AXEM

0.1 to 20N.m

The AXEM motor, with more than 2 million units produced, is one of the most widely spread servo motors in the world.

Its disk rotor, composed solely of copper and insulator, achieves high dynamics and excellent regulation of motion at low speed, as well as silent and vibration-free functioning.

Robust and efficient, low maintenance.



AXEM characteristics

Motor	Nominal torque (N.m)	Nominal current (A)	Nominal voltage (V)	Nominal speed (rpm)	Inertia ($kgm^2.10^{-5}$)
F9M4R	0.14	6.4	22	4800	3.5
F9M2	0.282	11	14	3000	2.9
F9M4	0.346	6.7	26	3000	3.5
F9M4H	0.537	6.5	35	3000	3.4
F12M4R	0.42	8	37	4800	15
F12M2	0.61	11.7	24	3000	10.5
F12M4	0.77	7.7	43	3000	15
F12M4H	1.1	7.2	61	3000	16
MC13S	1.2	7.6	64	3000	23.5
MC17H	1.8	6.9	102	3000	79
MC17B	1.2	24	23.5	3200	79
MC19P	3.2	14.5	83	3000	100
MC19P*	5.1	22.2	87	3000	100
MC19S	3.2	7.3	165	3000	100
MC19S*	5.1	11.1	171	3000	100
MC19B	2.8	46	23.5	3000	100
MC23S	6.1	13	170	3000	230
MC23S*	10.5	21.8	178	3000	230
MC24P	7.3	18.9	136	3000	320
MC24P*	14.3	36	142	3000	320
MC27P	14.3	33	152	3000	740
MC27P*	19.2	44	154	3000	740

*Cooling by external fan 10 l/sec.

Encoder

Type	Associated motor	Pulse / rev.		Inertia	Weight
		standard	option	($kgm^2.10^{-5}$)	(kg)
K10	F	500	250	0.03	0.07
C4	F	500	250 1000 2500	0.23	0.2
C6B	MC	500	1000 2500 5000	0.3	0.45

Tachy

Type	Associated motor	EMF (V/1000 rpm)
F9T	F9	3
FC12T	F12 / MC	6
TBN 206	F9 / F12	6
TBN 420	MC	20

Brake (24Vdc ±10%)

Associated motor	Holding torque magnet brake (N.m)	Holding torque spring brake (N.m)	Inertia ($kgm^2.10^{-5}$)	Weight (kg)
F9 - F12	-	1.5	1	0.47
MC13	2	-	2.3	0.3
MC17 / MC19	5	-	6.5	0.6
MC23 / MC24	12	-	21.4	1.1
MC27	20	-	57	1.9
MC17	-	4	2.5	1.4
MC19	-	8	7	1.9
MC23 / 24 / 27	-	16	13.5	2.8

- VERY LOW SPEED MODULATION
- EXCEPTIONAL REGULATION AT LOW SPEED
- HIGH DYNAMIC CHARACTERISTICS : LOW ROTOR INERTIA
- SILENT AND VIBRATION-FREE FUNCTIONING
- MAINTENANCE FREE
- DISK ROTOR
- PROTECTION IP44 IP20 FOR VENTILATED MODELS
- CLASS F INSULATION

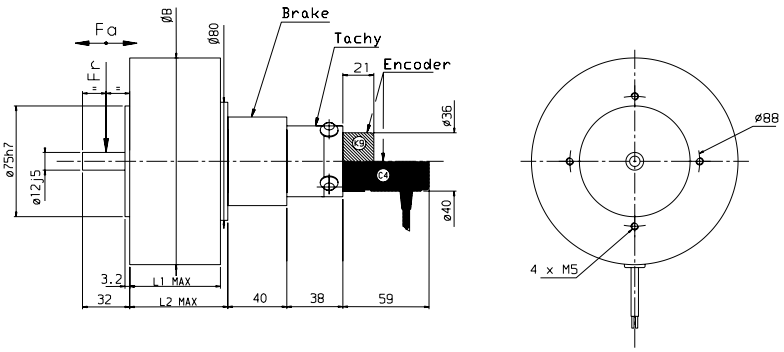
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F9 - 12 dimensions

Motor	L1 (mm)	L2 (mm)	Weight (kg)	Fr* (daN)	Fa* (daN)
F9M4R	34	46.5	1.1	14	2.5
F9M2	52.5	65	2.3	14	2.5
F9M4	52.5	65	2.3	14	2.5
F9M4H	64	76.5	2.8	14	2.5
F12M4R	37.5	51	2.9	14	2.5
F12M2	61.5	71.5	3.85	14	2.5
F12M4	61.5	71.5	3.85	14	2.5
F12M4H	74	84	5	14	2.5

*Fr and Fa not cumulative

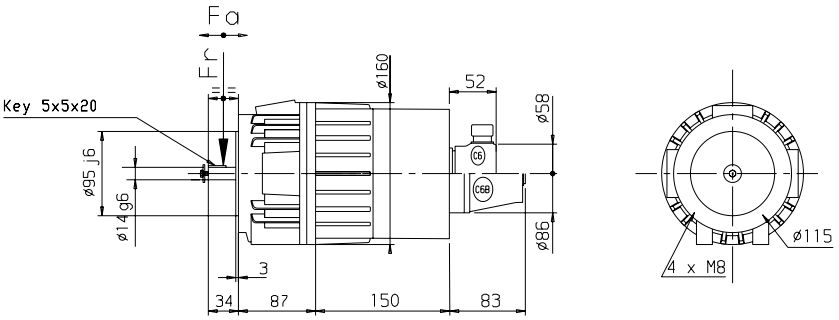
F9 : øB = ø110
F12 : øB = ø140



MC13 dimensions

Motor	Weight (kg)	Fr* (daN)	Fa* (daN)
MC13	4	35	13

*Fr and Fa not cumulative

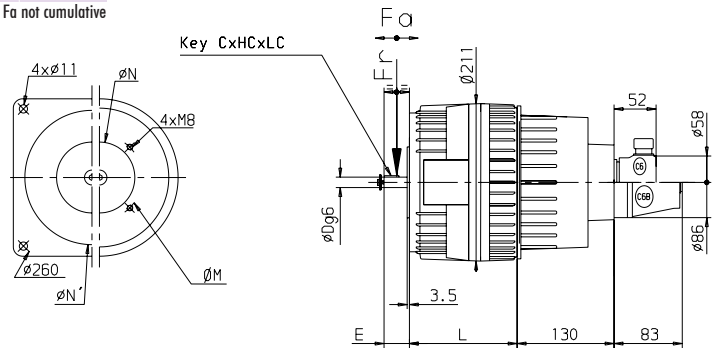


MC17 - 19 dimensions

Motor	M (mm)	N (mm)	N' (mm)	E (mm)	L (mm)	Weight (kg)	Fr* (daN)	Fa* (daN)
MC17	115	95	180	34	163	6.5	60	35
MC19	165	130	130	50	163	9.7	60	35

*Fr and Fa not cumulative

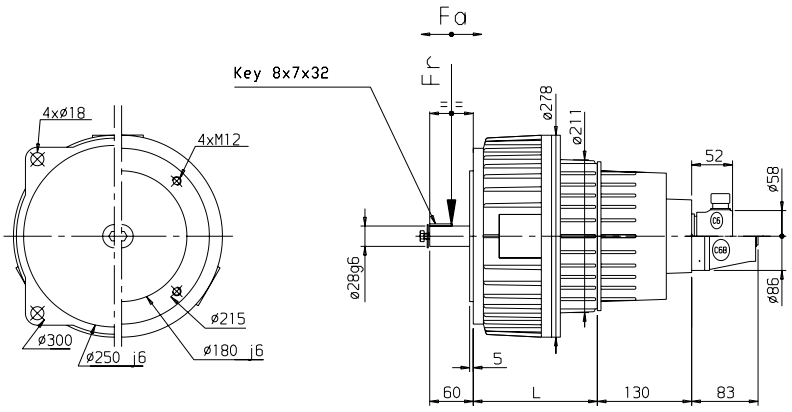
MC17 : C x HC x LC = 5 x 5 x 20
MC19 : C x HC x LC = 8 x 7 x 32



MC23 - 24 - 27 dimensions

Moteur	L (mm)	B (mm)	Weight (kg)	Fr* (daN)	Fa* (daN)
MC23	173	278	17	75	40
MC24	185	278	23	80	45
MC27	198	316	35	90	50

*Fr and Fa not cumulative



Dimensions including brake, tachy and encoder