

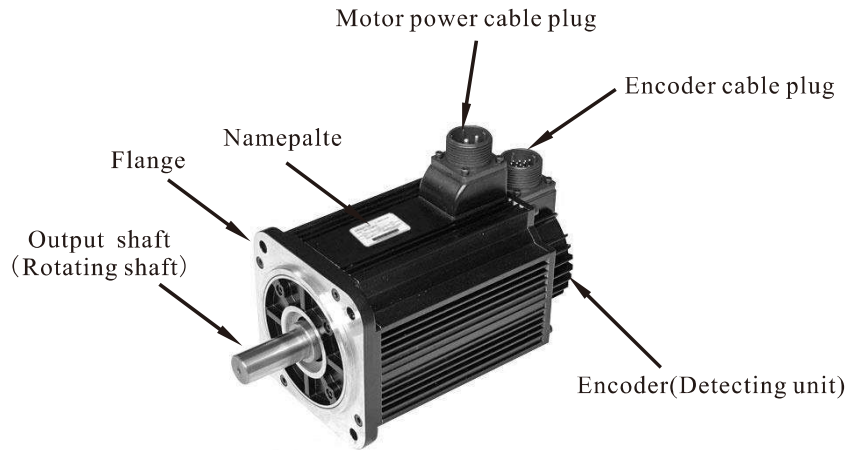
Chapter 11 Servo motor

11.1 Servo motor model description

EM - 60 S 006N 30 S 2 2
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①	②	③	④	⑤	⑥	⑦	⑧
Company and motor code	Flange: 60 flange 80 flange 110 flange 130 flange 180 flange	Voltage: S: 220V E: 380V	Rated torque: 006:0.6N.m 100:10.0N.m // *0.1N.m	Rated speed: 30: 3000rpm 25: 2500rpm 20: 2000rpm 15: 1500rpm 10: 1000rpm	Encoder: S: 17bit Absolute M:23 bit Absolute W:23 bit Absolute with battery R: Resolver	Oil seal&brake: 1: None 2: With Oil seal 3: With brake 4: With Oil seal and brake	Shaft end: 1: Flat, without keys 2: Flat with keys

11.2 Names of motor's parts



11.3 Servo motor installation dimension

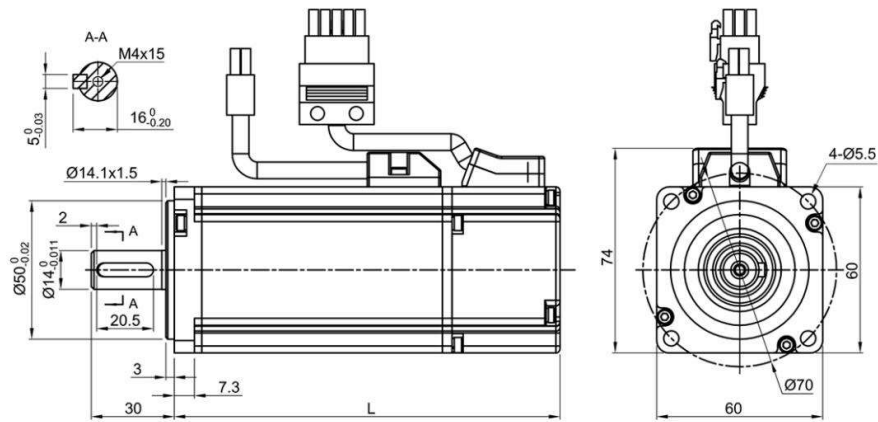


Diagram 11.1 EM-60 series motor installation dimension(Unit:mm)

Motor model (220V)	Code	Rated torque	Rated speed	Rated power	Rated current	Moment of inertia	L(With brake)
		N.m	RPM	W	A	x10 ⁻⁴ /KG.M ²	mm

EM-60S012N30S22	211	1.27	3000	400	2.5	0.175	116(154)
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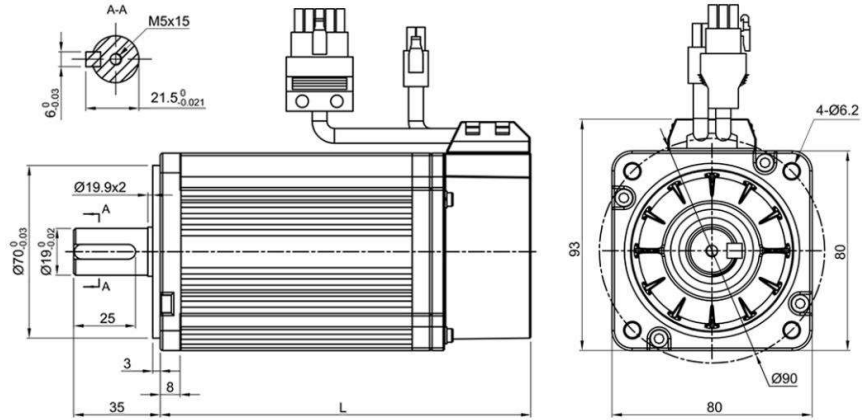


Diagram 11.2 EM-80 series motor installation dimension(Unit:mm)

Motor model (220V)	Code	Rated torque	Rated speed	Rated power	Rated current	Moment of inertia	L(With brake)
		N.m	RPM	W	A	$\times 10^{-4}/\text{KG.M}^2$	mm
EM-80S024N30S22	220	2.4	3000	750	3	1.82	151(191)
EM-80S032N30S22	--	3.2	3000	1000	4.5	2.63	179(219)
EM-80S038N30S22	--	3.8	3000	1200	5.2	2.97	191(231)

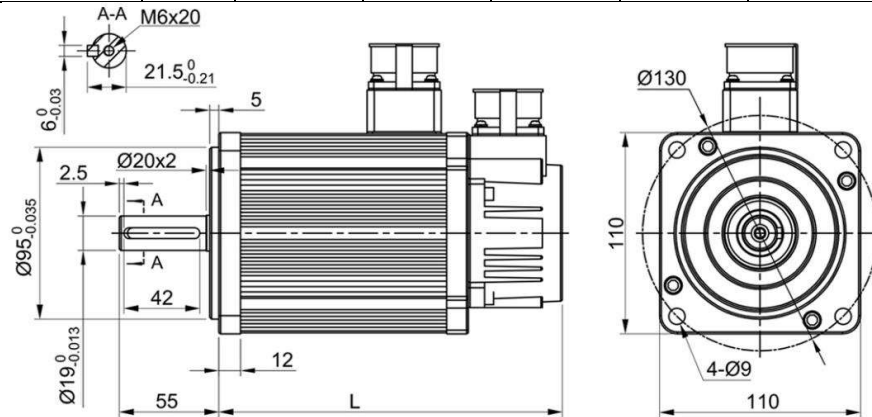


Diagram 11.3 EM-110 series motor installation dimension(Unit:mm)

Motor model (220V)	Code	Rated torque	Rated speed	Rated power	Rated current	Moment of inertia	L(With brake)
		N.m	RPM	W	A	$\times 10^{-4}/\text{KG.M}^2$	mm
EM-110S040N30M22	240	4	3000	1200	5	5.4	189(263)
EM-110S060N30M22	241	6	3000	1800	6	7.6	219(293)

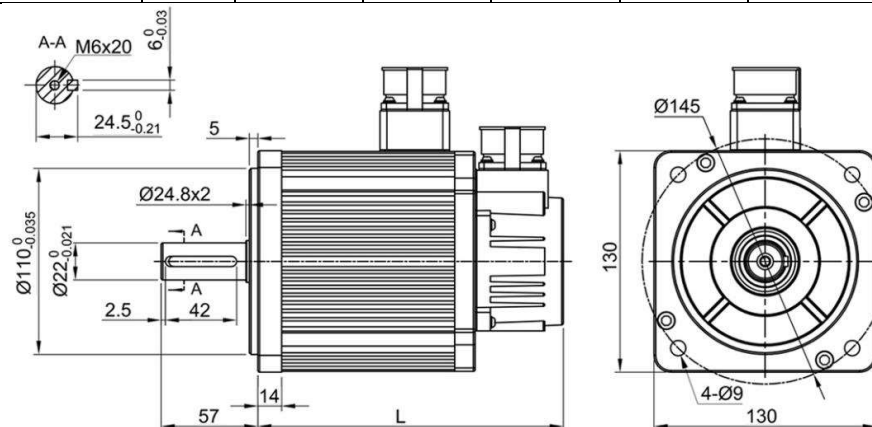


Diagram 11.4 EM-130 series motor installation dimension(Unit:mm)

Motor model (220V)	Code	Rated torque	Rated speed	Rated power	Rated current	Moment of inertia	L(With brake)
		N.m	RPM	W	A	$\times 10^{-4}/\text{KG.M}^2$	mm
EM-130S040N25M22	250	4	2500	1000	4	8.5	166(223)
EM-130S050N25M22	--	5	2500	1300	5	10.6	171(228)
EM-130S060N25M22	251	6	2500	1500	6	12.6	179(236)
EM-130S077N25M22	252	7.7	2500	2000	7.5	15.3	192(249)
EM-130S100N15M22	--	10	1500	1500	6	19.4	213(294)
EM-130S100N25M22	253	10	2500	2300	9.5	27.7	241(322)
EM-130S150N15M22	--	15	1500	2300	9.5	27.7	241(322)
EM-130S150N25M22	254	15	2500	3800	13.5	27.7	231(298)

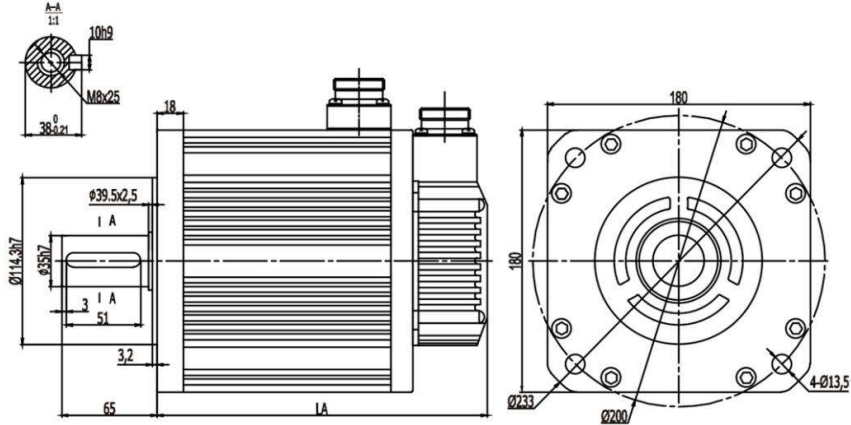


Diagram 11.5 EM180 series motor installation dimension(Unit:mm)

Motor model (220V)	Code	Rated torque	Rated speed	Rated power	Rated current	Moment of inertia	L(With brake)
		N.m	RPM	W	A	$\times 10^{-4}/\text{KG.M}^2$	mm
EM-180S143N20M22	--	14.3	2000	3000	12	65	226(298)
EM-180S191N20M22	--	19.1	2000	4000	16.5	70	232(304)
EM-180S239N20M22	--	23.9	2000	5000	17.5	96.4	262(334)
EM-180S255N15M22	--	25.5	1500	4300	16	96.4	262(334)

11.4 Servo motor terminal definition and wiring

Terminal	Description							For motor
	Pin	1	2	3	4			60 and 80 series motor
	Signal definiton	U	V	W	PE			
	Pin	1	2					60 and 80 series motor
	Signal definiton	Brake	Brake					
	Pin	A	B	C	D			110 and 130 series motor
	Signal definiton	U	V	W	PE			
	Pin	F	I	B	D/E	H	G	110 and 130 series motor
	Signal definiton	U	V	W	PE	Brake	Brake	