

AC motors
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-proof Natural cooling	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 $\Delta T=100\text{ K}$	Order No. Core type		J	
rpm	SH	kW/HP	Nm/lb _f -ft	A	Nm/lb _f -ft			10 ⁻⁴ kgm ² / lb _f -in-s ²	kg/lb
1500	112	5.8/7.8	37/27.3	13	40/29.5	1FS6115-8AB73 - ■■■■	4	168/0.1487	87/191.84
	132	10.7/14.4	68/50.1	22	76/56	1FS6134-6AB73 - ■■■■	3	547/0.4841	149/328.55
2000	71	1.5/2.0	7.2/5.3	3.4	7.6/5.6	1FS6074-6AC71 - ■■■■	3	13/0.0115	29/63.95
	90	4.2/5.6	20/14.7	9.8	22/16.2	1FS6096-8AC71 - ■■■■	4	66.5/0.0589	55/121.28
	112	7.1/9.5	34/25.1	16	40/29.5	1FS6115-8AC73 - ■■■■	4	168/0.1487	87/191.84
	132	12.4/16.6	59/43.5	24	76/56	1FS6134-6AC73 - ■■■■	3	547/0.4841	149/328.55
3000	71	2/2.7	6.3/4.6	4.4	7.6/5.6	1FS6074-6AF7 1 - ■■■■	3	13/0.0115	29/63.95
	90	5.3/7.1	17/12.5	12	22/16.2	1FS6096-8AF7 1 - ■■■■	4	66.5/0.0589	55/121.28
	112	8.8/11.8	28/20.6	20	40/29.5	1FS6115-8AF7 3 - ■■■■	4	168/0.1487	87/191.84
4500	71	2.1/2.8	4.5/3.3	5	7.6/5.6	1FS6074-6AH71 - ■■■■	3	13/0.0115	29/63.95
	90	5.2/7.0	11/8.1	11.5	22/16.2	1FS6096-8AH71 - ■■■■	4	66.5/0.0589	55/121.28
6000	71	1.2/1.6	1.9/1.4	3.2	7.6/5.6	1FS6074-6AK71 - ■■■■	3	13/0.0115	29/63.95
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 pulses/rev. Absolute encoder EnDat 2048 pulses/rev. ¹⁾				A E		
Shaft extension:			Radial eccentricity tolerance:						
Plain shaft			N						G
with fitted key and keyway			N						A
Plain shaft			R						K
with fitted key and keyway			R						D
Vibration severity grade:			Degree of protection:						
N			IP64						0
N			IP65 with radial shaft seal						1



Selection and ordering data

Motor type (continued)	Static current I_0 at $\Delta T=100\text{ K}$ A	SINAMICS Motor Module Rated current		Power cable with complete shield Motor connection via terminal box	
		I_{rated} A	Order No. For complete Order No., see "SINAMICS S120"	Cable cross section Motor ²⁾ mm ²	Order no. Pre-assembled cable No connector, prepared wire ends
1FS6115-8AB73-....	13	18	6SL312 ■-■TE21-8 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6134-6AB73-....	22	30	6SL312 ■-1TE23-0 AA .	4 x 4	6FX5002-5XA20-....
1FS6074-6AC71-....	3.4	5	6SL312 ■-■TE15-0 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6096-8AC71-....	9.2	18	6SL312 ■-■TE21-8 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6115-8AC73-....	18	18	6SL312 ■-■TE21-8 AA .	4 x 2.5	6FX5002-5XA10-....
1FS6134-6AC73-....	29	30	6SL312 ■-1TE23-0 AA .	4 x 4	6FX5002-5XA20-....
1FS6074-6AF71-....	4.8	5	6SL312 ■-■TE15-0 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6096-8AF71-....	14	18	6SL312 ■-■TE21-8 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6115-8AF73-....	26	30	6SL312 ■-1TE23-0 AA .	4 x 4	6FX5002-5XA20-....
1FS6074-6AH71-....	7.2	5	6SL312 ■-■TE15-0 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6096-8AH71-....	19	18	6SL312 ■-■TE21-8 AA .	4 x 1.5	6FX5002-5XA00-....
1FS6074-6AK71-....	9.6	5	6SL312 ■-■TE15-0 AA .	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 cables and connections".

Ordering data for signal cables

Pre-assembled signal cable with complete shield	Order No.
• 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 corresponds to IEC 60204-1 for type of routing C under continuous operating conditions with an ambient air temperature of +40 °C (+104 °F), designed for I_{rated} (100 K), PVC/PUR-insulated cable.