Addresses

Switzerland

Infranor SA
Rue des Uttins 27
CH-1400 Yverdon-les-Bains

Phone +41 24 447 02 90
Fax +41 24 447 02 91

www.infranor.ch
info.ch@infranor.com

Infranor AG
Glattalstrasse 37
CH-8052 Zürich

Phone +41 44 308 50 00
Fax +41 44 308 50 09

www.infranor.ch
info.ch@infranor.com

Germany

Infranor GmbH
Donaustrasse 19a
D-63452 Hanau

Phone +49 6181 18012 0
Fax +49 6181 18012 90

www.infranor.de
info.de@infranor.com

France

Infranor SAS
1, rue Georges Besse
F-92160 Antony

Phone +33 1 56 45 16 00
Fax +33 1 46 74 69 56

www.infranor.fr
info.fr@infranor.com

Spain

Infranor Spain SL
Occitània, 24
E-08911 Badalona
(Barcelona)

Phone +34 93 460 16 31
Fax +34 93 399 96 08

www.infranor.com
info.es@infranor.com

Benelux

Infranor B.V.
Burg. Houtkoperlaan 9
NL - 4051 EW Ochten

Phone +31 344 64 64 17
Fax: +31 344 64 26 96

www.infranor.nl
info.nl@infranor.com

England

Infranor Ltd.
Studio 4, Building 555
Bentwaters Business Park
Rendlesham Suffolk
IP12 2TW
UK

Phone +44 208 144 2152
Fax +44 1394 421 192

www.infranor.com
info.uk@infranor.com

USA

Infranor, Inc.
299 Ballardvale Street Suite 4
USA-Wilmington, MA 01887

Phone +1 978 988 9002
Fax +1 978 988 9112

www.infranor.com
info.usa@infranor.com

China

Infranor Motion Control Technology (Shanghai) Co., Ltd.
Room 601, No.448
Hongcao Rd
P. R. China
CN-200233 Shanghai

Phone +86 (0)21 6145 5455
Fax +86 (0)21 6145 5457

www.infranor.cn
info.cn@infranor.com

The Infranor Group

Infranor creates added value for its customers by providing tailor-made motion solutions.

Based on strong working relationships, Infranor offers extensive market know-how, comprehensive engineering skills and a wide range of high-quality products leading to productivity gains and therefore to comparative advantages for its customers in their respective markets.

The Infranor Brand

The Infranor Brand is a synonym for:

- Excellence
- Cooperation
- Added value

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INFRANOR
MAVILOR

XtraforsPrime
AC Servomotors

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

XtraforsPrime, 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.

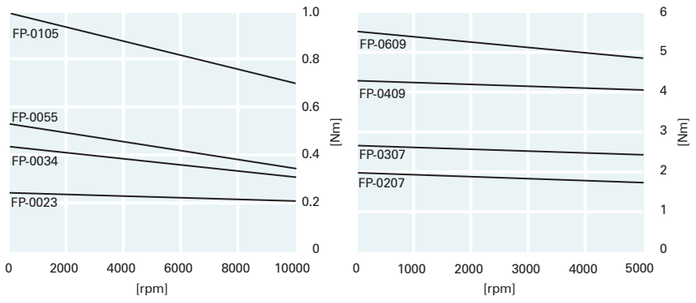
Technical Specifications

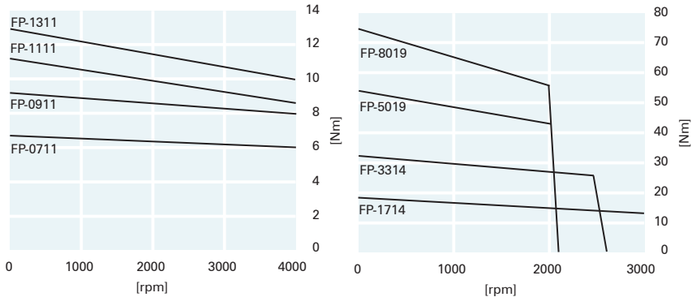
Type	Stall values		Nominal values		Peak values			Brake	Length
	Torque	Current	Torque	Speed	Torque	Current	Speed*	Torque	L
	M_0	i_0	M_{nom}	n_{nom}	M_{max}	i_{max}	n_{max}	M_{nom}	without brake
	[Nm]	[Arms]	[Nm]	[rpm]	[Nm]	[Arms]	[rpm]	[Nm]	[mm]
FP-0023	0.24	1.40	0.23	3000	1.44	8.40	36 000	0.4	125.0
FP-0034	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-2514**	26.25	13.41	18.20	3000	157.5	80.48	3220	36	266.0
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

** UL Pending

Torque curves (Continous)





Standard version

- Resolver feedback
- Shaft with keyway
- Protection IP-65
- Rotatable angled connectors
- PTC thermal sensor
- RoHS conform
- UL listed (except for FP2514)
- Windings: 400VAC, 230VAC and 48VDC

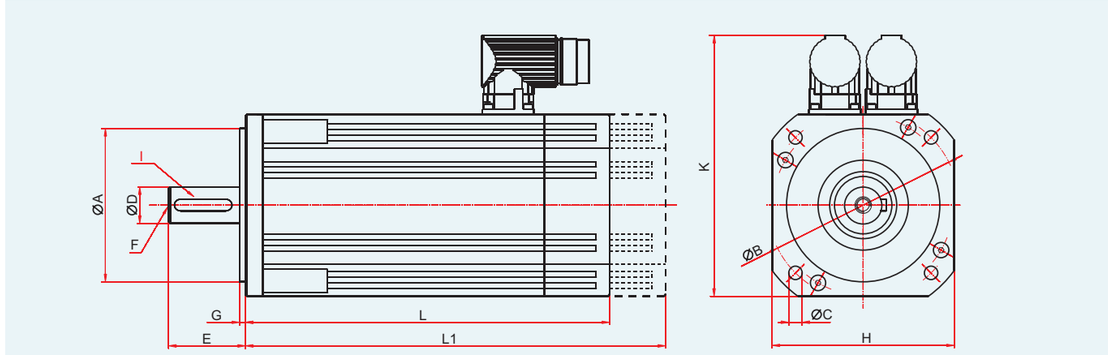
Options

- 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]	ØA j6	ØB	ØC	ØD k6	E	G	H	I	F	K	L	L1
FP-0023	28	40	4.5	8 j5	25	2.5	38	–	–	48	125.0	160.0
FP-0034	32	45	4.5	8 j5	25	2.5	42	–	–	70	140.5	171.5
FP-0055	40	65	5.5	9	20	2.5	57	A3x3x12	M3x9	107	90.0	129.0
FP-0105	40	65	5.5	9	20	2.5	57	A3x3x12	M3x9	107	110.0	149.0
FP-0207	60	75	5.5	11	23	2.5	70	A4x4x14	M4x10	112	116.5	142.0
FP-0307	60	75	5.5	11	23	2.5	70	A4x4x14	M4x10	112	137.5	165.5
FP-0409	80	100	6.6	19	40	3	90	A6x6x30	M6x16	132	147.5	177.0
FP-0609	80	100	6.6	19	40	3	90	A6x6x30	M6x16	132	165.5	210.0
FP-0711	95	115	9	19	40	3	110	A6x6x30	M6x16	152	149.0	194.0
FP-0911	95	115	9	19	40	3	110	A6x6x30	M6x16	152	173.0	218.0
FP-1111	95	115	9	19	40	3	110	A6x6x30	M6x16	152	197.0	242.0
FP-1311	95	115	9	19	40	3	110	A6x6x30	M6x16	152	221.0	266.0
FP-1714	130	165	11	24	50	3.5	140	A8x7x32	M8x19	182	215.0	258.0
FP-2514**	130	165	11	24	50	3.5	140	A8x7x32	M8x19	182	266.0	309.0
FP-3314	130	165	11	24	50	3.5	140	A8x7x32	M8x19	182	317.0	367.0
FP-5019	180	215	16	32	58	4	192	A10x8x50	M12x28	234	297.5	383.0
FP-8019	180	215	16	32	58	4	192	A10x8x50	M12x28	234	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**	**2514**	**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	215.0	-	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	260.0	-	365.0	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	235.0	266.0	340.0	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	250.0	-	355.0	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	260.0	-	410.0	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	300.0	-	430.0	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	300.0	309.0	430.0	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	310.0	-	440.0	373.0	424.0