

Synchronous motors

1FS6 motors, explosion-protected Natural cooling



Selection and ordering data

Rated speed	Shaft height	Rated power	Rated torque ¹⁾	Rated current	Static torque	1FS6 synchronous motors Explosion-protected Natural cooling Order No.	Number of pole pairs	Rotor moment of inertia (without brake)	Weight (without brake)
n_{rated}		P_{rated} at $\Delta T=100\text{ K}$	M_{rated} at $\Delta T=100\text{ K}$	I_{rated} at $\Delta T=100\text{ K}$	M_0 at $\Delta T=100\text{ K}$			J	
rpm	SH	kW (HP)	Nm (lb _f -ft)	A	Nm (lb _f -ft)			10^{-4} kgm^2 ($10^{-3}\text{ lb}_f\text{-in-s}^2$)	kg (lb)
1500	112	5.8 (7.78)	37 (27.3)	13	40 (29.5)	1FS6115-8AB73 - ■■■■	4	168 (149)	87 (192)
	132	10.7 (14.4)	68 (50.2)	22	76 (56.1)	1FS6134-6AB73 - ■■■■	3	547 (484)	149 (329)
2000	71	1.5 (2.01)	7.2 (5.30)	3.4	7.6 (5.61)	1FS6074-6AC71 - ■■■■	3	13 (11.5)	29 (64.0)
	90	4.2 (5.63)	20 (14.8)	9.8	22 (16.2)	1FS6096-8AC71 - ■■■■	4	66.5 (58.9)	55 (121)
	112	7.1 (9.52)	34 (25.1)	16	40 (29.5)	1FS6115-8AC73 - ■■■■	4	168 (149)	87 (192)
	132	12.4 (16.6)	59 (43.5)	24	76 (56.1)	1FS6134-6AC73 - ■■■■	3	547 (484)	149 (329)
3000	71	2.0 (2.68)	6.3 (4.60)	4.4	7.6 (5.61)	1FS6074-6AF7 1 - ■■■■	3	13 (11.5)	29 (64.0)
	90	5.3 (7.11)	17 (12.5)	12	22 (16.2)	1FS6096-8AF7 1 - ■■■■	4	66.5 (58.9)	55 (121)
	112	8.8 (11.8)	28 (20.7)	20	40 (29.5)	1FS6115-8AF7 3 - ■■■■	4	168 (149)	87 (192)
4500	71	2.1 (2.82)	4.5 (3.30)	5.0	7.6 (5.61)	1FS6074-6AH71 - ■■■■	3	13 (11.5)	29 (64.0)
	90	5.2 (6.97)	11 (8.10)	11.5	22 (16.2)	1FS6096-8AH71 - ■■■■	4	66.5 (58.9)	55 (121)
6000	71	1.2 (1.61)	1.9 (1.40)	3.2	7.6 (5.61)	1FS6074-6AK71 - ■■■■	3	13 (11.5)	29 (64.0)

Type:	IM B5 (only for 1FS607 and 1FS609) IM B35 (only for 1FS611 and 1FS613)	1 3
Terminal box for power and encoder connection:	Cable entry transverse right Cable entry transverse left Cable entry axial NDE Cable entry axial DE	5 6 7 8
Encoder system without DRIVE-CLIQ interface:	Incremental encoder sin/cos 1 V_{pp} 2048 S/R Absolute encoder EnDat 2048 S/R	A E
Shaft extension: Plain shaft Fitted key and keyway Plain shaft Fitted key and keyway	Shaft and flange accuracy: Tolerance N Tolerance N Tolerance R Tolerance R	G A K D
Vibration magnitude: Grade N Grade N	Degree of protection: IP64 IP65 with radial shaft seal	0 1


**1FS6 motors, explosion-protected
Natural cooling**
Selection and ordering data

Motor type (continued)	Static current	SINAMICS S120 Motor Module		Power cable with complete shield	
	I_0 at $\Delta T=100\text{ K}$ A	Rated current	Booksized format	Motor connection via terminal box	
		I_{rated} A	Order No.	Cable cross- section ²⁾ mm ²	Order No. Pre-assembled cable without connector, prepared wire end
1FS6115-8AB73-....	13	18	6SL312-1-TE21-8AA3	4 x 1.5	6FX5002-5XA00-....
1FS6134-6AB73-....	22	30	6SL312-1-1TE23-0AA3	4 x 4	6FX5002-5XA20-....
1FS6074-6AC71-....	3.4	5	6SL312-1-TE15-0AA3	4 x 1.5	6FX5002-5XA00-....
1FS6096-8AC71-....	9.2	18	6SL312-1-TE21-8AA3	4 x 1.5	6FX5002-5XA00-....
1FS6115-8AC73-....	18	18	6SL312-1-TE21-8AA3	4 x 2.5	6FX5002-5XA10-....
1FS6134-6AC73-....	29	30	6SL312-1-1TE23-0AA3	4 x 4	6FX5002-5XA20-....
1FS6074-6AF71-....	4.8	5	6SL312-1-TE15-0AA3	4 x 1.5	6FX5002-5XA00-....
1FS6096-8AF71-....	14	18	6SL312-1-TE21-8AA3	4 x 1.5	6FX5002-5XA00-....
1FS6115-8AF73-....	26	30	6SL312-1-1TE23-0AA3	4 x 4	6FX5002-5XA20-....
1FS6074-6AH71-....	7.2	5	6SL312-1-TE15-0AA3	4 x 1.5	6FX5002-5XA00-....
1FS6096-8AH71-....	19	18	6SL312-1-TE21-8AA3	4 x 1.5	6FX5002-5XA00-....
1FS6074-6AK71-....	9.6	5	6SL312-1-TE15-0AA3	4 x 1.5	6FX5002-5XA00-....
Cooling: Internal air cooling External air cooling			0		
			1		
Motor Module: Single Motor Module Double Motor Module			1		
			2		
For length code as well as power and signal cables, see MOTION-CONNECT connection system.					

Ordering data for signal cables

Description	Order No.
Pre-assembled signal cable with complete shield	
• Incremental encoder sin/cos 1 V _{pp}	6FX5002-2XA00-....
• EnDat absolute encoder	6FX5002-2XQ10-....
• PTC thermistor (for connection to 3RN10 triggering device)	6FX5002-1XA04-....

¹⁾ If the absolute encoder is used, M_{rated} is reduced by 10 %.

²⁾ The current carrying capacity of the power cables complies with EN 60204-1 for installation type C, for continuous duty at an ambient air temperature of +40 °C (104 °F).