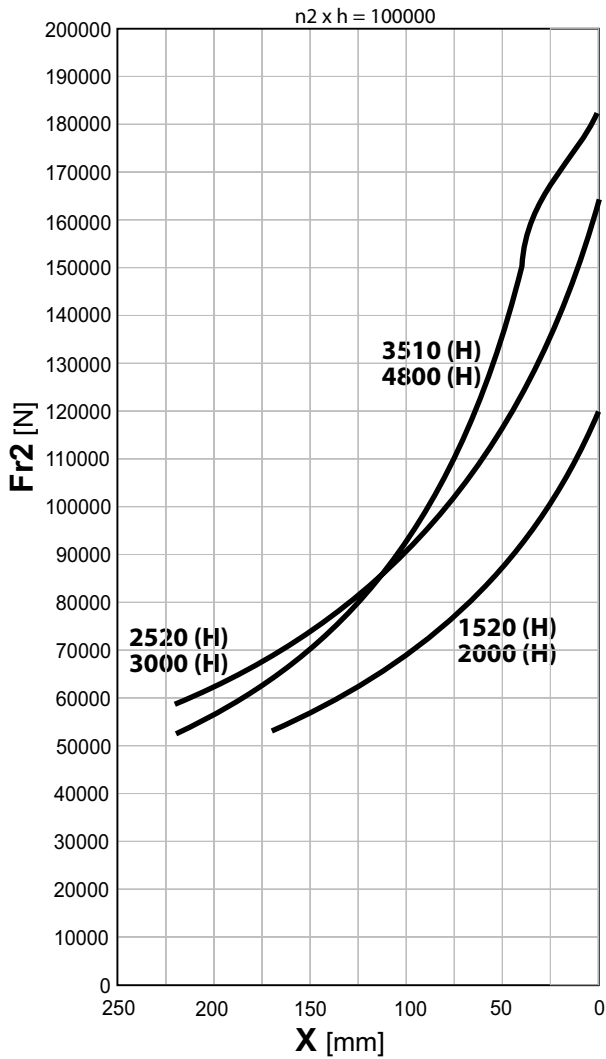
	ie	n ₁ = 750 RPM			n ₁ = 900 RPM			n ₁ = 1450 RPM			n ₁ = 2900 RPM			T _{2max} [Nm]	P _t [kW]
		n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]		
RA 1522	12.56	60	91.7	13700	72	104	13000	115	145	11300	231	236	9150	39000	24 (T) 20 (H) 18 (F)
	16.13	46.5	61.4	11800	56	73	11700	90	114	11400	180	193	9590	30500	
	19.09	39.3	53.9	12300	47.1	64	12100	76	100	11800	152	176	10400	31600	
	24.50	30.6	41.4	12100	36.7	49.2	12000	59	77	11600	118	144	10900	30500	
	29.08	25.8	27.7	9600	31.0	32.9	9500	49.9	52	9200	100	99	8880	24200	
RA 1523	34.38	21.8	27.8	11100	26.2	31.6	10500	42.2	44.1	9100	84	72	7400	34100	15 (T) 13 (H) 11 (F)
	41.03	18.3	27.8	13200	21.9	31.6	12500	35.3	44.1	10900	71	72	8830	39000	
	48.43	15.5	27.8	15600	18.6	31.6	14800	29.9	44.1	12800	60	72	10400	39000	
	58.91	12.7	20.6	14100	15.3	23.4	13300	24.9	32.6	11400	49.2	53.0	9380	39000	
	62.16	12.1	17.6	12700	14.5	21.0	12600	23.3	32.9	12300	46.7	63	11800	30500	
	70.66	10.6	15.4	12700	12.7	18.3	12500	20.5	28.7	12200	41.0	55	11700	24200	
	78.00	9.6	14.2	12900	11.5	16.9	12800	18.6	26.5	12400	37.2	51	12000	32900	
	89.25	8.4	12.5	13000	10.1	14.9	12900	16.2	23.4	12500	32.5	44.9	12000	30500	
	101.45	7.4	11.0	12900	8.9	13.0	12800	14.3	20.4	12500	28.6	39.3	12000	30500	
	112.00	6.7	10.1	13200	8.0	12.0	13000	12.9	18.9	12700	25.9	36.2	12200	32900	
	130.20	5.8	8.9	13500	6.9	10.4	13200	11.1	16.4	12800	22.3	31.5	12300	30500	
	154.52	4.9	5.9	10600	5.8	7.0	10400	9.4	10.9	10200	18.8	21.0	9770	30500	
	186.92	4.0	5.0	11000	4.8	5.9	10700	7.8	9.1	10300	15.5	17.6	9880	24200	
RA 1524	164.00	4.6	7.5	13900	5.5	8.9	13700	8.8	13.1	12600	17.7	21.2	10200	24200	11 (T) 9 (H) 8 (F)
	193.61	3.9	7.5	16400	4.6	8.9	16200	7.5	13.1	14800	15.0	21.2	12000	35500	
	200.91	3.7	7.5	17000	4.5	8.9	16800	7.2	13.1	15400	14.4	21.2	12500	39000	
	237.19	3.2	7.4	19800	3.8	8.6	19200	6.1	12.9	17900	12.2	21.2	14800	39000	
	248.47	3.0	5.3	14800	3.6	6.2	14400	5.8	9.2	13400	11.7	17.5	12800	39000	
	271.89	2.8	4.9	15200	3.3	5.8	15000	5.3	9.2	14600	10.7	17.6	14000	30500	
	297.65	2.5	4.9	16400	3.0	5.8	16200	4.9	9.1	15800	9.7	17.4	15200	39000	
	320.98	2.3	4.9	17900	2.8	5.8	17700	4.5	9.2	17200	9.0	17.6	16600	38900	
	348.92	2.1	4.0	15600	2.6	4.6	15200	4.2	6.9	14100	8.3	12.7	13000	39000	
	402.80	1.9	3.7	16700	2.2	4.3	16500	3.6	6.8	16100	7.2	13.1	15400	30500	
	444.05	1.7	3.2	16200	2.0	3.8	15800	3.3	5.6	14700	6.5	10.1	13200	38900	
	516.92	1.5	2.8	16600	1.7	3.3	16100	2.8	5.0	15000	5.6	8.9	13500	30500	
	600.92	1.2	2.5	17000	1.5	2.9	16500	2.4	4.4	15300	4.8	7.8	13800	30500	
	645.12	1.2	2.3	17100	1.4	2.7	16700	2.2	4.1	15500	4.5	7.4	14000	30500	
	749.95	1.0	2.1	17500	1.2	2.4	17100	1.9	3.6	15900	3.9	6.5	14300	30500	
	907.20	0.83	1.4	14400	0.99	1.7	14200	1.6	2.6	13800	3.2	5.0	13300	30500	
	1076.68	0.70	1.2	14300	0.84	1.4	13900	1.3	2.0	12900	2.7	3.7	11600	30500	

		n ₁ = 750 RPM			n ₁ = 900 RPM			n ₁ = 1450 RPM			n ₁ = 2900 RPM			T _{2max} [Nm]	P _t [kW]	
		ie	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]			T ₂ [Nm]
RE 2001		3.83	196	272	12900	235	309	12200	378	431	10600	—	—	—	44100	44 (T) 36 (H) 28 (F)
		5.25	143	210	13700	171	239	13000	276	333	11200	—	—	—	40300	
RE 2002	L	13.80	54	78	13000	65	89	12300	105	124	10700	210	201	8680	44000	25 (T) 21 (H) 16 (F)
		15.33	48.9	96	17700	59	109	16800	95	152	14600	189	246	11800	44100	
		17.42	43.0	86	18100	52	98	17200	83	136	14900	166	222	12100	44100	
		21.00	35.7	61	15600	42.9	73	15400	69	114	15000	138	210	13800	40300	
	L	22.31	33.6	58	15600	40.3	69	15500	65	108	15100	130	176	12300	40300	
	L	28.00	26.8	46.7	15800	32.1	55	15700	52	87	15300	104	146	12800	40300	
	L	32.55	23.0	38.9	15300	27.6	46.2	15200	44.5	72	14800	89	130	13300	40300	
	L	39.38	19.0	25.2	12000	22.9	29.9	11900	36.8	47	11600	74	90	11100	33200	
RE 2003	L	48.02	15.6	27.9	15800	18.7	31.7	15000	30.2	44	13000	60	72	10500	44000	18 (T) 15 (H) 12 (F)
		55.20	13.6	35.1	22900	16.3	41.7	22700	26.3	63	21400	53	103	17400	44100	
		65.17	11.5	30.0	23100	13.8	35.7	22900	22.3	56	22300	44.5	92	18200	44100	
		74.05	10.1	23.5	20600	12.2	28.0	20400	19.6	43.8	19800	39.2	83	18700	44100	
		81.78	9.2	24.3	23400	11.0	28.8	23200	17.7	45.2	22500	35.5	78	19500	44100	
		92.93	8.1	19.0	20800	9.7	22.6	20600	15.6	35.4	20100	31.2	68	19300	44100	
		101.42	7.4	14.2	17000	8.9	16.9	16900	14.3	26.5	16400	28.6	51	15800	40300	
		112.00	6.7	13.0	17100	8.0	15.4	17000	12.9	24.1	16500	25.9	46.4	15900	40300	
	L	128.73	5.8	11.4	17300	7.0	13.5	17100	11.3	21.2	16600	22.5	40.7	16000	40300	
		147.95	5.1	10.0	17400	6.1	11.8	17200	9.8	18.6	16800	19.6	35.7	16100	40300	
		157.50	4.8	9.4	17500	5.7	11.2	17300	9.2	17.5	16800	18.4	33.7	16200	40300	
		178.98	4.2	8.5	17900	5.0	9.9	17400	8.1	15.5	17000	16.2	29.8	16300	40300	
	L	201.60	3.7	7.6	18200	4.5	8.9	17700	7.2	13.9	17100	14.4	26.7	16400	40300	
	RE 2004		192.10	3.9	11.1	24600	4.7	13.2	24300	7.5	20.7	23700	15.1	39.8	22800	
		226.78	3.3	9.5	24800	4.0	11.3	24600	6.4	17.7	23900	12.8	34.0	23000	44100	
		257.70	2.9	7.5	22100	3.5	8.8	21900	5.6	13.9	21300	11.3	26.7	20500	44100	
		284.59	2.6	7.7	25100	3.2	9.1	24900	5.1	14.3	24200	10.2	27.5	23300	44100	
		315.70	2.4	6.2	22400	2.9	7.3	22100	4.6	11.5	21500	9.2	22.0	20700	44100	
		348.63	2.2	6.3	25400	2.6	7.5	25200	4.2	4.7	24500	8.3	22.7	23500	44100	
		396.17	1.9	5.0	22600	2.3	5.9	22400	3.7	9.2	21800	7.3	17.8	21000	44100	
L		447.97	1.7	4.0	20500	2.0	4.6	20000	3.2	7.0	18600	6.5	12.9	17200	40100	
L		500.07	1.5	3.6	20500	1.8	4.2	19900	2.9	6.4	19000	5.8	12.3	18300	40100	
L		562.15	1.3	3.3	21200	1.6	3.8	20700	2.6	5.7	19200	5.2	10.4	17400	40100	
L		629.07	1.2	2.8	20100	1.4	3.3	19900	2.3	5.2	19400	4.6	9.4	17600	40100	
L		701.57	1.1	2.7	22000	1.3	3.2	21400	2.1	4.8	19900	4.1	8.6	17900	40100	
		806.40	0.93	2.4	22400	1.1	2.8	21800	1.8	4.2	20300	3.6	7.6	18300	40300	
		908.65	0.83	2.2	22800	0.99	2.6	22200	1.6	3.8	20700	3.2	6.9	18600	40300	
		1032.56	0.73	2.0	23300	0.87	2.3	22700	1.4	3.4	21100	2.8	6.2	19000	40300	
		1134.00	0.66	1.8	23600	0.79	2.1	23000	1.3	3.2	21400	2.6	5.7	19300	40300	
		1288.64	0.58	1.6	24100	0.70	1.9	23400	1.1	2.8	21800	2.3	5.1	19600	40300	
L	1451.52	0.52	1.3	21700	0.62	1.5	21500	1.0	2.4	20900	2.0	4.6	20000	40100		

		n ₁ = 750 RPM			n ₁ = 900 RPM			n ₁ = 1450 RPM			n ₁ = 2900 RPM			T _{2max} [Nm]	P _t [kW]	
ie		n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]	n ₂ [RPM]	P ₁ [kW]	T ₂ [Nm]			
RA 2002		11.77	64	107	15000	76	121	14200	123	169	12300	246	275	9970	44100	24 (T) 20 (H) 18 (F)
		16.13	46.5	80	15300	56	95	15200	90	149	14800	180	257	12800	40300	
		17.89	41.9	54	11500	50	64	11400	81	100	11100	162	191	10500	29600	
		24.50	30.6	54	15700	36.7	64	15600	59	100	15100	118	191	14400	40300	
RA 2003	L	38.44	19.5	27.1	12400	23.4	31.6	11800	37.7	44.1	10200	75	72	8270	44000	15 (T) 13 (H) 11 (F)
		42.71	17.6	27.1	13800	21.1	31.6	13100	33.9	44.1	11300	68	72	9190	44100	
	L	45.38	16.5	27.8	14700	19.8	31.6	13900	31.9	44.1	12000	64	72	9770	44000	
	L	52.65	14.2	26.8	16400	17.1	31.6	16100	27.5	44.1	13900	55	72	11300	40300	
	L	55.20	13.6	20.6	13200	16.3	23.4	12500	26.3	32.6	10800	53	53	8790	38200	
	L	62.16	12.1	22.9	16600	14.5	27.3	16400	23.3	42.7	16000	46.7	72	13400	40300	
		69.70	10.8	20.6	16600	12.9	23.4	15800	20.8	32.6	13700	41.6	53.0	11100	44100	
	L	78.00	9.6	18.5	16800	11.5	22.0	16600	18.6	34.5	16200	37.2	66	15500	40300	
	L	89.25	8.4	16.3	16900	10.1	19.4	16700	16.2	30.4	16300	32.5	53.0	14200	40300	
		95.45	7.9	15.3	17000	9.4	18.2	16800	15.2	28.5	16400	30.4	53.0	15200	40300	
	L	112.00	6.7	13.2	17100	8.0	15.6	17000	12.9	24.5	16500	25.9	47.1	15900	40300	
	L	130.20	5.8	11.0	16600	6.9	13.0	16400	11.1	20.4	16000	22.3	39.3	15400	40300	
L	157.50	4.8	7.1	13000	5.7	8.4	12900	9.2	13.2	12500	18.4	25.4	12000	33200		
RA 2004		153.77	4.9	13.9	24300	5.9	16.5	24000	9.4	25.9	23400	18.9	49.9	22500	44100	13 (T) 9 (H) 10 (F)
		181.54	4.1	11.9	24500	5.0	14.1	24200	8.0	22.2	23600	16.0	42.6	22700	44100	
		206.29	3.6	9.3	21800	4.4	11.1	21600	7.0	17.4	21000	14.1	33.4	20200	44100	
		220.80	3.4	9.9	24800	4.1	11.8	24500	6.6	18.4	23900	13.1	35.4	22900	44100	
	L	248.47	3.0	6.7	18800	3.6	7.8	18300	5.8	11.9	17300	11.7	21.2	15500	40300	
		282.53	2.7	6.0	19100	3.2	5.8	15200	5.1	10.5	17400	10.3	20.2	16700	40300	
	L	311.81	2.4	5.5	19400	3.2	7.0	18600	4.7	9.6	17600	9.3	18.4	16800	40300	
	L	348.92	2.1	4.9	19500	2.6	5.8	19200	4.2	8.7	17900	8.3	16.6	16900	40300	
	L	411.92	1.8	4.3	20300	2.2	5.1	19700	3.5	7.6	18300	7.0	14.2	17100	40300	
		448.00	1.7	4.0	20500	2.0	4.7	20000	3.2	7.1	18600	6.5	13.1	17200	40300	
		498.58	1.5	3.7	20900	1.8	4.3	20300	2.9	6.5	18900	5.8	11.8	17300	40300	
	L	547.58	1.4	2.2	13400	1.6	2.6	13300	2.6	4.0	12900	5.3	7.7	12400	30900	
		591.82	1.3	3.2	21400	1.5	3.7	20800	2.5	5.6	19400	4.9	10.1	17500	40300	
		630.00	1.2	3.0	21600	1.4	3.5	21000	2.3	5.3	19600	4.6	9.5	17600	40300	
		715.91	1.0	2.7	22000	1.3	3.2	21400	2.0	4.8	19900	4.1	8.6	18000	40300	
	L	907.20	0.83	1.4	14400	1.0	1.7	14200	1.6	2.6	13800	3.2	5.0	13300	33200	

H (1520-2000-2520-3000-3510)

H (6000-8000-12010-16000) - H6 (6000)



$n_2 \times h = 100000$

RE-RA	Fa2 [N]							
	FS		FS1		H		H6	
	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)
1520	27000	27000	—	—	73400	104500	—	—
2000	27000	27000	—	—	73400	104500	—	—
2520	29500	29500	—	—	112600	149000	—	—
3000	29500	29500	—	—	112600	149000	—	—
3500	44000	44000	—	—	59000	44000	—	—
4800	44000	44000	65250*	44000	59000	44000	—	—
6000	52000	42000	—	—	148500	131000	94000	42000
8000	67000	56000*	82200*	56000*	94000	56000*	—	—
12010	75000	65250*	—	—	114000	65250*	—	—
16000	75000	65250*	113600*	65250*	114000	65250*	—	—

* $Fa/Fr < 0.4$

K_f	$n_2 \times h$						
	20000	40000	60000	80000	100000	200000	400000
	1.7	1.3	1.15	1.06	1	0.8	0.63

Simbologia e unità di misura

Simbolo	Unità di misura	Descrizione
-1		valore riferito all'ingresso
-2		valore riferito all'uscita
bu	mm	altezza fascia dentata
de	mm	diametro esterno
dp	mm	diametro primitivo teorico
fa	N	carico assiale
f_{amax}	N	carico assiale massimo
f_r	N	carico radiale
H	mm	altezza pignone
i_e	-	rapporto di riduzione effettivo
m	mm	modulo
n	RPM	velocità
n_{max}	RPM	velocità massima
nxh	RPMxh	indice di durata
P₁	kW	potenza nominale
pb	bar	pressione apertura freno
pmax	bar	pressione massima freno
P_t	kW	potenza termica
T	Nm	coppia
T_b	Nm	coppia frenante
T_{max}	Nm	coppia massima
X	mm	distanza applicazione carico
x	-	correzione dentatura
z	-	numero di denti

Simbolo	Descrizione
	Supporto in uscita
	Entrata
	Supporto in entrata
	Coppia di serraggio [Nm]
	Quantità d'olio [litri]
	Peso [kg]
	Carico olio / sfiato
	Livello olio
	Scarico olio
	Motori idraulici
	Motori elettrici
	Riduttore a vite senza fine
	Vite di fissaggio raccomandata

Definizioni tecniche

Tutti i valori prestazionali indicati nel presente catalogo sono calcolati secondo le normative ISO 6336 e ISO 281, ma potrebbero non rispondere a ulteriori requisiti richiesti dai regolamenti interni degli Enti certificatori. Per selezioni in accordo con tali regolamenti contattare il servizio commerciale Dinamic Oil.

f_s - Fattore di servizio

è il fattore che tiene conto della gravosità dell'applicazione; dipende dalle condizioni di funzionamento, dal tipo di azionamento e dalla frequenza degli avviamenti.

I dati forniti nel presente catalogo sono calcolati per $f_s = 1$.

Il valore del fattore di servizio di un riduttore è calcolabile dividendo la sua potenza nominale per la potenza assorbita.

Fattori di servizio

ore / giorno	CONDIZIONI DI FUNZIONAMENTO								
	Uniforme U			Variabile con urti moderati M			Variabile con urti forti H		
	AVVIAMENTI / ORA								
	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250
< 0.5	0.9	1.3	1.5	0.9	1.3	1.5	1.2	1.5	1.8
0.5 - 3	0.9	1.3	1.5	1.2	1.5	1.8	1.7	2.0	2.3
3 - 8	1.2	1.5	1.8	1.4	1.8	2.0	1.9	2.3	2.8
8 - 24	1.4	1.8	2.0	1.7	2.0	2.5	2.4	2.8	3.0

P_1 - Potenza nominale [kW]

è la potenza meccanica trasmissibile dal riduttore, riferita all'ingresso, alla quale con $f_s = 1$ il riduttore ha una durata di vita teorica pari a 10.000 ore secondo la norma ISO 6336. Tale valore non tiene conto di eventuali limiti di capacità termica del riduttore, ma si basa esclusivamente sulla tenuta meccanica in funzione della velocità di utilizzo.

P_a - Potenza assorbita [kW]

rispetto alla potenza installata o disponibile, è il valore di potenza realmente assorbita dall'applicazione, riferita all'ingresso del riduttore.

P_t - Potenza termica [kW]

è la massima potenza meccanica che il riduttore può trasmettere in funzionamento continuo, con lubrificazione a sbattimento, senza oltrepassare il livello termico limite (temperatura dell'olio non superiore a 90°C).

Potenze superiori possono essere trasmesse utilizzando tenute in viton e oli sintetici o appositi dispositivi di raffreddamento. I valori indicati per le varie grandezze di riduttore si riferiscono ad un funzionamento continuo con velocità in ingresso di 1500 RPM, temperatura ambiente di 20°C, altitudine 0 / 500 m, applicazione al coperto.

Per diverse condizioni di impiego il valore di potenza termica deve essere moltiplicato per i fattori termici indicati nella seguente tabella. Per periodi di funzionamento limitati, seguiti da periodi di riposo sufficientemente lunghi da garantire un opportuno raffreddamento del riduttore, la potenza termica perde il suo significato e può essere trascurata.

Fattori termici

Temperatura ambiente	Tempo di funzionamento [%]				
	100%	80%	60%	40%	20%
10°	1.2	1.3	1.4	1.6	1.8
20°	1.0	1.1	1.3	1.4	1.6
30°	0.8	1.0	1.1	1.3	1.4
40°	0.7	0.8	1.0	1.1	1.3
50°	0.5	0.7	0.8	1.0	1.1

Altitudine [m]	Velocità in ingresso [RPM]				
	400	800	1000	1500	2000
0	1.2	1.1	1.1	1.0	0.7
500	1.2	1.1	1.1	1.0	0.7
1000	1.1	1.0	1.0	0.9	0.6
1500	1.1	1.0	1.0	0.9	0.6
2000	1.1	1.0	1.0	0.9	0.6

P_d - Potenza da dissipare [kW]

rappresenta la potenza che un eventuale sistema di raffreddamento deve dissipare, nel caso in cui la potenza da trasmettere sia superiore alla potenza termica del riduttore.

η_m - Rendimento meccanico

è il rapporto tra potenza meccanica in uscita e potenza meccanica in ingresso; normalmente è considerato pari a 0.97 – 0.98 per ogni stadio di riduzione epicicloidale di cui è composto il riduttore e pari a 0.94 - 0.95 per l'eventuale coppia conica; il valore effettivo dipende da diversi fattori tra quali velocità, coppia, rapporto, posizione di montaggio e lubrificazione.

T_2 - Coppia trasmessa [Nm]

è il valore di coppia applicata in continuo alla velocità n_1 , alla quale il riduttore ha una durata di vita teorica di 10000 h per gli ingranaggi e 5000 h (L_{h10}) per i cuscinetti dell'ingranaggeria.

T_{max} - Coppia massima trasmissibile [Nm]

è la coppia massima trasmissibile dall'accessorio eventualmente fornito a corredo del riduttore. Questo valore potrebbe limitare la coppia massima trasmissibile dal riduttore.

T_{2max} - Coppia massima [Nm]

è la coppia massima d'uscita ammissibile come punta o per brevi durate (calcolata al 90% R_s del componente più debole). Per azionamenti che comportano un elevato numero di avviamenti o inversioni occorre considerare valori di coppia massima opportunamente ridotti.

Il valore indicato si riferisce alla versione con albero femmina scanalato (FS); versioni diverse potrebbero avere valori inferiori.

T_b - Coppia frenante [Nm]

è il valore della coppia frenante trasmissibile staticamente dal freno negativo.

n_1 - Velocità in ingresso [RPM]

è la velocità al lato veloce del riduttore.

 n_2 - Velocità in uscita [RPM]

è la velocità al lato lento del riduttore.

 n_{1max} - Velocità massima [RPM]

è la velocità massima in ingresso al freno. Per applicazioni con valori superiori rivolgersi al servizio commerciale Dinamic Oil per verificare la compatibilità con l'applicazione.

 i_e - Rapporto di riduzione effettivo

è il rapporto di riduzione effettivo, cioè il rapporto tra la velocità di ingresso e quella di uscita dal riduttore.

 n_{xh} - Indice di durata [RPMxh]

è il valore che equivale al prodotto tra la velocità e la durata di vita teorica espressa in ore. È espresso come n_2xh quando riferito alla velocità in uscita, come n_1xh quando riferito alla velocità in ingresso.

Valori indicativi delle durate richieste per diverse applicazioni

Applicazione	Ore di vita richieste
Macchine agricole	300 - 3000
Macchine con funzionamento intermittente o per brevi periodi (macchine per l'edilizia)	3000 - 8000
Macchine con funzionamento intermittente o per brevi periodi con alta affidabilità operativa (montacarichi)	8000 - 12000
Macchine con funzionamento per 8 ore al giorno, ma non pienamente utilizzate (macchine varie per l'industria, frantoi rotativi)	10000 - 25000
Macchine con funzionamento per 8 ore al giorno pienamente utilizzate (macchine varie per l'industria, nastri trasportatori)	20000 - 30000
Macchine con funzionamento continuo (laminatoi, macchine tessili)	40000 - 50000

 k_f - Fattore di correzione

è il fattore da applicare per calcolare la durata teorica dei supporti con alberi maschio per valori di n_{xh} diversi da quelli dei diagrammi riportati nel catalogo. Per tutti i riduttori le curve dei carichi esterni sono calcolate per:

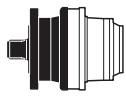
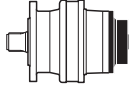
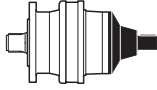



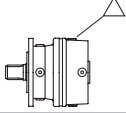
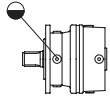
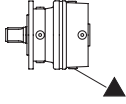
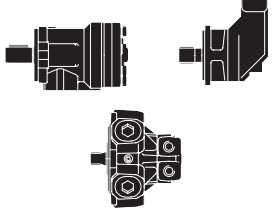
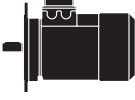
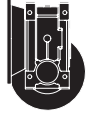
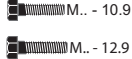

- $n_2xh = 100.000$ per i supporti in uscita
- $n_1xh = 1.500.000$ per i supporti in ingresso

 L_{min} - Lunghezza minima del braccio di reazione [mm]

è la lunghezza minima consigliata per il braccio di reazione da realizzarsi nelle applicazioni di tipo pendolare.

Symbols and Unit of Measurement

Symbol	Unit of measurement	Description
-1		Input value
-2		Output value
bu	mm	Height of toothed set
de	mm	External diameter
dp	mm	Theoretical primitive diameter
fa	N	Axial load
f_{amax}	N	Maximum axial load
f_r	N	Radial load
H	mm	Pinion height
i_e	-	Effective reduction ratio
m	mm	Module
n	RPM	Speed
n_{max}	RPM	Maximum speed
nxh	RPMxh	Duration index
P₁	kW	Rated power
pb	bar	Brake opening pressure
pmax	bar	Maximum brake pressure
P_t	kW	Thermal power
T	Nm	Torque
T_b	Nm	Braking torque
T_{max}	Nm	Maximum torque
X	mm	Load application distance
x	-	Tooth correction
z	-	Number of teeth

Symbol	Description
	Support at output
	Input
	Support at input
 ...Nm	Tightening torque [Nm]
	Oil quantity [liters]
	Weight [kg]
	Oil fill / breather plug
	Oil level
	Oil drain
	Hydraulic motors
	Electrical motors
	Wormgearbox
 M.. - 10.9  M.. - 12.9	Recommended screw

Technical Definitions

All values specified in this catalogue were calculated using the ISO 6336 and ISO 281 standards, but may not meet additional requirements set by the internal regulations of certifying bodies.

To select products that comply with these regulations, contact Dinamic Oil's sales team.

f_s - Service Factor

this factor represents the application's industrial rating; it depends on operating conditions, type of drive and frequency of start-up.

The information provided in this catalog is calculated for $f_s = 1$. The service factor value of a gearbox may be calculated by dividing its nominal power by its absorbed power.

Service factors

hours / day	OPERATING CONDITIONS								
	Uniform U			With moderate shocks M			With heavy shocks H		
	START-UPS / HOUR								
	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250
< 0.5	0.9	1.3	1.5	0.9	1.3	1.5	1.2	1.5	1.8
0.5 - 3	0.9	1.3	1.5	1.2	1.5	1.8	1.7	2.0	2.3
3 - 8	1.2	1.5	1.8	1.4	1.8	2.0	1.9	2.3	2.8
8 - 24	1.4	1.8	2.0	1.7	2.0	2.5	2.4	2.8	3.0

P_1 - Nominal Power [kW]

the mechanical power transmitted by the gearbox, related to input. At $f_s = 1$ the gearbox has a theoretical lifetime of 10000 hours under the ISO 6336 standard. This value does not take into account any limits on the gearbox's thermal capacity, as it is exclusively based on mechanical resistance in accordance with the speed of use.

P_a - Absorbed Power [kW]

relates to installed or available power, the amount of power actually absorbed by the application, at the gearbox input

P_t - Thermal Power [kW]

the maximum mechanical power the gearbox can transmit while in continuous operation, with splash lubrication, without going beyond its maximum temperature level (oil temperature below 90°C). More power may be transmitted using a Viton seal and synthetic oils or special cooling devices. The values indicated for various gearbox sizes refer to continuous operation with input speeds of 1500 RPM, at an ambient temperature of 20°C and an altitude of 0 / 500 m, for indoor applications.

Under different conditions of use, thermal power must be multiplied by the thermal factors identified in the tables below. For limited periods of operation, followed by periods of rest long enough to guarantee sufficient cooling of the gearbox, thermal power loses its significance and may be neglected.

Thermal Factors

Ambient Temperature	Operating Time [%]				
	100%	80%	60%	40%	20%
10°	1.2	1.3	1.4	1.6	1.8
20°	1.0	1.1	1.3	1.4	1.6
30°	0.8	1.0	1.1	1.3	1.4
40°	0.7	0.8	1.0	1.1	1.3
50°	0.5	0.7	0.8	1.0	1.1

Altitude [m]	Input Speed [RPM]				
	400	800	1000	1500	2000
0	1.2	1.1	1.1	1.0	0.7
500	1.2	1.1	1.1	1.0	0.7
1000	1.1	1.0	1.0	0.9	0.6
1500	1.1	1.0	1.0	0.9	0.6
2000	1.1	1.0	1.0	0.9	0.6

P_d - Power to be Dissipated [kW]

the power that a cooling system must dissipate if the power to be transmitted exceeds the gearbox's thermal power.

η_m - Mechanical Efficiency

The ratio between mechanical power output and input; normally considered equal to 0.97 ÷ 0.98 for each epicycloidal reduction stage in the gearbox, and equal to 0.94 ÷ 0.95 for bevel gear; the actual value depends on a number of factors including speed, torque, ratio, assembly position and lubrication.

T_2 - Torque Transmitted [Nm]

this value represents torque continuously applied at a speed of n_1 , at which the gearbox has a theoretical lifetime of 10000 h for gears, or 5000 h (L_{h10}) for the bearings in gear mechanisms.

T_{max} - Maximum Transmissible torque [Nm]

the maximum torque transmitted by the accessory supplied with the gearbox, if applicable. This value may limit the maximum transmissible torque of the gearbox.

T_{2max} - Maximum Torque [Nm]

the maximum admissible output torque, as a peak value or for brief periods of time (calculated at 90% Rs of the weakest component).

For drives with a high number of start-ups or inversions, appropriately reduced maximum torque values should be considered.

The value specified refers to the version with a splined female shaft (FS); different versions may have lower values.

T_b - Braking Torque [Nm]

the value of braking torque that may be conveyed statically by the negative brake.

n_1 - Input Speed [RPM]

the speed on the fast side of the gearbox.

n_2 - Output Speed [RPM]

the speed on the slow side of the gearbox.

n_{1max} - Maximum Speed [RPM]

the maximum input speed at the brake. For applications with higher values, contact Dinamic Oil's sales service to determine application compatibility.

i_e - Effective Reduction Ratio

the actual reduction ratio, meaning the ratio between the gearbox's input and output speeds.

n_xh - Duration Index [RPMxh]

the value of the product between speed and duration of theoretical lifetime in hours. This value is expressed as n_2xh when used with output speed, n_1xh with used with input speed.

Duration Values Required for Different Applications

Application	Required Lifetime
Agricultural machinery	300 - 3000
Machines operated intermittently or for short periods of time (construction machines)	3000 - 8000
Machines operated intermittently or for short periods of time with high operational reliability (freight lifts)	8000 - 12000
Machines operated 8 hours a day but not all the time (various industrial machines, rotary mills)	10000 - 25000
Machines operated 8 hours a day all the time (various industrial machines, conveyor belts)	20000 - 30000
Machines operated continuously (rolling mills, textiles machines)	40000 - 50000

k_f - Correction Factor

the factor applied to calculate the theoretical lifetime of bearings with male shafts for values of n_xh other than those shown in catalog diagrams. External load curves are calculated for all gearboxes as:

- $n_2xh = 100000$ for output supports
- $n_1xh = 1500000$ for input supports

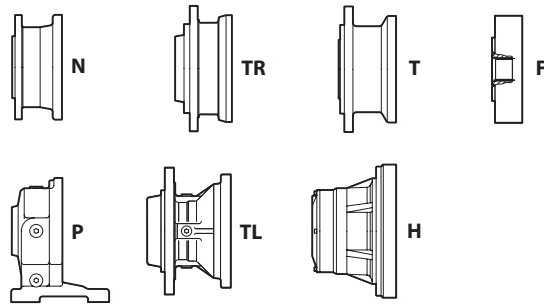
L_{min} - Minimum Length of Torque Arm [mm]

the minimum length recommended for the torque arm, applied to pendular applications.

Order code

RA 21 3 P S 78.7

OUTPUT VERSION



OUTPUT SHAFT

- S = Male spline
- F = Female spline
- C = Cylindrical shaft
- K = Extended cylindrical shaft
- E = Hexagonal shaft
- Q = Hollow female shaft
- FS = Female spline
- FC = Female cylindrical shaft
- U = Female cylindrical shaft

NUMBER OF STAGES

1 - 2 - 3 - 4 - 5 - 6

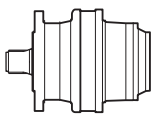
GEARBOX FRAME SIZE

RE - RA	RE - RA	GB - GBA	GB - GBA
110	1520	12010	61000
210	2000	16000	85000
240	2520	21000	110000
310	3000	26000	130000
510	3510	31000	GB
610	4800	40000	150000
810	6000	45000	205000
1020	8000	53000	235000

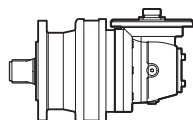
REDUCTION RATIO

Please write the exact ratio as shown on the selection table

EXECUTION



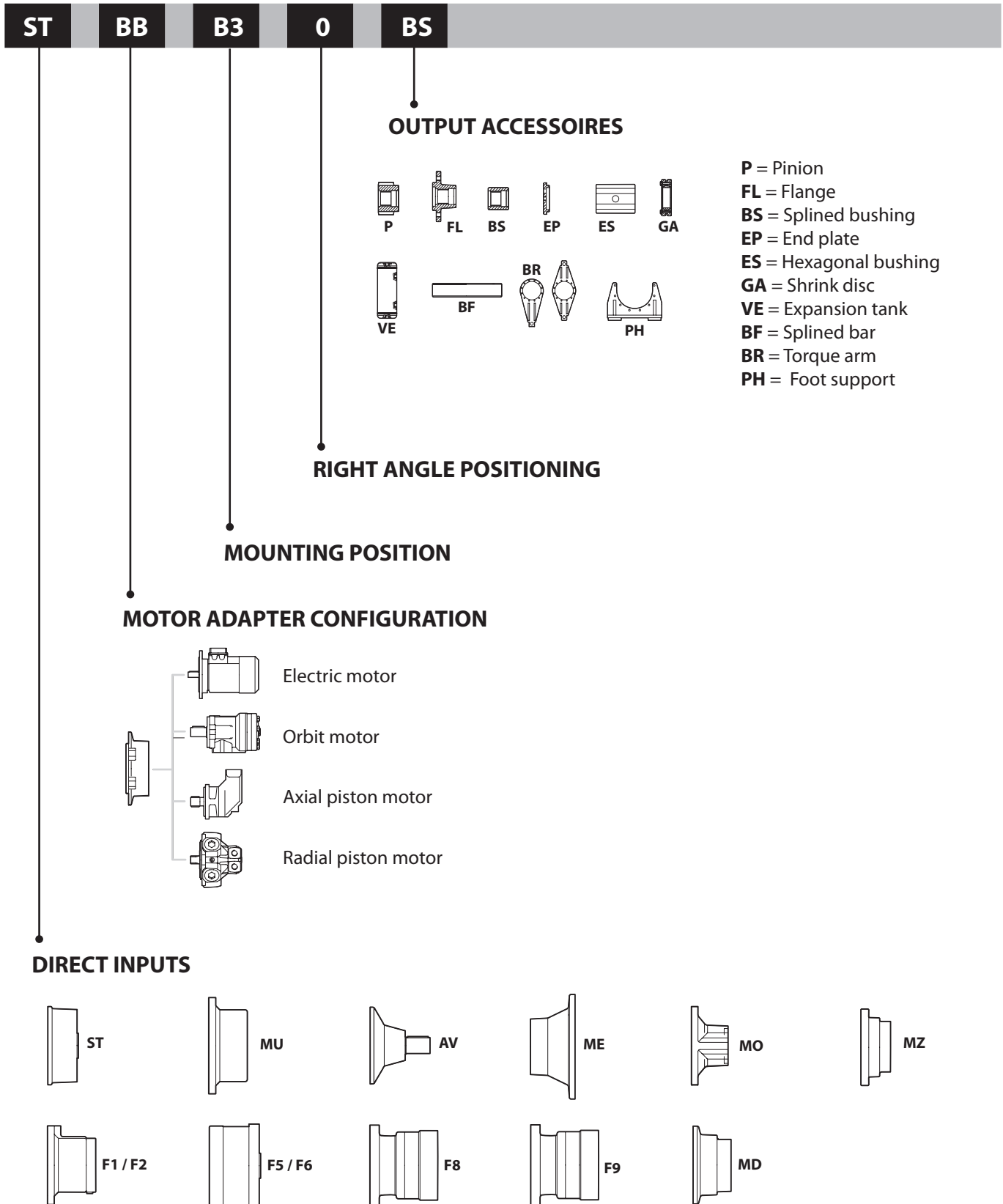
RE - GB = Linear



RA - GBA = Angular

COMPOSITION

- / = Standard
- L = Light
- R = Reinforced
- S = Special

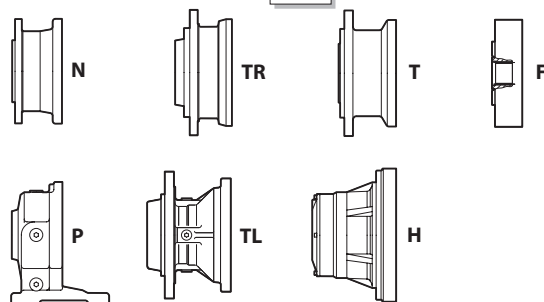


The example shows the ordering code for a right angle planetary gearbox frame 210, with 3 reduction stages a foot mounted output support and a male splined shaft, and 78.7 reduction ratio, with a "ST" input and "SAE B", 16/32 15 teeth motor adapter flange. Horizontal mounting position and standard right angle positioning, and a splined bushing output accessory.

Codice d'ordinazione

RA 21 3 P S 78.7

VERSIONE USCITA



ALBERO IN USCITA

- S = Scanalato maschio
- F = Scanalato femmina
- C = Cilindrico
- K = Cilindrico lungo
- E = Esagonale
- Q = Giunto di attrito
- FS = Femmina scanalato
- FC = Femmina cilindrico
- U = Femmina cilindrico

NUMERO STADI DI RIDUZIONE

1 - 2 - 3 - 4 - 5 - 6

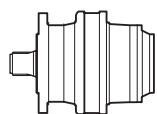
GRANDEZZA RIDUTTORE

RE - RA	RE - RA	GB - GBA	GB - GBA
110	1520	12010	61000
210	2000	16000	85000
240	2520	21000	110000
310	3000	26000	130000
510	3510	31000	GB
610	4800	40000	150000
810	6000	45000	205000
1020	8000	53000	235000

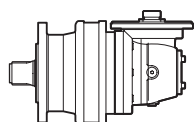
RAPPORTO DI RIDUZIONE

Indicare il valore del rapporto (compreso virgola e decimale) riportato sulle pagine dei dati tecnici relative ad ogni grandezza

ESECUZIONE



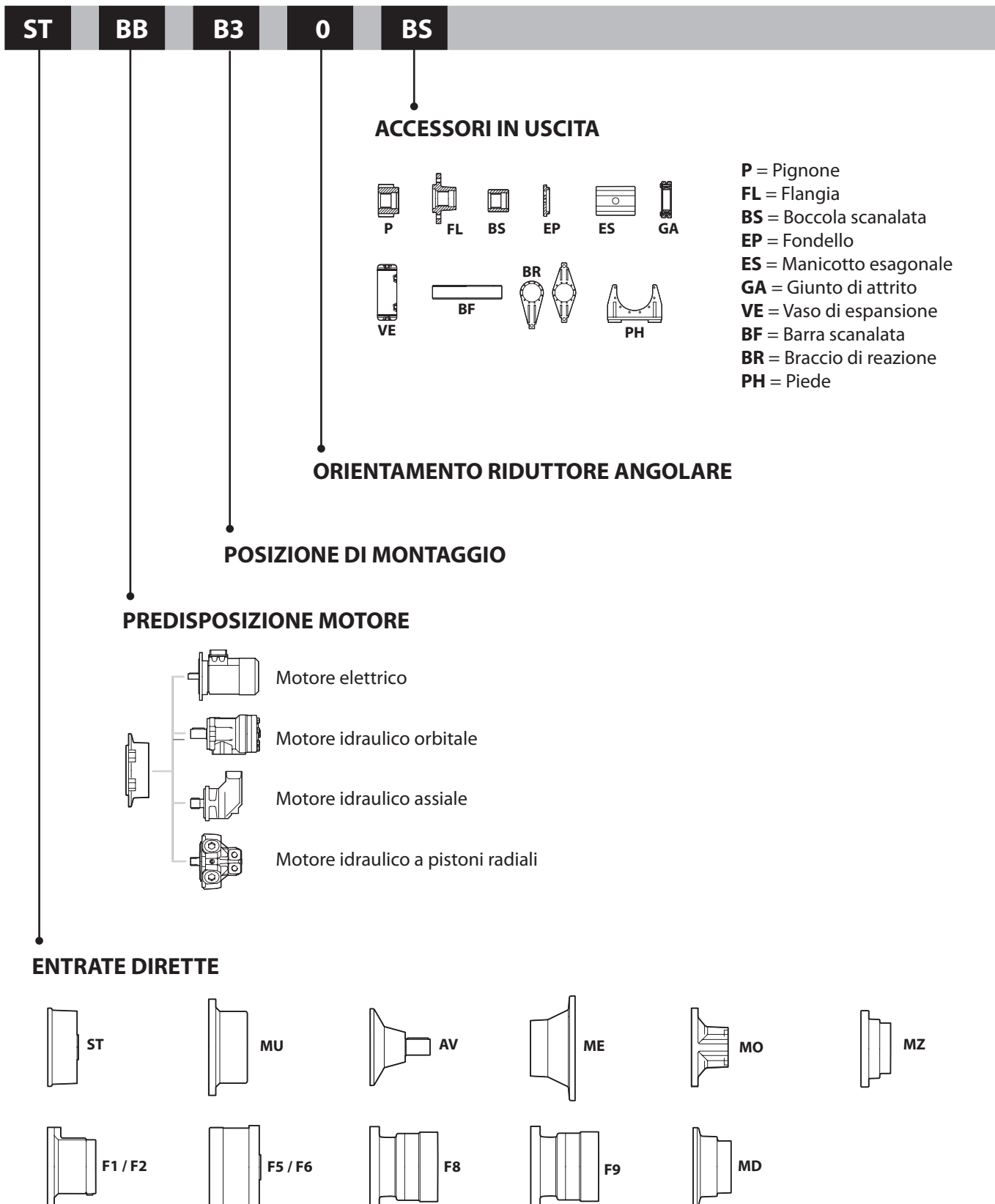
RE - GB = Lineare



RA - GBA = Angolare

COMPOSIZIONE

- / = Standard
- L = Light
- R = Rinforzato
- S = Speciale



Nell'esempio è illustrato il codice di ordinazione di un riduttore planetario angolare, grandezza 210, tre stadi di riduzione, versione in uscita con i piedi e albero scanalato, rapporto di riduzione 78.7, entrata standard, predisposizione per motore "SAE B" albero 16/32 z=15, posizione di montaggio del riduttore in uscita orizzontale, orientamento del riduttore angolare standard, boccola scanalata in uscita

LEGAL NOTES

All information in this catalogue has been checked; in case of possible mistakes, we decline all responsibility.

Dinamic Oil reserves the right to amend the technical data of this catalogue without prior notice.

For all further information please contact Dinamic Oil S.p.A. Commercial Department.

NOTE LEGALI

Tutti i contenuti riportati nel presente catalogo sono stati controllati; in caso di eventuali errori viene comunque declinata ogni responsabilità.

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