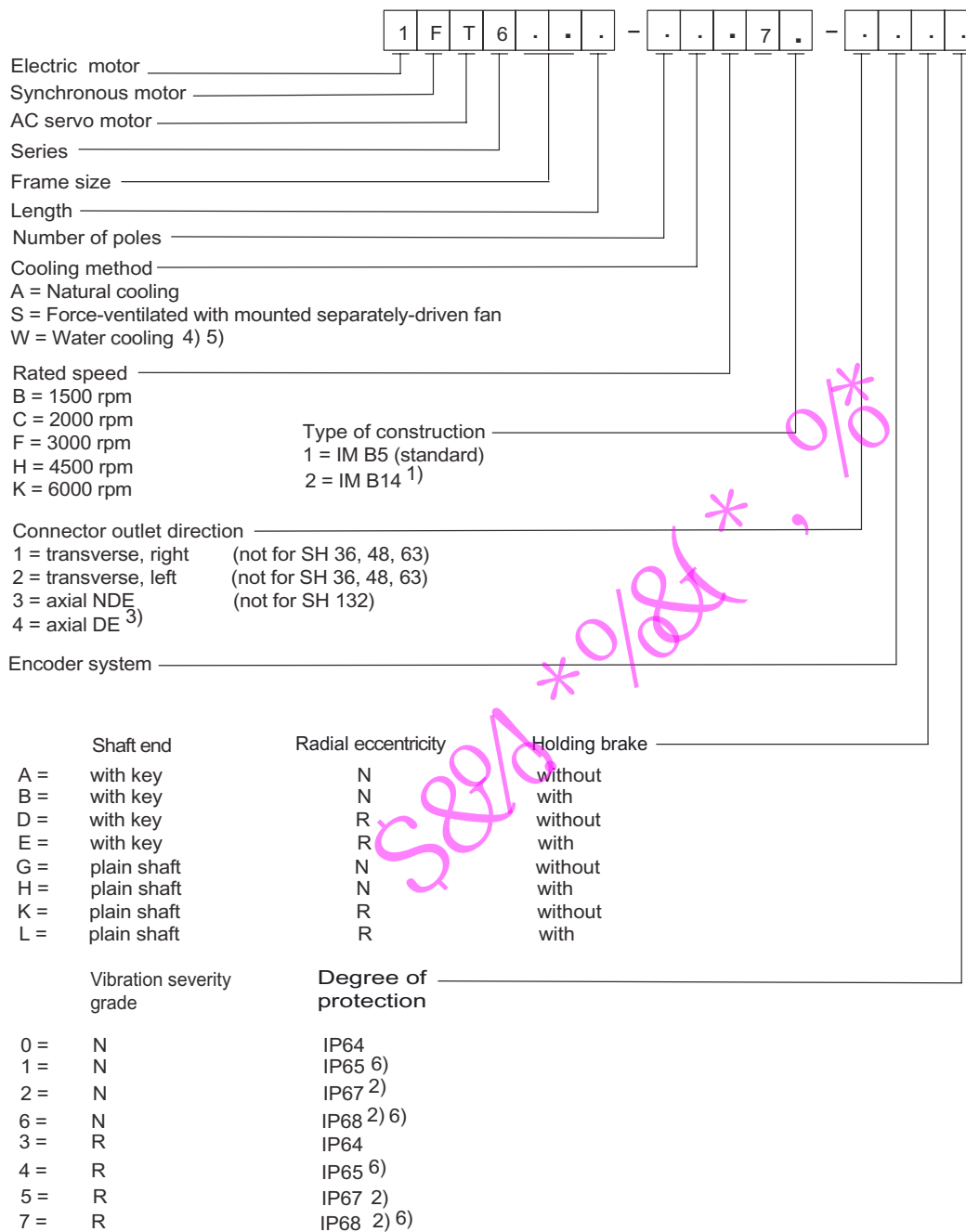


1.3 Order designation

Order designation (standard types), SH 28 to SH 132 (natural cooling, forced ventilation and water cooling)

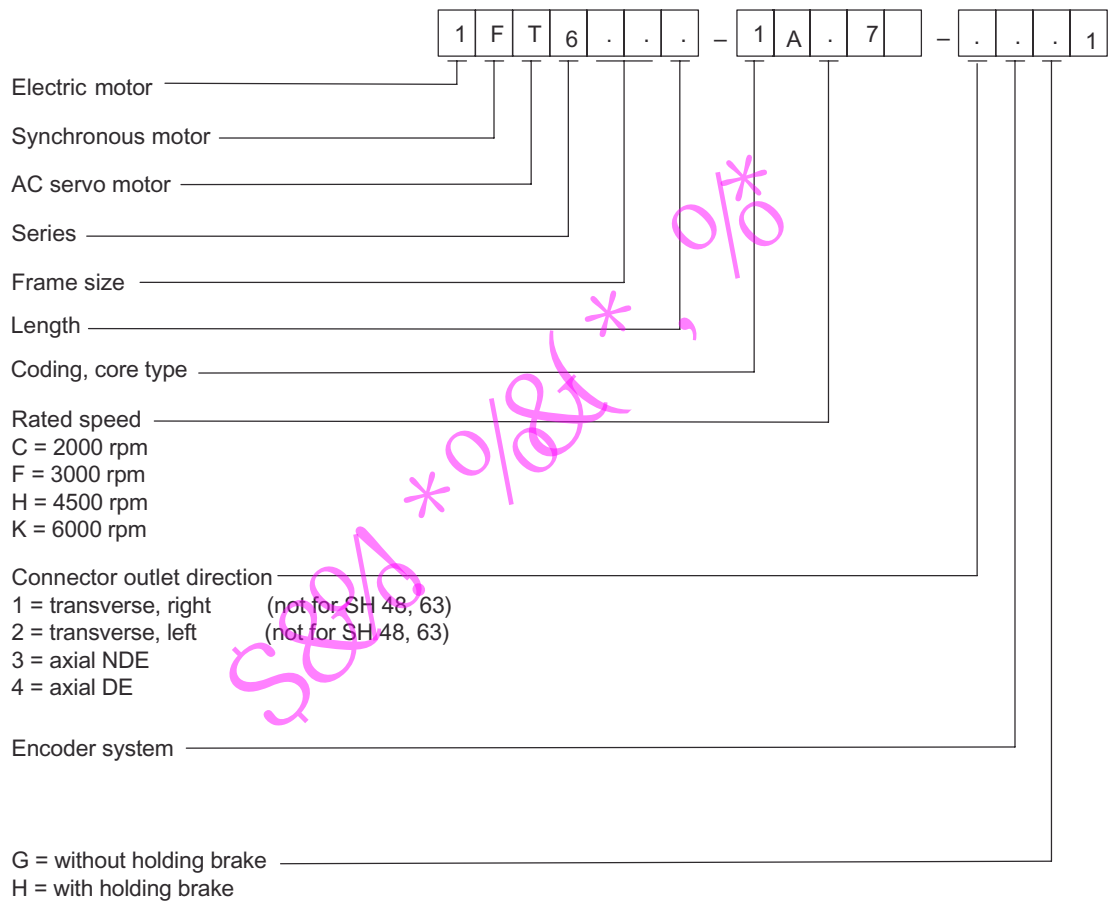


Motor Description

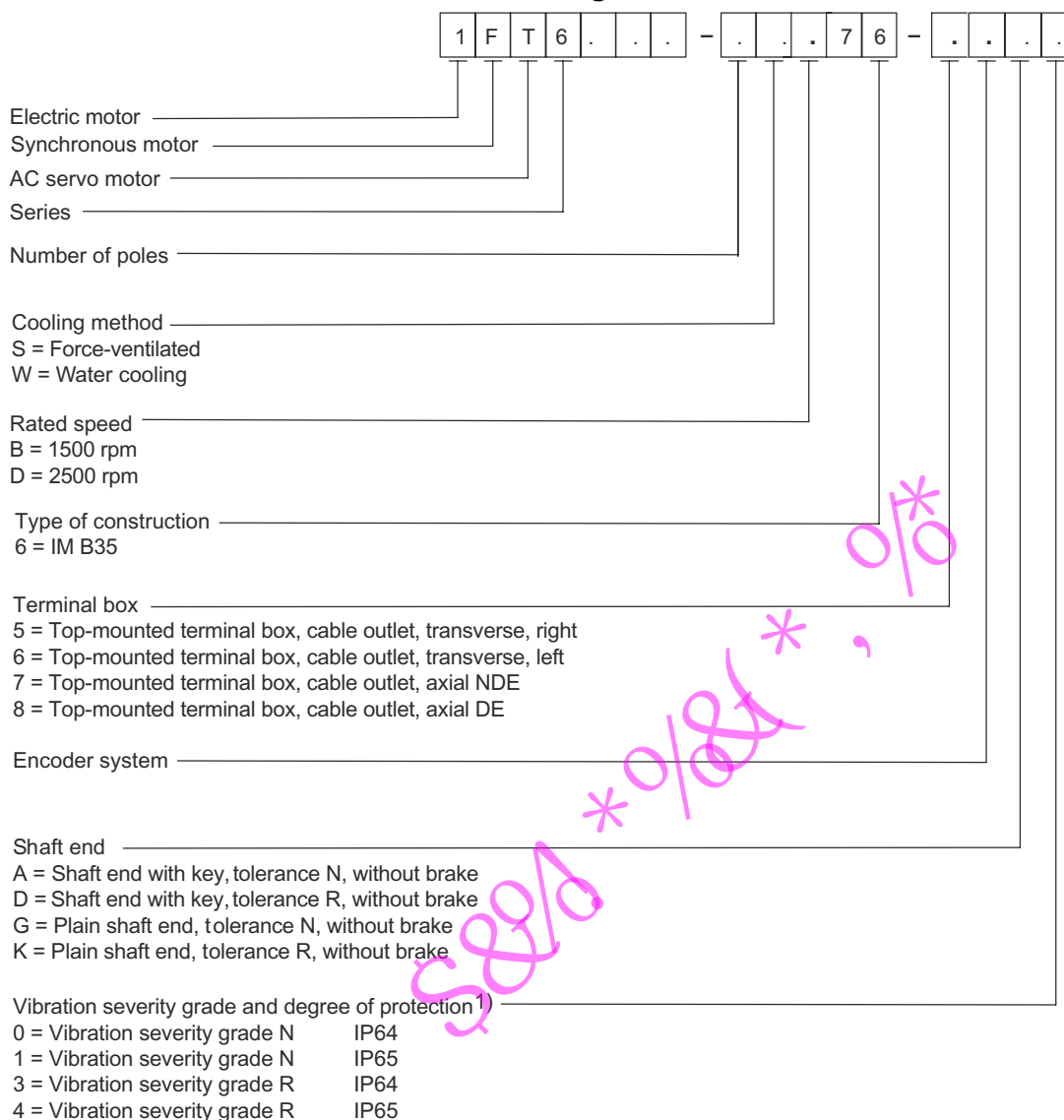
Order designation

- 1) Only for SH 63, 80, 100
- 2) Not for motors with forced ventilation
- 3) For 1FT6062, only in conjunction with the water connection either at the side or below.
- 4) Water connection, on the right-hand side (code -ZQ20) or on the left-hand side (-ZQ21) or at the bottom (-ZQ22).
- 5) If code -ZQ2□ is not specified, then the motor is supplied with the water connection at the top.
- 6) Not available for 1FT602□

Order designation (core types)



Order designation for SH 132 water cooling and SH 160 forced ventilation and water cooling



- 1) Specified degree of protection is valid for water cooling; for air cooling, restrictions apply as a result of the mounted fan IP54

1.4 Technical data

Core types have a gray background. **100 K** values are specified in the table.

Technical data 1FT6, rated speed 1500 RPM

n_N [rpm]	M_0 [Nm]	M_N [Nm]	$M_N^{1)}$ [Nm]	Motor type 1FT6-	I_0 [A]	I_N [A]	Connector size 2)	Cross- section 3) [mm ²]	Cable type 4) 5) 6FX□002- 6)	Terminal box 2)
Natural cooling										
1500	27.0	24.5	22.05	102-8AB7 □	8.7	8.4	1.5	4 x 1.5	5□S21-1 □□0	gk130
1500	50.0	41.0	36.9	105-8AB7 □	16.0	14.5	1.5	4 x 2.5	5□S31-1 □□0	gk130
1500	70.0	61.0	54.9	108-8AB7 □	22.3	20.5	1.5	4 x 4	5□S41-1 □□0	gk130
1500	75.0	62.0	55.8	132-6AB7 □	21.6	19	1.5	4 x 4	5□S41-1 □□0	gk230
1500	95.0	75.0	67.5	134-6AB7 □	27.0	24	1.5	4 x 4	5□S41-1 □□0	gk230
1500	115.0	88.0	79.2	136-6AB7 □	34.0	27	1.5	4 x 10	5□S61-1 □□0	gk230
Forced ventilation										
1500	65.0	59.0	53.1	105-8SB7 □	21.9	21.7	1.5	4 x 4	5□S41-1 □□0	gk130
1500	90.0	83.0	74.7	108-8SB7 □	30.0	31	1.5	4 x 6	5□S51-1 □□0	gk130
1500	110.0	102.0	91.8	132-6SB7 □	36.0	36	3	4 x 10	5□S13-1 □□0	gk230
1500	140.0	130.0	117.0	134-6SB7 □	44.0	45	3	4 x 10	5□S13-1 □□0	gk230
1500	175.0	160.0	144.0	136-6SB7 □	55.0	55	3	4 x 16	5□S23-1 □□0	gk420
1500	425	385	347	163-8SB7 □ ⁸⁾	151	136	—	—	—	gk630 ¹¹⁾
1500	600	540	486	168-8SB7 □ ⁸⁾	194	174	—	—	—	gk630 ¹¹⁾
Water cooling										
1500	119.0	116.0	116.0	108-8WB7 □	43.0	43	3	4 x 10	5□S13-1 □□0	gk230
1500	155	150	150	132-6WB7 □ ⁸⁾	58	58	—	—	—	gk630 ⁹⁾
1500	200	185	185	134-6WB7 □ ⁸⁾	73	67	—	—	—	gk630 ¹⁰⁾
1500	240	230	230	136-6WB7 □ ⁸⁾	92	90	—	—	—	gk630 ¹¹⁾
1500	300	290	290	138-6WB7 □ ⁸⁾	112	112	—	—	—	gk630 ¹¹⁾
1500	450	450	450	163-8WB7 □ ⁸⁾	160	160	—	—	—	gk630 ¹¹⁾
1500	700	690	690	168-8WB7 □ ⁸⁾	225	221	—	—	—	gk630 ¹¹⁾

Number of poles

without brake cable: with overall shield
with brake cable: with overall shield

C
D

Cables are not included with the motors -
they must be separately ordered.

Lengths⁷⁾ (examples)

5 m AF
10 m BA
15 m BF
18 m BJ
25 m CF

- 1) With absolute encoder (due to the max. encoder temperature)
- 2) Power connector and terminal box mutually exclude each other
- 3) Motor with terminal box, max. cross-section that can be connected, refer to Table "Connections for terminal boxes"
- 4) The shock hazard protection of the power cables depends on the size of the selected power module (refer to the Configuration Manual, Drive Converters)
- 5) Motor with terminal box, power and signal cables, refer to Catalog, Chapter "MOTION-CONNECT connection system"
- 6) 6FX8002 = MOTION-CONNECT 800;
6FX5002 = MOTION-CONNECT 500
- 7) Cables are supplied by the meter; length code, refer to the Configuration Manual "General Section for Synchronous Motors"
- 8) For 1FT613□ motors, the maximum current and rated current of the drive converter must be observed. 1FT616□ motors can only be operated together with SIMOVERT MASTERDRIVES MC drive converters.
- 9) Cable entry 2 x M32 x 1.5
- 10) Cable entry 2 x M40 x 1.5
- 11) Cable entry 2 x M50 x 1.5

S&A *0/8)*, 0/0

Motor Description

Technical data

Technical data 1FT6, rated speed 2000 RPM

n_N [rpm]	M_0 [Nm]	M_N [Nm]	$M_N^{1)}$ [Nm]	Motor type 1FT6-	I_0 [A]	I_N [A]	Conne- tor size 2)	Cross- section ³⁾ [mm ²]	Cable type 4)5) 6FX□002- 6)	Terminal box 2)
Natural cooling										
2000	4.0	3.7	3.3	061-6AC7□	1.9	1.9	1	4 x 1.5	5□S01-1□□0	—
2000	6.0	5.2	4.6	062-6AC7□	2.7	2.6	1	4 x 1.5	5□S01-1□□0	—
2000	9.5	8.0	7.2	064-6AC7□	4.2	3.8	1	4 x 1.5	5□S01-1□□0	—
2000	8.0	7.5	6.7	081-8AC7□	3.9	4.1	1.5	4 x 1.5	5□S21-1□□0	—
2000	13.0	11.4	10.0	082-8AC7□	6.6	6.6	1.5	4 x 1.5	5□S21-1□□0	—
2000	20.0	16.9	15.2	084-8AC7□	8.8	8.3	1.5	4 x 1.5	5□S21-1□□0	—
2000	27.0	22.5	20.2	086-8AC7□	11.3	10.9	1.5	4 x 1.5	5□S21-1□□0	—
2000	27.0	23.0	20.7	102-□AC7□	12.1	11	1.5	4 x 1.5	5□S21-1□□0	gk130
2000	50.0	38.0	34.2	105-□AC7□	21.4	17.6	1.5	4 x 4	5□S41-1□□0	gk130
2000	70.0	55.0	49.5	108-8AC7□	29.0	24.5	1.5	4 x 6	5□S51-1□□0	gk130
2000	75.0	55.0	49.5	132-6AC7□	29.0	23	1.5	4 x 6	5□S51-1□□0	gk230
2000	95.0	65.0	58.5	134-6AC7□	36.0	27	1.5	4 x 10	5□S61-1□□0	gk230
2000	115.0	74.0	66.6	136-6AC7□	42.0	30	3	4 x 10	5□S13-1□□0	gk230
Forced ventilation										
2000	65.0	56.0	50.4	105-8SC7□	30.0	28	1.5	4 x 6	5□S51-1□□0	gk230
2000	90.0	80.0	72.0	108-8SC7□	41.0	40	3	4 x 10	5□S13-1□□0	gk230
2000	110.0	98.0	88.2	132-6SC7□	47.0	46	3	4 x 10	5□S13-1□□0	gk420
2000	140.0	125.0	112.5	134-6SC7□	58.0	57	3	4 x 16	5□S23-1□□0	gk420
2000	175.0	155.0	139.5	136-6SC7□	77.0	72	3	4 x 25	5DS33-1□□0	gk420
Water cooling										
2000	85.0	82.0	82.0	105-8WC7□	58.0	60	3	4 x 16	5□S23-1□□0	gk230
2000	119.0	115.0	115.0	108-8WC7□	57.0	57	3	4 x 16	5□S23-1□□0	gk230

1 Core type
8 Number of poles

without brake cable: with overall shield
with brake cable: with overall shield

C
D

Lengths⁷⁾
(examples)

5 m AF
10 m BA
15 m BF
18 m BJ
25 m CF

Cables are not included with the motors -
they must be separately ordered.

Technical data 1FT6, rated speed 2500 RPM

n_N [rpm]	M_0 [Nm]	M_N [Nm]	M_N ¹⁾ [Nm]	Motor type 1FT6-	I_0 [A]	I_N [A]	Connector size ²⁾	Cross-section ³⁾ [mm ²]	Cable type ^{4) 5)} 6FX□002- ⁶⁾	Terminal box ²⁾
Forced ventilation										
2500	425	340	306	163-8SD 7□ ⁸⁾	226	185	—	—	—	gk630 11)
Water cooling										
2500	155	148	148	132-6WD7 □ ⁸⁾	92	82	—	—	—	gk630 10)
2500	200	185	185	134-6WD7 □ ⁸⁾	122	115	—	—	—	gk630 11)
2500	240	220	220	136-6WD7 □ ⁸⁾	158	149	—	—	—	gk630 11)
2500	300	275	275	138-6WD7 □ ⁸⁾	167	162	—	—	—	gk630 11)
2500	425	340	340	163-8WD7 □ ⁸⁾	240	240	—	—	—	gk630 11)

↓
Number of poles

Cables are not included with the motors -
they must be separately ordered.

- 1) With absolute encoder (due to the max. encoder temperature)
- 2) Power connector and terminal box mutually exclude each other
- 3) Motor with terminal box, max. cross-section that can be connected, refer to Table "Connections for terminal boxes"
- 4) The shock hazard protection of the power cables depends on the size of the selected power module (refer to the Configuration Manual, Drive Converters)
- 5) Motor with terminal box, power and signal cables, refer to Catalog, Chapter "MOTION-CONNECT connection system"
- 6) 6FX8002 = MOTION-CONNECT 800;
6FX5002 = MOTION-CONNECT 500
- 7) Cables are supplied by the meter; length code, refer to the Configuration Manual "General Section for Synchronous Motors"
- 8) For 1FT613□ motors, the maximum current and rated current of the drive converter must be observed. 1FT616□ motors can only be operated together with SIMOVERT MASTERDRIVES MC drive converters.
- 9) Cable entry 2 x M32 x 1.5
- 10) Cable entry 2 x M40 x 1.5
- 11) Cable entry 2 x M50 x 1.5

Motor Description

Technical data

Technical data 1FT6, rated speed 3000 RPM

n _N [rpm]	M ₀ [Nm]	M _N [Nm]	M _N ¹⁾ [Nm]	Motor type 1FT6-	I ₀ [A]	I _N [A]	Connector size 2)	Cross-section 3) [mm ²]	Cable type 4) 5) 6FX □002- 6)	Terminal box 2)
Natural cooling										
3000	2.6	2.15	2.0	041-4AF7□	1.9	1.7	1	4 x 1.5	5□S01-1 □□0	—
3000	5.0	4.3	4.1	044-□AF7□	3.0	2.9	1	4 x 1.5	5□S01-1 □□0	—
3000	4.0	3.5	3.3	061-6AF7□	2.7	2.6	1	4 x 1.5	5□S01-1 □□0	—
3000	6.0	4.7	4.5	062-□AF7□	4.1	3.4	1	4 x 1.5	5□S01-1 □□0	—
3000	9.5	7.0	6.7	064-□AF7□	6.1	4.9	1	4 x 1.5	5□S01-1 □□0	—
3000	8.0	6.9	6.6	081-8AF7□	5.8	5.6	1.5	4 x 1.5	5□S21-1 □□0	—
3000	13.0	10.3	9.8	082-□AF7□	9.6	8.7	1.5	4 x 1.5	5□S21-1 □□0	—
3000	20.0	14.7	14.0	084-□AF7□	13.2	11	1.5	4 x 1.5	5□S21-1 □□0	—
3000	27.0	18.5	17.6	086-□AF7□	16.4	13	1.5	4 x 2.5	5□S31-1 □□0	—
3000	27.0	19.5	18.5	102-8AF7□	16.9	13.2	1.5	4 x 2.5	5□S31-1 □□0	gk130
3000	50.0	31.0	29.0	105-8AF7□	32.0	22.5	1.5	4 x 6	5□S51-1 □□0	gk130
3000	70.0	37.0	33.3	108-8AF7□	41.0	25	3	4 x 10	5□S13-1 □□0	gk230
3000	75.0	36.0	34.2	132-6AF7□	43.0	23	3	4 x 10	5□S13-1 □□0	gk230
Forced ventilation										
3000	26.0	22.0	21.0	084-8SF7□	18.2	17	1.5	4 x 2.5	5□S31-1 □□0	—
3000	35.0	31.0	29.0	086-8SF7□	25.0	24.5	1.5	4 x 4	5□S41-1 □□0	—
3000	65.0	50.0	48.0	105-8SF7□	42.0	35	3	4 x 10	5□S13-1 □□0	gk230
3000	90.0	70.0	63.0	108-8SF7□	62.0	53	3	4 x 16	5□S23-1 □□0	gk420
3000	110.0	90.0	81.0	132-6SF7□	69.0	62	3	4 x 25	5DS33-1 □□0	gk420
3000	140.0	110.0	99.0	134-6SF7□	83.0	72	3	4 x 25	5DS33-1 □□0	gk420
3000	175.0	145.0	130.5	136-6SF7□	110.0	104	—	—	—	gk420
Water cooling										
3000	10.2	10.1	10.1	062-6WF7□	6.9	6.9	1	4 x 1.5	5□S01-1 □□0	—
3000	16.2	16.1	16.1	064-6WF7□	10.3	10.3	1	4 x 1.5	5□S01-1 □□0	—
3000	35.0	35.0	35.0	084-8WF7□	24.5	27	1.5	4 x 4	5□S41-1 □□0	—
3000	47.0	46.0	46.0	086-8WF7□	34.0	37	1.5	4 x 10	5□S61-1 □□0	—
3000	85.0	78.0	78.0	105-8WF7□	83.0	82	3	4 x 25	5DS33-1 □□0	gk420
3000	119.0	109.0	109.0	108-8WF7□	86.0	81	3	4 x 35	5DS43-1 □□0	gk420

1 Core type without brake cable: with overall shield
 4, 6, 8 Number of poles with brake cable: with overall shield

C
D

Lengths ⁷⁾
(examples)

5 m A F
 10 m B A
 15 m B F
 18 m B J
 25 m C F

Cables are not included with the motors - they must be separately ordered. Footnotes, refer to the next page.

Technical data 1FT6, rated speed 4500 RPM

n _N [rpm]	M ₀ [Nm]	M _N [Nm]	M _N ¹⁾ [Nm]	Motor type 1FT6-	I ₀ [A]	I _N [A]	Connector size 2)	Cross-section 3) [mm ²]	Cable type 4) 5) 6FX□002- 6)	Terminal box 2)
Natural cooling										
4500	4.0	2.9	2.6	061-6AH7□	4.0	3.4	1	4 x 1.5	5□S01-1 □□0	—
4500	6.0	3.6	3.2	062-□SH7□	5.7	3.9	1	4 x 1.5	5□S01-1 □□0	—
4500	9.5	4.8	4.3	064-□SH7□	9.0	5.5	1	4 x 1.5	5□S01-1 □□0	—
4500	8.0	5.8	5.2	081-8AH7□	8.6	7.3	1.5	4 x 1.5	5□S21-1 □□0	—
4500	13.0	8.5	7.7	082-□SH7□	14.8	11	1.5	4 x 1.5	5□S21-1 □□0	—
4500	20.0	10.5	9.5	084-□SH7□	19.8	12.5	1.5	4 x 4	5□S41-1 □□0	—
4500	27.0	12.0	10.8	086-□SH7□	23.3	12.6	1.5	4 x 4	5□S41-1 □□0	—
4500	27.0	12.0	10.8	102-8AH7□	24.1	12	1.5	4 x 4	5□S41-1 □□0	gk130
Forced ventilation										
4500	26.0	20.0	18.0	084-8SH7□	26.0	24.5	1.5	4 x 4	5□S41-1 □□0	—
4500	35.0	27.0	24.3	086-8SH7□	38.0	32	3	4 x 10	5□S13-1 □□0	—
4500	65.0	40.0	36.0	105-8SH7□	59.0	41	3	4 x 16	5□S23-1 □□0	gk420
Water cooling										
4500	10.2	10.0	10.0	062-6WH7□	9.7	9.6	1	4 x 1.5	5□S01-1 □□0	—
4500	16.2	16.0	16.0	064-6WH7□	15.4	15.2	1	4 x 2.5	5□S11-1 □□0	—
4500	35.0	35.0	35.0	084-8WH7□	37.0	39	1.5	4 x 10	5□S61-1 □□0	—
4500	47.0	45.0	45.0	086-8WH7□	52.0	53	3	4 x 16	5□S23-1 □□0	—

1 Core type without brake cable: with overall shield
6, 8 Number of poles With brake cable: with overall shield

Lengths 7)
(examples)

C 5 m A F
D 10 m B A
15 m B F
18 m B J
25 m C F

Cables are not included with the motors - they must be separately ordered.

- 1) With absolute encoder (due to the max. encoder temperature)
- 2) Power connector and terminal box mutually exclude each other
- 3) Motor with terminal box, max. cross-section that can be connected, refer to Table "Connections for terminal boxes"
- 4) The shock hazard protection of the power cables depends on the size of the selected power module (refer to the Configuration Manual, Drive Converters)
- 5) Motor with terminal box, power and signal cables, refer to Catalog, Chapter "MOTION-CONNECT connection system"
- 6) 6FX8002 = MOTION-CONNECT 800;
6FX5002 = MOTION-CONNECT 500
- 7) Cables are supplied by the meter; length code, refer to the Configuration Manual "General Section for Synchronous Motors"

Motor Description

Technical data

Technical data 1FT6, rated speed 6000 RPM

n_N [rpm]	M_0 [Nm]	M_N [Nm]	$M_N^{1)}$ [Nm]	Motor type 1FT6-	I_0 [A]	I_N [A]	Connector size ²⁾	Cross-section 3) [mm ²]	Cable type 4) 5) 6FX□□002- 6)	Terminal box 2)
Natural cooling										
6000	0.4	0.3	0.22	021-6AK71	1.25	1.1	1	4 x 1.5	5□S01-1 □□0	—
6000	0.8	0.5	0.37	024-6AK71	1.25	0.9	1	4 x 1.5	5□S01-1 □□0	—
6000	1.0	0.75	0.6	031-4AK71	1.4	1.2	1	4 x 1.5	5□S01-1 □□0	—
6000	2.0	1.4	1.2	034-□AK71	2.6	2.1	1	4 x 1.5	5□S01-1 □□0	—
6000	2.6	1.7	1.4	041-4AK71	3.0	2.4	1	4 x 1.5	5□S01-1 □□0	—
6000	5.0	3.0	2.6	044-4AK71	5.9	4.1	1	4 x 1.5	5□S01-1 □□0	—
6000	4.0	2.1	1.8	061-6AK7□	5.0	3.1	1	4 x 1.5	5□S01-1 □□0	—
6000	6.0	2.1	1.8	062-6AK7□	7.6	3.2	1	4 x 1.5	5□S01-1 □□0	—
6000	9.5	2.1	1.8	064-6AK7□	12.0	3.5	1	4 x 1.5	5□S01-1 □□0	—
6000	8.0	4.6	3.9	081-8AK7□	11.1	7.7	1.5	4 x 1.5	5□S21-1 □□0	—
6000	13.0	5.5	4.7	082-8AK7□	17.3	9.1	1.5	4 x 2.5	5□S31-1 □□0	—
6000	20.0	6.5	5.5	084-□AK7□	24.1	9.2	1.5	4 x 4	5□S41-1 □□0	—
Forced ventilation										
6000	26.0	17.0	14.5	084-8SK7□	35.0	25.5	1.5	4 x 10	5□S61-1 □□0	—
6000	35.0	22.0	18.7	086-8SK7□	44.0	29.0	3	4 x 10	5□S13-1 □□0	—
Water cooling										
6000	10.2	9.8	9.8	062-6WK7□	12.9	12.7	1	4 x 1.5	5□S01-1 □□0	—
6000	16.2	15.8	15.8	064-6WK7□	20.5	20	1	4 x 2.5	5□S11-1 □□0	—
6000	35.0	34.0	34.0	084-8WK7□	47.0	51	3	4 x 10	5□S13-1 □□0	—
6000	47.0	44.0	44.0	086-8WK7□	59.0	58	3	4 x 16	5□S23-1 □□0	—

1 Core type
4, 8 Number of poles

without brake cable:
with brake cable:

with overall shield
with overall shield

C
D

Lengths ⁷⁾
(examples)

5 m A F
10 m B A
15 m B F
18 m B J
25 m C F

Cables are not included with the motors - they must be separately ordered.

