1FK7-DYA compact geared motors

Selection and ordering data

Rated speed	Rated power	Maximum speed	Maximum torque	Static torque	Rated torque	Available gear ratio	1FK7-DYA Compact geared motors		Number of pole pairs	Rotor moment of inertia [2] (without brake)	(with brake)
$n_{2\ rated}$	P_2	n_{2max}	M_{2max}	M_{20}	$M_{2\ rated}$ [1]	i	Order No.	Order code		J	J
rpm	kW (HP)	rpm	Nm (lb_f-ft)	Nm (lb_f-ft)	Nm (lb_f-ft)					10^{-4} kgm^2 (10^{-3} lb_f-in-s^2)	10^{-4} kgm^2 (10^{-3} lb_f-in-s^2)
370	0.37 (0.50)	600	32 (23.6)	11 (8.1)	9.5 (7.0)	10	**1FK7032-5AK71-1 ■■ 3-Z**	**A03**	3	0.75 (0.66)	0.83 (0.73)
740	0.5 (0.67)	1200	32 (23.6)	7.5 (5.5)	6.5 (4.8)	5	**1FK7034-5AK71-1 ■■ 3-Z**	**A00**	3	1.04 (0.92)	1.12 (0.99)
340	0.45 (0.60)	600	49 (36.1)	15 (11.1)	12.5 (9.2)	10	**1FK7040-5AK71-1 ■■ 3-Z**	**A13**	4	2.3 (2.04)	3.0 (2.66)
680	0.71 (0.95)	1200	51 (37.6)	13 (9.6)	10 (7.4)	5	**1FK7042-5AK71-1 ■■ 3-Z**	**A10**	4	3.6 (3.19)	4.3 (3.81)
260	1.25 (1.68)	480	175 (129)	57 (42)	46 (33.9)	10	**1FK7060-5AH71-1 ■■ 3-Z**	**A73**	4	10.3 (9.12)	12.5 (11.1)
520	1.74 (2.33)	960	170 (125)	51 (37.6)	32 (23.6)	5	**1FK7063-5AH71-1 ■■ 3-Z**	**A70**	4	17.4 (15.4)	19.6 (17.4)
200	1.47 (1.97)	360	242 (179)	76 (56.1)	70 (51.6)	10	**1FK7080-5AH71-1 ■■ 3-Z**	**A83**	4	28.7 (25.4)	31.8 (28.2)
400	1.88 (2.52)	720	233 (172)	68 (50.2)	45 (33.2)	5	**1FK7083-5AH71-1 ■■ 3-Z**	**A80**	4	41 (36.3)	49.6 (43.9)

Encoder systems for motors without DRIVE-CLiQ interface:	Incremental encoder sin/cos 1 V_{pp} 2048 S/R Absolute encoder EnDat 2048 S/R [1] (not for 1FK703) Absolute encoder EnDat 512 S/R [1] (only for 1FK703) Absolute encoder EnDat 32 S/R [1] (not for 1FK703) Absolute encoder EnDat 16 S/R [1] (only for 1FK703) Multi-pole resolver 2-pole resolver		**A** **E** **H** **G** **J** **S** **T**
Encoder systems for motors with DRIVE-CLiQ interface:	22 bit incremental encoder 22 bit absolute encoder, single-turn +12 bit multi-turn [1] (not for 1FK703) 20 bit absolute encoder, single-turn +12 bit multi-turn [1] (only for 1FK703) 16 bit absolute encoder, single-turn +12 bit multi-turn [1] (not for 1FK703) 15 bit absolute encoder, single-turn +12 bit multi-turn [1] (only for 1FK703) 15 bit resolver 14 bit resolver		**D** **F** **L** **K** **V** **U** **P**
Shaft extension:	**Shaft and flange accuracy:**	**Holding brake:**	
Fitted key and keyway	Tolerance N	Without	**U**
Fitted key and keyway	Tolerance N	with	**V**
Degree of protection:	IP64, anthracite finish RAL 7016		**3**

Selection and ordering data

Motor type (continued)	Weight (without brake)	Weight (with brake)	Static current	Maximum current	SINAMICS S120 Motor Module Booksize format		Power cable with complete shield, Motor terminal (and brake terminal) via power connector		
	m	m	I_0 at M_0 ΔT=100 K	I_{max}	Rated output current [4] I_{rated}	Order No.	Power connector	Cable cross-section [3]	Order No. Pre-assembled cable
	kg (lb)	kg (lb)	A	A	A		Size	mm²	
1FK7032-5AK71-...	4.11 (9.06)	4.47 (9.86)	1.7	5	3	**6SL312■-■TE13-0AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7034-5AK71-...	5.01 (11.1)	5.37 (11.8)	1.9	7.9	3	**6SL312■-■TE13-0AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7040-5AK71-...	6.60 (14.6)	7.61 (16.8)	2.3	7.4	3	**6SL312■-■TE13-0AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7042-5AK71-...	7.91 (17.4)	8.62 (19.0)	4.4	14.9	5	**6SL312■-■TE15-0AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7060-5AH71-...	13.9 (30.7)	15 (33.1)	6.2	19	9	**6SL312■-■TE21-0AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7063-5AH71-...	17.6 (38.8)	19 (41.9)	12	41	18	**6SL312■-■TE21-8AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7080-5AH71-...	23.4 (51.6)	24.6 (54.2)	7.4	24	9	**6SL312■-■TE21-0AA3**	1	4 x 1.5	**6FX■002-5■S01-....**
1FK7083-5AH71-...	28.6 (63.1)	31.2 (68.8)	15	48	18	**6SL312■-■TE21-8AA3**	1	4 x 1.5	**6FX■002-5■S01-....**

Cooling:	
Internal air cooling	**0**
External air cooling	**1**
Motor Module:	
Single Motor Module	**1**
Double Motor Module	**2**
Type of power cable:	
MOTION-CONNECT 800	**8**
MOTION-CONNECT 500	**5**
Without brake cores	**C**
With brake cores	**D**
For length code as well as power and signal cables, see MOTION-CONNECT connection system.	**....**

[1] If the absolute encoder is used, $M_{2\ rated}$ is reduced by 10 %.

[2] In reference to the motor shaft.

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

[4] With default setting of the pulse frequency.