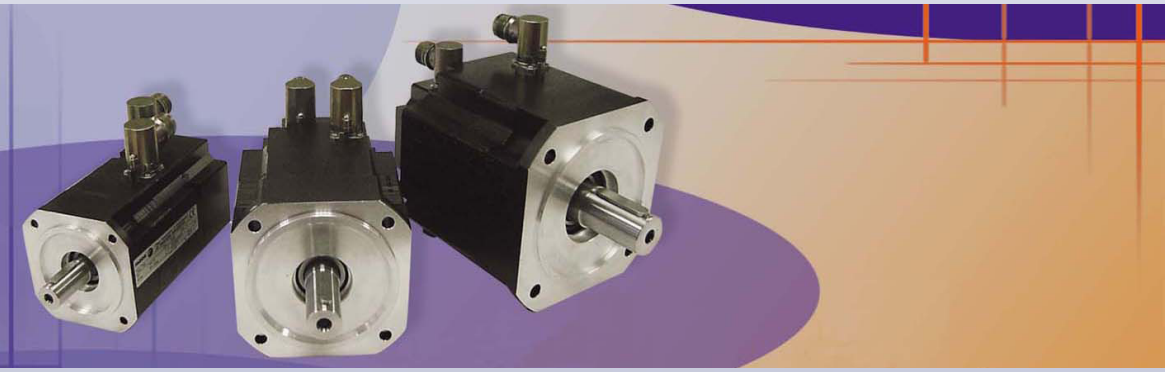
AC SERVO MOTORS - FKM -



ORDERING HANDBOOK

FAGOR

FAGOR AUTOMATION

Ref.1703

Original instructions

DENOMINATIONS

FKM □□.□□□.□□.□□□.□□ - K□□

MOTOR SERIES

SIZE 1, 2, 4, 6, 8, 9

LENGTH 1, 2, 3, 4, 6

RATED SPEED
20 2000 rev/min **45** 4500 rev/min
30 3000 rev/min **50** 5000 rev/min
40 4000 rev/min **60** 6000 rev/min

WINDING
A 400 V AC
F 220 V AC

FEEDBACK TYPE
A3 Multi-turn absolute sinusoidal 1Vpp encoder ·1024 ppt· (taper shaft)
A4 Multi-turn absolute sinusoidal 1Vpp encoder ·128 ppt·
E3 Sinusoidal 1Vpp encoder ·1024 ppt· (taper shaft)
E4 Sinusoidal 1Vpp encoder ·128 ppt·
I0 TTL incremental encoder ·2500 ppt·

FLANGE AND SHAFT
0 With keyway (half-key balancing)
1 Cylindrical (with no keyway)
2 Shaft with key and seal
3 Keyless shaft with seal
9 Special configuration

BRAKE OPTION
0 Without brake
1 With standard brake · 24 V DC ·
2 With extra-torque brake · 24 V DC ·

FAN AND INERTIA OPTION
0 Standard
1 Electro-ventilated
8 Low inertia
9 Low inertia and electro-ventilated

WINDING OPTION
-/1 Standard
2 Optimized for ACSD-16H
3 Small size

TEMPERATURE SENSOR
-/0 PTC KTY84-130 thermistor
1 RTD Pt1000 thermoresistance
2 PTC 111-K13-140 thermistor

OPTIONAL EXTRAS
- None
K Special configuration
U NRTL Certification

SPECIFICATION **01 ... 99**
Only when it has a special configuration ·K·

Note 1

The encoders with reference:

I0, only available on FKM2/4/6 motors with “F type” winding.

E3/A3, only available on FKM2/4/6/8/9 motors with “A type” winding.

E4/A4, only available on FKM1 motors.

Note 2

The FKM1/8/9 motor series do not offer the “F type” winding option.

Note 3

The FKM96 model does not offer the holding brake option.

ELECTRICAL DATA AND POWER CABLE

Motor model with ·A· winding 400 V AC	Rated speed	Stall torque	Rated torque	Stall current	Calc. power	Rated power	Poles pairs	POWER connector	POWER cable		FAN connector
	nN	Mo	Mn	Io	Pcal	Pn	p		without brake	with brake	
	1/min	N·m	N·m	A	kW	kW			Nr wires x mm²	Nr wires x mm²+(2x1)	
FKM43.20A.□□.□□0.□□	2000	9.0	7.8	3.9	1.88	1.6	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM44.20A.□□.□□0.□□	2000	11.6	9.2	4.6	2.4	1.9	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM63.20A.□□.□□0.□□	2000	12.5	11.0	5.3	2.6	2.3	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM64.20A.□□.□□0.□□	2000	16.5	13.6	6.5	3.5	2.8	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM66.20A.□□.□□0.2□	2000	23.5	16.7	9.4	4.9	3.5	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM66.20A.□□.□□1.2□	2000	32.0	27.0	12.8	6.7	5.6	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	MC-20/6
FKM82.20A.□□.□□0.□□	2000	32.0	25.0	13.2	6.7	5.2	4	MC-61/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM83.20A.□□.□□0.□□	2000	41.0	32.0	17.0	8.6	6.7	4	MC-61/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM84.20A.□□.□□0.□□	2000	52.0	38.0	21.5	10.9	7.9	4	MC-61/6	MPC-4x4	MPC-4x4+(2x1)	-
FKM84.20A.□□.□□1.□□	2000	80.0	68.0	33.0	16.7	14.2	4	MC-61/6	MPC-4x10	MPC-4x10+(2x1)	MC-20/6
FKM85.20A.□□.□□0.□□	2000	74.0	46.0	29.3	15.5	15.5	4	MC-61/6	MPC-4x6	MPC-4x6+(2x1)	-
FKM85.20A.□□.□□1.□□	2000	100.0	88.0	39.6	20.9	18.4	4	MC-61/6	MPC-4x10	MPC-4x10+(2x1)	MC-20/6
FKM94.20A.□□.□□0.□□	2000	68.0	56.0	25.4	14.2	11.7	3	MC-61/6	MPC-4x6	MPC-4x6+(2x1)	-
FKM95.20A.□□.□□0.□□	2000	93.0	70.0	33.1	19.5	14.7	3	MC-61/6	MPC-4x10	MPC-4x10+(2x1)	-
FKM96.20A.□□.□00.□□	2000	115.0	85.0	42.1	24.0	17.8	3	MC-61/6	MPC-4x16	-	-
FKM22.30A.□□.□□0.□□	3000	3.2	2.6	2.4	1.0	0.8	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM42.30A.□□.□□0.□□	3000	6.3	4.6	4.6	2.0	1.4	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM43.30A.□□.□□0.□□	3000	9.0	6.5	6.2	2.82	2.0	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM44.30A.□□.□□0.2□	3000	11.6	7.4	7.0	3.6	2.3	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-

Motor model with ·A· winding 400 V AC	Rated speed	Stall torque	Rated torque	Stall current	Calc. power	Rated power	Poles pairs	POWER connector	POWER cable		FAN connector
	nN	Mo	Mn	Io	Pcal	Pn	p		without brake	with brake	
	1/min	N·m	N·m	A	kW	kW			Nr wires x mm²	Nr wires x mm²+(2x1)	
FKM62.30A.□□.□□0.□□	3000	8.9	7.5	7.1	2.8	2.4	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM63.30A.□□.□□0.□□	3000	12.5	9.5	10.3	3.9	2.9	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM64.30A.□□.□□0.□□	3000	16.5	11.2	12.1	5.2	3.5	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM66.30A.□□.□□0.□□	3000	23.5	12.2	16.4	7.4	3.8	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM66.30A.□□.□21.□□	3000	32.0	23.5	22.3	10.0	7.5	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	MC-20/6
FKM82.30A.□□.□□0.□□	3000	32.0	20.0	19.8	10.1	6.3	4	MC-61/6	MPC-4x4	MPC-4x4+(2x1)	-
FKM83.30A.□□.□□0.□□	3000	41.0	21.0	27.1	12.9	6.6	4	MC-61/6	MPC-4x6	MPC-4x6+(2x1)	-
FKM83.30A.□□.□□1.□□	3000	60.0	45.0	39.6	18.8	14.1	4	MC-61/6	MPC-4x10	MPC-4x10+(2x1)	MC-20/6
FKM84.30A.□□.□□0.□□	3000	52.0	17.0	32.2	16.3	5.3	4	MC-61/6	MPC-4x10	MPC-4x10+(2x1)	-
FKM84.30A.□□.□□1.□□	3000	80.0	60.0	49.5	25.1	18.8	4	MC-61/6	MPC-4x16	MPC-4x16+(2x1.5)	MC-20/6
FKM85.30A.□□.□□1.□□	3000	91.0	57.0	60.0	28.6	17.9	4	MC-61/6	MPC-4x25	MPC-4x25+(2x1)	MC-20/6
FKM43.40A.□□.□□0.□□	4000	9.0	4.5	9.4	3.77	1.9	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM44.40A.□□.□□0.□□	4000	11.6	5.1	10.7	4.9	2.1	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM62.40A.□□.□□0.□□	4000	8.9	6.7	9.3	3.7	2.8	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM63.40A.□□.□□0.□□	4000	12.5	6.6	16.2	5.2	2.7	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM64.40A.□□.□□0.□□	4000	16.5	6.6	16.2	6.9	2.8	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM82.40A.□□.□□0.□□	4000	32.0	12.0	26.4	13.4	5.0	4	MC-61/6	MPC-4x6	MPC-4x6+(2x1)	-
FKM82.40A.□□.□□1.□□	4000	40.0	31.0	33.0	16.7	13.0	4	MC-61/6	MPC-4x10	MPC-4x10+(2x1)	MC-20/6
FKM12.45A.□□.□□0.02	4500	0.54	0.48	0.93	0.25	0.22	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM14.45A.□□.□□0.02	4500	0.95	0.85	1.15	0.45	0.40	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM42.45A.□□.□□0.□□	4500	6.3	3.3	6.9	3.0	1.6	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM22.50A.□□.□□0.□□	5000	3.2	1.9	4.0	1.7	1.0	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM21.60A.□□.□□0.□□	6000	1.7	0.8	2.8	1.1	0.5	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM22.60A.□□.□□0.□□	6000	3.2	1.5	4.5	2.0	1.0	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM42.60A.□□.□□0.□□	6000	6.3	1.9	8.5	4.0	1.7	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM62.60A.□□.□□0.□□	6000	8.9	3.4	13.1	5.6	2.2	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-

Motor model with ·F· winding 220 V AC	Rated speed	Stall torque	Rated torque	Stall current	Calc. power	Rated power	Poles pairs	POWER connector	POWER cable		FAN connector
	nN	Mo	Mn	Io	Pcal	Pn	p		without brake	with brake	
	1/min	N·m	N·m	A	kW	kW			Nr wires x mm²	Nr wires x mm²+(2x1)	
FKM63.20F.□□.□□0.□□	2000	12.5	11.0	11.7	2.6	2.3	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM64.20F.□□.□□0.□□	2000	16.5	13.6	14.3	3.5	2.8	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM66.20F.□□.□□0.□□	2000	23.5	16.7	19.2	4.9	3.5	3	MC-20/6	MPC-4x4	MPC-4x4+(2x1)	-
FKM22.30F.□□.□□0.□□	3000	3.2	2.6	4.5	1.0	0.8	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM42.30F.□□.□□0.□□	3000	6.3	4.6	8.5	2.0	1.4	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM43.30F.□□.□□0.□□	3000	9.0	6.5	13.8	2.8	2.0	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM44.30F.□□.□□0.□□	3000	11.6	7.4	15.6	3.6	2.3	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM62.30F.□□.□□0.□□	3000	8.9	7.5	13.1	2.8	2.4	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM63.30F.□□.□□0.□□	3000	12.5	9.5	16.6	3.9	3.0	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM64.30F.□□.□□0.□□	3000	16.5	11.2	20.0	5.2	3.5	3	MC-20/6	MPC-4x4	MPC-4x4+(2x1)	-
FKM62.40F.□□.□□0.□□	4000	8.9	6.8	16.4	3.7	2.8	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM42.45F.□□.□□0.□□	4500	6.3	3.3	12.4	3.0	1.5	3	MC-20/6	MPC-4x2.5	MPC-4x2.5+(2x1)	-
FKM22.50F.□□.□□0.□□	5000	3.2	1.9	7.2	1.7	1.0	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-
FKM21.60F.□□.□□0.□□	6000	1.7	0.8	4.7	1.1	0.5	3	MC-20/6	MPC-4x1.5	MPC-4x1.5+(2x1)	-

RECOMMENDED MOTOR/DRIVE COMBINATION

The drive selecting procedure always depends on the application.

- The peak current of the drive must be higher than the stall current of the motor. (Ip drive > Io motor)
- If the application is going to demand from the motor a rated duty cycle or lower than 100 %, it will suf-fice to have the drive provide the rated torque of the motor.
- Usually, in particular moments and during very short periods of time, a higher torque than the stall torque is required (for example during a rapid approach in G00). In these cases, a drive must be selected whose peak torque is between 2 and 3 times the stall torque of the motor.
- The peak torque that the drive can provide must never exceed the peak torque of the motor. When this occurs, the peak torque of the drive must be limited.

The peak torque that the drive can provide is **Mp drive = Kt motor x Ip drive,** where: **Kt motor = Mo motor / Io motor**.

		AXD									ACSD / MCS		
		1.08	**1.15**	**1.25**	**1.35**	**2.50**	**2.75**	**3.100**	**3.150**		**04H**	**08H**	**16H**
Rated current	In (A)	4.0	7.5	12.5	17.5	25.0	37.5	50.0	75.0		2	4	8
Peak current	Ip, 0.5 s (A)	8.0	15.0	25.0	35.0	50.0	75.0	100.0	150.0		4	8	16

Motor model with ·A· winding 400 V AC	Stall torque	Stall peak	Rated speed	Stall current	Peak current	DRIVE Mp / MOTOR Mo										
	Mo	Mp	nN	Io	Ip	**AXD**								**ACSD / MCS**		
	N·m	N·m	1/min	A	A	**1.08**	**1.15**	**1.25**	**1.35**	**2.50**	**2.75**	**3.100**	**3.150**	**04H**	**08H**	**16H**
FKM43.20A.□□.□□0.□□	9.0	36	2000	3.9	15.7	2.0	3.8	**4.0**	-	-	-	-	-		2.0	**4.0**
FKM44.20A.□□.□□0.□□	11.6	47	2000	4.6	19.0		3.2	**4.0**	-	-	-	-	-			3.4
FKM63.20A.□□.□□0.□□	12.5	51	2000	5.3	21.3		2.8	**4.0**	-	-	-	-	-			3.0
FKM64.20A.□□.□□0.□□	16.5	66	2000	6.5	26		2.3	3.8	**4.0**	-	-	-	-			2.4
FKM66.20A.□□.□□0.2□	23.5	94	2000	9.4	37			2.6	3.7	**4.0**	-	-	-			1.7
FKM66.20A.□□.□□1.2□	32.0	94	2000	12.8	37				2.7	**2.9**	-	-	-			1.25
FKM82.20A.□□.□□0.□□	32.0	96	2000	13.2	39				2.6	**3.0**	-	-	-			
FKM83.20A.□□.□□0.□□	41.0	123	2000	17.0	51				2.0	2.9	**3.0**	-	-			
FKM84.20A.□□.□□0.□□	52.0	156	2000	21.5	64					2.3	**3.0**	-	-			
FKM84.20A.□□.□□1.□□	80.0	156	2000	33.0	64						**1.95**	-	-			
FKM85.20A.□□.□□0.□□	74.0	222	2000	29.3	87						2.5	**3.0**	-			
FKM85.20A.□□.□□1.□□	100.0	222	2000	39.6	87							**2.2**	-			
FKM94.20A.□□.□□0.□□	68.0	204	2000	25.4	99						2.5	**3.0**	-			
FKM95.20A.□□.□□0.□□	93.0	279	2000	33.1	129						1.9	**3.0**	-			
FKM96.20A.□□.□00.□□	115.0	345	2000	42.1	164							2.3	**2.9**			
FKM22.30A.□□.□□0.□□	3.2	13	3000	2.4	10	3.3	**4.0**	-	-	-	-	-	-		3.1	**4.0**
FKM42.30A.□□.□□0.□□	6.3	25	3000	4.6	19		3.2	**3.9**	-	-	-	-	-			3.4
FKM43.30A.□□.□□0.□□	9.0	36	3000	6.2	25		2.4	**4.0**	-	-	-	-	-			2.5
FKM44.30A.□□.□□0.2□	11.6	47	3000	7.0	28		2.1	3.5	**4.0**	-	-	-	-			2.2
FKM62.30A.□□.□□0.□□	8.9	35	3000	7.1	28		2.0	3.3	**3.9**	-	-	-	-			1.9
FKM63.30A.□□.□□0.□□	12.5	51	3000	10.3	40.6			2.4	3.3	**4.1**	-	-	-			1.5
FKM64.30A.□□.□□0.□□	16.5	66	3000	12.1	48			2.0	2.8	**4.0**	-	-	-			1.3
FKM66.30A.□□.□□0.□□	23.5	94	3000	16.4	66				2.1	3.0	3.8	**4.0**	-			
FKM66.30A.□□.□21.□□	32.0	94	3000	22.3	66					2.2	**2.9**	-	-			
FKM82.30A.□□.□□0.□□	32.0	96	3000	19.8	59					2.5	**3.0**	-	-			
FKM83.30A.□□.□□0.□□	41.0	123	3000	27.1	81						2.7	**3.0**	-			
FKM83.30A.□□.□□1.□□	60.0	123	3000	39.6	81							**2.05**	-			
FKM84.30A.□□.□□0.□□	52.0	156	3000	32.2	96						2.3	**3.0**	-			
FKM84.30A.□□.□□1.□□	80.0	156	3000	49.5	96							**1.95**	-			
FKM85.30A.□□.□□1.□□	91.0	222	3000	60.0	145								**2.4**			
FKM43.40A.□□.□□0.□□	9.0	36	4000	9.4	38			2.6	3.7	**4.0**	-	-	-			1.7
FKM44.40A.□□.□□0.□□	11.6	47	4000	10.7	43			2.3	3.3	**4.0**	-	-	-			1.5
FKM62.40A.□□.□□0.□□	8.9	35	4000	9.3	37			2.5	3.5	**3.9**	-	-	-			1.7
FKM63.40A.□□.□□0.□□	12.5	51	4000	16.2	64				2.1	3.0	**4.1**	-	-			
FKM64.40A.□□.□□0.□□	16.5	66	4000	16.2	64				2.1	3.0	3.8	**4.0**	-			
FKM82.40A.□□.□□0.□□	32.0	96	4000	26.4	79						2.8	**3.0**	-			
FKM82.40A.□□.□□1.□□	40.0	96	4000	33.0	79						2.2	**2.4**	-			
FKM12.45A.□□.□□0.02	0.54	2.2	4500	0.93	4.3	**4.0**	-	-	-	-	-	-	-			
FKM14.45A.□□.□□0.02	0.95	3.8	4500	1.15	5.3	**4.0**	-	-	-	-	-	-	-			
FKM42.45A.□□.□□0.□□	6.3	25	4500	6.9	28		2.1	3.5	**3.9**	-	-	-	-			2.3
FKM22.50A.□□.□□0.□□	3.2	13	5000	4.0	16	2.0	3.7	**4.0**	-	-	-	-	-		2.0	**4.0**
FKM21.60A.□□.□□0.□□	1.7	7	6000	2.8	11	2.8	**4.1**	-	-	-	-	-	-		2.9	**4.1**
FKM22.60A.□□.□□0.□□	3.2	13	6000	4.5	18		3.2	**4.0**	-	-	-	-	-			3.5
FKM42.60A.□□.□□0.□□	6.3	25	6000	8.5	34			2.7	**3.9**	-	-	-	-			2.3
FKM62.60A.□□.□□0.□□	8.9	35	6000	13.1	52				2.6	3.8	**3.9**	-	-			

		ACSD / MCS			
		05L	**10L**	**20L**	**30L**
Rated current	In (A)	2.5	5.0	10.0	15.0
Peak current	Ip, 0.5 s (A)	5.0	10.0	20.0	30.0

Motor model with ·F· winding 220 V AC	Stall torque	Stall peak torque	Rated speed	Stall current	Peak current	DRIVE Mp / MOTOR Mo			
	Mo	Mp	nN	Io	Ip	**ACSD / MCS**			
	N·m	N·m	1/min	A	A	**05L**	**10L**	**20L**	**30L**
FKM63.20F.□□.□□0.□□	12.5	51	2000	11.7	46.6			1.7	2.6
FKM64.20F.□□.□□0.□□	16.5	66	2000	14.3	57				1.8
FKM66.20F.□□.□□0.□□	23.5	94	2000	19.2	76.8				1.5
FKM22.30F.□□.□□0.□□	3.2	13	3000	4.5	18		2.3	**4.0**	-
FKM42.30F.□□.□□0.□□	6.3	25	3000	8.5	34			2.3	3.5
FKM43.30F.□□.□□0.□□	9.0	36	3000	13.8	55.4			1.4	2.1
FKM44.30F.□□.□□0.□□	11.6	47	3000	15.6	62				1.9
FKM62.30F.□□.□□0.□□	8.9	35	3000	13.1	52				2.3
FKM63.30F.□□.□□0.□□	12.5	51	3000	16.6	66.4				1.8
FKM64.30F.□□.□□0.□□	16.5	66	3000	20.0	80				1.5
FKM62.40F.□□.□□0.□□	8.9	35	4000	16.4	66			1.2	1.8
FKM42.45F.□□.□□0.□□	6.3	25	4500	12.4	50			2.9	**3.9**
FKM22.50F.□□.□□0.□□	3.2	13	5000	7.2	29			2.8	**4.0**
FKM21.60F.□□.□□0.□□	1.7	7	6000	4.7	19		2.1	**4.1**	-

POWER/DRIVE CABLES

The following table shows the range of MPC-4x... power cables supplied by FAGOR to connect an FKM motor and a drive. They are supplied without connectors because the power connector will usually be different depending on the motor series to which it will be connected. The number of meters available upon request. It is available in lengths of 5, 10, 15, 20, 30, 40, 50, 75, 100, 150, 200, 250 and 300 meters for sections up to 10 mm² (included) and 5, 7, 10, 12, 15, 20, 25, 30, 35, 40, 45, 50, 75 and 100 meters for larger sections.

On brakeless FKM

Reference	Code	Reference	Code	Reference	Code	Reference	Code
MPC-4x1.5-5M	04040500	MPC-4x1.5-20M	04040503	MPC-4x1.5-75M	04040507	MPC-4x1.5-250M	04040511
MPC-4x1.5-10M	04040501	MPC-4x1.5-30M	04040504	MPC-4x1.5-100M	04040508	MPC-4x1.5-300M	04040512
MPC-4x1.5-12M	04040513	MPC-4x1.5-40M	04040505	MPC-4x1.5-150M	04040509		
MPC-4x1.5-15M	04040502	MPC-4x1.5-50M	04040506	MPC-4x1.5-200M	04040510		
MPC-4x2.5-5M	04040600	MPC-4x2.5-20M	04040603	MPC-4x2.5-75M	04040607	MPC-4x2.5-250M	04040611
MPC-4x2.5-10M	04040601	MPC-4x2.5-30M	04040604	MPC-4x2.5-100M	04040608	MPC-4x2.5-300M	04040612
		MPC-4x2.5-40M	04040605	MPC-4x2.5-150M	04040609		
MPC-4x2.5-15M	04040602	MPC-4x2.5-50M	04040606	MPC-4x2.5-200M	04040610		
MPC-4x4-5M	04040700	MPC-4x4-20M	04040703	MPC-4x4-75M	04040707	MPC-4x4-250M	04040711
MPC-4x4-10M	04040701	MPC-4x4-30M	04040704	MPC-4x4-100M	04040708	MPC-4x4-300M	04040712
		MPC-4x4-40M	04040705	MPC-4x4-150M	04040709		
MPC-4x4-15M	04040702	MPC-4x4-50M	04040706	MPC-4x4-200M	04040710		
MPC-4x6-5M	04040800	MPC-4x6-20M	04040803	MPC-4x6-75M	04040807	MPC-4x6-250M	04040811
MPC-4x6-10M	04040801	MPC-4x6-30M	04040804	MPC-4x6-100M	04040808	MPC-4x6-300M	04040812
		MPC-4x6-40M	04040805	MPC-4x6-150M	04040809		
MPC-4x6-15M	04040802	MPC-4x6-50M	04040806	MPC-4x6-200M	04040810		
MPC-4x10-5M	04040900	MPC-4x10-20M	04040903	MPC-4x10-75M	04040907	MPC-4x10-250M	04040911
MPC-4x10-10M	04040901	MPC-4x10-30M	04040904	MPC-4x10-100M	04040908	MPC-4x10-300M	04040912
		MPC-4x10-40M	04040905	MPC-4x10-150M	04040909		
MPC-4x10-15M	04040902	MPC-4x10-50M	04040906	MPC-4x10-200M	04040910		
MPC-4x16-5M	04041000	MPC-4x16-15M	04041004	MPC-4x16-35M	04041008	MPC-4x16-75M	04041012
MPC-4x16-7M	04041001	MPC-4x16-20M	04041005	MPC-4x16-40M	04041009	MPC-4x16-100M	04041013
MPC-4x16-10M	04041002	MPC-4x16-25M	04041006	MPC-4x16-45M	04041010		
MPC-4x16-12M	04041003	MPC-4x16-30M	04041007	MPC-4x16-50M	04041011		
MPC-4x25-5M	04041370	MPC-4x25-15M	04041374	MPC-4x25-35M	04041378	MPC-4x25-75M	04041382
MPC-4x25-7M	04041371	MPC-4x25-20M	04041375	MPC-4x25-40M	04041379	MPC-4x25-100M	04041383
MPC-4x25-10M	04041372	MPC-4x25-25M	04041376	MPC-4x25-45M	04041380		
MPC-4x25-12M	04041373	MPC-4x25-30M	04041377	MPC-4x25-50M	04041381		

On FKM with holding brake

Reference	Code	Reference	Code	Reference	Code	Reference	Code
MPC-4x1.5+(2x1)-5M	04040550	MPC-4x1.5+(2x1)-20M	04040553	MPC-4x1.5+(2x1)-75M	04040557	MPC-4x1.5+(2x1)-250M	04040561
MPC-4x1.5+(2x1)-10M	04040551	MPC-4x1.5+(2x1)-30M	04040554	MPC-4x1.5+(2x1)-100M	04040558	MPC-4x1.5+(2x1)-300M	04040562
		MPC-4x1.5+(2x1)-40M	04040555	MPC-4x1.5+(2x1)-150M	04040559		
MPC-4x1.5+(2x1)-15M	04040552	MPC-4x1.5+(2x1)-50M	04040556	MPC-4x1.5+(2x1)-200M	04040560		
MPC-4x2.5+(2x1)-5M	04040650	MPC-4x2.5+(2x1)-20M	04040653	MPC-4x2.5+(2x1)-75M	04040657	MPC-4x2.5+(2x1)-250M	04040661
MPC-4x2.5+(2x1)-10M	04040651	MPC-4x2.5+(2x1)-30M	04040654	MPC-4x2.5+(2x1)-100M	04040658	MPC-4x2.5+(2x1)-300M	04040662
		MPC-4x2.5+(2x1)-40M	04040655	MPC-4x2.5+(2x1)-150M	04040659		
MPC-4x2.5+(2x1)-15M	04040652	MPC-4x2.5+(2x1)-50M	04040656	MPC-4x2.5+(2x1)-200M	04040660		
MPC-4x4+(2x1)-5M	04040750	MPC-4x4+(2x1)-20M	04040753	MPC-4x4+(2x1)-75M	04040757	MPC-4x4+(2x1)-250M	04040761
MPC-4x4+(2x1)-10M	04040751	MPC-4x4+(2x1)-30M	04040754	MPC-4x4+(2x1)-100M	04040758	MPC-4x4+(2x1)-300M	04040762
		MPC-4x4+(2x1)-40M	04040755	MPC-4x4+(2x1)-150M	04040759		
MPC-4x4+(2x1)-15M	04040752	MPC-4x4+(2x1)-50M	04040756	MPC-4x4+(2x1)-200M	04040760		
MPC-4x6+(2x1)-5M	04040850	MPC-4x6+(2x1)-20M	04040853	MPC-4x6+(2x1)-75M	04040857	MPC-4x6+(2x1)-250M	04040861
MPC-4x6+(2x1)-10M	04040851	MPC-4x6+(2x1)-30M	04040854	MPC-4x6+(2x1)-100M	04040858	MPC-4x6+(2x1)-300M	04040862
		MPC-4x6+(2x1)-40M	04040855	MPC-4x6+(2x1)-150M	04040859		
MPC-4x6+(2x1)-15M	04040852	MPC-4x6+(2x1)-50M	04040856	MPC-4x6+(2x1)-200M	04040860		
MPC-4x10+(2x1)-5M	04040950	MPC-4x10+(2x1)-20M	04040953	MPC-4x10+(2x1)-75M	04040957	MPC-4x10+(2x1)-250M	04040961
MPC-4x10+(2x1)-10M	04040951	MPC-4x10+(2x1)-30M	04040954	MPC-4x10+(2x1)-100M	04040958	MPC-4x10+(2x1)-300M	04040962
		MPC-4x10+(2x1)-40M	04040955	MPC-4x10+(2x1)-150M	04040959		
MPC-4x10+(2x1)-15M	04040952	MPC-4x10+(2x1)-50M	04040956	MPC-4x10+(2x1)-200M	04040960		
MPC-4x16+(2x1.5)-5M	04041050	MPC-4x16+(2x1.5)-15M	04041054	MPC-4x16+(2x1.5)-35M	04041058	MPC-4x16+(2x1.5)-75M	04041062
MPC-4x16+(2x1.5)-7M	04041051	MPC-4x16+(2x1.5)-20M	04041055	MPC-4x16+(2x1.5)-40M	04041059	MPC-4x16+(2x1.5)-100M	04041063
MPC-4x16+(2x1.5)-10M	04041052	MPC-4x16+(2x1.5)-25M	04041056	MPC-4x16+(2x1.5)-45M	04041060		
MPC-4x16+(2x1.5)-12M	04041053	MPC-4x16+(2x1.5)-30M	04041057	MPC-4x16+(2x1.5)-50M	04041061		
MPC-4x25+(2x1)-5M	04041200	MPC-4x25+(2x1)-15M	04041204	MPC-4x25+(2x1)-35M	04041208	MPC-4x25+(2x1)-75M	04041212
MPC-4x25+(2x1)-7M	04041201	MPC-4x25+(2x1)-20M	04041205	MPC-4x25+(2x1)-40M	04041209	MPC-4x25+(2x1)-100M	04041213
MPC-4x25+(2x1)-10M	04041202	MPC-4x25+(2x1)-25M	04041206	MPC-4x25+(2x1)-45M	04041210		
MPC-4x25+(2x1)-12M	04041203	MPC-4x25+(2x1)-30M	04041207	MPC-4x25+(2x1)-50M	04041211		

Power terminal strip of the MOTOR

Reference	Code	Reference	Code
MC-20/6	84080060		
MC-61/6	04040310		

Power terminal strip of the FAN

Reference	Code	Reference	Code
MC-20/6	84080060		

ENCODER/DRIVE CABLES

The **EEC-SP-X** cables (3x2x0.14+14x0.14+2x0.5) are indicated for FKM motor with sinusoidal SinCos Stegmann encoder. It has a 26-pin male HD, Sub-D connector at one end for connecting the drive and an **EOC-12** connector at the other end to connect it to the encoder of the motor.

Reference	Length	Code	Reference	Length	Code	Reference	Length	Code
EEC-SP-03	3 m	04080018	EEC-SP-10	10 m	04080021	EEC-SP-30	30 m	04080060
EEC-SP-05	5 m	04080020	EEC-SP-11	11 m	04080211	EEC-SP-35	35 m	04080061
EEC-SP-06	6 m	04080206	EEC-SP-12	12 m	04080212	EEC-SP-40	40 m	04080062
EEC-SP-07	7 m	04080019	EEC-SP-15	15 m	04080022	EEC-SP-45	45 m	04080063
EEC-SP-08	8 m	04080208	EEC-SP-20	20 m	04080023	EEC-SP-50	50 m	04080064
EEC-SP-09	9 m	04080209	EEC-SP-25	25 m	04080024	EEC-SP-60	60 m	04080065

Sinusoidal encoder cable connector

Reference	Code	Reference	Code	Reference	Code	Reference	Code
EOC-12	84080110						

The **IECD-X** cables (15x0.14+4x0.5) are indicated for the motor with TTL incremental encoder, 2500 ppt. It has a 26-pin male HD, Sub-D connector at one end for connecting the drive and an **IOC-17** connector at the other end to connect it to the encoder of the motor.

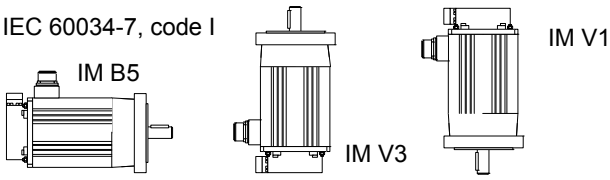
Reference	Length	Code	Reference	Length	Code	Reference	Length	Code
IECD-05	5 m	05257001	IECD-15	15 m	05257003	IECD-30	30 m	05257006
IECD-07	7 m	05257007	IECD-20	20 m	05257004			
IECD-10	10 m	05257002	IECD-25	25 m	05257005			

TTL incremental encoder cable connector

Reference	Code	Reference	Code	Reference	Code	Reference	Code
IOC-17	84200010						

MOUNTING ARRANGEMENTS · IM CODE ·

IEC 60034-7, code I

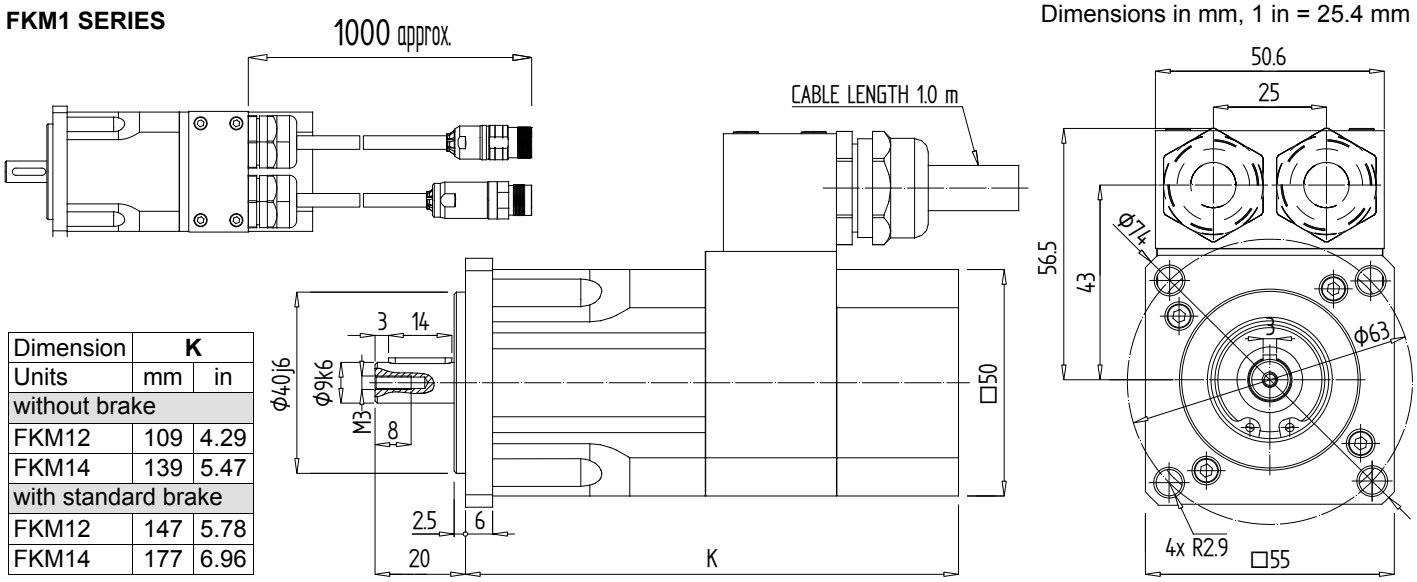


Code I	Built
IM B5	Flange mounting, horizontal shaft.
IM V3	Flange mounting, vertical shaft facing up.
IM V1	Flange mounting, vertical shaft facing down.

DIMENSIONS

FKM1 SERIES

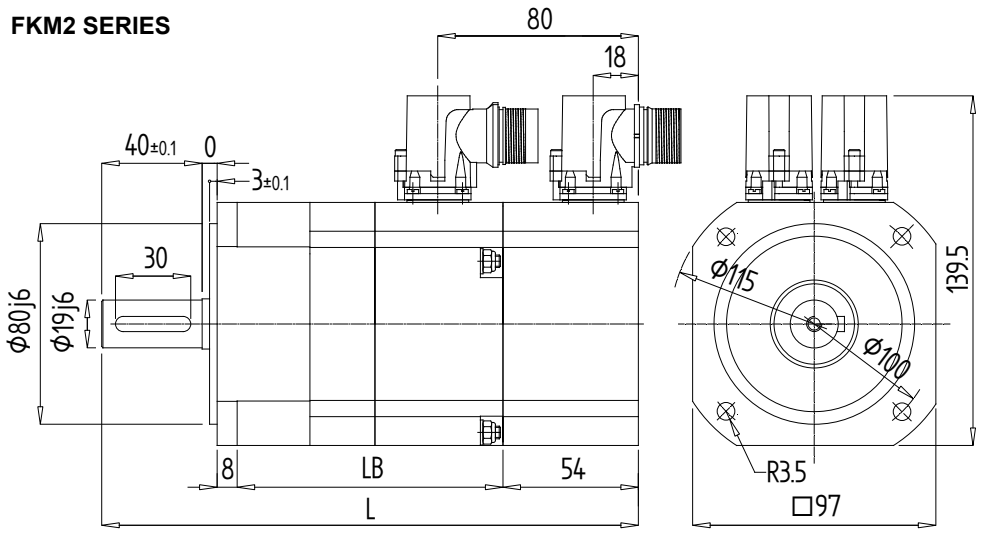
Dimensions in mm, 1 in = 25.4 mm



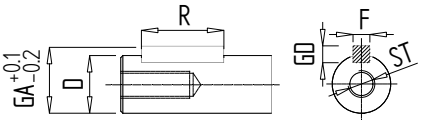
Dimension	K	
Units	mm	in
without brake		
FKM12	109	4.29
FKM14	139	5.47
with standard brake		
FKM12	147	5.78
FKM14	177	6.96

FKM2 SERIES

Dimensions in mm, 1 in = 25.4 mm



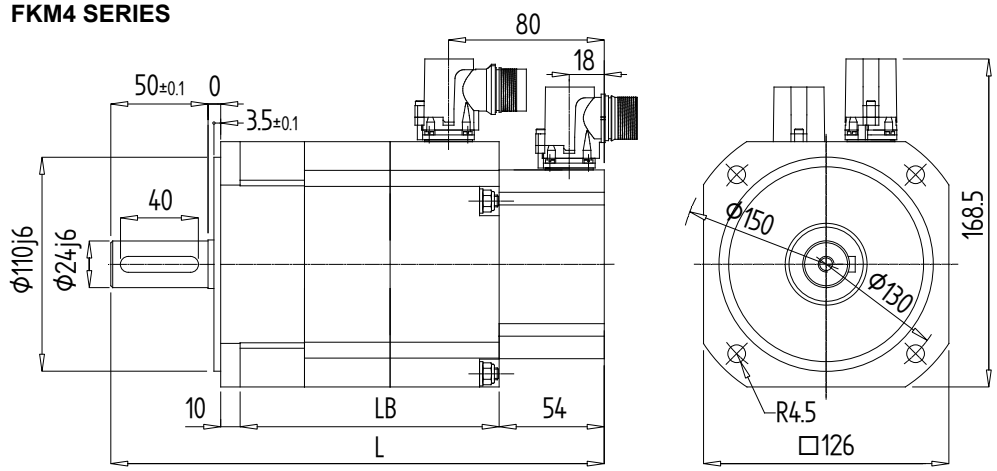
Dimension	LB		L	
Units	mm	in	mm	in
FKM21	106	4.17	208	8.19
FKM22	130	5.11	232	9.13



Dimension	ØD j6		F		GD		R		GA		ST
Units	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FKM2	19	0.74	6	0.23	6	0.23	30	1.18	21.5	0.84	M6x16

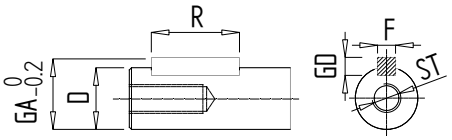
FKM4 SERIES

Dimensions in mm, 1 in = 25.4 mm



with standard brake / wihout brake

Dimension	LB		L	
Units	mm	in	mm	in
FKM42	133	5.23	247	9.72
FKM43	175	6.88	289	11.38
FKM44	175	6.88	289	11.38

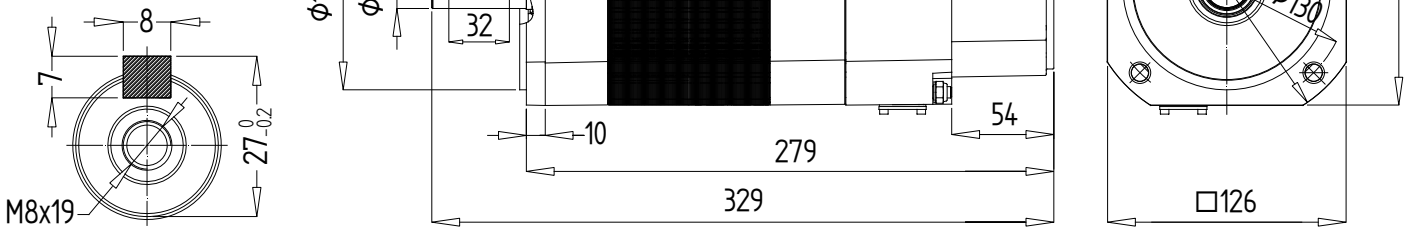


Dimension	ØD j6		F		GD		R		GA		ST
Units	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FKM4	24	0.94	8	0.31	7	0.27	40	1.57	27	1.06	M8x19

with extra-torque brake

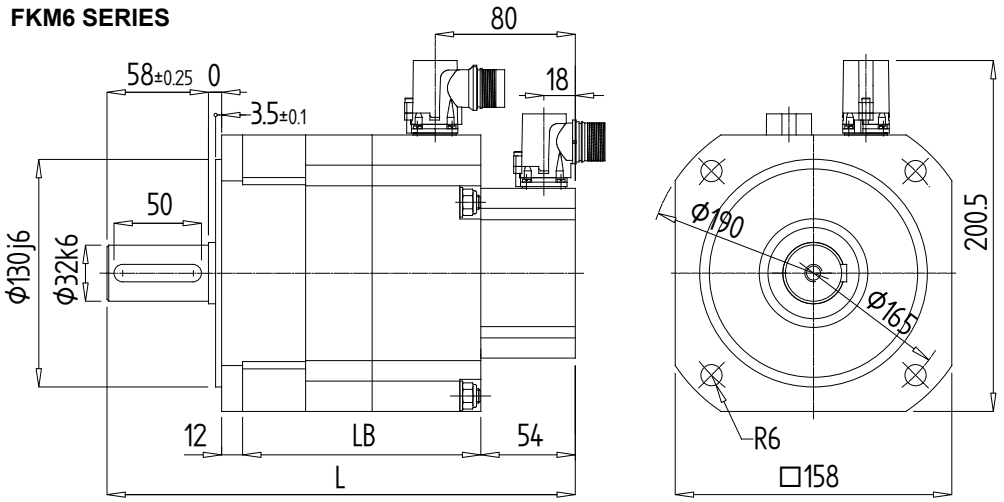
FKM44.20A.□□.□**20**.□□
FKM44.30A.□□.□**20**.2□
FKM44.40A.□□.□**20**.□□

Dimensions in mm, 1 in = 25.4 mm



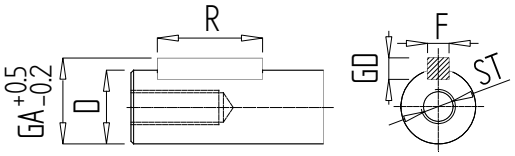
FKM6 SERIES

Dimensions in mm, 1 in = 25.4 mm



with standard brake / wihout brake

Dimension	LB		L	
Units	mm	in	mm	in
FKM62	136	5.35	260	10.24
FKM63	172	6.77	296	11.65
FKM64	172	6.77	296	11.65
FKM66	208	8.18	332	13.07



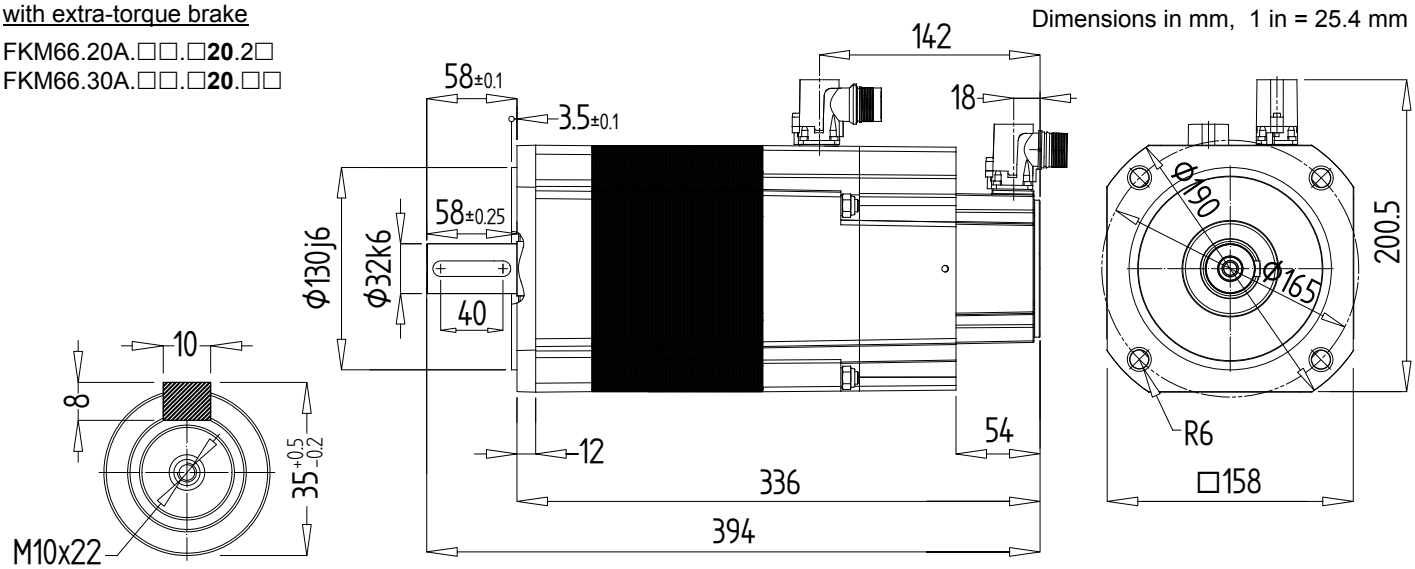
Dimension	ØD j6		F		GD		R		GA		ST
Units	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FKM6	32	1.26	10	0.39	8	0.31	50	1.96	35	1.37	M10x22

with extra-torque brake

FKM66.20A.□□.□**20**.2□

FKM66.30A.□□.□**20**.□□

Dimensions in mm, 1 in = 25.4 mm

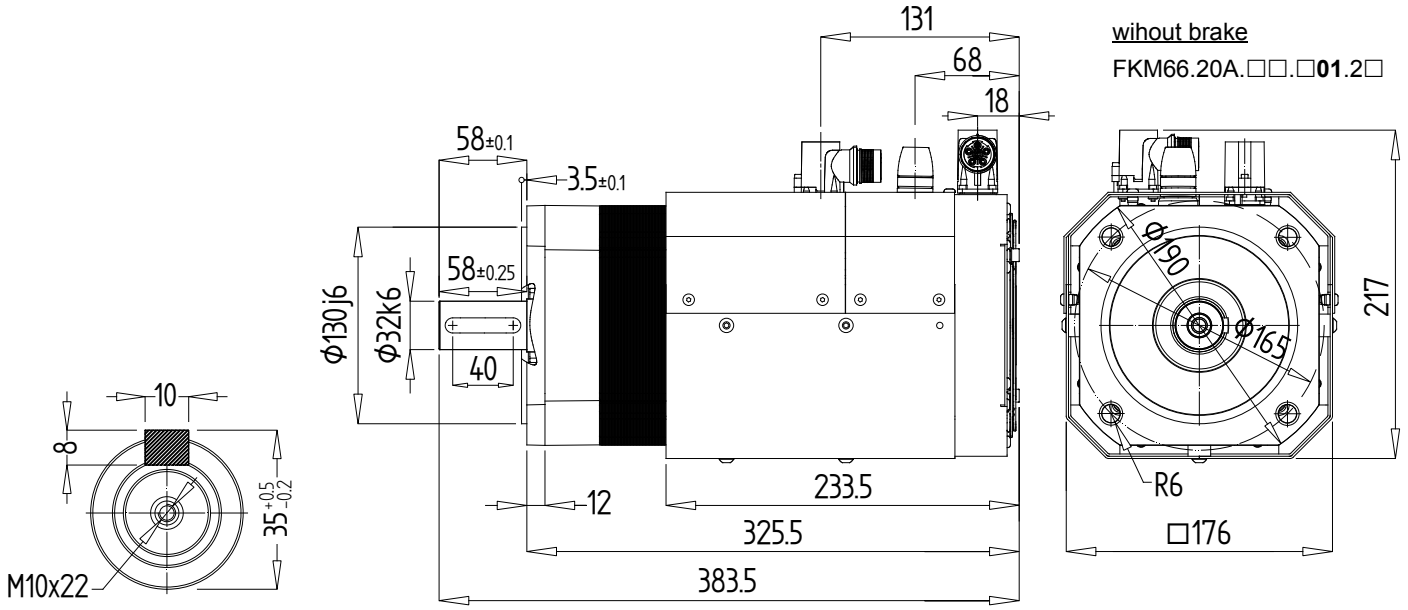


FKM6/V SERIES

Dimensions in mm, 1 in = 25.4 mm

wihout brake

FKM66.20A.□□.□**01**.2□



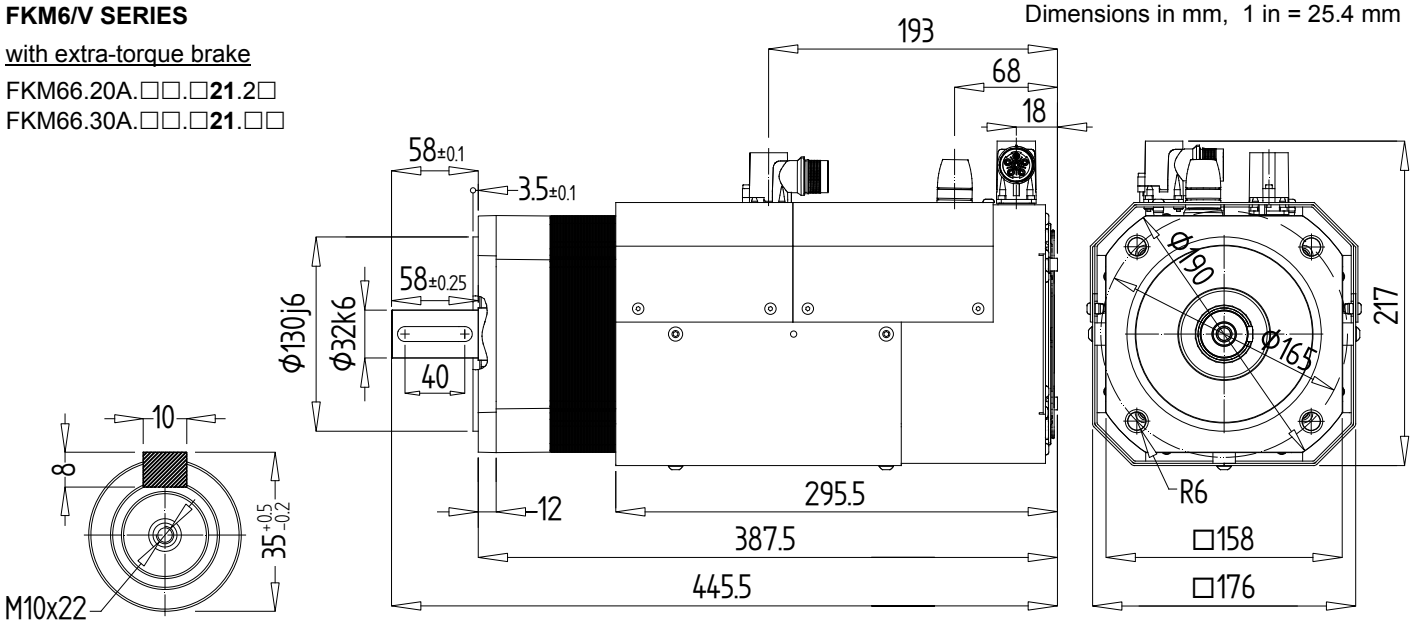
FKM6/V SERIES

Dimensions in mm, 1 in = 25.4 mm

with extra-torque brake

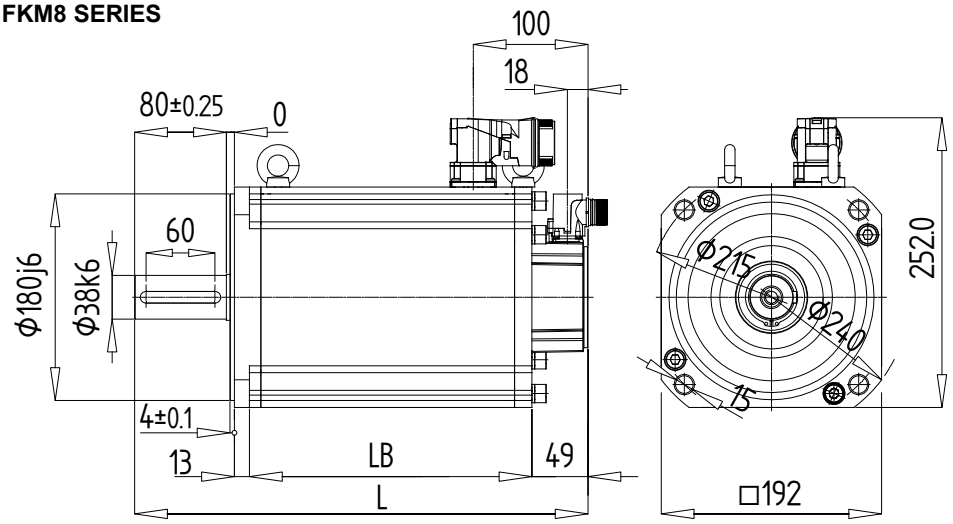
FKM66.20A.□□.□**21**.2□

FKM66.30A.□□.□**21**.□□



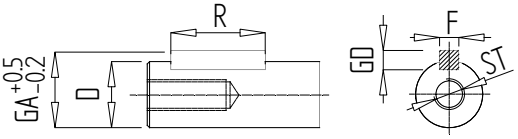
FKM8 SERIES

Dimensions in mm, 1 in = 25.4 mm



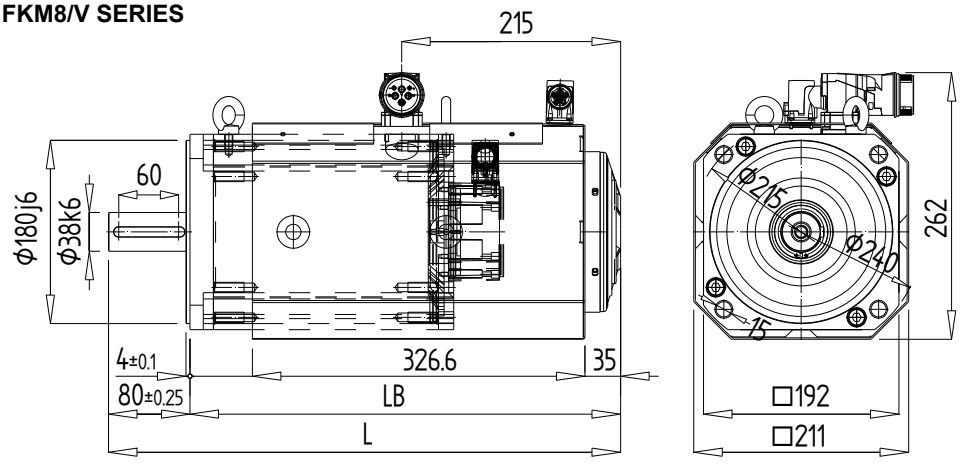
Dimension	LB		L	
Units	mm	in	mm	in
without brake				
FKM82	246	9.68	388	15.27
FKM83	296	11.65	438	17.24
FKM84	346	13.62	488	19.21
FKM85	396	15.59	538	21.18
with standard brake				
FKM82	296	11.65	438	17.24
FKM83	346	13.62	488	19.21
FKM84	396	15.59	538	21.18
FKM85	446	17.55	588	23.14

Dimension	ØD k6		F		GD		R		GA		ST
Units	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FKM8	38	1.49	10	0.39	8	0.31	70	2.75	41	1.61	M12x30

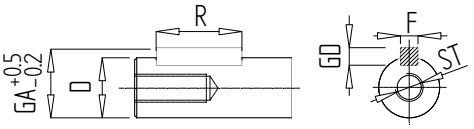


FKM8/V SERIES

Dimensions in mm, 1 in = 25.4 mm



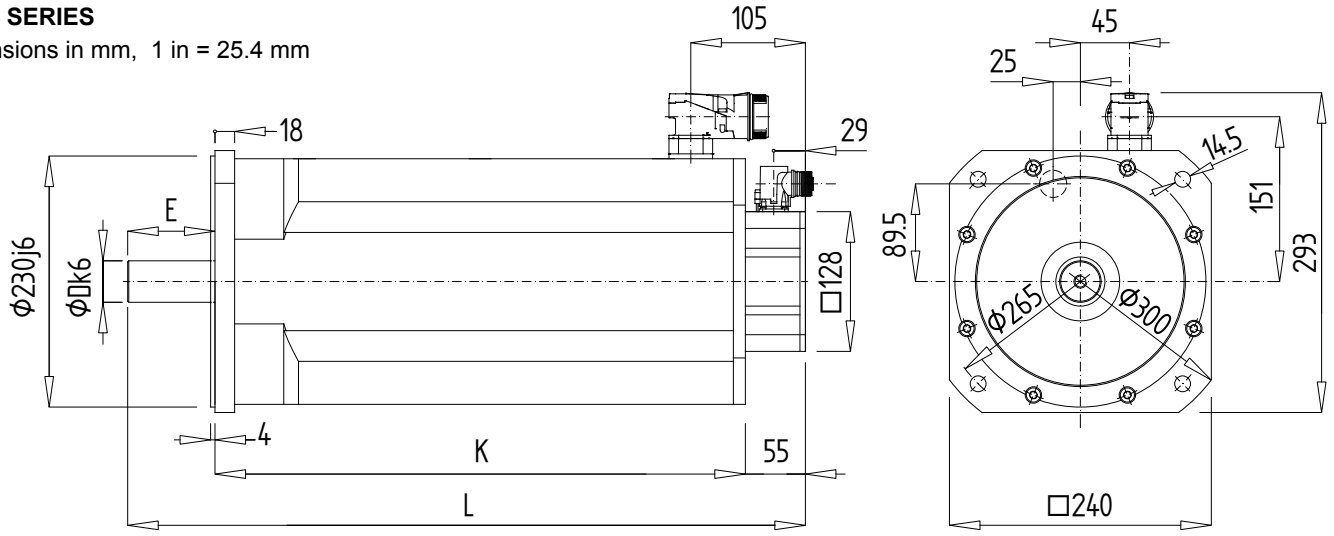
Dimension	LB		L	
Units	mm	in	mm	in
without brake				
FKM82/V	423	16.65	503	19.80
FKM83/V	473	18.62	553	21.77
FKM84/V	523	20.59	603	23.74
FKM85/V	573	22.55	653	25.70
with standard brake				
FKM82/V	473	18.62	553	21.77
FKM83/V	523	20.59	603	23.74
FKM84/V	573	22.55	653	25.70
FKM85/V	623	24.52	703	27.67



Dimension	ØD k6		F		GD		R		GA		ST
Units	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FKM8/V	38	1.49	10	0.39	8	0.31	70	2.75	41	1.61	M12x30

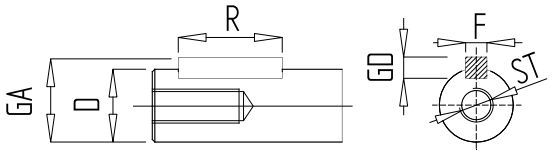
FKM9 SERIES

Dimensions in mm, 1 in = 25.4 mm



Dimension	E		L		K	
Units	mm	in	mm	in	mm	in
without brake						
FKM94	80	3.14	582	22.9	447	17.5
FKM95	110	4.33	680	26.7	515	20.2
FKM96	110	4.33	748	29.4	583	22.9
with standard brake						
FKM94	80	3.14	676	26.6	541	21.3
FKM95	110	4.33	775	30.5	610	24.0

Note.
The FKM96 model does not offer the brake option.

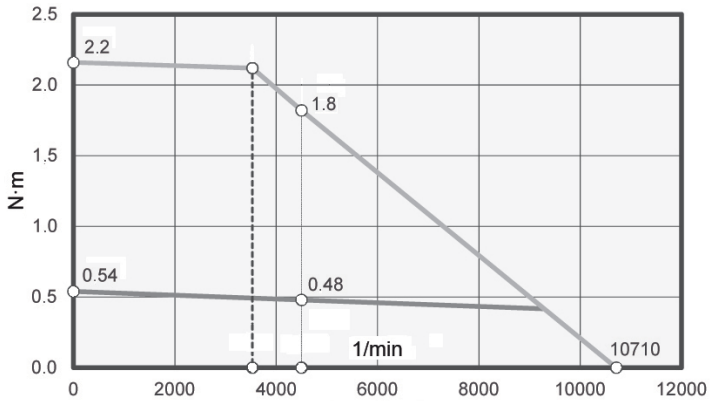


Dimension	ØD k6		F		GD		R		GA		ST
Units	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FKM94	38	1.49	10	0.39	8	0.31	63	2.48	41.4	1.62	M12x30
FKM95	42	1.65	12	0.47	8	0.31	63	2.48	45.2	1.77	M12x30
FKM96	42	1.65	12	0.47	8	0.31	63	2.48	45.2	1.77	M12x30

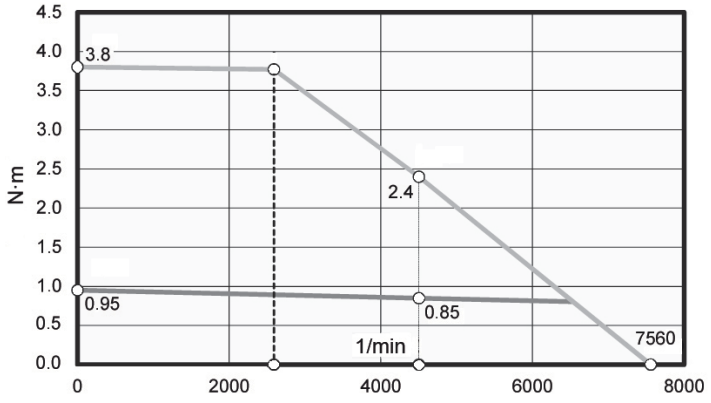
POWER/SPEED AND TORQUE/SPEED GRAPHICS

NON-VENTILATED FKM with "A" winding ·400 V AC·

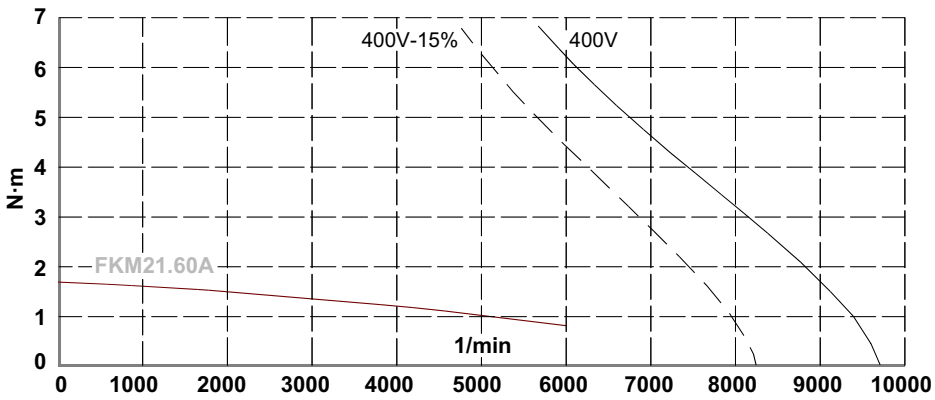
FKM12.●●A.□□.□□0.□2



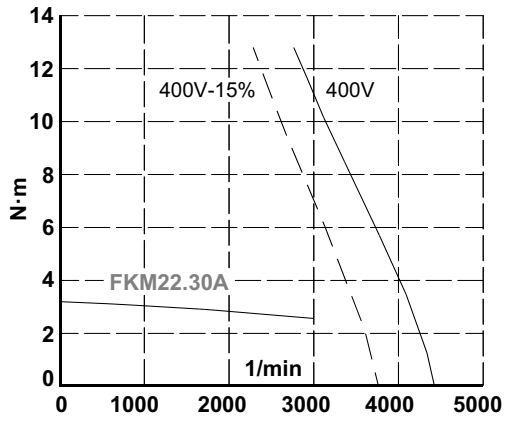
FKM14.●●A.□□.□□0.□2

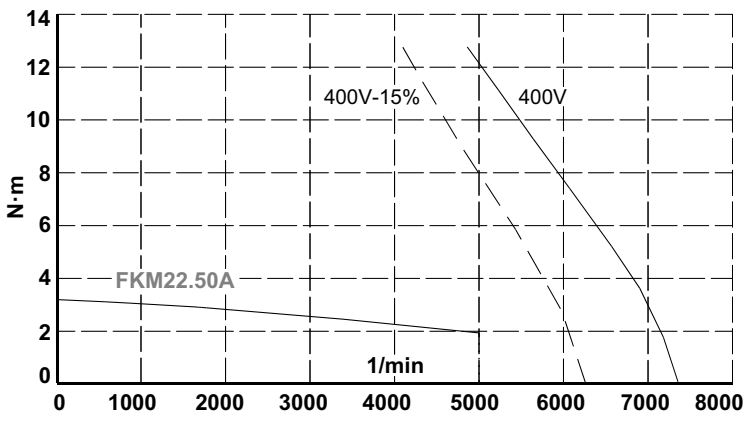


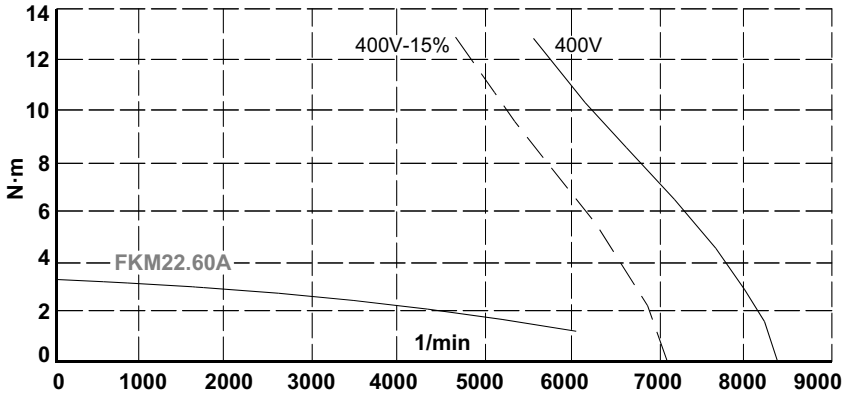
FKM21.●●A.□□.□□0.□□



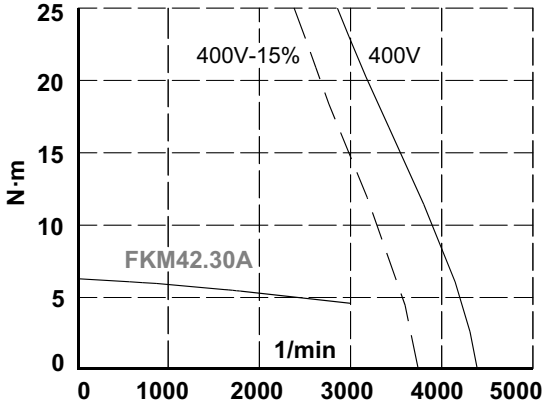
FKM22.●●A.□□.□□0.□□

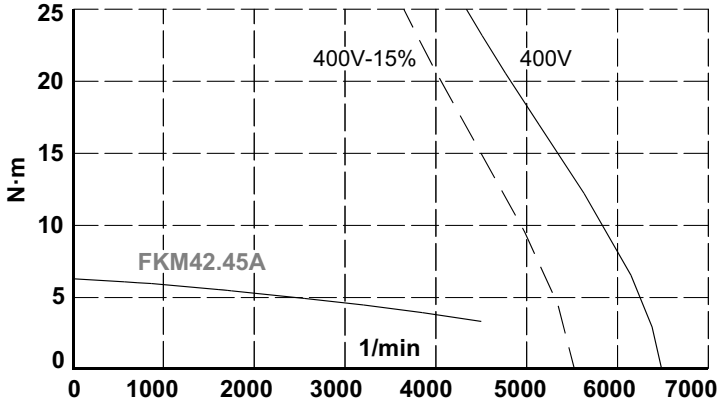


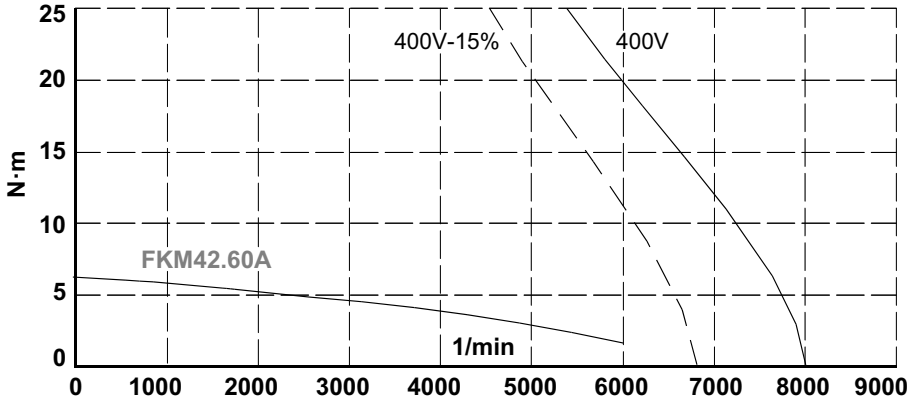




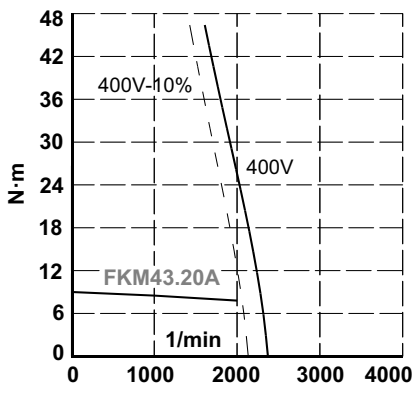
FKM42.●●A.□□.□□0.□□

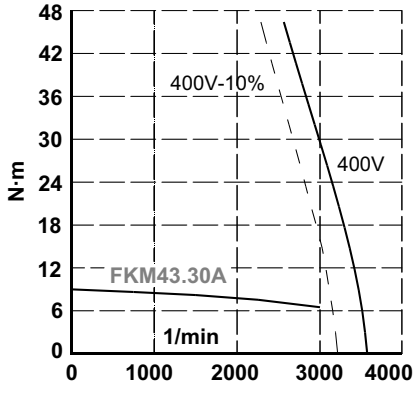


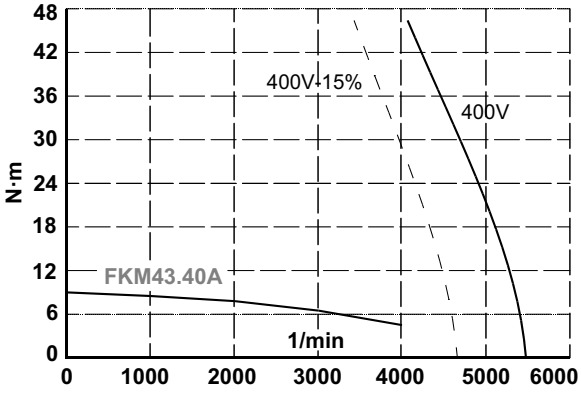




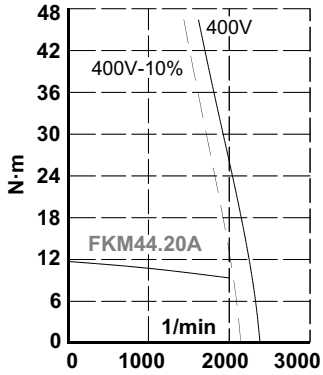
FKM43.●●A.□□.□□0.□□

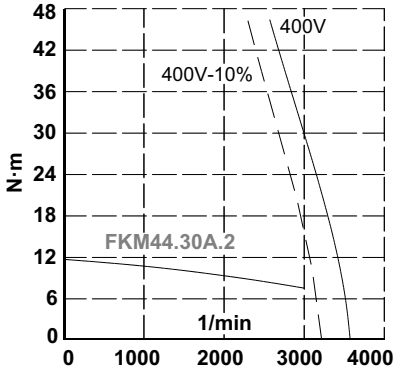


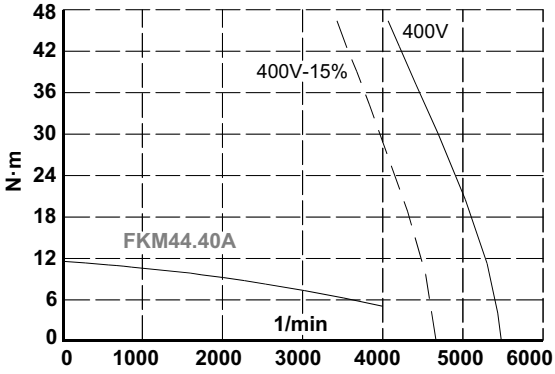




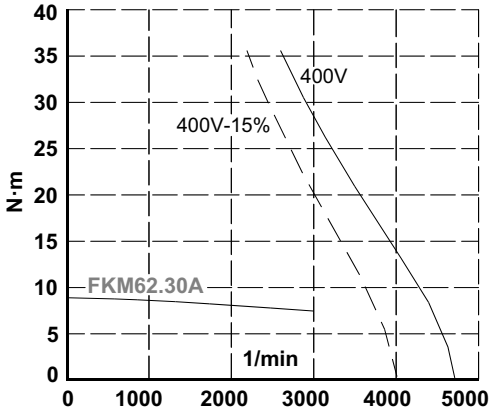
FKM44.●●A.□□.□□0.□□

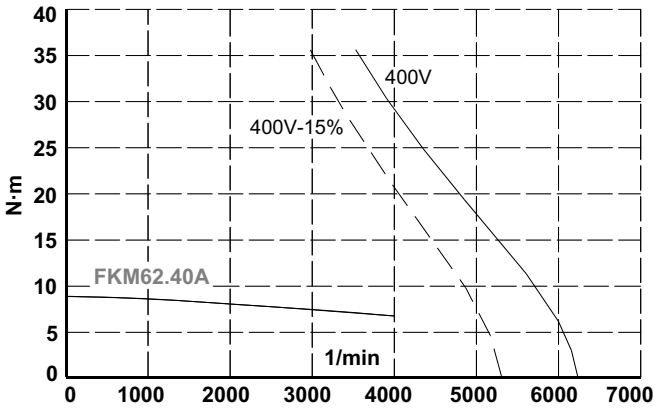


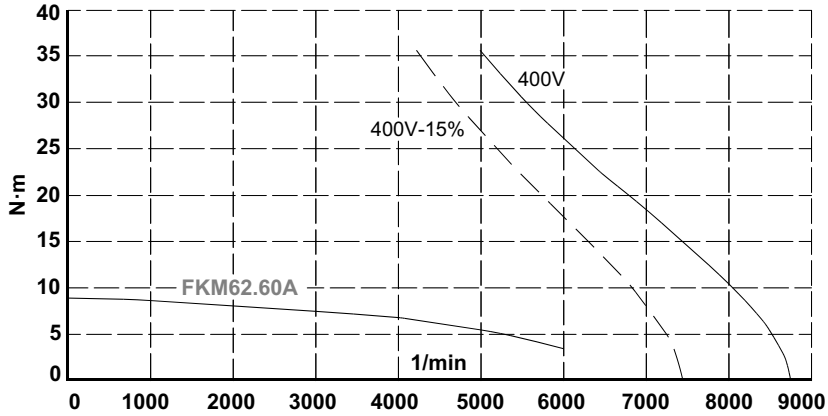




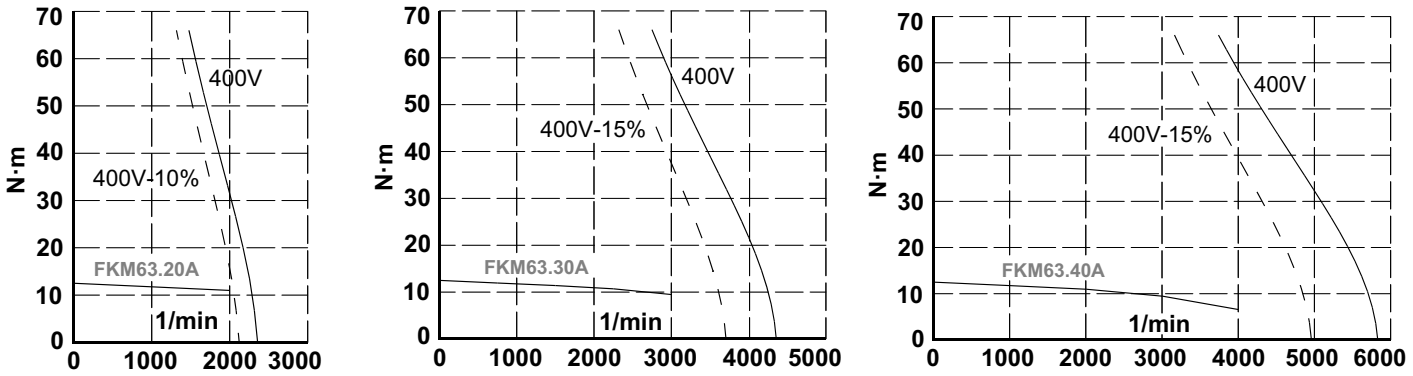
FKM62.●●A.□□.□□0.□□



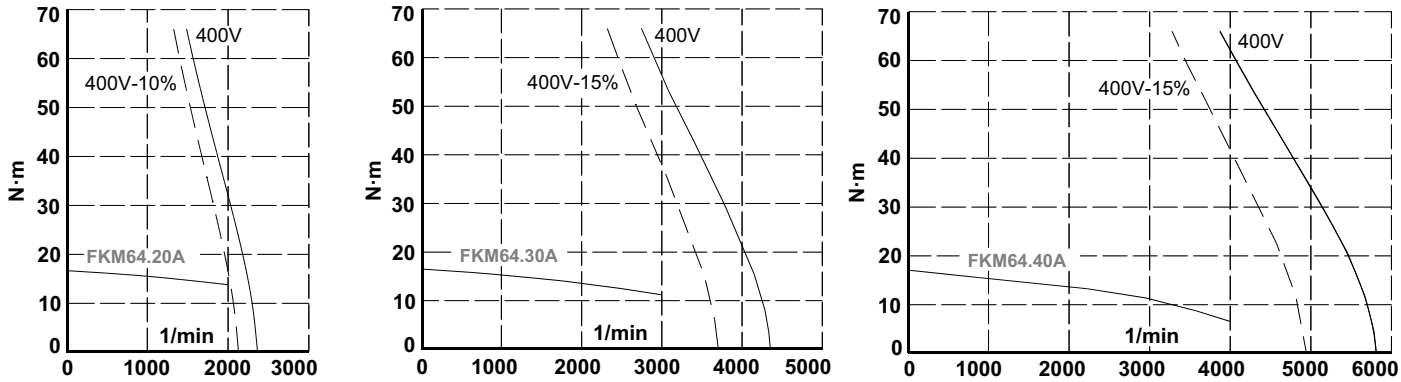




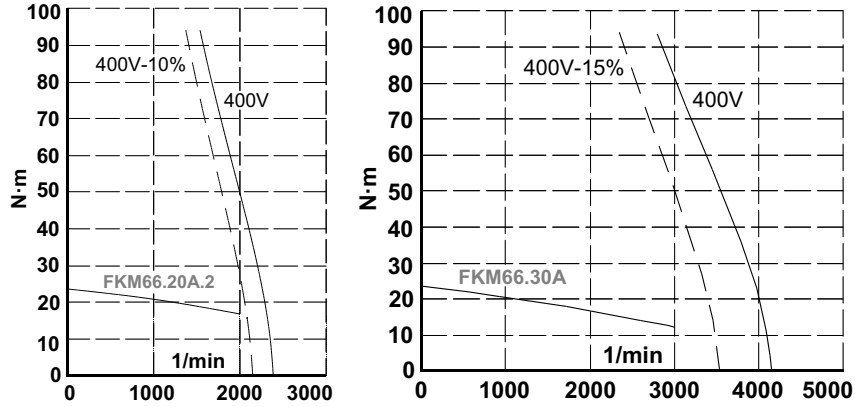
FKM63.●●A.□□.□□0.□□



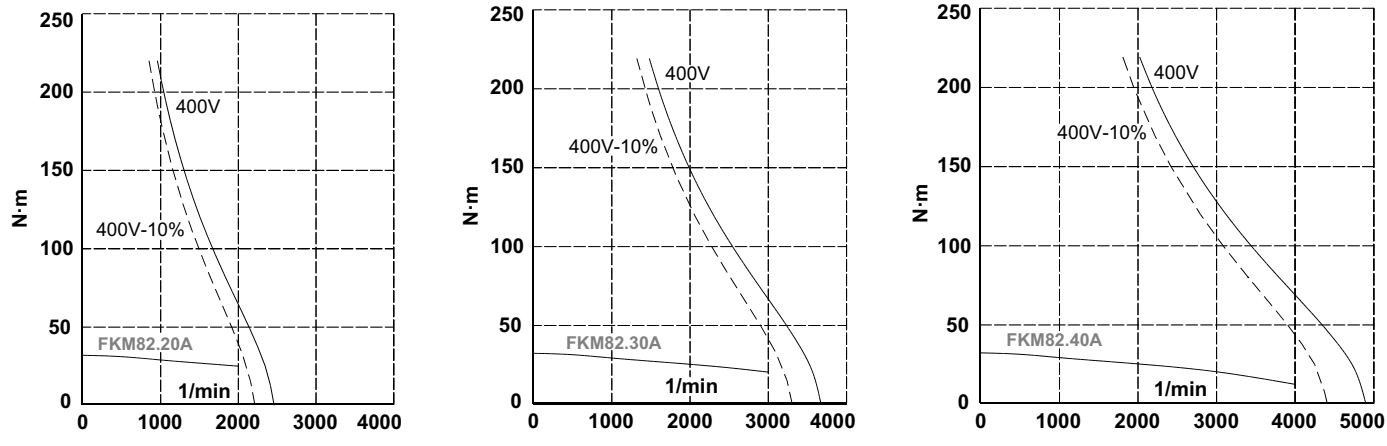
FKM64.●●A.□□.□□0.□



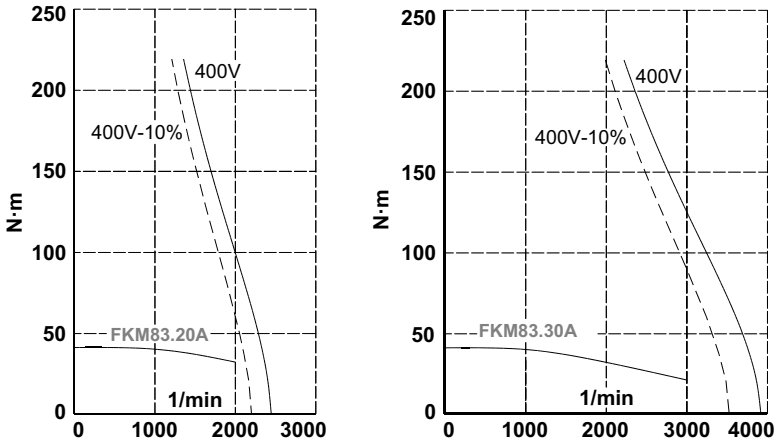
FKM66.●●A.□□.□□0.□□



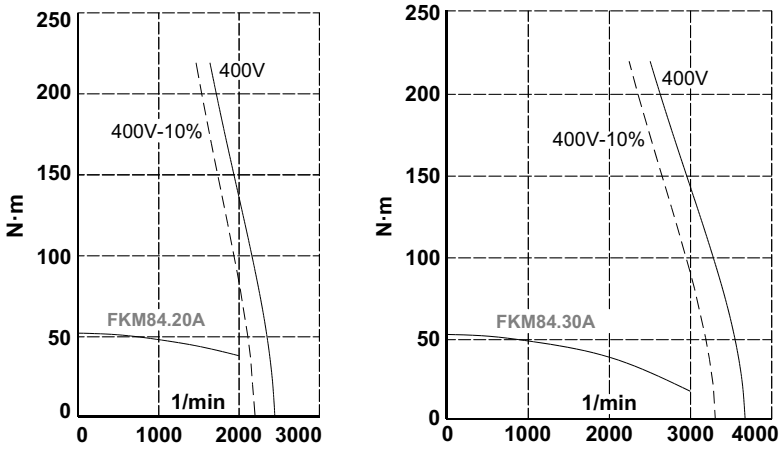
FKM82.●●A.□□.□□0.□□



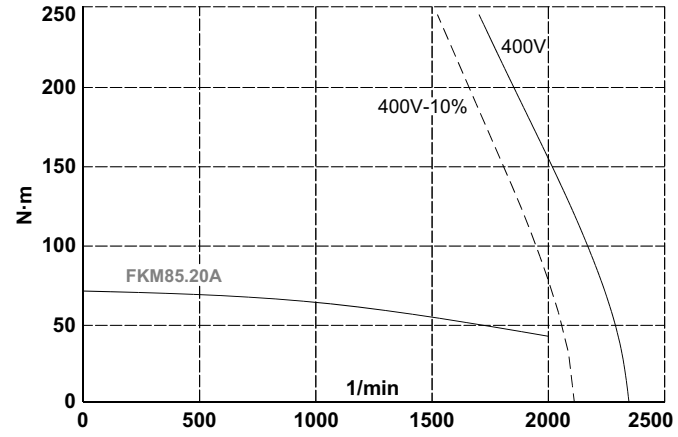
FKM83.●●A.□□.□□0.□□



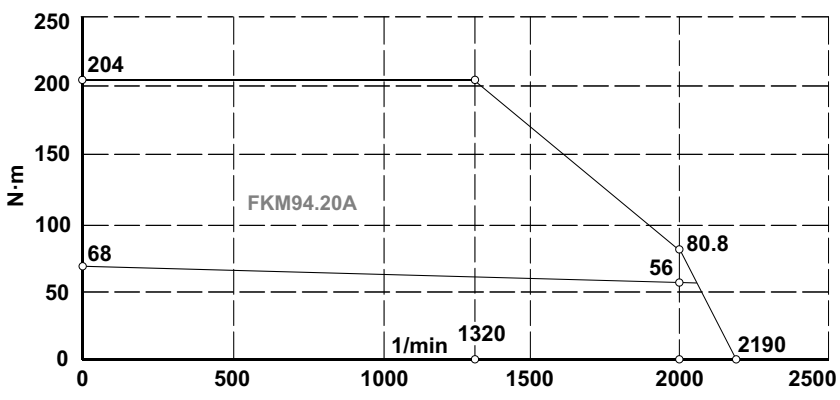
FKM84.●●A.□□.□□0.□□



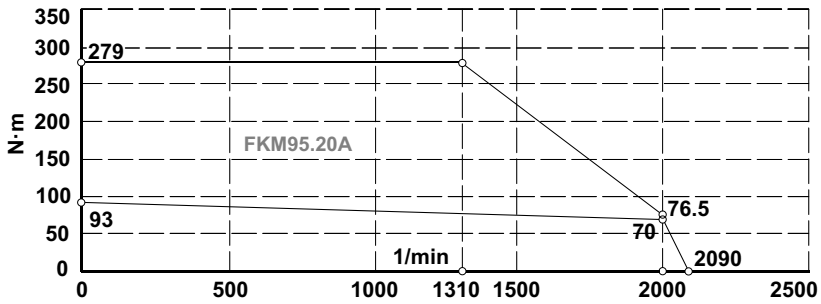
FKM85.●●A.□□.□□0.□□



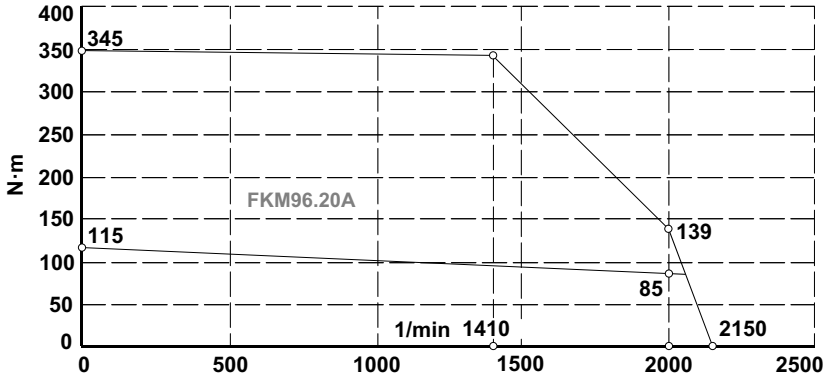
FKM94.●●A.□□.□□0.□□



FKM95.●●A.□□.□□0.□□

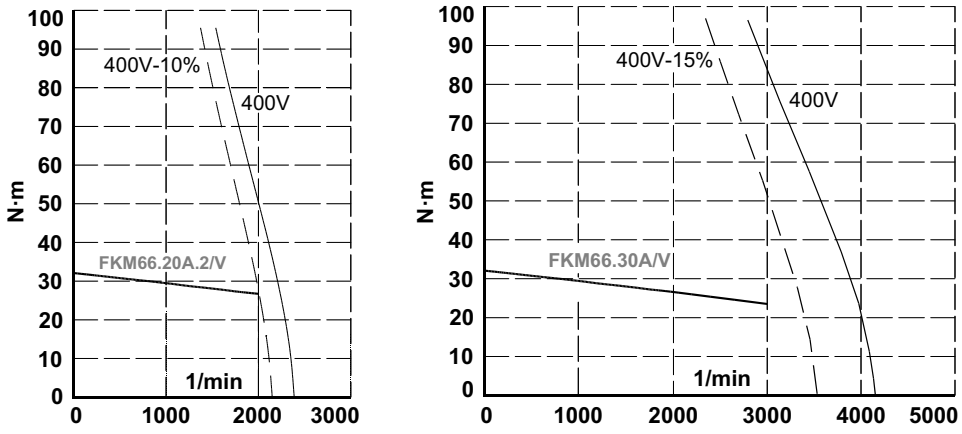


FKM96.●●A.□□.□□0.□□

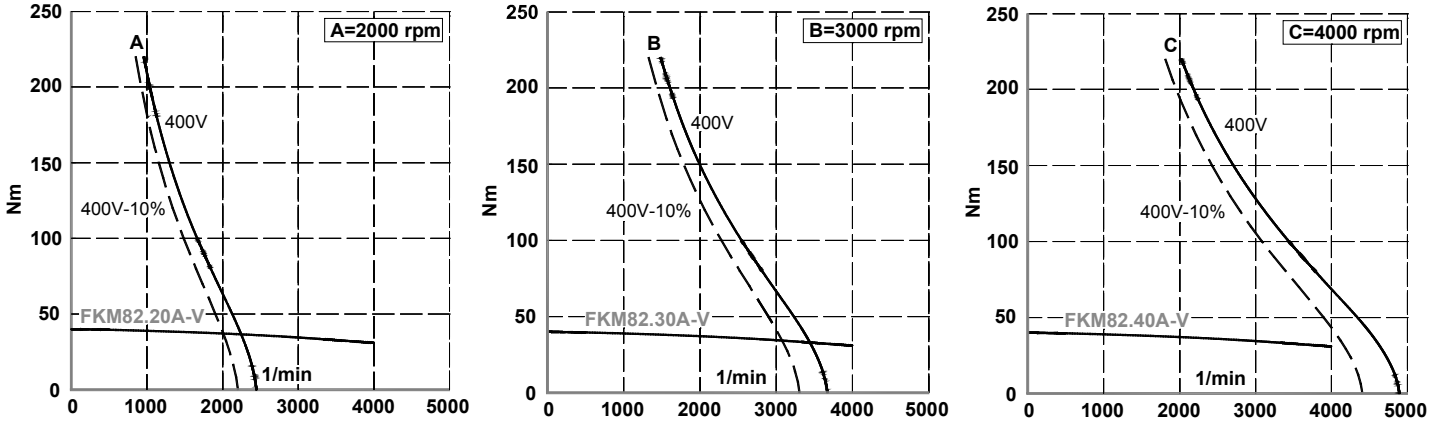


VENTILATED FKM with "A" winding ·400 V AC·

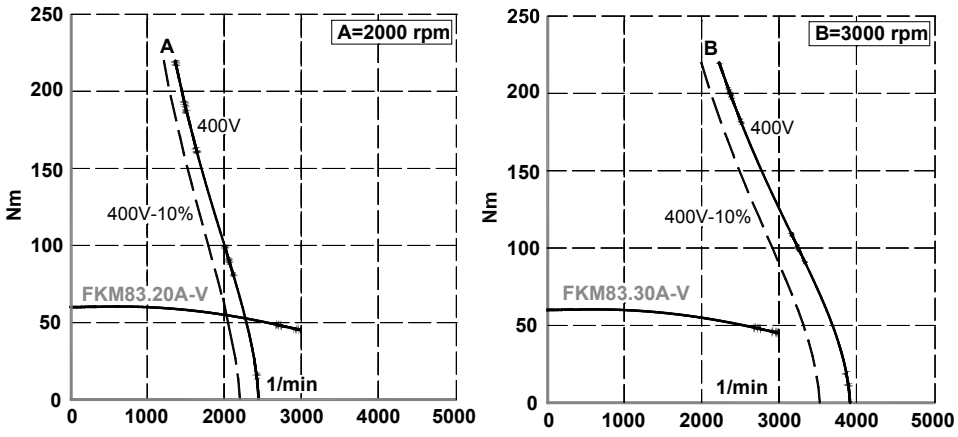
FKM66.●●A.□□.□□1.□□



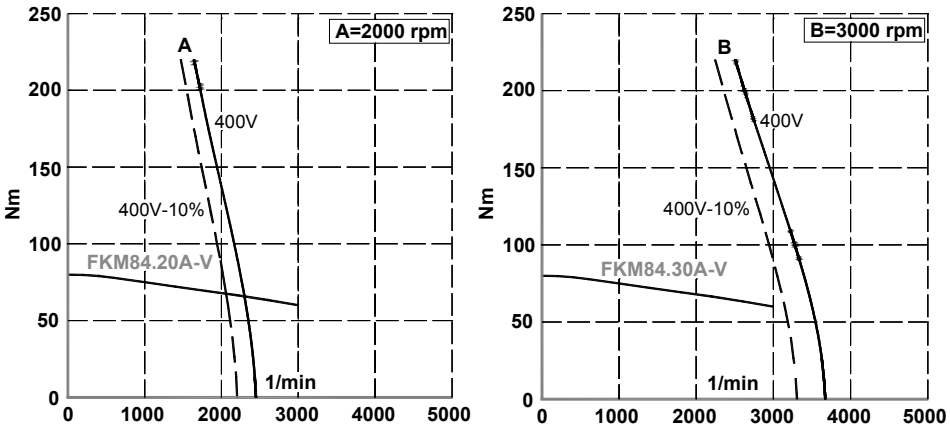
FKM82.●●A.□□.□□1.□□



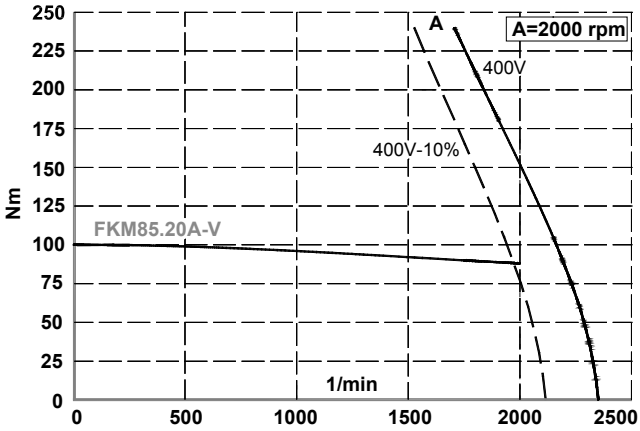
FKM83.●●A.□□.□□1.□□

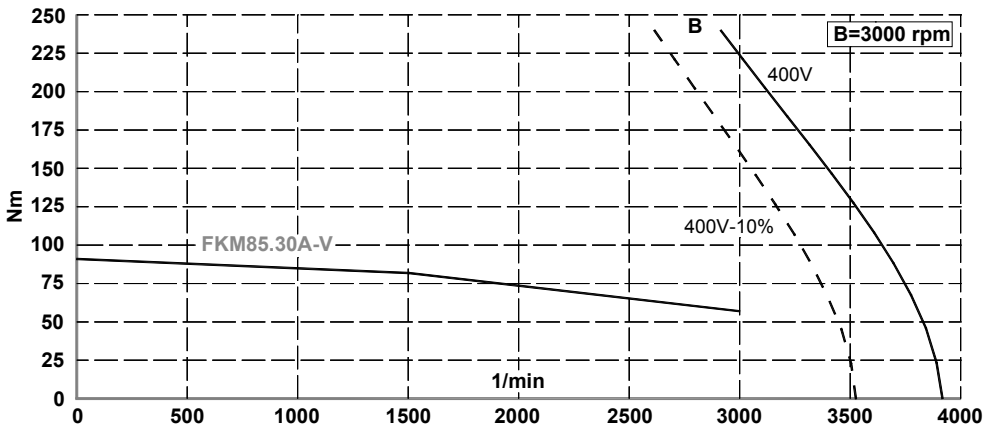


FKM84.●●A.□□.□□1.□□



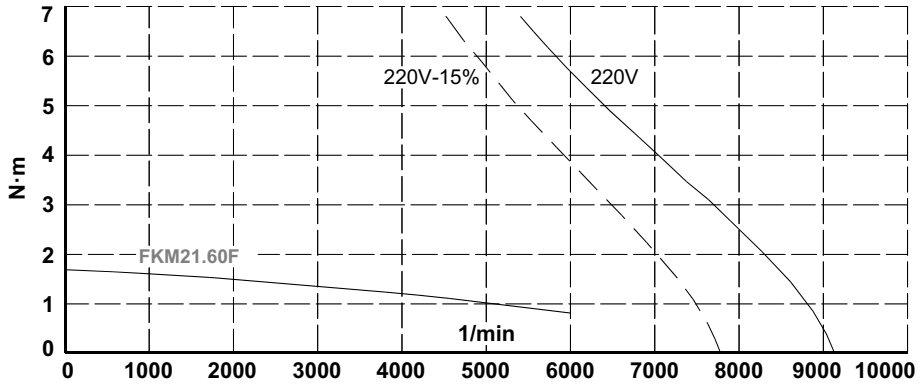
FKM85.●●A.□□.□□1.□□



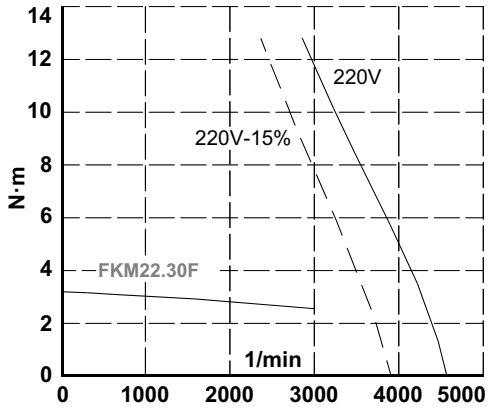


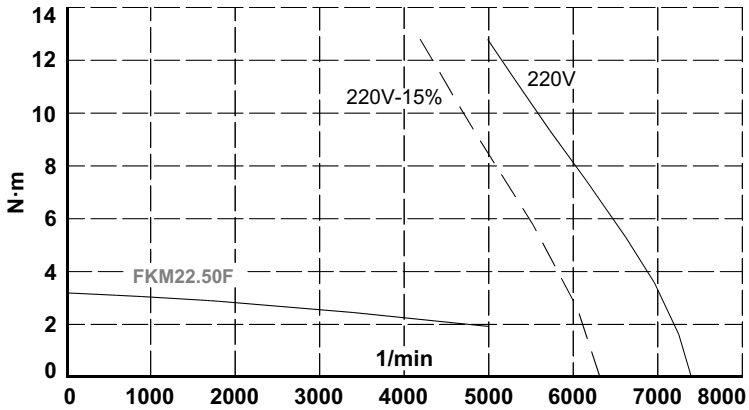
NON-VENTILATED FKM with "F" winding ·220 V AC·

FKM21.●●F.□□.□□0.□□

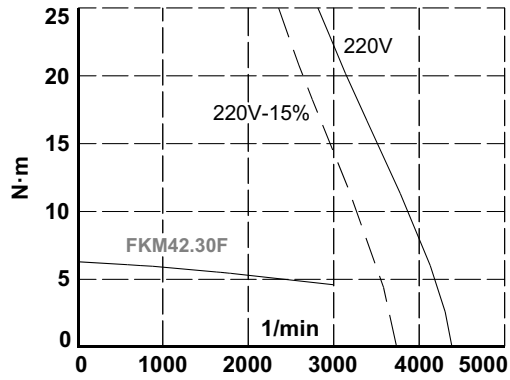


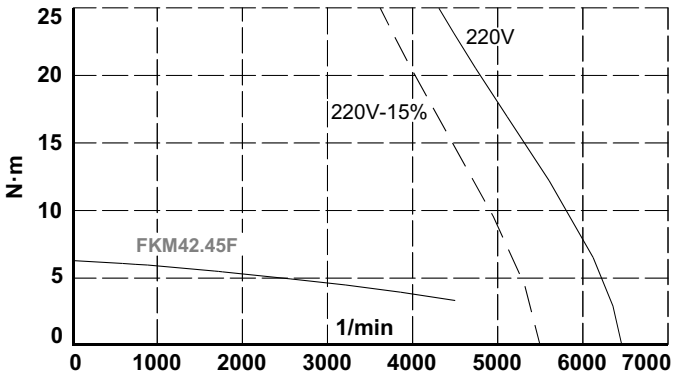
FKM22.●●F.□□.□□0.□□



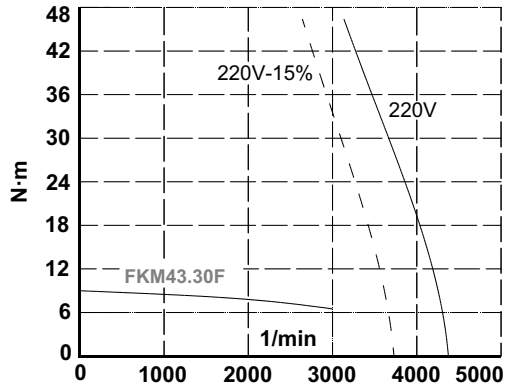


FKM42.●●F.□□.□□0.□□

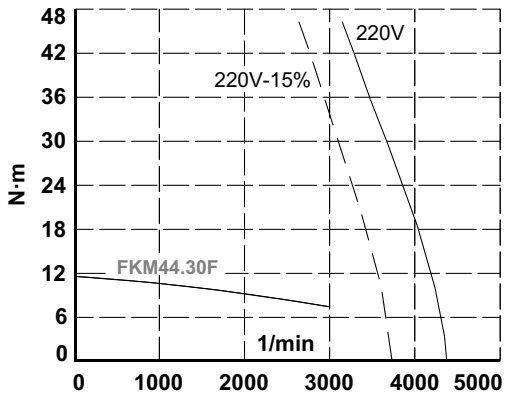




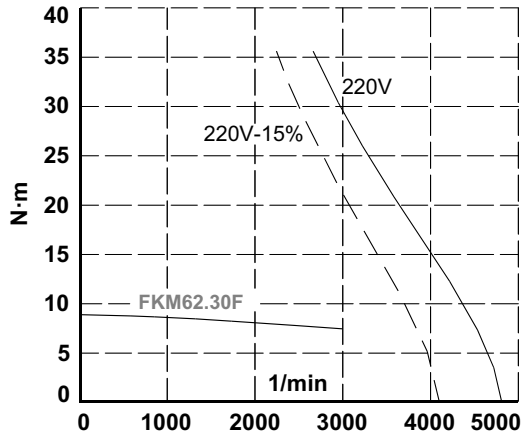
FKM43.●●F.□□.□□0.□□

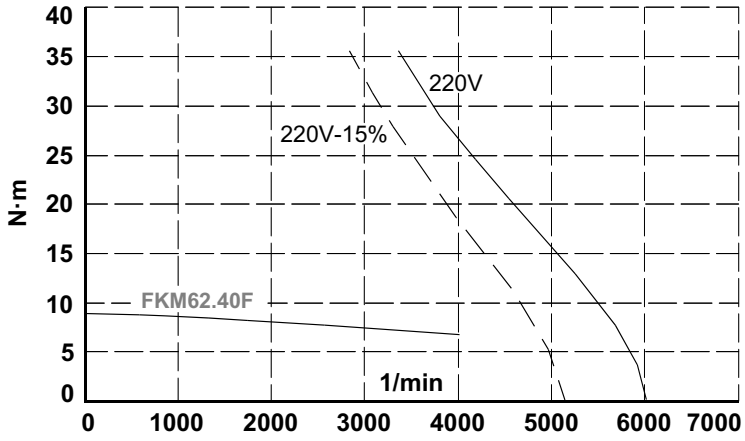


FKM44.●●F.□□.□□0.□□



FKM62.●●F.□□.□□0.□□





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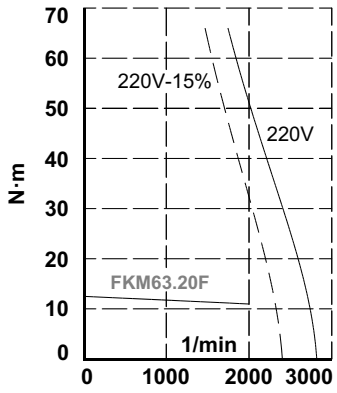

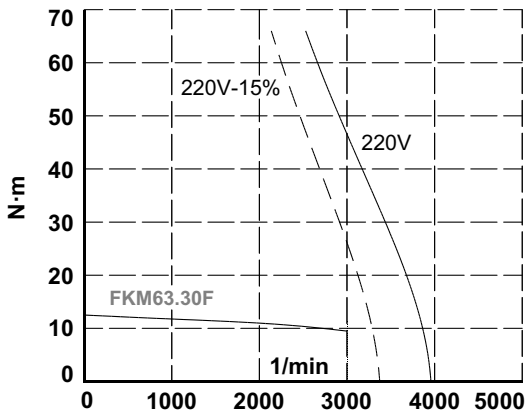

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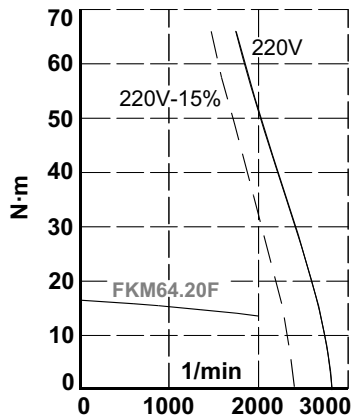

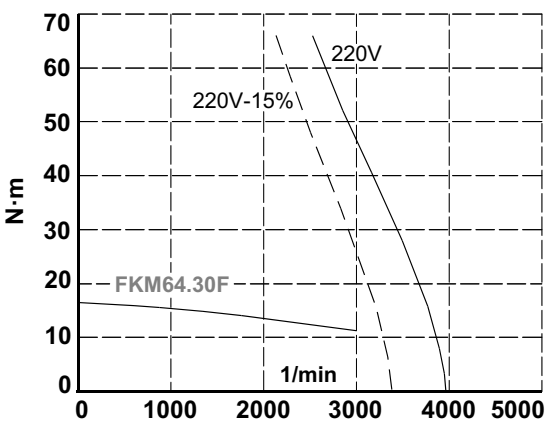

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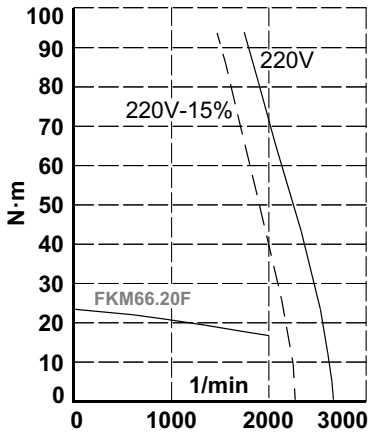
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80
70
60
50
40
30
20
10
0
N·m
220V
220V-15%
FKM66.20F
1/min
0
1000
2000
3000

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