

Servomotors

Geared servomotors for SINAMICS S120

1FK7 helical geared motors

Selection and ordering data

Power at duty type S3-60 %	Output speed at the gear shaft	Rated output torque gearbox at duty type S3-60 %	Acceleration torque, max. gearbox	Nominal ratio	Exact ratio	Cantilever force, perm., gear shaft extension	Overload factor
P_2	n_2	M_2	M_{2max}	i_{nom}	i_{exact}	F_{Tperm}	f_B
kW (HP)	rpm	Nm (lb _f -ft)	Nm (lb _f -ft)			N (lb _f)	
Natural cooling – SH 36/SH 48/SH 63							
0.30 (0.40)	782	3.63 (2.68)	19 (14.0)	3.8	441/115	560 (126)	4.2
	476	5.96 (4.40)	29 (21.4)	6.3	2035/323	660 (148)	3.9
	291	9.74 (7.18)	51 (37.6)	10.5	1421/138	778 (175)	4.2
	192	14.8 (10.9)	72 (53.1)	15.5	1595/102	894 (201)	3.9
	129	22 (16.2)	65 (47.9)	23	325/14	1020 (229)	2.4
	86	33.1 (24.4)	65 (47.9)	35	1261/36	1170 (263)	1.6
	64	44.3 (32.7)	65 (47.9)	47	7865/168	1289 (290)	1.2
	43	66.6 (49.1)	138 (102)	70	775/11	2099 (472)	1.7
0.41 (0.55)	782	5.02 (3.70)	36 (26.6)	3.8	441/115	560 (126)	6.0
	476	8.25 (6.10)	55 (40.6)	6.3	2035/323	660 (148)	5.6
	291	13.5 (10.0)	72 (53.1)	10.5	1421/138	778 (175)	4.5
	192	20.5 (15.1)	72 (53.1)	15.5	1595/102	894 (201)	3.0
	128	30.8 (22.7)	138 (102)	24	1035/44	1456 (327)	3.8
	129	30.4 (22.4)	65 (47.9)	23	325/14	1020 (229)	1.8
	86	45.9 (33.9)	138 (102)	35	2700/77	1663 (374)	2.5
	86	45.9 (33.9)	65 (47.9)	35	1261/36	1170 (263)	1.2
	64	61.4 (45.3)	138 (102)	47	516/11	1833 (412)	1.9
	0.79 (1.06)	782	9.67 (7.10)	36 (26.6)	3.8	441/115	560 (126)
476		15.9 (11.7)	55 (40.6)	6.3	2035/323	660 (148)	3.0
	291	26 (19.2)	72 (53.1)	10.5	1421/138	778 (175)	2.4
	191	39.6 (29.2)	138 (102)	15.5	377/24	1273 (286)	3.0
	192	39.4 (29.1)	72 (53.1)	15.5	1595/102	894 (201)	1.6
	128	59.3 (43.7)	138 (102)	24	1035/44	1456 (327)	2.0
	86	88.4 (65.2)	138 (102)	35	2700/77	1663 (374)	1.4
	64	118 (87.0)	138 (102)	47	516/11	1833 (412)	1.0
1.43 (1.92)	782	17.5 (12.9)	50 (36.9)	3.8	441/115	560 (126)	2.2
	476	28.7 (21.2)	59 (43.5)	6.3	2035/323	660 (148)	1.6
	511	26.8 (19.8)	102 (75.2)	5.9	47/8	917 (206)	3.0
	291	46.9 (34.6)	72 (53.1)	10.5	1421/138	778 (175)	1.2
	289	47.3 (34.9)	138 (102)	10.5	841/81	1109 (249)	2.3
	191	71.6 (52.8)	138 (102)	15.5	377/24	1273 (286)	1.5
	196	69.7 (51.4)	230 (170)	15.5	703/46	1775 (399)	2.6
	128	107 (78.9)	138 (102)	25	1035/44	1456 (327)	1.0
	128	107 (78.9)	350 (258)	24	845/36	3045 (685)	2.6

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1FK7 helical geared motors

Gearbox size	Motor shaft height	1FK7 helical geared motors				Gearbox weight, approx. kg (lb)
		Order No.	Order codes	Type/gear shaft extension	Type of construction/ mounting position/ connector mounting position	
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D01	G . .	H . .	8.6 (19.0)
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D02	G . .	H . .	8.6 (19.0)
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D03	G . .	H . .	8.6 (19.0)
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D04	G . .	H . .	8.6 (19.0)
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D05	G . .	H . .	8.6 (19.0)
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D06	G . .	H . .	8.6 (19.0)
C002	36	1FK7032-5AK71-1 ■■■ 5-Z	D07	G . .	H . .	8.6 (19.0)
C102	36	1FK7032-5AK71-1 ■■■ 5-Z	D18	G . .	H . .	13.5 (29.8)
C002	48	1FK7040-5AK71-1 ■■■ 5-Z	D01	G . .	H . .	9.4 (20.7)
C002	48	1FK7040-5AK71-1 ■■■ 5-Z	D02	G . .	H . .	9.4 (20.7)
C002	48	1FK7040-5AK71-1 ■■■ 5-Z	D03	G . .	H . .	9.4 (20.7)
C002	48	1FK7040-5AK71-1 ■■■ 5-Z	D04	G . .	H . .	9.4 (20.7)
C102	48	1FK7040-5AK71-1 ■■■ 5-Z	D15	G . .	H . .	14.3 (31.5)
C002	48	1FK7040-5AK71-1 ■■■ 5-Z	D05	G . .	H . .	9.4 (20.7)
C102	48	1FK7040-5AK71-1 ■■■ 5-Z	D16	G . .	H . .	14.3 (31.5)
C002	48	1FK7040-5AK71-1 ■■■ 5-Z	D06	G . .	H . .	9.4 (20.7)
C102	48	1FK7040-5AK71-1 ■■■ 5-Z	D17	G . .	H . .	14.3 (31.5)
C002	48	1FK7042-5AF71-1 ■■■ 5-Z	D01	G . .	H . .	10.7 (23.6)
C002	48	1FK7042-5AF71-1 ■■■ 5-Z	D02	G . .	H . .	10.7 (23.6)
C002	48	1FK7042-5AF71-1 ■■■ 5-Z	D03	G . .	H . .	10.7 (23.6)
C102	48	1FK7042-5AF71-1 ■■■ 5-Z	D14	G . .	H . .	15.6 (34.4)
C002	48	1FK7042-5AF71-1 ■■■ 5-Z	D04	G . .	H . .	10.7 (23.6)
C102	48	1FK7042-5AF71-1 ■■■ 5-Z	D15	G . .	H . .	15.6 (34.4)
C102	48	1FK7042-5AF71-1 ■■■ 5-Z	D16	G . .	H . .	15.6 (34.4)
C102	48	1FK7042-5AF71-1 ■■■ 5-Z	D17	G . .	H . .	15.6 (34.4)
C002	63	1FK7060-5AF71-1 ■■■ 5-Z	D01	G . .	H . .	13.4 (29.6)
C002	63	1FK7060-5AF71-1 ■■■ 5-Z	D02	G . .	H . .	13.4 (29.6)
C102	63	1FK7060-5AF71-1 ■■■ 5-Z	D12	G . .	H . .	18.3 (40.4)
C002	63	1FK7060-5AF71-1 ■■■ 5-Z	D03	G . .	H . .	13.4 (29.6)
C102	63	1FK7060-5AF71-1 ■■■ 5-Z	D13	G . .	H . .	18.3 (40.4)
C102	63	1FK7060-5AF71-1 ■■■ 5-Z	D14	G . .	H . .	18.3 (40.4)
C202	63	1FK7060-5AF71-1 ■■■ 5-Z	D24	G . .	H . .	22.3 (49.2)
C102	63	1FK7060-5AF71-1 ■■■ 5-Z	D15	G . .	H . .	18.3 (40.4)
C302	63	1FK7060-5AF71-1 ■■■ 5-Z	D35	G . .	H . .	27.4 (60.4)
Encoder systems for motors without DRIVE-CLiQ interface:	IC2048S/R encoder AM2048S/R encoder (from shaft height 48) AM512S/R encoder (shaft height 36 only) AM32S/R encoder (from shaft height 48) AM16S/R encoder (shaft height 36 only) Multi-pole resolver 2-pole resolver	A E H G J S T				
Encoder systems for motors with DRIVE-CLiQ interface:	IC22DQ encoder AM22DQ encoder (from shaft height 48) AM20DQ encoder (shaft height 36 only) AM16DQ encoder (from shaft height 48) AM15DQ encoder (shaft height 36 only) R15DQ resolver R14DQ resolver	D F L K V U P				
Holding brake:	Motor without holding brake Motor with holding brake	U V				

Order codes for type/
gear shaft extension and type of
construction/mounting position/
connector mounting position,
see page 4/86.

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Power at duty type S3-60 %	Output speed at the gear shaft	Rated output torque gearbox at duty type S3-60 %	Acceleration torque, max. gearbox	Nominal ratio	Exact ratio	Cantilever force, perm., gear shaft extension	Overload factor
P_2	n_2	M_2	M_{2max}	i_{nom}	i_{exact}	F_{Tperm}	f_B
kW (HP)	rpm	Nm (lb _F -ft)	Nm (lb _F -ft)			N (lb _F)	
Natural cooling – SH 63/SH 80							
1.42 (1.90)	85	160 (118)	230 (170)	35	1372/39	2343 (527)	1.1
1.43 (1.92)	86	159 (117)	550 (406)	35	975/28	5961 (1340)	2.7
	60	227 (167)	400 (295)	50	2736/55	3911 (879)	1.4
1.44 (1.93)	60	229 (169)	600 (443)	50	1305/26	6734 (1514)	2.1
	43	319 (235)	550 (406)	70	559/8	7519 (1690)	1.4
	43	319 (235)	850 (627)	70	10075/144	9229 (2075)	2.1
2.23 (2.99)	782	27.2 (20.1)	50 (36.9)	3.8	441/115	560 (126)	1.2
	511	41.6 (30.7)	102 (75.2)	5.9	47/8	917 (206)	1.6
2.22 (2.98)	289	73.5 (54.2)	138 (102)	10.5	841/81	1109 (249)	1.2
	196	108 (79.7)	230 (170)	15.5	703/46	1775 (399)	1.4
	128	166 (122)	350 (258)	23	845/36	3045 (685)	1.4
2.23 (2.99)	86	247 (182)	550 (406)	35	975/28	5961 (1340)	1.5
	60	355 (262)	600 (443)	50	1305/26	6734 (1514)	1.1
2.23 (2.99)	43	495 (365)	850 (627)	70	10075/144	9229 (2075)	1.1
	773	25.6 (18.9)	101 (74.5)	3.9	1363/351	799 (180)	3.3
2.08 (2.79)	511	38.8 (28.6)	115 (84.8)	5.9	47/8	917 (206)	2.5
2.07 (2.78)	289	68.5 (50.5)	138 (102)	10.5	847/81	1109 (249)	1.7
	196	101 (74.5)	230 (170)	15.5	703/46	1775 (399)	1.9
2.08 (2.79)	191	104 (76.7)	138 (102)	15.5	377/24	1273 (286)	1.1
	128	155 (114)	350 (258)	23	845/36	3045 (685)	1.9
2.07 (2.78)	127	156 (115)	230 (170)	24	637/27	2051 (461)	1.3
	86	230 (170)	550 (406)	35	975/28	5961 (1340)	2.0
2.08 (2.79)	86	231 (170)	350 (258)	35	1261/36	3479 (782)	1.3
2.07 (2.78)	60	329 (243)	920 (679)	50	1943/39	8241 (1853)	2.4
2.09 (2.80)	44	454 (335)	1380 (1018)	69	620/9	12344 (2775)	2.6
3.20 (4.29)	773	39.5 (29.1)	101 (74.5)	3.9	1363/351	799 (180)	1.7
	772	39.6 (29.2)	154 (114)	3.9	486/125	1125 (253)	2.5
3.20 (4.29)	511	59.8 (44.1)	115 (84.8)	5.9	47/8	917 (206)	1.3
	518	59.0 (43.5)	176 (130)	5.8	666/115	1284 (289)	2.0
	320	95.6 (70.5)	230 (170)	9.4	2450/261	1509 (339)	1.6
3.20 (4.29)	322	94.8 (69.9)	350 (258)	9.3	3575/384	2237 (503)	2.4
	193	158 (117)	400 (295)	15.5	544/35	2654 (597)	1.7
3.18 (4.26)	190	160 (118)	600 (443)	16	63/4	4576 (1029)	2.5
3.19 (4.28)	128	238 (176)	550 (406)	23	1495/64	5219 (1173)	1.5
	128	238 (176)	850 (627)	23	1495/64	6402 (1439)	2.3
3.20 (4.29)	86	355 (262)	550 (406)	35	975/28	5961 (1340)	1.0
	86	355 (262)	1380 (1018)	35	1360/39	9838 (2212)	2.6
3.19 (4.28)	60	507 (374)	920 (679)	50	1943/39	2265 (509)	1.2
3.20 (4.29)	64	477 (352)	1971 (1454)	47	515/11	14923 (3355)	2.7
3.23 (4.33)	44	702 (518)	1380 (1018)	69	620/9	12344 (2775)	1.3
3.19 (4.28)	43	708 (522)	2300 (1697)	70	765/11	17027 (3828)	2.1

Gearbox size	Motor shaft height	1FK7 helical geared motors				Gearbox weight, approx. kg (lb)
		Order No.	Order codes	Gearbox type	Type/gear shaft extension Type of construction/ mounting position/ connector mounting position	
C202	63	1FK7060-5AF71-1 ■■■ 5-Z	D26	G . .	H . .	22.3 (49.2)
C402	63	1FK7060-5AF71-1 ■■■ 5-Z	D46	G . .	H . .	37.6 (82.9)
C302	63	1FK7060-5AF71-1 ■■■ 5-Z	D37	G . .	H . .	27.4 (60.4)
C402	63	1FK7060-5AF71-1 ■■■ 5-Z	D47	G . .	H . .	37.6 (82.9)
C402	63	1FK7060-5AF71-1 ■■■ 5-Z	D48	G . .	H . .	37.6 (82.9)
C502	63	1FK7060-5AF71-1 ■■■ 5-Z	D58	G . .	H . .	49.2 (108)
C002	63	1FK7063-5AF71-1 ■■■ 5-Z	D01	G . .	H . .	17.1 (37.7)
C102	63	1FK7063-5AF71-1 ■■■ 5-Z	D12	G . .	H . .	22.0 (48.5)
C102	63	1FK7063-5AF71-1 ■■■ 5-Z	D13	G . .	H . .	22.0 (48.5)
C202	63	1FK7063-5AF71-1 ■■■ 5-Z	D24	G . .	H . .	26.0 (57.3)
C302	63	1FK7063-5AF71-1 ■■■ 5-Z	D35	G . .	H . .	31.1 (68.6)
C402	63	1FK7063-5AF71-1 ■■■ 5-Z	D46	G . .	H . .	41.3 (91.1)
C402	63	1FK7063-5AF71-1 ■■■ 5-Z	D47	G . .	H . .	41.3 (91.1)
C502	63	1FK7063-5AF71-1 ■■■ 5-Z	D58	G . .	H . .	52.9 (117)
C102	80	1FK7080-5AF71-1 ■■■ 5-Z	D11	G . .	H . .	21.7 (47.9)
C102	80	1FK7080-5AF71-1 ■■■ 5-Z	D12	G . .	H . .	21.7 (47.9)
C102	80	1FK7080-5AF71-1 ■■■ 5-Z	D13	G . .	H . .	21.7 (47.9)
C202	80	1FK7080-5AF71-1 ■■■ 5-Z	D24	G . .	H . .	25.7 (56.7)
C102	80	1FK7080-5AF71-1 ■■■ 5-Z	D14	G . .	H . .	21.7 (47.9)
C302	80	1FK7080-5AF71-1 ■■■ 5-Z	D35	G . .	H . .	30.8 (67.9)
C202	80	1FK7080-5AF71-1 ■■■ 5-Z	D25	G . .	H . .	25.7 (56.7)
C402	80	1FK7080-5AF71-1 ■■■ 5-Z	D46	G . .	H . .	41.0 (90.4)
C302	80	1FK7080-5AF71-1 ■■■ 5-Z	D36	G . .	H . .	30.8 (67.9)
C502	80	1FK7080-5AF71-1 ■■■ 5-Z	D57	G . .	H . .	52.6 (116)
C612	80	1FK7080-5AF71-1 ■■■ 5-Z	D68	G . .	H . .	67.9 (150)
C102	80	1FK7083-5AF71-1 ■■■ 5-Z	D11	G . .	H . .	26.9 (59.3)
C202	80	1FK7083-5AF71-1 ■■■ 5-Z	D21	G . .	H . .	30.9 (68.1)
C102	80	1FK7083-5AF71-1 ■■■ 5-Z	D12	G . .	H . .	26.9 (59.3)
C202	80	1FK7083-5AF71-1 ■■■ 5-Z	D22	G . .	H . .	30.9 (68.1)
C202	80	1FK7083-5AF71-1 ■■■ 5-Z	D23	G . .	H . .	30.9 (68.1)
C302	80	1FK7083-5AF71-1 ■■■ 5-Z	D33	G . .	H . .	36.0 (79.4)
C302	80	1FK7083-5AF71-1 ■■■ 5-Z	D34	G . .	H . .	36.0 (79.4)
C402	80	1FK7083-5AF71-1 ■■■ 5-Z	D44	G . .	H . .	46.2 (102)
C402	80	1FK7083-5AF71-1 ■■■ 5-Z	D45	G . .	H . .	46.2 (102)
C502	80	1FK7083-5AF71-1 ■■■ 5-Z	D55	G . .	H . .	57.8 (127)
C402	80	1FK7083-5AF71-1 ■■■ 5-Z	D46	G . .	H . .	46.2 (102)
C612	80	1FK7083-5AF71-1 ■■■ 5-Z	D66	G . .	H . .	73.1 (161)
C502	80	1FK7083-5AF71-1 ■■■ 5-Z	D57	G . .	H . .	57.8 (127)
C712	80	1FK7083-5AF71-1 ■■■ 5-Z	D77	G . .	H . .	108.4 (239)
C612	80	1FK7083-5AF71-1 ■■■ 5-Z	D68	G . .	H . .	73.1 (161)
C712	80	1FK7083-5AF71-1 ■■■ 5-Z	D78	G . .	H . .	108.4 (239)
Encoder systems for motors without DRIVE-CLiQ interface:	IC2048S/R encoder AM2048S/R encoder AM32S/R encoder Multi-pole resolver 2-pole resolver	A E G S T				
Encoder systems for motors with DRIVE-CLiQ interface:	IC22DQ encoder AM22DQ encoder AM16DQ encoder R15DQ resolver R14DQ resolver	D F K U P				
Holding brake:	Motor without holding brake Motor with holding brake	U V				

Order codes for type/
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Power at duty type S3-60 %	Output speed at the gear shaft	Rated output torque gearbox at duty type S3-60 %	Acceleration torque, max. gearbox	Nominal ratio	Exact ratio	Cantilever force, perm., gear shaft extension	Overload factor
P_2 kW (HP)	n_2 rpm	M_2 Nm (lb _F -ft)	M_{2max} Nm (lb _F -ft)	i_{nom}	i_{exact}	F_{Tperm} N (lb _F)	f_B
Natural cooling – SH 100							
3.66 (4.91)	774 512	45.1 (33.3) 68.2 (50.3)	251 (185) 288 (212)	3.9 5.9	190/49 2584/441	1671 (376) 1917 (431)	3.7 2.8
3.64 (4.88)	322	108 (79.7)	350 (258)	9.3	3575/384	2237 (503)	2.2
3.66 (4.91)	193	181 (134)	400 (295)	15.5	544/35	2654 (597)	1.5
3.64 (4.88)	190	183 (135)	600 (443)	16	63/4	4576 (1029)	2.2
3.65 (4.89)	128 128	272 (201) 272 (201)	850 (627) 550 (406)	23 23	1495/64 1495/64	6402 (1439) 5219 (1173)	2.1 1.3
3.66 (4.91)	86	406 (300)	1380 (1018)	35	1360/39	9838 (2212)	2.3
3.65 (4.89)	66 64	528 (390) 545 (402)	1380 (1018) 2300 (1697)	45 47	136/3 515/11	1852 (416) 14923 (3355)	1.7 2.8
3.70 (4.96)	44	802 (592)	4140 (3054)	69	620/9	23146 (5203)	3.4
4.73 (6.34)	774	58.3 (43.0)	251 (185)	3.9	190/49	1671 (376)	2.5
4.72 (6.33)	512 324	88.1 (65.1) 139 (103)	288 (212) 550 (406)	5.9 9.3	2584/441 3445/372	1917 (431) 3834 (862)	1.9 2.3
	322 191	140 (103) 236 (174)	350 (258) 920 (679)	9.3 15.5	3575/384 377/24	2237 (503) 5609 (1261)	1.4 2.2
	190	237 (175)	600 (443)	16	63/4	4576 (1029)	1.5
4.70 (6.30)	128	351 (259)	850 (627)	23	1495/64	6402 (1439)	1.4
4.71 (6.32)	120	375 (277)	1650 (1217)	25	5185/208	8797 (1978)	2.5
4.75 (6.37)	86	527 (389)	2300 (1697)	35	2700/77	13552 (3047)	2.5
4.71 (6.32)	66	682 (503)	1380 (1018)	45	136/3	10737 (2414)	1.2
4.72 (6.33)	64	704 (519)	2300 (1697)	47	515/11	14923 (3355)	1.9
4.77 (6.40)	44	1036 (764)	4140 (3054)	69	620/9	23146 (5203)	2.3

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1FK7 helical geared motors

Gearbox size	Motor shaft height	1FK7 helical geared motors				Gearbox weight, approx. kg (lb)
		Order No.	Order codes	Type/gear shaft extension	Type of construction/ mounting position/ connector mounting position	
C302	100	1FK7100-5AF71-1 ■■■ 5-Z	D31	G . .	H . .	38.2 (84.2)
C302	100	1FK7100-5AF71-1 ■■■ 5-Z	D32	G . .	H . .	38.2 (84.2)
C302	100	1FK7100-5AF71-1 ■■■ 5-Z	D33	G . .	H . .	38.2 (84.2)
C302	100	1FK7100-5AF71-1 ■■■ 5-Z	D34	G . .	H . .	38.2 (84.2)
C402	100	1FK7100-5AF71-1 ■■■ 5-Z	D44	G . .	H . .	48.4 (107)
C502	100	1FK7100-5AF71-1 ■■■ 5-Z	D55	G . .	H . .	60.0 (132)
C402	100	1FK7100-5AF71-1 ■■■ 5-Z	D45	G . .	H . .	48.4 (107)
C612	100	1FK7100-5AF71-1 ■■■ 5-Z	D66	G . .	H . .	75.3 (166)
C612	100	1FK7100-5AF71-1 ■■■ 5-Z	D67	G . .	H . .	75.3 (166)
C712	100	1FK7100-5AF71-1 ■■■ 5-Z	D77	G . .	H . .	110.6 (244)
C812	100	1FK7100-5AF71-1 ■■■ 5-Z	D88	G . .	H . .	170.2 (375)
C302	100	1FK7101-5AF71-1 ■■■ 5-Z	D31	G . .	H . .	43.8 (96.6)
C302	100	1FK7101-5AF71-1 ■■■ 5-Z	D32	G . .	H . .	43.8 (96.6)
C402	100	1FK7101-5AF71-1 ■■■ 5-Z	D43	G . .	H . .	43.8 (96.6)
C302	100	1FK7101-5AF71-1 ■■■ 5-Z	D33	G . .	H . .	54.0 (119)
C502	100	1FK7101-5AF71-1 ■■■ 5-Z	D54	G . .	H . .	65.6 (145)
C402	100	1FK7101-5AF71-1 ■■■ 5-Z	D44	G . .	H . .	54.0 (119)
C502	100	1FK7101-5AF71-1 ■■■ 5-Z	D55	G . .	H . .	65.6 (145)
C612	100	1FK7101-5AF71-1 ■■■ 5-Z	D65	G . .	H . .	80.9 (178)
C712	100	1FK7101-5AF71-1 ■■■ 5-Z	D76	G . .	H . .	116.2 (256)
C612	100	1FK7101-5AF71-1 ■■■ 5-Z	D67	G . .	H . .	80.9 (178)
C712	100	1FK7101-5AF71-1 ■■■ 5-Z	D77	G . .	H . .	116.2 (256)
C812	100	1FK7101-5AF71-1 ■■■ 5-Z	D88	G . .	H . .	175.8 (388)
Encoder systems for motors without DRIVE-CLiQ interface:	IC2048S/R encoder AM2048S/R encoder AM32S/R encoder Multi-pole resolver 2-pole resolver	A E G S T				
Encoder systems for motors with DRIVE-CLiQ interface:	IC22DQ encoder AM22DQ encoder AM16DQ encoder R15DQ resolver R14DQ resolver	D F K U P				
Holding brake:	Motor without holding brake Motor <u>with</u> holding brake	U V				

Order codes for type/
gear shaft extension and type of
construction/mounting position/
connector mounting position,
see page 4/86.

Servomotors

Geared servomotors for SINAMICS S120

1FK7 helical geared motors

Selection and ordering data

Power at duty type S3-60 %	Output speed at the gear shaft	Rated output torque gearbox at duty type S3-60 %	Acceleration torque, max. gearbox	Nominal ratio	Exact ratio	Cantilever force, perm., gear shaft extension	Overload factor
P_2 kW (HP)	n_2 rpm	M_2 Nm (lb _F -ft)	M_{2max} Nm (lb _F -ft)	i_{nom}	i_{exact}	F_{Tperm} N (lb _F)	f_B
Natural cooling – SH 100							
5.19 (6.96)	644	77 (56.8)	251 (185)	3.9	190/49	1671 (376)	1.9
5.18 (6.95)	423	117 (86.3)	288 (212)	5.9	2584/441	1917 (431)	2.0
5.19 (6.96)	424	117 (86.3)	420 (310)	5.9	377/64	3297 (741)	1.4
5.18 (6.95)	269	184 (136)	350 (258)	9.3	3575/384	2237 (503)	2.5
5.20 (6.97)	241	206 (152)	850 (627)	9.3	3445/372	4886 (1098)	1.1
5.21 (6.99)	159	313 (231)	600 (443)	16	63/4	4576 (1029)	1.1
5.19 (6.96)	154	322 (238)	1650 (1217)	16	1037/64	7620 (1713)	2.9
5.20 (6.97)	107	464 (342)	850 (627)	23	1495/64	6402 (1439)	1.9
5.19 (6.96)	100	496 (366)	1650 (1217)	25	5185/208	8797 (1978)	1.1
5.23 (7.01)	72 71	694 (512) 703 (519)	1380 (1018) 4140 (3054)	35 35	1360/39 106/3	9838 (2212) 18528 (4165)	3.4 1.1
5.17 (6.93)	53	931 (687)	2300 (1697)	47	515/11	14923 (3355)	2.2
5.18 (6.95)	46	1076 (794)	4140 (3054)	54	704/13	21362 (4802)	1.2
5.16 (6.92)	36	1370 (1011)	4140 (3054)	69	620/9	23146 (5203)	1.1
7.92 (10.6)	770	98.2 (72.4)	366 (270)	3.9	841/216	2872 (646)	2.0
7.93 (10.6)	774	97.8 (72.1)	251 (185)	3.9	190/49	1671 (377)	1.4
7.95 (10.7)	513	148 (109)	650 (479)	5.9	117/20	4036 (907)	2.4
7.93 (10.6)	512	148 (109)	288 (212)	5.9	2584/441	1917 (431)	1.1
7.94 (10.7)	324 324	234 (173) 234 (173)	850 (627) 550 (406)	9.3 9.3	3445/372 3445/372	4703 (1057) 3834 (862)	2.0 1.3
7.92 (10.6)	191 185	396 (292) 409 (302)	920 (679) 1650 (1217)	16 16	377/24 1037/64	5609 (1261) 7620 (1713)	1.3 2.2
7.90 (10.6)	129 120	585 (432) 629 (464)	2300 (1697) 1650 (1217)	23 25	255/11 5185/208	11806 (2654) 8797 (1978)	2.1 1.4
7.93 (10.6)	85	891 (657)	4140 (3054)	36	106/3	18528 (4165)	2.5
7.96 (10.7)	86	884 (652)	2300 (1697)	35	2700/77	13552 (3047)	1.4
7.93 (10.6)	66	1148 (847)	4140 (3054)	46	592/13	20163 (4533)	2.0
7.91 (10.6)	64	1181 (871)	2300 (1697)	47	515/11	14923 (3355)	1.1
8.00 (10.7)	44	1737 (1281)	4140 (3054)	69	620/9	23146 (5203)	1.3

Servomotors

Geared servomotors for SINAMICS S120

1FK7 helical geared motors

Gearbox size	Motor shaft height	1FK7 helical geared motors				Gearbox weight, approx. kg (lb)
		Order No.	Order codes	Gearbox type	Type/gear shaft extension Type of construction/ mounting position/ connector mounting position	
C302	100	1FK7103-5AF71-1 ■■■ 5-Z	D31	G . .	H . .	50.4 (111)
C302	100	1FK7103-5AF71-1 ■■■ 5-Z	D32	G . .	H . .	50.4 (111)
C402	100	1FK7103-5AF71-1 ■■■ 5-Z	D42	G . .	H . .	60.6 (134)
C302	100	1FK7103-5AF71-1 ■■■ 5-Z	D33	G . .	H . .	50.4 (111)
C502	100	1FK7103-5AF71-1 ■■■ 5-Z	D53	G . .	H . .	72.2 (159)
C402	100	1FK7103-5AF71-1 ■■■ 5-Z	D44	G . .	H . .	60.6 (134)
C612	100	1FK7103-5AF71-1 ■■■ 5-Z	D64	G . .	H . .	87.5 (193)
C502	100	1FK7103-5AF71-1 ■■■ 5-Z	D55	G . .	H . .	72.2 (159)
C612	100	1FK7103-5AF71-1 ■■■ 5-Z	D65	G . .	H . .	87.5 (193)
C612	100	1FK7103-5AF71-1 ■■■ 5-Z	D66	G . .	H . .	87.5 (193)
C812	100	1FK7103-5AF71-1 ■■■ 5-Z	D86	G . .	H . .	182.4 (402)
C712	100	1FK7103-5AF71-1 ■■■ 5-Z	D77	G . .	H . .	122.8 (271)
C812	100	1FK7103-5AF71-1 ■■■ 5-Z	D87	G . .	H . .	182.4 (402)
C812	100	1FK7103-5AF71-1 ■■■ 5-Z	D88	G . .	H . .	182.4 (402)
C402	100	1FK7105-5AF71-1 ■■■ 5-Z	D41	G . .	H . .	70.6 (156)
C302	100	1FK7105-5AF71-1 ■■■ 5-Z	D31	G . .	H . .	60.4 (133)
C502	100	1FK7105-5AF71-1 ■■■ 5-Z	D52	G . .	H . .	82.2 (181)
C302	100	1FK7105-5AF71-1 ■■■ 5-Z	D32	G . .	H . .	60.4 (133)
C502	100	1FK7105-5AF71-1 ■■■ 5-Z	D53	G . .	H . .	82.2 (181)
C402	100	1FK7105-5AF71-1 ■■■ 5-Z	D43	G . .	H . .	70.6 (156)
C502	100	1FK7105-5AF71-1 ■■■ 5-Z	D54	G . .	H . .	82.2 (181)
C612	100	1FK7105-5AF71-1 ■■■ 5-Z	D64	G . .	H . .	97.5 (215)
C712	100	1FK7105-5AF71-1 ■■■ 5-Z	D75	G . .	H . .	132.8 (293)
C612	100	1FK7105-5AF71-1 ■■■ 5-Z	D65	G . .	H . .	97.5 (215)
C812	100	1FK7105-5AF71-1 ■■■ 5-Z	D86	G . .	H . .	192.4 (424)
C712	100	1FK7105-5AF71-1 ■■■ 5-Z	D76	G . .	H . .	132.8 (293)
C812	100	1FK7105-5AF71-1 ■■■ 5-Z	D87	G . .	H . .	192.4 (424)
C712	100	1FK7105-5AF71-1 ■■■ 5-Z	D77	G . .	H . .	132.8 (293)
C812	100	1FK7105-5AF71-1 ■■■ 5-Z	D88	G . .	H . .	192.4 (424)
Encoder systems for motors without DRIVE-CLiQ interface:	IC2048S/R encoder AM2048S/R encoder AM32S/R encoder Multi-pole resolver 2-pole resolver	A E G S T				
Encoder systems for motors with DRIVE-CLiQ interface:	IC22DQ encoder AM22DQ encoder AM16DQ encoder R15DQ resolver R14DQ resolver	D F K U P				
Holding brake:	Motor <u>without</u> holding brake Motor <u>with</u> holding brake	U V				

Order codes for type/
gear shaft extension and type of
construction/mounting position/
connector mounting position,
see page 4/86.