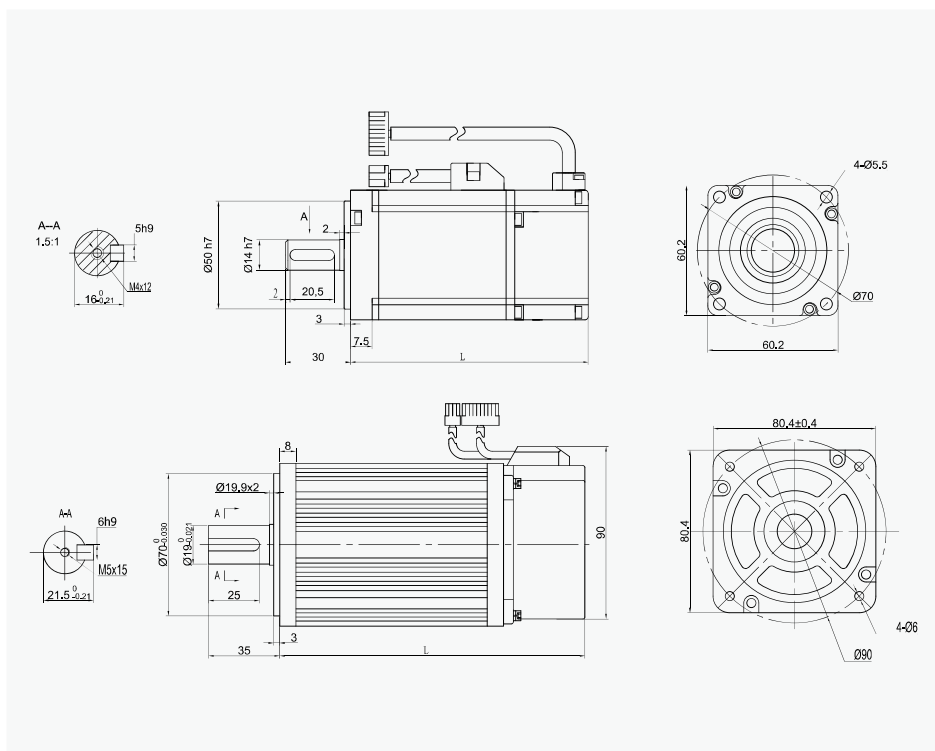
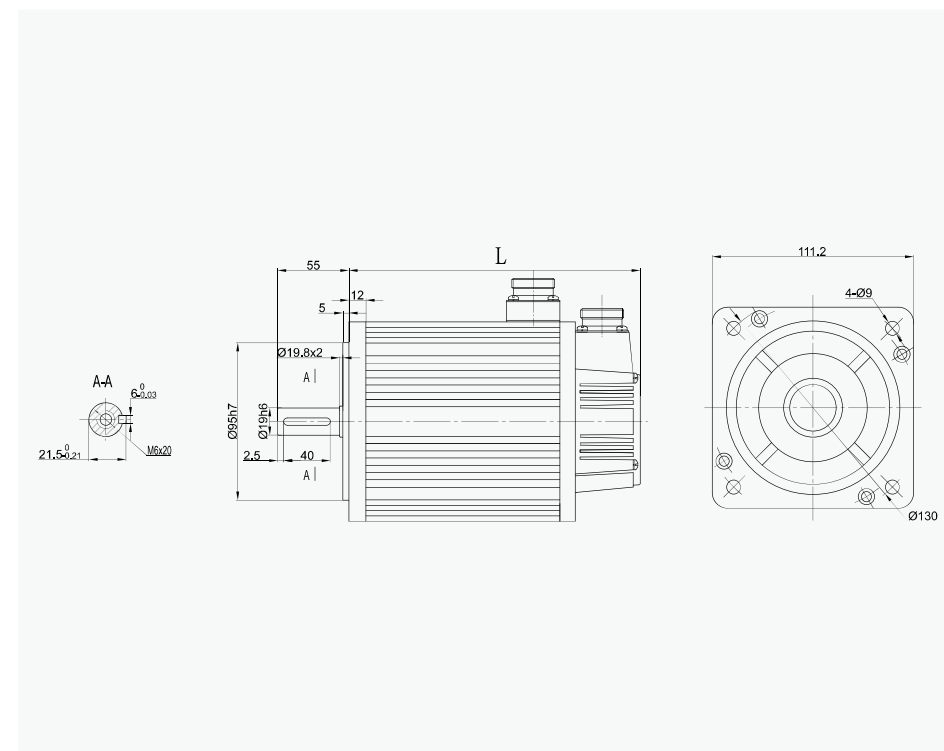


## M4 Series 60/80 Flange Servo Motors



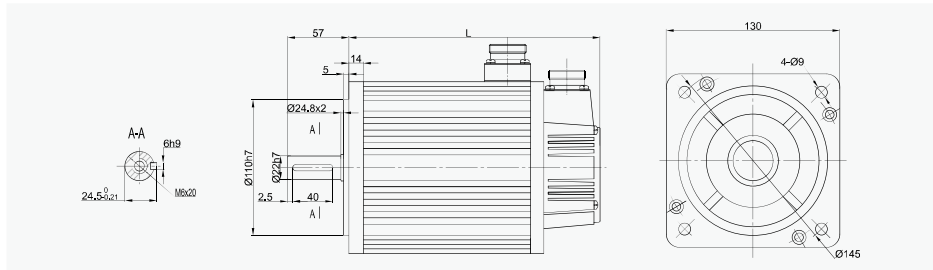
Modes	60M4S-A20130□	60M4S-A40130□	60M4S-A60130□	80M4S-A40130□	80M4S-A75130□	80M4S-A10225□
Rated power (kW)	0.20	0.40	0.60	0.40	0.75	1.00
Pole pairs	4	4	4	4	4	4
Rate torque (N·m)	0.637	1.27	1.91	1.27	2.39	4
Max torque (N·m)	1.91	3.9	5.73	3.8	7.1	12
Rated speed (rpm)	3000	3000	3000	3000	3000	2500
Rated current (A)	1.2	2.8	3.5	2	3	4.4
Max. current (A)	3.6	8.4	10.5	6	9	13.2
Torque constant (N·m/A)	0.53	0.45	0.55	0.64	0.8	0.9
Voltage constant (V/krpm)	30.9	29.6	34	40	48	56
Rotor inertia (kgm <sup>2</sup> ) no brake	0.175×10 <sup>-4</sup>	0.29×10 <sup>-4</sup>	0.39×10 <sup>-4</sup>	1.05×10 <sup>-4</sup>	1.82×10 <sup>-4</sup>	2.97×10 <sup>-4</sup>
Rotor inertia (kgm <sup>2</sup> ) with brake	0.23×10 <sup>-4</sup>	0.35×10 <sup>-4</sup>	0.45×10 <sup>-4</sup>	1.08×10 <sup>-4</sup>	1.85×10 <sup>-4</sup>	3×10 <sup>-4</sup>
Line resistance (Ω)	6.18	2.35	1.93	4.44	2.88	1.83
Line inductance (mH)	29.3	14.5	10.7	7.93	6.4	4.72
L no brake (mm)	116	141	169	124	151	191
L with brake (mm)	164	189	217	164	191	231

## M4 Series 110 Flange Servo Motors



Modes	110M4D-A12230□	110M4D-A15230□	110M4D-A18230□
Rated power (kW)	1.20	1.50	1.80
Pole pairs	4	4	4
Rate torque (N·m)	4	5	6
Max torque (N·m)	12	15	18
Rated speed (rpm)	3000	3000	3000
Rated current (A)	5.0	6.0	6.0
Max. current (A)	15	18	18
Torque constant (N·m/A)	0.8	0.83	1.0
Voltage constant (V/krpm)	54	62	60
Rotor inertia (kgm <sup>2</sup> ) no brake	0.54×10 <sup>-3</sup>	0.63×10 <sup>-3</sup>	0.76×10 <sup>-3</sup>
Rotor inertia (kgm <sup>2</sup> ) with brake	0.56×10 <sup>-3</sup>	0.65×10 <sup>-3</sup>	0.78×10 <sup>-3</sup>
Line resistance (Ω)	1.09	1.03	0.81
Line inductance (mH)	3.3	3.43	2.59
L no brake (mm)	189	204	219
L with brake (mm)	263	278	293

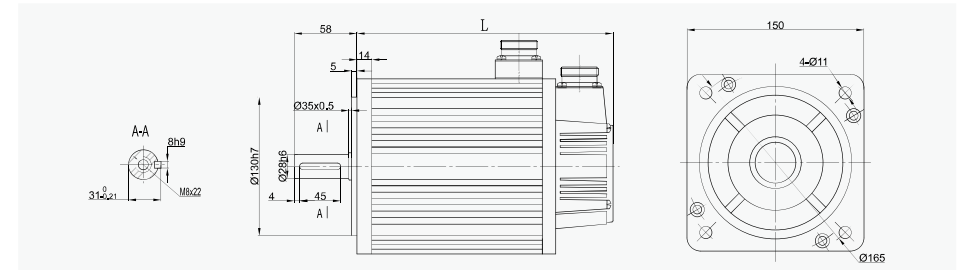
## M4 Series 130 Flange Servo Motors



Modes	130M4D-A10225□	130M4D-A13225□	130M4D-A15225□	130M4D-A20225□
Rated power (kW)	1.00	1.30	1.50	2.00
Pole pairs	4	4	4	4
Rate torque (N.m)	4	5	6	7.7
Max torque (N.m)	12	15	18	22
Rated speed (rpm)	2500	2500	2500	2500
Rated current (A)	4.0	5.0	6.0	7.5
Max. current (A)	12	15	18	22.5
Torque constant (N.m/A)	1.0	1.0	1.0	1.03
Voltage constant (V/krpm)	72	68	65	68
Rotor inertia (kg.m <sup>2</sup> ) no brake	0.85×10 <sup>-3</sup>	1.06×10 <sup>-3</sup>	1.26×10 <sup>-3</sup>	1.53×10 <sup>-3</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	0.87×10 <sup>-3</sup>	1.08×10 <sup>-3</sup>	1.28×10 <sup>-3</sup>	1.55×10 <sup>-3</sup>
Line resistance (Ω)	2.76	1.84	1.21	1.01
Line inductance (mH)	6.42	4.9	3.87	2.94
L no brake (mm)	166	171	179	192
L with brake (mm)	223	228	236	249

Modes	130M4D-A15215□	130M4D-A26225□	130M4D-A23215□	130M4D-A38225□
Rated power (kW)	1.50	2.60	2.30	3.80
Pole pairs	4	4	4	4
Rate torque (N.m)	10	10	15	15
Max torque (N.m)	25	25	30	30
Rated speed (rpm)	1500	2500	1500	2500
Rated current (A)	6.0	10	9.5	13.5
Max. current (A)	18	30	28.5	40.5
Torque constant (N.m/A)	1.67	1.0	1.58	1.11
Voltage constant (V/krpm)	103	70	114	67
Rotor inertia (kg.m <sup>2</sup> ) no brake	1.94×10 <sup>-3</sup>	1.94×10 <sup>-3</sup>	2.77×10 <sup>-3</sup>	2.77×10 <sup>-3</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	2.01×10 <sup>-3</sup>	2.01×10 <sup>-3</sup>	2.84×10 <sup>-3</sup>	2.84×10 <sup>-3</sup>
Line resistance (Ω)	1.5	0.73	1.1	0.49
Line inductance (mH)	4.37	2.45	4.45	1.68
L no brake (mm)	213	209	241	231
L with brake (mm)	294	290	322	312

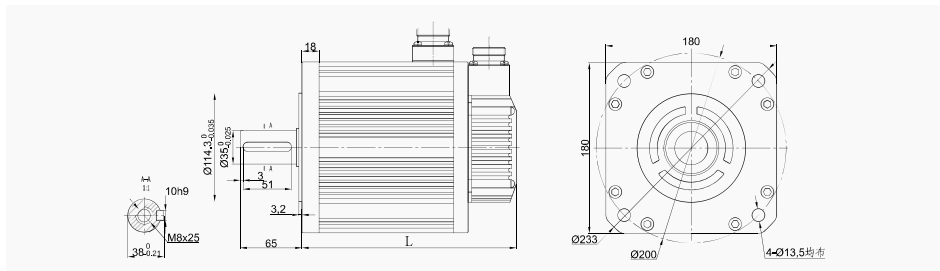
## M4 Series 150 Flange Servo Motors



Modes	150M4D-A30220□	150M4D-B30220□	150M4D-A38225□	150M4D-B38225□	150M4D-A36220□	150M4D-B36220□
Rated power (kW)	3.00	3.00	3.80	3.80	3.60	3.60
Pole pairs	4	4	4	4	4	4
Rate torque (N.m)	15	15	15	15	18	18
Max torque (N.m)	30	30	30	30	36	36
Rated speed (rpm)	2000	2000	2500	2500	2000	2000
Rated current (A)	14	6.8	17	9.5	17	8.5
Max. current (A)	42	20.4	51	28.5	51	25.5
Torque constant (N.m/A)	1.07	2.2	0.88	1.58	1.05	2.12
Voltage constant (V/krpm)	70	141	59	106	71	141
Rotor inertia (kg.m <sup>2</sup> ) no brake	3.88×10 <sup>-3</sup>	3.88×10 <sup>-3</sup>	3.88×10 <sup>-3</sup>	3.88×10 <sup>-3</sup>	4.6×10 <sup>-3</sup>	4.6×10 <sup>-3</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	3.95×10 <sup>-3</sup>	3.95×10 <sup>-3</sup>	3.95×10 <sup>-3</sup>	3.95×10 <sup>-3</sup>	4.67×10 <sup>-3</sup>	4.67×10 <sup>-3</sup>
Line resistance (Ω)	0.34	1.38	0.23	0.8	0.255	1.024
Line inductance (mH)	1.55	6.32	1.08	3.55	1.3	5.19
L no brake (mm)	230	230	230	230	248	248
L with brake (mm)	303	303	303	303	321	321

Modes	150M4D-A47220□	150M4D-B47220□	150M4D-A55220□	150M4D-B55220□
Rated power (kW)	4.70	4.70	5.50	5.50
Pole pairs	4	4	4	4
Rate torque (N.m)	23	23	27	27
Max torque (N.m)	46	46	54	54
Rated speed (rpm)	2000	2000	2000	2000
Rated current (A)	21	12	27	14.5
Max. current (A)	63	36	81	43.5
Torque constant (N.m/A)	1.09	1.91	1	1.86
Voltage constant (V/krpm)	72	126	64	127
Rotor inertia (kg.m <sup>2</sup> ) no brake	5.8×10 <sup>-3</sup>	5.8×10 <sup>-3</sup>	6.8×10 <sup>-3</sup>	6.8×10 <sup>-3</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	5.87×10 <sup>-3</sup>	5.87×10 <sup>-3</sup>	6.87×10 <sup>-3</sup>	6.87×10 <sup>-3</sup>
Line resistance (Ω)	0.2	0.63	0.125	0.5
Line inductance (mH)	1.06	3.25	0.7	2.8
L no brake (mm)	278	278	302	302
L with brake (mm)	351	351	375	375

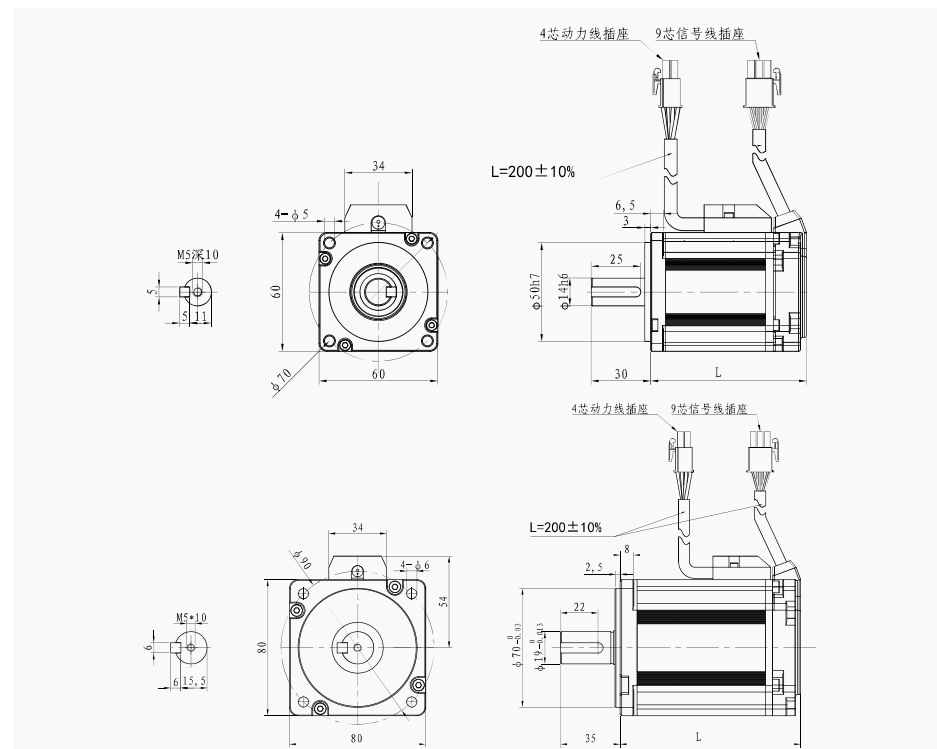
## M4 Series 180 Flange Servo Motors



Modes	180M4D-A27215□	180M4D-B27215□	180M4D-A30215□	180M4D-B30215□	180M4D-A45220□	180M4D-B45220□
Rated power (kW)	2.70	2.70	3.00	3.00	4.50	4.50
Pole pairs	4	4	4	4	4	4
Rate torque (N.m)	17.2	17.2	19	19	21.5	21.5
Max torque (N.m)	43	43	47	47	53	53
Rated speed (rpm)	1500	1500	1500	1500	2000	2000
Rated current (A)	10.5	6.5	12	7.5	16	9.5
Max. current (A)	31.5	19.5	36	22.5	48	28.5
Torque constant (N.m/A)	1.64	2.65	1.58	2.5	1.34	2.26
Voltage constant (V/krpm)	112	167	97	170	84	140
Rotor inertia (kg.m <sup>2</sup> ) no brake	6.5×10 <sup>-3</sup>	6.5×10 <sup>-3</sup>	7.0×10 <sup>-3</sup>	7.0×10 <sup>-3</sup>	7.96×10 <sup>-3</sup>	7.96×10 <sup>-3</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	6.57×10 <sup>-3</sup>	6.57×10 <sup>-3</sup>	7.07×10 <sup>-3</sup>	7.07×10 <sup>-3</sup>	8.03×10 <sup>-3</sup>	8.03×10 <sup>-3</sup>
Line resistance (Ω)	0.7	1.47	0.4	1.23	0.24	0.71
Line inductance (mH)	3.5	7.8	2.42	7.3	1.45	4
L no brake (mm)	226	226	232	232	243	243
L with brake (mm)	298	298	304	304	315	315

Modes	180M4D-A43215□	180M4D-B43215□	180M4D-A55215□	180M4D-B55215□	180M4D-A75215□	180M4D-B75215□
Rated power (kW)	4.30	4.30	5.50	5.50	7.50	7.50
Pole pairs	4	4	4	4	4	4
Rate torque (N.m)	27	27	35	35	48	48
Max torque (N.m)	67	67	70	70	96	96
Rated speed (rpm)	1500	1500	1500	1500	1500	1500
Rated current (A)	16	10	24	12	32	20
Max. current (A)	48	30	72	36	96	60
Torque constant (N.m/A)	1.69	2.7	1.45	2.9	1.5	2.4
Voltage constant (V/krpm)	103	172	90	181	94	156
Rotor inertia (kg.m <sup>2</sup> ) no brake	9.64×10 <sup>-3</sup>	9.64×10 <sup>-3</sup>	12.25×10 <sup>-3</sup>	12.25×10 <sup>-3</sup>	16.72×10 <sup>-3</sup>	16.72×10 <sup>-3</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	9.71×10 <sup>-3</sup>	9.71×10 <sup>-3</sup>	12.32×10 <sup>-3</sup>	12.32×10 <sup>-3</sup>	16.79×10 <sup>-3</sup>	16.79×10 <sup>-3</sup>
Line resistance (Ω)	0.28	0.8	0.14	0.62	0.104	0.273
Line inductance (mH)	1.74	4.83	1	4	0.77	2.14
L no brake (mm)	262	262	292	292	346	346
L with brake (mm)	334	334	364	364	418	418

## S Series 60/80 Flange Servo Motors



Modes	60SES-A2013060□	60SES-A4013060□	80SES-A7513060□	60SS-A2013050□	60SS-A4013050□	80SS-A7513050□
Rated power (kW)	0.2	0.4	0.75	0.2	0.4	0.75
Pole pairs	5	5	5	5	5	5
Rate torque (N.m)	0.64	1.27	2.39	0.64	1.27	2.39
Max torque (N.m)	1.92	3.8	7.2	1.92	3.8	7.2
Rated speed (rpm)	3000	3000	3000	3000	3000	3000
Max. speed (rpm)	6000	6000	6000	5000	5000	5000
Rated current (A)	2.1	3.2	4.8	1.9	2.8	4
Max. current (A)	6.3	9.6	13.4	5.7	8.4	12
Torque constant (N.m/A)	0.304	0.396	0.498	0.336	0.453	0.597
Voltage constant (V/krpm)	22.0	27.0	35.0	22.9	29.3	39.8
Rotor inertia (kg.m <sup>2</sup> ) no brake	0.15×10 <sup>-4</sup>	0.27×10 <sup>-4</sup>	0.9×10 <sup>-4</sup>	0.16×10 <sup>-4</sup>	0.28×10 <sup>-4</sup>	1.0×10 <sup>-4</sup>
Rotor inertia (kg.m <sup>2</sup> ) brake	0.16×10 <sup>-4</sup>	0.28×10 <sup>-4</sup>	1.0×10 <sup>-4</sup>	0.18×10 <sup>-4</sup>	0.3×10 <sup>-4</sup>	1.1×10 <sup>-4</sup>
Line resistance (Ω)	4.03	2.36	0.93	4.5	3.3	1.4
Line inductance (mH)	9.35	5.80	4.2	12.5	9.61	7.25
L no brake (mm)	78.7	98.7	106.2	108	133	144.5
L with brake (mm)	116.7	136.7	147.2	146	171	185.5