



Compact
PLUS units

SIMOVERT MASTERDRIVES Motion Control

Motor selection

Motor selection
Compact PLUS units

Inverters with 1FK7 synchronous servomotors

Motor data for a 100 K temperature increase											Converter data	
Rated speed	Size	Motor	Rated torque	Rated current	Stall torque	Stall current	Rated power	Moment of inertia without brake	Weight without brake	Plug size for power cable	Rated current	Inverter
n_{rated}			τ_{rated}	I_{rated}	τ_0	I_0	P_{rated}	J			$I_{\text{n conv}}$	
rpm	Order No.		Nm (lb _f -in)	A	Nm (lb _f -in)	A	kW (HP)	x 10 ⁻³ kgm ² (lb _f -in-s ²)	kg (lb)		A	Order No.
1FK7 CT (Compact) – Supply voltage 3-ph. 400 V to 480 V AC for SIMOVERT MASTERDRIVES Motion Control												
3000	48	1FK7 042-5AF71-1...	2.6 (23)	1.95	3 (26.5)	2.2	0.82 (1.1)	0.301 (0.0027)	4.8 (10.6)	1	4	6SE7 014-0TP□0
	63	1FK7 060-5AF71-1...	4.7 (41.6)	3.7	6 (53)	4.5	1.48 (2)	0.795 (0.007)	8 (17.6)	1	6.1	6SE7 016-0TP□0
	63	1FK7 063-5AF71-1...	7.3 (64.6)	5.6	11 (97)	8	2.29 (3.1)	1.51 (0.0134)	14 (30.9)	1	10.2	6SE7 021-0TP□0
	80	1FK7 080-5AF71-1...	6.8 (60.2)	4.4	8 (71)	4.8	2.14 (2.9)	1.5 (0.0132)	11.3 (24.9)	1	6.1	6SE7 016-0TP□0
	80	1FK7 083-5AF71-1...	10.5 (93)	7.4	16 (142)	10.4	3.3 (4.4)	2.73 (0.0242)	14 (30.9)	1	13.2	6SE7 021-3TP□0
	100	1FK7 100-5AF71-1...	12 (106)	8	18 (159)	11.2	3.77 (5.1)	5.53 (0.0489)	18.9 (41.7)	1	13.2	6SE7 021-3TP□0
	100	1FK7 101-5AF71-1...	15.5 (137)	11.8	27 (239)	19	4.87 (6.5)	7.99 (0.0707)	25 (55.1)	1.5	25.5	6SE7 022-6TP□0
	100	1FK7 103-5AF71-1...	20.5 ¹⁾ (181)	16.5 ¹⁾	36 (319)	27.5	5.37 ¹⁾ (7.2)	10.5 (0.0929)	29 (63.9)	1.5	34	6SE7 023-4TP□0
4500	63	1FK7 060-5AH71-1...	3.7 (32.8)	4.1	6 (53)	6.2	1.74 (2.3)	0.795 (0.0007)	8 (17.6)	1	6.1	6SE7 016-0TP□0
	63	1FK7 063-5AH71-1...	5 ²⁾ (44.2)	6.1 ²⁾	11 (97)	12	2.09 ²⁾ (2.8)	1.51 (0.0134)	12 (26.5)	1	13.2	6SE7 021-3TP□0
	80	1FK7 080-5AH71-1...	4.5 (39.8)	5.6	8 (71)	7.4	2.38 (3.2)	1.5 (0.0132)	11.3 (24.9)	1	10.2	6SE7 021-0TP□0
	80	1FK7 083-5AH71-1...	8.3 ³⁾ (73.5)	9 ³⁾	16 (142)	15	3.04 ³⁾ (4.1)	2.73 (0.0242)	14 (30.9)	1	17.5	6SE7 021-8TP□0
6000	28	1FK7 022-5AK71-1...	0.6 (5.3)	1.26	0.85 (7.5)	1.8	0.4 (0.54)	0.028 (0.0003)	1.8 (3.97)	1	2	6SE7 012-0TP□0
	36	1FK7 032-5AK71-1...	0.8 (7.1)	1.2	1.1 (9.7)	1.7	0.47 (0.63)	0.061 (0.0005)	2.7 (6)	1	2	6SE7 012-0TP□0
	48	1FK7 040-5AK71-1...	1.1 (9.7)	1.7	1.6 (14.2)	2.25	0.69 (0.92)	0.169 (0.0015)	3.4 (7.5)	1	4	6SE7 014-0TP□0
	48	1FK7 042-5AK71-1...	2 ⁴⁾ (17.7)	3.1 ⁴⁾	3 (26.6)	4.4	1.02 ⁴⁾ (1.37)	0.301 (0.0027)	4.8 (10.6)	1	6.1	6SE7 016-0TP□0

For detailed motor information, please refer to Catalog DA 65.3.

SIMOVERT MASTERDRIVES Motion Control

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1) Rated data refer to $n = 2,500$ rpm.

2) Rated data refer to $n = 4,000$ rpm.

3) Rated data refer to $n = 3,500$ rpm.

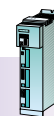
4) Rated data refer to $n = 5,000$ rpm.

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Inverters with 1FK7 synchronous servomotors (continued)

Motor data for a 100 K temperature increase										Converter data		
Rated speed	Size	Motor	Rated torque	Rated current	Stall torque	Stall current	Rated power	Moment of inertia without brake	Weight without brake	Plug size for power cable	Rated current	Inverter
n_{rated}			τ_{rated}	I_{rated}	τ_0	I_0	P_{rated}	J			$I_{\text{n conv}}$	
rpm		Order No.	Nm (lb _f -in)	A	Nm (lb _f -in)	A	kW (HP)	x 10 ⁻³ kgm ² (lb _f -in-s ²)	kg (lb)		A	Order No.
1FK7 HD (High Dynamic) – Supply voltage 3-ph. 400 V to 480 V AC for SIMOVERT MASTERDRIVES Motion Control												
3000	48	1FK7 044-7AF71-1...	3.5 (31)	4	4 (35.4)	4.5	1.1 (1.47)	0.128 (0.00113)	7.7 (17)	1	6.1	6SE7 016-0TP□0
	63	1FK7 061-7AF71-1...	5.4 (47.8)	5.3	6.4 (56.6)	6.1	1.7 (2.27)	0.34 (0.00301)	10 (22.1)	1	6.1	6SE7 016-0TP□0
	63	1FK7 064-7AF71-1...	8 (70.8)	7.5	12 (106.2)	11	2.51 (3.36)	0.65 (0.00575)	17.2 (37.9)	1	13.2	6SE7 021-3TP□0
	80	1FK7 082-7AF71-1...	8 (70.8)	6.7	14 (124)	10.6	2.51 (3.36)	1.4 (0.0124)	17.2 (38)	1	13.2	6SE7 021-3TP□0
	80	1FK7 085-7AF71-1...	12 ¹⁾ (106)	12.5 ¹⁾	22 (194.7)	22.5	3.14 ¹⁾ (4.21)	2.3 (0.0204)	23.5 (51.8)	1.5	25.5	6SE7 022-6TP□0
4500	48	1FK7 043-7AH71-1...	2.6 (23)	4	3.1 (27.4)	4.5	1.23 (1.64)	0.101 (0.00089)	6.3 (13.9)	1	6.1	6SE7 016-0TP□0
	48	1FK7 044-7AH71-1...	3 (26.6)	4.9	4 (35.4)	6.3	1.41 (1.89)	0.128 (0.00113)	7.7 (17)	1	10.2	6SE7 021-0TP□0
	63	1FK7 061-7AH71-1...	4.3 (38.1)	5.9	6.4 (56.6)	8	2.03 (2.72)	0.34 (0.00301)	10 (22.1)	1	10.2	6SE7 021-0TP□0
	63	1FK7 064-7AH71-1...	5 (44.3)	7	12 (106.2)	15	2.36 (3.16)	0.65 (0.00575)	17.2 (37.9)	1	17.5	6SE7 021-8TP□0
6000	36	1FK7 033-7AK71-1...	0.9 (8)	1.5	1.3 (11.5)	2.2	0.57 (0.76)	0.027 (0.00024)	3.15 (6.9)	1	4	6SE7 014-0TP□0
	48	1FK7 043-7AK71-1...	2 (17.7)	4.4	3.1 (27.4)	6.4	1.26 (1.68)	0.101 (0.00089)	6.3 (13.9)	1	10.2	6SE7 021-0TP□0

For detailed motor information, please refer to Catalog DA 65.3.

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1) Rated data refer to $n = 2,500$ rpm.