



## Synchronous motors

### 1FK7 Compact motors Natural cooling

#### Selection and ordering data

Rated speed	Shaft height	Rated power	Static torque	Rated torque <sup>1)</sup>	Rated current	1FK7 Compact synchronous motor Natural cooling	Number of pole pairs	Rotor moment of inertia (without brake)	Weight (without brake)
$n_{rated}$	SH	$P_{rated}$ at $\Delta T=100$ K	$M_0$ at $\Delta T=100$ K	$M_{rated}$ at $\Delta T=100$ K	$I_{rated}$ at $\Delta T=100$ K	Order No.	$J$	$m$	
rpm		kW (HP)	Nm (lb <sub>r</sub> -ft)	Nm (lb <sub>r</sub> -ft)	A		$10^{-4}$ kgm <sup>2</sup> ( $10^{-3}$ lb <sub>r</sub> -in-s <sup>2</sup> )	kg (lb)	
2000	100	4.29 (5.75)	27.0 (19.9)	20.5 (15.1)	9.6	1FK7101-5AC71-17 7 7	4	79.9 (70.7)	21.0 (46.3)
		5.23 (7.01)	36.0 (26.6)	25.0 (18.4)	11.5	1FK7103-5AC71-17 7 7	4	105.0 (92.9)	29.0 (63.9)
		7.75 (10.4)	48.0 (35.4)	37.0 (27.3)	16.0	1FK7105-5AC71-17 7 7	4	156.0 (138)	39.0 (86.2)
3000	48	0.82 (1.1)	3.0 (2.2)	2.6 (1.9)	1.95	1FK7042-5AF71-17 7 7	4	3.01 (2.66)	4.9 (10.8)
	63	1.48 (2.0)	6.0 (4.4)	4.7 (3.5)	3.7	1FK7060-5AF71-1 7 7 7	4	7.95 (7.04)	7.0 (15.4)
		2.29 (3.1)	11.0 (8.2)	7.3 (5.4)	5.6	1FK7063-5AF71-1 7 7 7	4	15.1 (13.3)	11.5 (25.4)
	80	2.14 (2.9)	8.0 (5.9)	6.8 (5.0)	4.4	1FK7080-5AF71-1 7 7 7	4	15.0 (13.2)	10.0 (22.1)
		3.3 (4.4)	16.0 (11.8)	10.5 (7.7)	7.4	1FK7083-5AF71-1 7 7 7	4	27.3 (24.1)	14.0 (30.9)
	100	3.77 (5.1)	18.0 (13.3)	12.0 (8.8)	8.0	1FK7100-5AF71-1 7 7 7	4	55.3 (48.9)	19.0 (41.9)
		4.87 (6.5)	27.0 (19.9)	15.5 (11.4)	11.8	1FK7101-5AF71-1 7 7 7	4	79.9 (70.7)	21.0 (46.3)
5.37 (7.2) <sup>2)</sup>		36.0 (26.6)	20.5 (15.1) <sup>2)</sup>	16.5 <sup>2)</sup>	1FK7103-5AF71-1 7 7 7	4	105.0 (92.9)	29.0 (63.9)	
8.17 (11.0)		48.0 (35.4)	26.0 (19.2)	18.0	1FK7105-5AF71-1 7 7 7	4	156.0 (138)	39.0 (86.2)	
4500	63	1.74 (2.3)	6.0 (4.4)	3.7 (2.7)	4.1	1FK7060-5AH71-1 7 7 7	4	7.95 (7.04)	7.0 (15.4)
		2.09 (2.8) <sup>3)</sup>	11.0 (8.2)	5.0 (3.7) <sup>3)</sup>	6.1 <sup>3)</sup>	1FK7063-5AH71-1 7 7 7	4	15.1 (13.3)	11.5 (25.4)
	80	2.39 (3.2) <sup>3)</sup>	8.0 (5.9)	5.7 (4.2) <sup>3)</sup>	5.6 <sup>3)</sup>	1FK7080-5AH71-1 7 7 7	4	15.0 (13.2)	10.0 (22.1)
		3.04 (4.1) <sup>4)</sup>	16.0 (11.8)	8.3 (6.1) <sup>4)</sup>	9.0 <sup>4)</sup>	1FK7083-5AH71-1 7 7 7	4	27.3 (24.1)	14.0 (30.9)
6000	20	0.05 (0.1)	0.18 (0.1)	0.08 (0.1)	0.85	1FK7011-5AK71-1 7 7 3	4	0.064 (0.06)	0.9 (2.0)
		0.10 (0.1)	0.35 (0.3)	0.16 (0.1)	0.85	1FK7015-5AK71-1 7 7 3	4	0.083 (0.08)	1.1 (2.4)
	28	0.43 (0.6)	0.85 (0.6)	0.6 (0.4)	1.4	1FK7022-5AK71-1 7 7 7	3	0.28 (0.25)	1.8 (4.0)
	36	0.50 (0.7)	1.1 (0.8)	0.8 (0.6)	1.3	1FK7032-5AK71-17 7 7	3	0.61 (0.54)	2.7 (6.0)
		0.63 (0.8)	1.6 (1.2)	1.0 (0.7)	1.3	1FK7034-5AK71-1 7 7 7	3	0.9 (0.80)	3.7 (8.2)
	48	0.69 (0.9)	1.6 (1.2)	1.1 (0.8)	1.7	1FK7040-5AK71-1 7 7 7	4	1.69 (1.50)	3.5 (7.7)
		1.02 (1.4) <sup>5)</sup>	3.0 (2.2)	1.95 (1.4) <sup>5)</sup>	3.1 <sup>5)</sup>	1FK7042-5AK71-1 7 7 7	4	3.01 (2.66)	4.9 (10.8)

<b>Encoder systems for motors without DRIVE-CLiQ-interface:</b>	Incremental encoder sin/cos 1 V <sub>pp</sub>	A	
	Absolute encoder EnDat 2048 S/R <sup>1)</sup> (not for 1FK701 to 1FK703)	E	
	Absolute encoder EnDat 512 S/R <sup>1)</sup> (only for 1FK702 to 1FK703)	H	
	Absolute encoder EnDat 32 S/R <sup>1)</sup> (not for 1FK701 to 1FK703)	G	
	Absolute encoder EnDat 16 S/R <sup>1)</sup> (only for 1FK701 to 1FK703)	J	
<b>Encoder systems for motors with DRIVE-CLiQ-interface</b>	22-bit absolute resolver	S	
	20-bit absolute resolver	T	
<b>Encoder systems for motors</b>	(not for 1FK701 bis 20 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> )	D	
	(only for 1FK702/1FK703) 16 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> )	F	
	(not for 1FK701 bis 1FK703) 15 bit absolute encoder, single-turn +12 bit multi-	L	
<b>Shaft extension:</b> Fitted key and keyway Fitted key and keyway Plain shaft Plain shaft	<b>Shaft and flange accuracy:</b> Tolerance N Tolerance N Tolerance N	<b>Holding brake:</b> without with without	A
			B
			C
	IP64 (not for 1FK701)	0	
	IP65 and DE flange IP67 (not for 1FK701)	2	
	IP64 (IP54 for 1FK701) and anthracite paint finish	3	
	IP65 and DE flange IP67 anthracite paint finish (not for	5	



## Synchronous motors

### 1FK7 Compact motors Natural cooling

#### Selection and ordering data

Motor type (continued)	Static current  $I_0$ at $M_0$ $\Delta T=100$ K  A	SINAMICS S110 Power Module		Power cable with complete shield		
		Rated output current <sup>7)</sup>  $I_{rated}$  A	Blocksize format  Order No.	Motor connection (and brake connection) via power connector		
				Power connector  Size	Cable cross- section <sup>8)</sup>  mm <sup>2</sup>	Pre-assembled cable MOTION-CONNECT 500  Order No.
1FK7101-5AC71...	12.3	18.0	<b>6SL3210-1SE21-87 A0</b>	1.5	4 x 1.5	<b>6FX5002-57 G21-....</b>
1FK7103-5AC71...	14.7	18.0	<b>6SL3210-1SE21-87 A0</b>	1.5	4 x 1.5	<b>6FX5002-57 G21-....</b>
1FK7105-5AC71...	20.0	25.0	<b>6SL3210-1SE22-57 A0</b>	1.5	4 x 2.5	<b>6FX5002-57 G31-....</b>
1FK7042-5AF71...	2.2	2.2	<b>6SL3210-1SE12-2UA0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7060-5AF71...	4.5	5.9	<b>6SL3210-1SE16-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7063-5AF71...	8.0	10.2	<b>6SL3210-1SE21-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7080-5AF71...	4.8	5.9	<b>6SL3210-1SE16-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7083-5AF71...	10.4	18.0	<b>6SL3210-1SE21-87 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7100-5AF71...	11.2	18.0	<b>6SL3210-1SE21-87 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7101-5AF71...	19.0	25.0	<b>6SL3210-1SE22-57 A0</b>	1.5	4 x 2.5	<b>6FX5002-57 G31-....</b>
1FK7103-5AF71...	27.5	32.0	<b>6SL3210-1SE23-27 A0</b>	1.5	4 x 4	<b>6FX5002-57 G41-....</b>
1FK7105-5AF71...	31.0	32.0	<b>6SL3210-1SE23-27 A0</b>	1.5	4 x 10	<b>6FX5002-57 G61-....</b>
1FK7060-5AH71...	6.2	7.7	<b>6SL3210-1SE17-77 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7063-5AH71...	12.0	18.0	<b>6SL3210-1SE21-87 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7080-5AH71...	7.4	7.7	<b>6SL3210-1SE17-77 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7083-5AH71...	15.0	18.0	<b>6SL3210-1SE21-87 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7011-5AK71...	1.5	1.7	<b>6SL3210-1SE11-7UA0</b>	0.5	4 x 1.5	<b>6FX5002-5DA30-....</b>
1FK7015-5AK71...	1.5	1.7	<b>6SL3210-1SE11-7UA0</b>	0.5	4 x 1.5	<b>6FX5002-5DA30-....</b>
1FK7022-5AK71...	1.8	2.2	<b>6SL3210-1SE12-2UA0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7032-5AK71...	1.7	1.7	<b>6SL3210-1SE11-7UA0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7034-5AK71...	1.9	2.2	<b>6SL3210-1SE12-2UA0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7040-5AK71...	2.25	3.1	<b>6SL3210-1SE13-1UA0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7042-5AK71...	4.4	5.9	<b>6SL3210-1SE16-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
<b>Line filter:</b> without line filter with integrated line filter				<b>U</b> <b>A</b>		
Without brake cores With brake cores						<b>C</b> <b>D</b>
For length code as well as power and signal cables, see MOTION-CONNECT connection system.						....

<sup>1)</sup> If the absolute encoder is used,  $M_{rated}$  is reduced by 10 %.

<sup>2)</sup> These values refer to  $n = 2500$  rpm.

<sup>3)</sup> These values refer to  $n = 4000$  rpm.

<sup>4)</sup> These values refer to  $n = 3500$  rpm.

<sup>5)</sup> These values refer to  $n = 5000$  rpm.

<sup>6)</sup> Motors with shaft height 20 are not available with a DRIVE-CLiQ interface. The encoder systems are connected via the SMC (Sensor Module Cabinet-Mounted).

<sup>7)</sup> With default setting of the pulse frequency.

<sup>8)</sup> The current carrying capacity of the power cables complies with EN 60204-1 for installation type C, for continuous duty at an ambient air



## Synchronous motors

### 1FK7 High Dynamic motors Natural cooling

#### Selection and ordering data

Rated speed	Shaft height	Rated power	Static torque	Rated torque <sup>1)</sup>	Rated current	1FK7 High Dynamic synchronous motor Natural cooling	Number of pole pairs	Rotor moment of inertia (without brake)	Weight (without brake)
$n_{rated}$	SH	$P_{rated}$ at $\Delta T=100$ K	$M_0$ at $\Delta T=100$ K	$M_{rated}$ at $\Delta T=100$ K	$I_{rated}$ at $\Delta T=100$ K	Order No.	$J$	$m$	
rpm		kW (HP)	Nm (lb <sub>f</sub> -ft)	Nm (lb <sub>f</sub> -ft)	A		$10^{-4}$ kgm <sup>2</sup> ( $10^{-3}$ lb <sub>f</sub> -in-s <sup>2</sup> )	kg (lb)	
3000	48	1.1 (1.48)	4.0 (2.9)	3.5 (2.6)	4	1FK7044-7AF71-1 7 7 7	3	1.28 (1.13)	7.7 (17)
	63	1.7 (2.28)	6.4 (4.7)	5.4 (4.0)	5.3	1FK7061-7AF71-1 7 7 7	3	3.4 (3.01)	10.0 (22.1)
		2.51 (3.37)	12.0 (8.8)	8.0 (5.9)	7.5	1FK7064-7AF71-1 7 7 7	3	6.5 (5.75)	15.5 (34.2)
	80	3.14 (4.21) <sup>2)</sup>	22.0 (16.2)	12.0 (8.8) <sup>2)</sup>	12.5 <sup>2)</sup>	1FK7085-7AF71-1 7 7 7	4	23.0 (20.3)	23.5 (51.8)
3.77 (5.06) <sup>3)</sup>		28.0 (20.6)	18.0 (13.3) <sup>3)</sup>	14.5 <sup>3)</sup>	1FK7086-7AF71-1 7 7 7	4	23.0 (20.3)	23.5 (51.8)	
4500	48	1.23 (1.65)	3.1 (2.3)	2.6 (1.9)	4	1FK7043-7AH71-1 7 7 7	3	1.0 (0.89)	6.3 (13.9)
		1.41 (1.89)	4.0 (2.9)	3.0 (2.2)	4.9	1FK7044-7AH71-1 7 7 7	3	1.28 (1.13)	7.7 (17)
	63	2.03 (2.72)	6.4 (4.7)	4.3 (3.2)	5.9	1FK7061-7AH71-1 7 7 7	3	3.4 (3.01)	10.0 (22.1)
		2.36 (3.16)	12.0 (8.8)	5.0 (3.7)	7	1FK7064-7AH71-1 7 7 7	3	6.5 (5.75)	15.5 (34.2)
6000	36	0.57 (0.76)	1.3 (1.0)	0.9 (0.7)	1.5	1FK7033-7AK71-1 7 7 7	3	0.27 (0.24)	3.1 (6.8)
	48	1.26 (1.69)	3.1 (2.3)	2.0 (1.5)	4.4	1FK7043-7AK71-1 7 7 7	3	1.0 (0.89)	6.3 (13.9)

<b>Encoder systems for motors without DRIVE-CLiQ-interface:</b>	Incremental encoder sin/cos 1 V <sub>pp</sub> 2048 S/R	A
	Absolute encoder EnDat 2048 S/R <sup>1)</sup> (not for 1FK703)	E
	Absolute encoder EnDat 512 S/R <sup>1)</sup> (only for 1FK703)	H
	Absolute encoder EnDat 32 S/R <sup>1)</sup> (not for 1FK703)	G
	Absolute encoder EnDat 16 S/R <sup>1)</sup> (only for 1FK703)	J
	Multi-pole resolver	S
2-pole resolver	T	
<b>Encoder systems for motors with DRIVE-CLiQ-interface:</b>	22 bit incremental encoder	D
	22 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (not for 1FK703)	F
	20 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (only for 1FK703)	L
	16 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (not for 1FK703)	K
	15 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (only for 1FK703)	V
	15 bit resolver	U
	14 bit resolver	P
<b>Shaft extension:</b>	Fitted key and keyway	A B G H
	Fitted key and keyway	
	Plain shaft	
	Plain shaft	
<b>Shaft and flange accuracy:</b>	Tolerance N	A B G H
	Tolerance N	
	Tolerance N	
	Tolerance N	
<b>Holding brake:</b>	without	A B G H
	with	
<b>Degree of protection:</b>	IP64	0 2 3 5
	IP65 and DE flange IP67	
	IP64 and anthracite paint finish	
	IP64 and DE flange IP67, anthracite paint finish	



## Synchronous motors

### 1FK7 High Dynamic motors Natural cooling

#### Selection and ordering data

Motor type (continued)	Static current  $I_0$ at $M_0$ $\Delta T=100$ K A	SINAMICS S110 Power Module		Power cable with complete shield		
		Rated output current <sup>4)</sup> $I_{rated}$ A	Blocksize format  Order No.	Motor connection (and brake connection) via power connector		
				Power connector Size	Cable cross-section <sup>5)</sup> mm <sup>2</sup>	Pre-assembled cable MOTION-CONNECT 500 Order No.
1FK7044-7AF71...	4.5	5.9	<b>6SL3210-1SE16-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7061-7AF71...	6.1	7.7	<b>6SL3210-1SE17-77 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7064-7AF71...	11.0	18.0	<b>6SL3210-1SE21-87 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7085-7AF71...	22.5	25.0	<b>6SL3210-1SE22-57 A0</b>	1.5	4 x 4	<b>6FX5002-57 G41-....</b>
1FK7086-7AF71...	21.0	25.0	<b>6SL3210-1SE22-57 A0</b>	1.5	4 x 4	<b>6FX5002-57 G41-....</b>
1FK7043-7AH71...	4.5	5.9	<b>6SL3210-1SE16-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7044-7AH71...	6.3	7.7	<b>6SL3210-1SE17-77 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7061-7AH71...	8.0	10.2	<b>6SL3210-1SE21-07 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7064-7AH71...	15.0	18.0	<b>6SL3210-1SE21-87 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7033-7AK71...	2.2	3.1	<b>6SL3210-1SE13-1UA0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7043-7AK71...	6.4	7.7	<b>6SL3210-1SE17-77 A0</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>

#### Line filter:

without line filter  
with integrated line filter

U  
A

Without brake cores  
With brake cores

C  
D

For length code as well as power and signal cables, see MOTION-CONNECT connection system.

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<sup>1)</sup> If the absolute encoder is used,  $M_{rated}$  is reduced by 10 %.

<sup>2)</sup> These values refer to  $n = 2500$  rpm.

<sup>3)</sup> These values refer to  $n = 2000$  rpm.

<sup>4)</sup> With default setting of the pulse frequency.

<sup>5)</sup> The current carrying capacity of the power cables complies with EN 60204-1 for installation type C, for continuous duty at an ambient air



## Synchronous motors

### 1FK7 Compact/High Dynamic motors Natural cooling

#### Selection and ordering data

Rated speed	Shaft height	Rated power	Static torque	Rated torque	Rated current	1FK7 Compact/High Dynamic synchronous motor Natural cooling Connection to SINAMICS 230 V 1 AC	Number of pole pairs	Rotor moment of inertia (without brake)	Weight (without brake)
$n_{rated}$	SH	$P_{rated}$ at $\Delta T=100$ K	$M_0$ at $\Delta T=100$ K	$M_{rated}$ at $\Delta T=100$ K	$I_{rated}$ at $\Delta T=100$ K	Order No.	$J$	$m$	
rpm		kW (HP)	Nm (lb <sub>r</sub> -ft)	Nm (lb <sub>r</sub> -ft)	A		$10^{-4}$ kgm <sup>2</sup> ( $10^{-3}$ lb <sub>r</sub> -in-s <sup>2</sup> )	kg (lb)	
3000	36	0.31 (0.42)	1.15 (0.8)	1.0 (0.7)	1.6	1FK7032-5AF21-1 7 7 7	3	0.61 (0.54)	2.7 (5.9)
		0.38 (0.51)	1.3 (1.0)	1.2 (0.9)	2.0	1FK7033-7AF21-1 7 7 7	3	0.27 (0.24)	3.1 (6.8)
		0.46 (0.62)	1.6 (1.2)	1.45 (1.1)	1.8	1FK7034-5AF21-1 7 7 7	3	0.9 (0.8)	3.7 (8.2)
	48	0.82 (1.1)	3.0 (2.2)	2.6 (1.9)	3.5	1FK7042-5AF21-1 7 7 7	4	3.01 (2.66)	4.9 (10.8)
		0.79 (1.06)	2.7 (2.0)	2.5 (1.8)	3.8	1FK7043-7AF21-1 7 7 7	3	1.0 (0.89)	6.3 (13.9)
	6000	20	0.05 (0.1)	0.18 (0.1)	0.08 (0.1)	0.5	1FK7011-5AK21-1 7 7 3	4	0.064 (0.06)
0.10 (0.1)			0.35 (0.3)	0.16 (0.1)	0.5	1FK7015-5AK21-1 7 7 3	4	0.083 (0.08)	1.1 (2.4)
28		0.38 (0.51)	0.85 (0.6)	0.6 (0.4)	1.4	1FK7022-5AK21-1 7 7 7	3	0.28 (0.25)	1.8 (4.0)

<b>Synchronous motor:</b>	1FK7 Compact	5
	1FK7 High Dynamic	7
<b>Encoder systems for motors without DRIVE-CLiQ-interface:</b>	Incremental encoder sin/cos 1 V <sub>pp</sub> 2048 S/R	A
	Absolute encoder EnDat 2048 S/R <sup>1)</sup> (only for 1FK704)	
	Absolute encoder EnDat 512 S/R <sup>1)</sup> (not for 1FK704)	H
	Absolute encoder EnDat 32 S/R <sup>1)</sup> (only for 1FK704)	
	Absolute encoder EnDat 16 S/R <sup>1)</sup> (not for 1FK704)	J
	Multi-pole resolver	S
	2-pole resolver	T
<b>Encoder systems for motors</b>	22 bit incremental encoder	D
	22 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (only for 1FK704)	F
	20 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (only for 1FK702/1FK703)	L
	16 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (only for 1FK704)	K
	15 bit absolute encoder, single-turn +12 bit multi-turn <sup>1)</sup> (only for 1FK702/1FK703)	V
	15 bit resolver (not for 1FK701)	U
	14 bit resolver (not for 1FK701)	P
<b>Shaft extension:</b>	<b>Shaft and flange accuracy:</b>	<b>Holding brake:</b>
Fitted key and keyway	Tolerance N	without
Fitted key and keyway	Tolerance N	with
Plain shaft	Tolerance N	without
Plain shaft	Tolerance N	with
		A
		B
		G
		H
<b>Degree of protection:</b>	IP64 (not for 1FK701)	0
	IP65 and DE flange IP67 (not for 1FK701)	2
	IP64 (IP54 for 1FK701) and anthracite paint finish	3
	IP65 and DE flange IP67, anthracite paint finish (not for 1FK701)	5



## Synchronous motors

### 1FK7 Compact/High Dynamic motors Natural cooling

#### Selection and ordering data

Motor type (continued)	Static current  $I_0$ at $M_0$ $\Delta T=100$ K  A	SINAMICS S110 Power Module		Power cable with complete shield		
		Rated output current <sup>3)</sup>  $I_{rated}$ at $M_0$ $\Delta T=100$ K  A	Blocksize format  Order No.	Motor connection (and brake connection) via power connector	Power connector  Size	Cable cross-section <sup>4)</sup>  mm <sup>2</sup>
1FK7032-5AF21...	1.7	2.3	<b>6SL3210-1SB12-37 A3</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7033-7AF21...	2.2	2.3	<b>6SL3210-1SB12-37 A3</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7034-5AF21...	1.9	2.3	<b>6SL3210-1SB12-37 A3</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7042-5AF21...	3.9	3.9	<b>6SL3210-1SB14-07 A3</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7043-7AF21...	3.9	3.9	<b>6SL3210-1SB14-07 A3</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>
1FK7011-5AK21...	0.85	0.9	<b>6SL3210-1SB11-07 A3</b>	0.5	4 x 1.5	<b>6FX5002-5DA30 .....<sup>5)</sup></b>
1FK7015-5AK21...	0.85	0.9	<b>6SL3210-1SB11-07 A3</b>	0.5	4 x 1.5	<b>6FX5002-5DA30 .....<sup>5)</sup></b>
1FK7022-5AK21...	1.8	2.3	<b>6SL3210-1SB12-37 A3</b>	1	4 x 1.5	<b>6FX5002-57 G01-....</b>

  

<b>Line filter:</b> without line filter	<b>U</b>
with integrated line filter	<b>A</b>

  

Without brake cores	<b>C</b>
With brake cores	<b>D</b>

  

For length code as well as power and signal cables, see MOTION-CONNECT connection system.	....
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<sup>1)</sup> If the absolute encoder is used,  $M_{rated}$  is reduced by 10 %.

<sup>2)</sup> Motors of shaft height 20 are not available with a DRIVE-CLiQ interface. The encoder systems are connected via the SMC (Sensor Module Cabinet-Mounted).

<sup>3)</sup> With default setting of the pulse frequency.

<sup>4)</sup> The current carrying capacity of the power cables complies with EN 60204-1 for installation type C, for continuous duty at an ambient temperature of 40 °C (104 °F).

<sup>5)</sup> This power cable is fitted with a connector with M17 thread at the motor end and brake cores as standard (4 x 1.5 mm<sup>2</sup> + 2 x 1.5 mm<sup>2</sup>).