

Servo Motors for SIMOVERT MASTERDRIVES

Synchronous Servo Motors

1FW3 Torque Motors

Water Cooling

Selection and Ordering Data

Rated Rotational Speed	Shaft Height	Rated Output	Rated Torque	Rated Current	Standstill Torque	1FW3 Torque Motors Water Cooling	Pole Pair Number	Rotor Moment of Inertia	Weight
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.		J	
rpm	SH	kW (HP)	Nm (lb _f -ft)	A	Nm (lb _f -ft)			kgm ² (lb _f -in-s ²)	kg (lb)
250	200	7.9 (10.59)	300 (221.3)	24	315 (232.3)	1FW3 201 – 1 ■ H7 2 – ■ A A 0	14	0.22 (1.95)	127 (280)
		13.1 (17.56)	500 (368.8)	40	525 (387.2)	1FW3 202 – 1 ■ H7 2 – ■ A A 0	14	0.35 (3.1)	156 (344)
		19.6 (26.27)	750 (553.2)	63	788 (581.2)	1FW3 203 – 1 ■ H7 2 – ■ A A 0	14	0.47 (4.16)	182 (401.3)
		26.2 (35.12)	1000 (737.6)	80	1050 (774.5)	1FW3 204 – 1 ■ H7 2 – ■ A A 0	14	0.6 (5.31)	232 (511.6)
		39.3 (52.68)	1500 (1106.4)	124	1575 (1161.7)	1FW3 206 – 1 ■ H7 2 – ■ A A 0	14	0.85 (7.52)	279 (615.2)
		52.3 (70.11)	2000 (1475.2)	164	2100 (1549)	1FW3 208 – 1 ■ H7 2 – ■ A A 0	14	1.1 (9.73)	348 (767.3)
200	280	52.3 (70.11)	2500 (1844)	170	2625 (1936.2)	1FW3 281 – 1 ■ G7 3 – ■ A A 0	17	4.4 (38.94)	628 (1384.7)
		73.3 (98.26)	3500 (2581.6)	245	3675 (2710.7)	1FW3 283 – 1 ■ G7 3 – ■ A A 0	17	5.8 (51.33)	731 (1611.9)
		104.7 (140.35)	5000 (3688)	340	5250 (3872.4)	1FW3 285 – 1 ■ G7 3 – ■ A A 0	17	7.9 (69.91)	885 (1951.9)
		146.5 (196.38)	7000 (5163.2)	486	7350 (5421.4)	1FW3 288 – 1 ■ G7 3 – ■ A A 0	17	10.7 (94.69)	1090 (2403.5)
• Encoder systems:			Incremental encoder sin/cos 1 V _{pp} Absolute encoder EnDat, 2,048 pulses/revolution ¹⁾ Resolver, multipole			A E S			
• Construction type:			IM B14 (for shaft height 200) IM B35 (for shaft height 280)				2 3		
• Terminal box on top:			Cable outlet diagonally to the right Cable outlet diagonally to the left Cable outlet axial non-drive end Cable outlet axial drive end					5 6 7 8	

Other rated speeds on request.

Servo Motors for SIMOVERT MASTERDRIVES

Synchronous Servo Motors

1FW3 Torque Motors
Water Cooling

Selection and Ordering Data

Motor Type (continued)	Standstill Current I_0 at $\Delta T=100\text{ K}$ A	SIMOVERT MASTERDRIVES MC Inverter/Converter Rated Current		Power Cable with Complete Shield Motor connection via terminal box		
		I_{rated} A	Order No. Inverter Converter	Terminal Box Type Cable Entry	Motor Cable Cross-Section 1) Max. Connect- able Cable Cross-Section mm ²	Order No. Pre-Assembled Cable By the Meter
1FW3 201 – 1..H72 – .AA0	25	25.5 25.5	6SE7 022 – 6 T P 7 0 6SE7 022 – 7 E P 7 0	gk 230 1 x M32 x 1.5	4 x 4 4 x 16	6FX 008 – 1BB31 – A0 6FX 008 – 1BB61 – A0
1FW3 202 – 1..H72 – .AA0	42	47 47	6SE7 024 – 7 T D 7 1 6SE7 024 – 7 E D 7 1	gk 230 1 x M32 x 1.5	4 x 10 4 x 16	6FX 008 – 1BB51 – A0 6FX 008 – 1BB61 – A0
1FW3 203 – 1..H72 – .AA0	66	72 72	6SE7 027 – 2 T D 7 1 6SE7 027 – 2 E D 7 1	gk 420 1 x M40 x 1.5	4 x 16 4 x 35	6FX 008 – 1BB61 – A0 6FX 5 008 – 1BB35 – A0
1FW3 204 – 1..H72 – .AA0	83	92 92	6SE7 031 – 0 T E 7 0 6SE7 031 – 0 E E 7 0	gk 420 1 x M40 x 1.5	4 x 25 4 x 35	6FX 5 008 – 1BB25 – A0 6FX 5 008 – 1BB35 – A0
1FW3 206 – 1..H72 – .AA0	131	124 124	6SE7 031 – 2 T F 7 0 6SE7 031 – 2 E F 7 0	gk 630 1 x M50 x 1.5	4 x 70 2 x 4 x 50	6FX 5 008 – 1BB70 – A0 6FX 5 008 – 1BB50 – A0
1FW3 208 – 1..H72 – .AA0	172	175 175	6SE7 032 – 1 T G 7 0 6SE7 032 – 1 E G 7 0	gk 630 2 x M50 x 1.5	2 x 4 x 50 2 x 4 x 50	6FX 5 008 – 1BB50 – A0 6FX 5 008 – 1BB50 – A0
1FW3 281 – 1..G73 – .AA0	179	175 175	6SE7 032 – 1 T G 7 0 6SE7 032 – 1 E G 7 0	1XB7 700 3 x M75 x 1.5	2 x 4 x 50 3 x 4 x 120	6FX 5 008 – 1BB50 – A0 6FX 5 008 – 1BB12 – A0
1FW3 283 – 1..G73 – .AA0	257	262 262	6SE7 033 – 2 T G 7 0 6SE7 033 – 2 E G 7 0	1XB7 700 3 x M75 x 1.5	2 x 4 x 70 3 x 4 x 120	6FX 5 008 – 1BB70 – A0 6FX 5 008 – 1BB12 – A0
1FW3 285 – 1..G73 – .AA0	357	423 423	6SE7 035 – 1 T J 7 0 6SE7 035 – 1 E K 7 0	1XB7 700 3 x M75 x 1.5	2 x 4 x 95 3 x 4 x 120	6FX 5 008 – 1BB05 – A0 6FX 5 008 – 1BB12 – A0
1FW3 288 – 1..G73 – .AA0	510	491 491	6SE7 036 – 0 T J 7 0 6SE7 036 – 0 E K 7 0	1XB7 700 3 x M75 x 1.5	3 x 4 x 95 3 x 4 x 120	6FX 5 008 – 1BB05 – A0 6FX 5 008 – 1BB12 – A0
• Inverter • Converter			T E			
• SIMOVERT MASTERDRIVES Motion Control Performance 2			7			
Power Cable Model						8 5
• MOTION-CONNECT 800 • MOTION-CONNECT 500						

For information about length codes for power cables and signal cables, see “MOTION-CONNECT Connection System”, Part 5.

1) The current carrying capacity of the power cables corresponds to IEC 60204-1 for **Routing Type C** under continuous duty conditions at an ambient air temperature of +40 °C (+104 °F), designed for I_0 (100 K) PVC/PUR insulated cable.

The second line contains the maximum number of cable cross-sections that can be connected for other environmental conditions or routing types.
PATH can be used to configure different environmental conditions.