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- Distributor

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Xtrafors FP PRIME



AC SERVOMOTORS

FP Prime Series

Features

- Compact size
- High torque
- High speed
- No cogging
- Modular construction

Power

- Stall torque 0.25 to 75 Nm
- Size 34 to 192 mm

Executions

- Wide range of standard models
- Customized versions
- CE compliant, UL listed



Xtrafors FP Prime, AC Servomotors

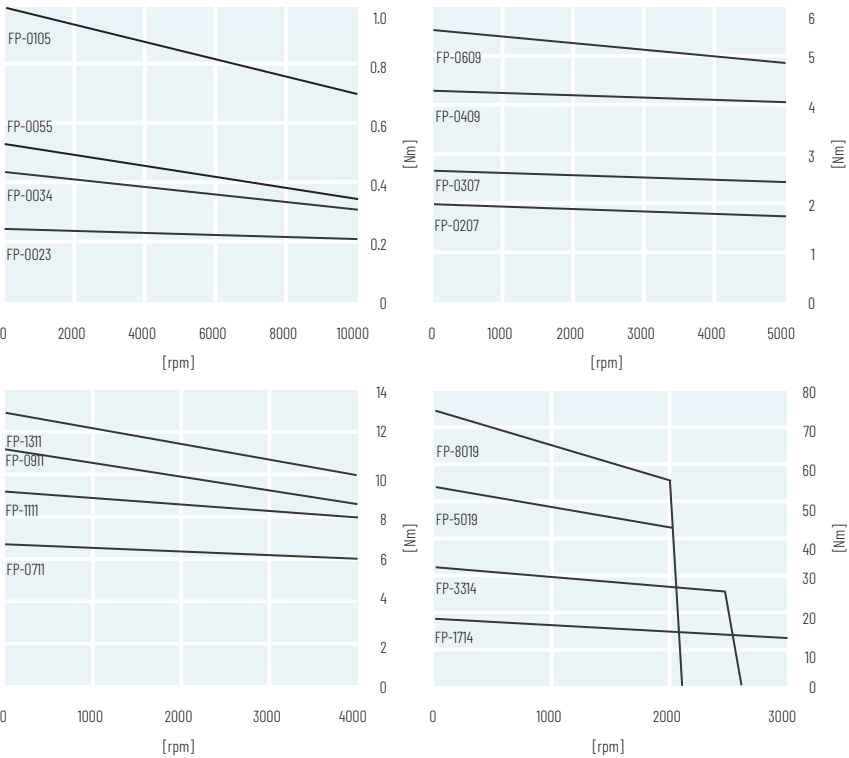
The modular construction concept is the basis for the wide range of standard models. The slotless stator design results in outstanding technical properties such as high speed, high torque, zero cogging, minimal torque ripple, high efficiency and high rigidity. Thus, these motors are perfectly suited for various demanding servo applications.

Technical data

Type	Stall values		Nominal values		Peak values		Speed*	Brake Torque	Length L
	Torque	Current	Torque	Speed	Torque	Current			
	M0	i0	Mnom	n _{nom}	M _{max}	i _{max}	n _{max}	M _{nom}	without brake
	[Nm]	[Arms]	[Nm]	[rpm]	[Nm]	[Arms]	[rpm]	[Nm]	[mm]
FP-0023	0.24	1.40	0.23	3000	1.44	8.40	36 000	0.4	125.0
FP-0034	0.44	2.03	0.40	3000	2.64	12.2	30 000	0.4	140.5
FP-0055	0.54	2.15	0.46	3000	3.24	12.9	22 000	1.0	90.00
FP-0105	1.00	2.51	0.90	3000	6.00	15.0	15 000	1.0	110.0
FP-0207	2.00	3.04	1.85	3000	12.0	18.2	9 500	2.0	116.5
FP-0307	2.70	3.63	2.54	3000	16.2	21.8	8 500	4.5	137.5
FP-0409	4.20	3.57	4.15	3000	25.2	21.4	5 300	4.5	147.5
FP-0609	5.60	4.97	5.12	3000	33.6	29.8	5 500	9.0	165.5
FP-0711	6.50	6.70	6.10	3000	39.0	40.2	6 300	9.0	149.0
FP-0911	9.00	7.22	8.20	3000	54.0	43.3	5 000	9.0	173.0
FP-1111	11.0	8.14	9.10	3000	66.0	48.9	4 600	18	197.0
FP-1311	13.2	9.77	10.8	3000	79.2	58.6	4 600	18	221.0
FP-1714	18.3	10.7	15.5	1500	110	64.0	3 500	18	215.0
FP-3314	31.5	12.8	27.5	1500	189	76.8	2 500	36	317.0
FP-5019	54.5	19.1	46.0	1500	327	114	2 000	72	297.5
FP-8019	75.0	22.8	59.0	1500	450	137	2 000	72	348.5

*Valid for operation with servo drive using 400VAC supply

Torque curves



Standard version

- Resolver feedback
- Shaft with keyway
- Protection IP-65
- Rotatable angled connectors
- PTC thermal sensor
- RoHS conform
- UL conform (UL-listed pending)
- Windings: 400VAC, 230VAC and 48VDC

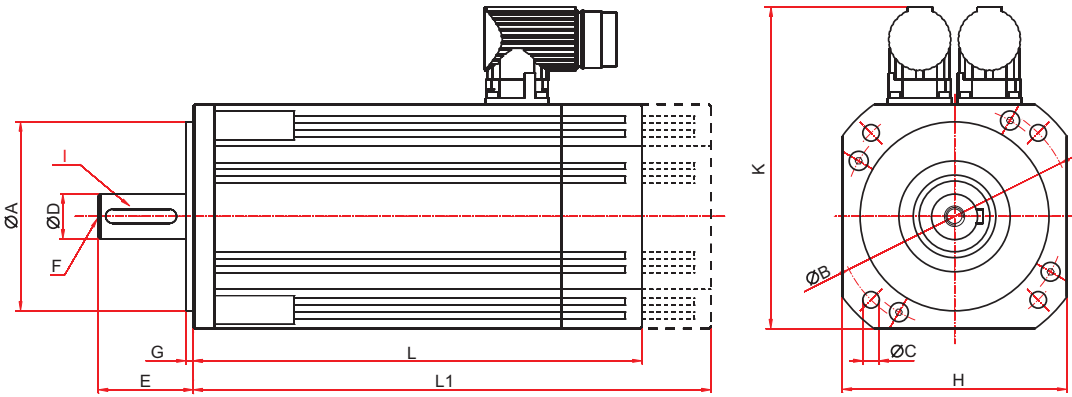
Options

- Various types of incremental encoders, SinCos encoders, Hiperface, EnDat
- Shaft without keyway
- Protection IP-67
- Shaft seal
- Straight connectors
- Direct cable output
- NTC thermal sensor

Customized versions

- Shafts (i.e. hollow shafts)
- Flanges, housings
- Windings, connections
- Executions according to customer's specification

Mechanical dimensions



Dimensions for motor with resolver feedback												
Dimensions											without brake	with brake
[mm]	Ø A j6	Ø B	Ø C	Ø D k6	E	G	H	I	F	K	L	L1
FP-0023	28	40	4.5	8 j5	25	2.5	38	-	-	48		
FP-0034	32	45	4.5	8 j5	25	2.5	42	-	-	70	125.0	160.0
FP-0055	40	65	5.5	9	20	2.5	57	A3x3x12	M3x9	107	140.5	171.5
FP-0105	40	65	5.5	9	20	2.5	57	A3x3x12	M3x9	107	90.0	129.0
FP-0207	60	75	5.5	11	23	2.5	70	A4x4x14	M4x10	112	110.0	149.0
FP-0307	60	75	5.5	11	23	2.5	70	A4x4x14	M4x10	112	116.5	142.0
FP-0409	80	100	6.6	19	40	3	90	A6x6x30	M6x16	132	137.5	165.5
FP-0609	80	100	6.6	19	40	3	90	A6x6x30	M6x16	132	147.5	177.0
FP-0711	95	115	9	19	40	3	110	A6x6x30	M6x16	152	165.5	207.0
FP-0911	95	115	9	19	40	3	110	A6x6x30	M6x16	152	149.0	189.0
FP-1111	95	115	9	19	40	3	110	A6x6x30	M6x16	152	173.0	213.0
FP-1311	95	115	9	19	40	3	110	A6x6x30	M6x16	152	197.0	242.0
FP-1714	130	165	11	24	50	3.5	140	A8x7x32	M8x19	182	221.0	266.0
FP-3314	130	165	11	24	50	3.5	140	A8x7x32	M8x19	182	215.0	258.0
FP-5019	180	215	16	32	58	4	192	A10x8x50	M12x28	234	317.0	367.0
FP-8019	180	215	16	32	58	4	192	A10x8x50	M12x28	234	297.5	383.0
											348.5	434.0

Lengths of executions with different encoder models																
Type FP	0023	0034	0055	0105	0207	0307	0409	0609	0711	0911	1111	1311	1714	3314	5019	8019
L (without brake)																
Incremental	-	-	112.5	126.5	116.5	137.5	147.5	165.5	162.0	186.0	210.0	234.0	223.0	325.0	310.5	361.5
Endat 2.1	-	-	123.0	143.0	159.0	180.0	185.5	203.5	185.5	209.5	233.5	257.5	266.0	368.0	317.5	368.5
Hiperface	-	-	123.0	143.0	142.0	163.0	158.0	176.0	172.5	196.5	220.5	244.5	258.0	360.0	317.5	368.5
SinCos	-	-	137.0	157.0	159.0	180.0	177.0	195.0	181.0	205.0	229.0	253.0	265.0	367.0	322.5	373.5
L1 (with brake)																
Incremental	-	-	145.0	165.0	162.0	189.0	192.0	215.0	197.0	221.0	258.0	282.0	296.5	398.5	363.0	414.0
Endat 2.1	-	-	167.0	187.0	190.0	217.0	215.0	245.0	220.5	244.5	281.5	305.5	322.5	424.5	368.0	419.0
Hiperface	-	-	159.0	179.0	173.0	200.0	202.5	225.5	205.5	229.5	268.5	292.5	304.0	406.0	368.0	419.0
SinCos	-	-	172.0	192.0	190.0	217.0	215.0	244.5	220.5	244.5	281.5	305.5	318.5	420.5	373.0	424.0