

## Product description

HSM220-A series( AC 220V) servo motors have various series of frame size: 40mm, 60mm, 80mm, 90mm, 110mm, 130mm, 150mm and 180mm;

five series of rated speed: 1000rpm, 1500rpm, 2000rpm, 2500rpm and 3000rpm. Motors are equipped with standard 23-bit absolute. With selection of high temperature resistance, high energy density permanent magnetic material and optimal design of the electromagnetic parameters HSM220 servo motor can maintain a good working condition and fast response in whole product life cycle.

HNC Electric provides customized solutions based on any specified requirements from customers, e.g.: Rated torque, rated speed, maximum speed, dimension, plug connection & encoders etc.

## At a glance

- Compact architecture and high power density
- Middle rotor inertia and rapid response
- Super high coercivity rare earth permanent magnet
- Overheat protection capability (need temperature sensor integrated)
- Strong anti-demagnetization capability
- Various frame installation size
- Full-closed design in IP65

## Customer benefits

- Ultra energy saving
- High response and accuracy
- Low noise & low temperature rise
- High reliability makes less maintenance work
- Low rotor inertia, which improves system rapidity (more option for rotor inertia can be customized)

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[www.hncclectric.com/hsm220](http://www.hncclectric.com/hsm220)

For more information, please enter the link or scan the code via mobile devices and get direct access to technical data, manual, application examples and much more.

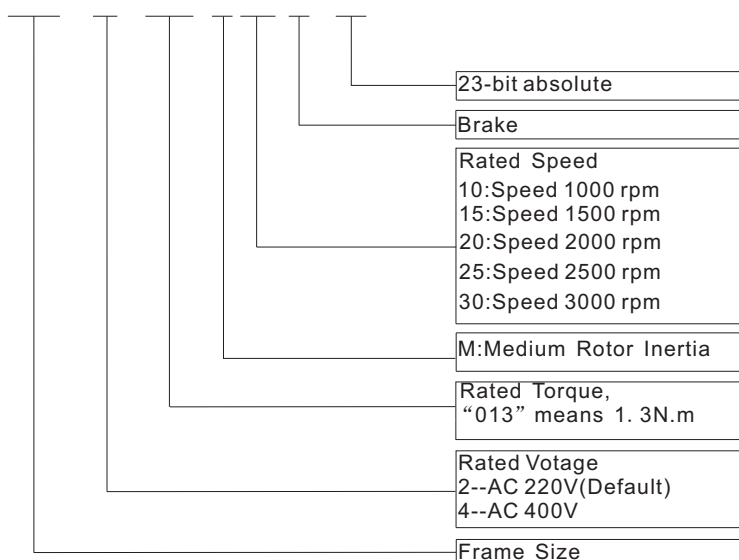


## Specificalton

Items	Description
Rated Voltage	220V
Encoder Line Number (PPR)	23-bit absolute
Insulation Class	ClassF
Enclosure rating	IP 65
Ambient operating temperature	-20°C~+50°C
Ambient operating humidity	Below 90% RH No dewing
Thermal protection	Optional
Cooling method	Air cooling

## Model Definition

**S60 - 2 - 013 M 30 B - A**

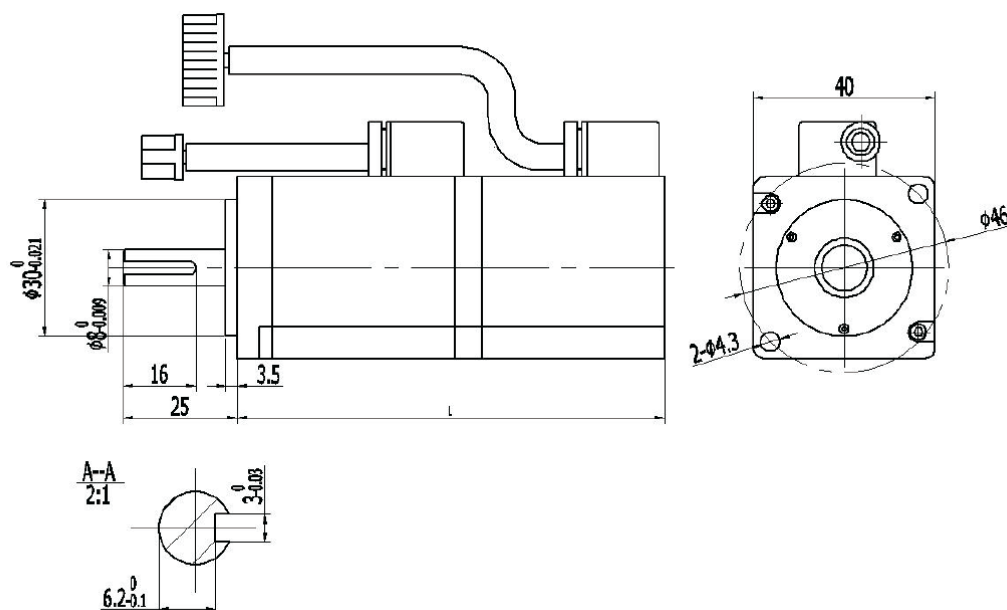


Model	Rated torque N·m	Max torque N·m	Rated Speed rpm	Max Speed rpm	Rated power kW	Rated voltage Vac	Rated current A	Rotor inertia kg.m <sup>2</sup>	Pole pair	Weight kg	Length mm
Flame size 40											
S40-2-013M30-A	0.159	0.557	3000	—	0.05	220	1.2	$0.414 \times 10^{-5}$	4	0.3	71.5
S40-2-033M30-A	0.3	1.1	3000	—	0.1	220	1.8	$0.665 \times 10^{-5}$	4	0.5	84.5
Flame size 60											
S60-2-006M30-A	0.637	1.91	3000	—	0.2	220	1.2	$0.175 \times 10^{-4}$	4	1.16	116
S60-2-013M30-A	1.27	3.9	3000	—	0.4	220	2.8	$0.29 \times 10^{-4}$	4	1.63	141
S60-2-019M30-A	1.91	5.73	3000	—	0.6	220	3.5	$0.39 \times 10^{-4}$	4	2.07	169
Flame size 80											
S80-2-013M30-A	1.27	3.8	3000	—	0.4	220	6.0	$1.05 \times 10^{-4}$	4	1.78	124
S80-2-024M30-A	2.39	7.1	3000	—	0.75	220	9.0	$1.82 \times 10^{-4}$	4	2.9	151

Model	Rated torque N·m	Max torque N·m	Rated Speed rpm	Max Speed rpm	Rated power kW	Rated voltage Vac	Rated current A	Rotor inertia kg.m <sup>2</sup>	Pole pair	Weight kg	Length mm
Flame size 80											
S80-2-035M20-A	3.5	10.5	2000	—	0.73	220	9.0	$2.63 \times 10^{-4}$	4	3.9	179
S80-2-040M25-A	4.0	12	2500	—	1	220	13.2	$2.97 \times 10^{-4}$	4	4.1	191
Flame size 90											
S90-2-024M30-A	2.4	7.1	3000	—	0.75	220	3.0	$2.45 \times 10^{-4}$	4	3.1	150
S90-2-035M20-A	3.5	10.5	2000	—	0.73	220	3.0	$3.4 \times 10^{-4}$	4	3.9	172
S90-2-040M25-A	4.0	12	2500	—	1.0	220	4.0	$3.7 \times 10^{-4}$	4	4.2	182
Flame size 110											
S110-2-020M30-A	2	6	3000	—	0.6	220	2.5	$0.31 \times 10^{-3}$	4	4.5	159
S110-2-040M20-A	4	12	2000	—	0.8	220	3.5	$0.54 \times 10^{-3}$	4	6.0	189
S110-2-040M30-A	4	12	3000	—	1.2	220	5.0	$0.54 \times 10^{-3}$	4	6.0	189
S110-2-050M30-A	5	15	3000	—	1.5	220	6.0	$0.63 \times 10^{-3}$	4	6.8	204
S110-2-060M20-A	6	18	2000	—	1.2	220	4.5	$0.76 \times 10^{-3}$	4	7.9	219
S110-2-060M30-A	6	18	3000	—	1.8	220	6.0	$0.76 \times 10^{-3}$	4	7.9	219
S110-2-100M20-A	10	20	2000	—	2.0	220	8.5	$0.98 \times 10^{-3}$	4	9.0	234
Flame size 130											
S130-2-040M25-A	4	12	2500	—	1	220	4	$0.85 \times 10^{-3}$	4	6.2	166
S130-2-050M25-A	5	15	2500	—	1.3	220	5	$1.06 \times 10^{-3}$	4	6.6	171
S130-2-060M25-A	6	18	2500	—	1.5	220	6	$1.26 \times 10^{-3}$	4	7.4	179
S130-2-077M25-A	7.7	22	2500	—	2.0	220	7.5	$1.53 \times 10^{-3}$	4	8.3	192
S130-2-100M10-A	10	20	1000	—	1.0	220	4.5	$1.94 \times 10^{-3}$	4	10.2	213
S130-2-100M15-A	10	25	1500	—	1.5	220	6.0	$1.94 \times 10^{-3}$	4	10.2	213
S130-2-100M25-A	10	25	2500	—	2.6	220	10	$1.94 \times 10^{-3}$	4	9.8	209
S130-2-150M15-A	15	30	1500	—	2.3	220	9.5	$2.77 \times 10^{-3}$	4	12.6	241
S130-2-150M25-A	15	30	2500	—	3.8	220	13.5	$2.77 \times 10^{-3}$	4	11.7	231
Flame size 150											
S150-2-150M25-A	15	30	2500	—	3.8	220	17	$3.88 \times 10^{-3}$	4	15	230
S150-2-150M20-A	15	30	2000	—	3.0	220	14	$3.88 \times 10^{-3}$	4	15	230
S150-2-180M20-A	18	36	2000	—	3.6	220	17	$4.6 \times 10^{-3}$	4	17	248
S150-2-230M20-A	23	46	2000	—	4.7	220	21	$5.8 \times 10^{-3}$	4	20.4	278
S150-2-270M20-A	27	54	2000	—	5.5	220	24	$6.8 \times 10^{-3}$	4	22.7	302
Flame size 180											
S180-2-172M15-A	17.2	43	1500	—	2.7	220	10.5	$3.4 \times 10^{-3}$	4	19.5	226
S180-2-190M15-A	19	47	1500	—	3	220	12	$3.8 \times 10^{-3}$	4	20.5	232
S180-2-215M20-A	21.5	53	2000	—	4.5	220	16	$4.7 \times 10^{-3}$	4	22.2	243
S180-2-270M10-A	27	67	1000	—	2.9	220	12	$6.1 \times 10^{-3}$	4	25.5	262
S180-2-270M15-A	27	67	1500	—	4.3	220	16	$6.1 \times 10^{-3}$	4	25.5	262
S180-2-350M10-A	35	70	1000	—	3.7	220	16	$8.6 \times 10^{-3}$	4	30.5	292
S180-2-350M15-A	35	70	1500	—	5.5	220	24	$8.6 \times 10^{-3}$	4	30.5	292
S180-2-480M15-A	48	96	1500	—	7.5	220	32	$9.5 \times 10^{-3}$	4	40	346

## Dimensional Drawing

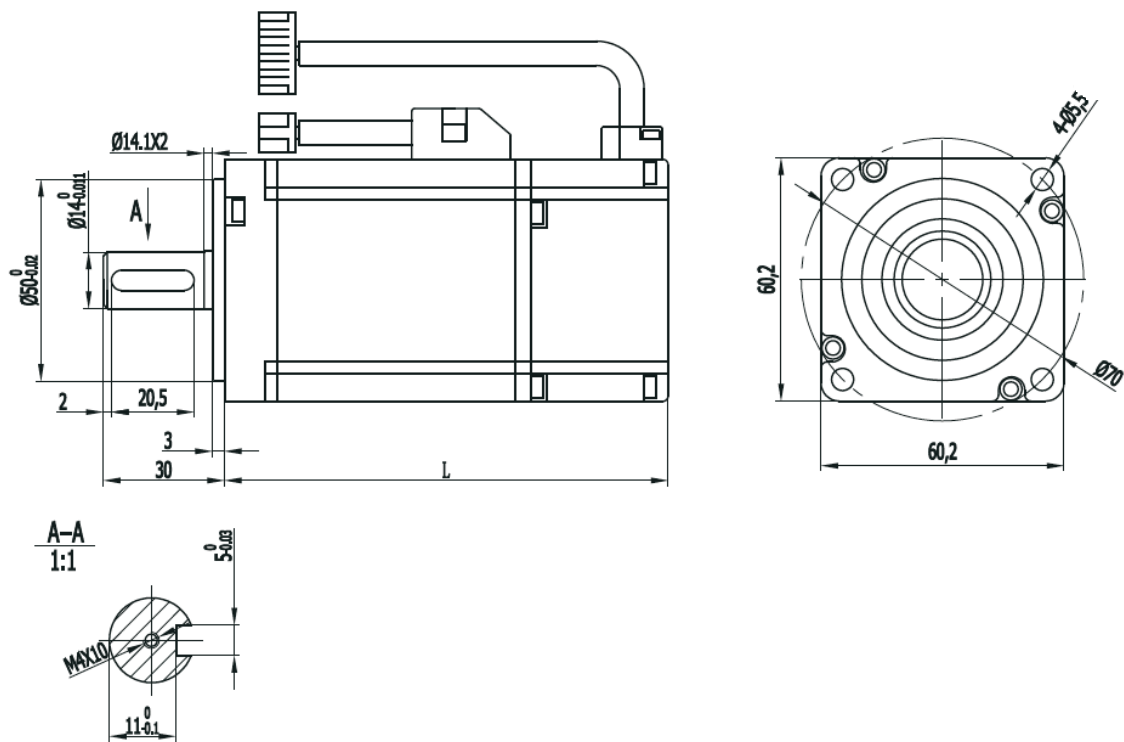
Flame Size 40



Model	Without brake (L)	With brake (L)
S40-2-013M30-A	84.5	71.5
S40-2-033M30-A	124	111

Dimensional Drawing

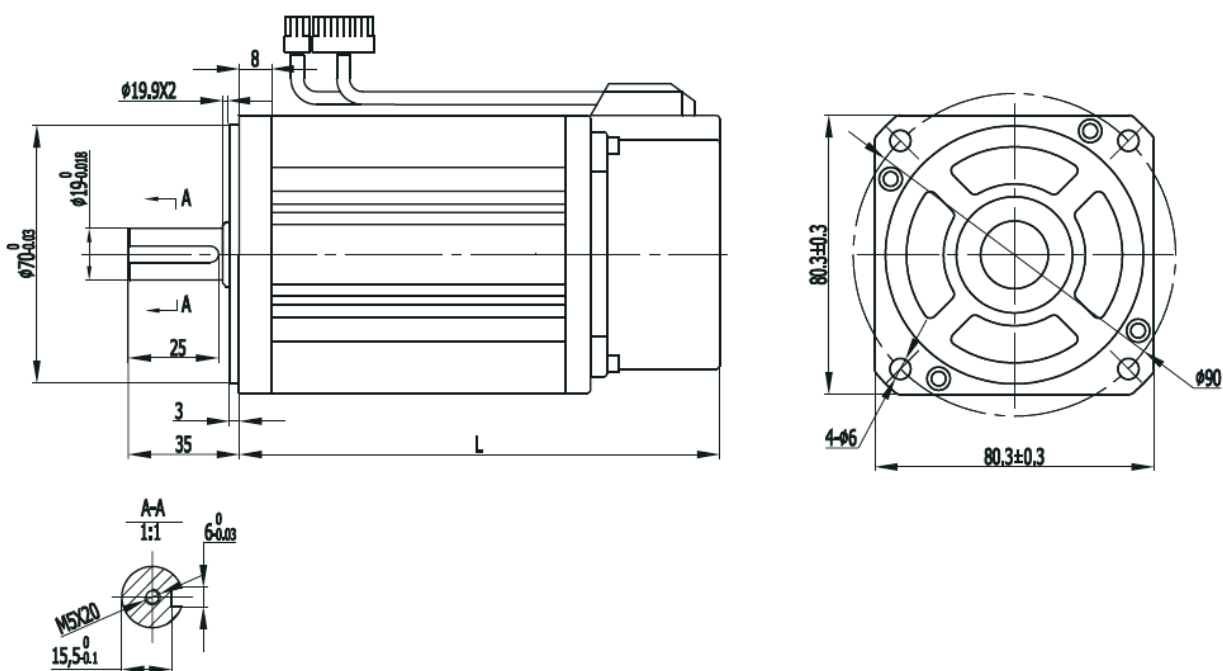
Flame Size 60



Model	Without brake (L)	With brake (L)
S60-2-006M30-A	116	164
S60-2-013M30-A	141	189
S60-2-019M30-A	169	217

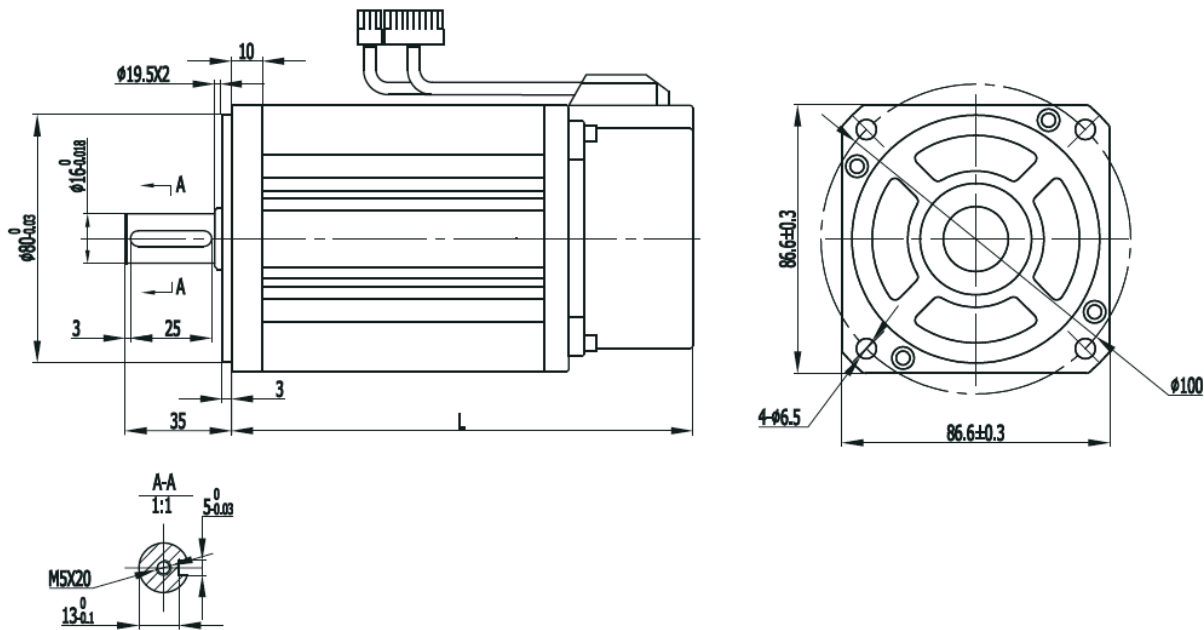
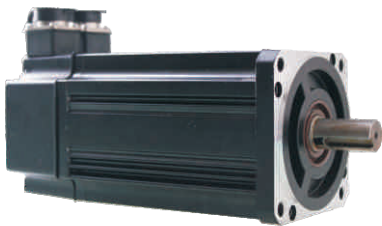


## Flame Size 80



Model	Without brake (L)	With brake (L)
S80-2-013M30-A	124	164
S80-2-024M30-A	151	191
S80-2-035M20-A	179	219
S80-2-040M25-A	191	231

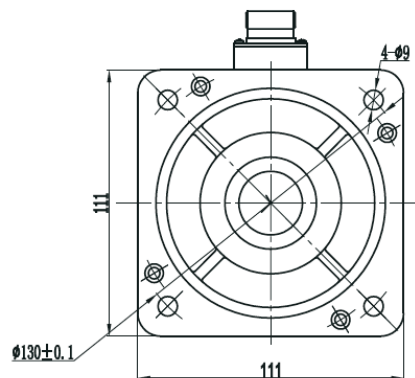
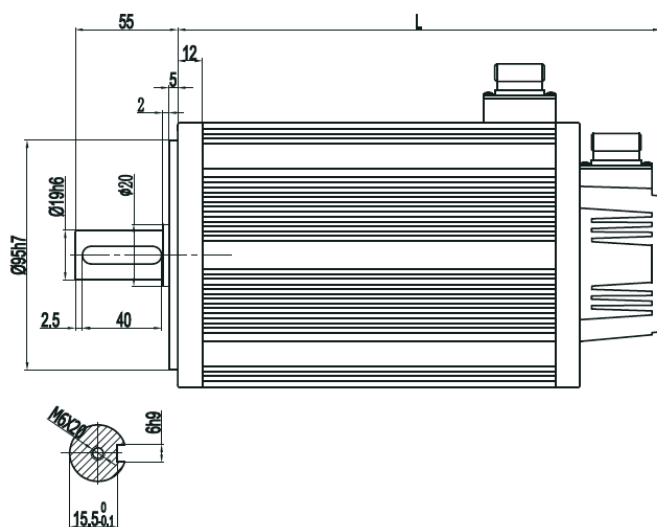
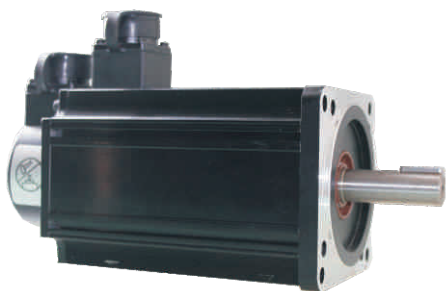
Flame Size 90



Model	Without brake (L)	With brake (L)
S90-2-024M30-A	150	198
S90-2-035M20-A	172	220
S90-2-040M25-A	182	230



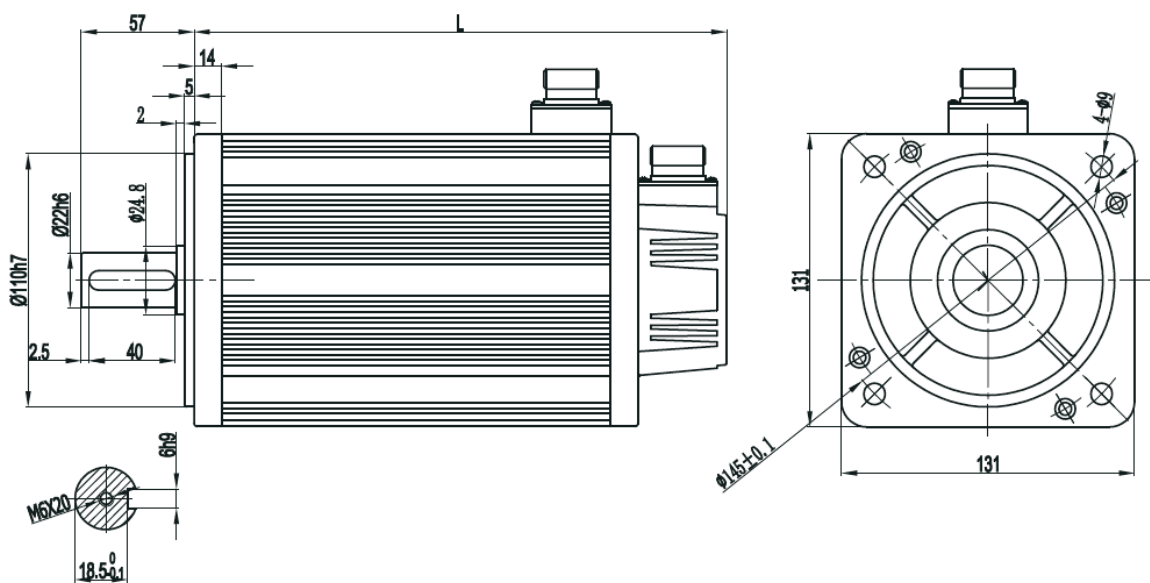
## Flame Size 110



Model	Without brake (L)	With brake (L)
S110-2-020M30-A	159	233
S110-2-040M20-A	189	263
S110-2-040M30-A	189	263
S110-2-050M30-A	204	278
S110-2-060M20-A	219	293
S110-2-060M30-A	219	293
S110-2-100M20-A	234	308

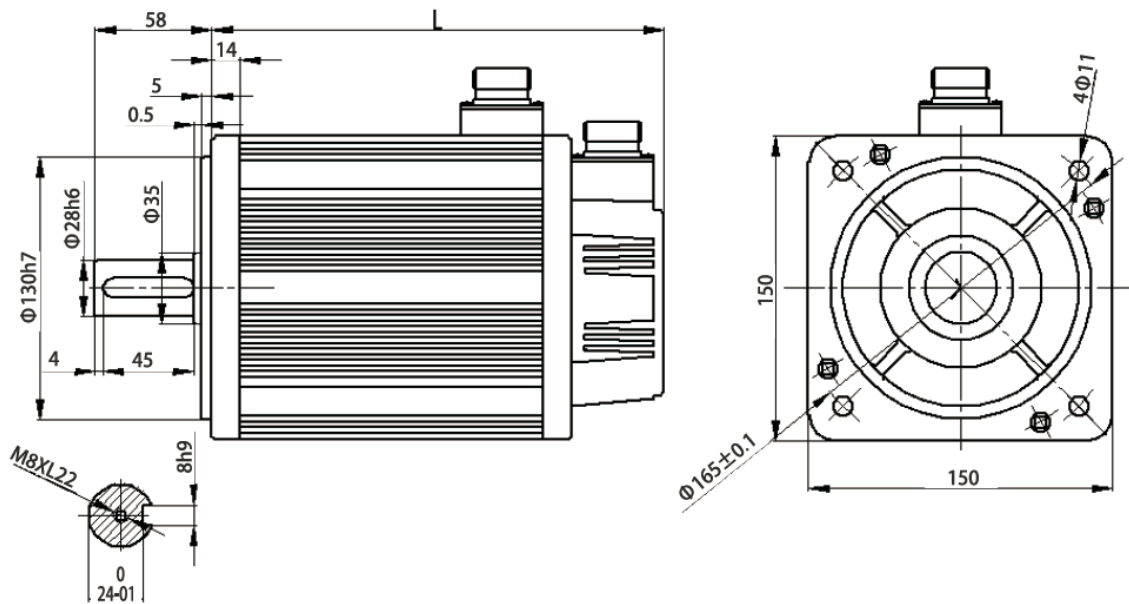
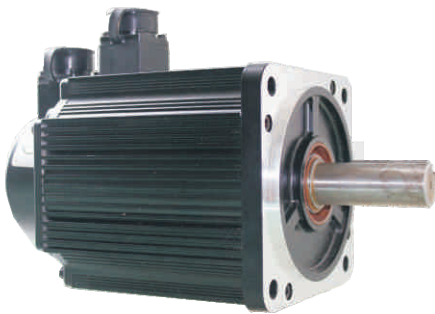


## Flame Size 130



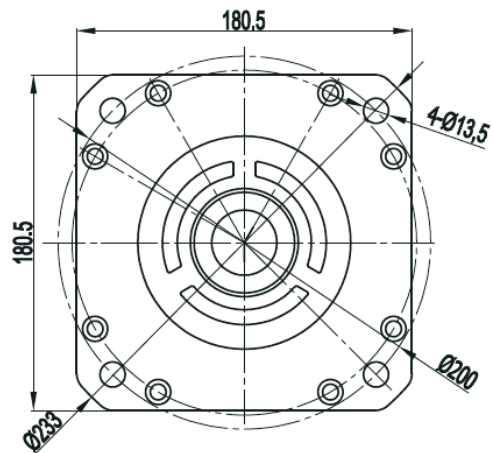
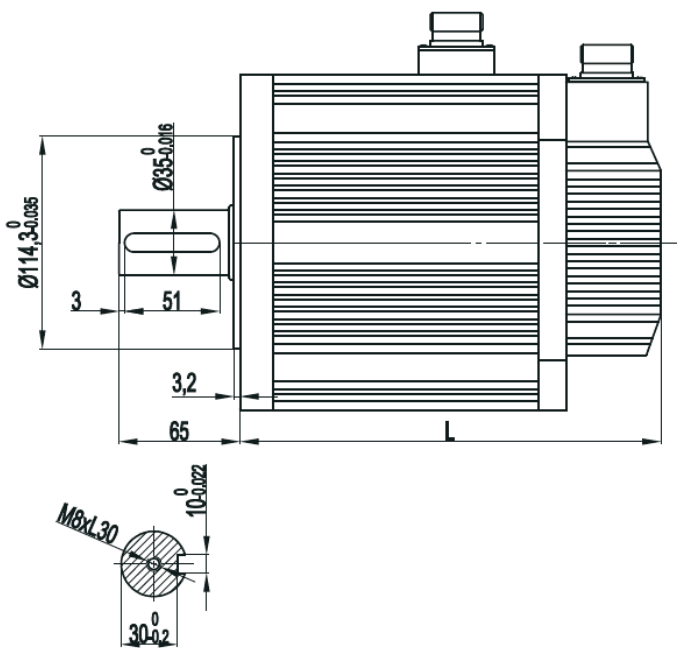
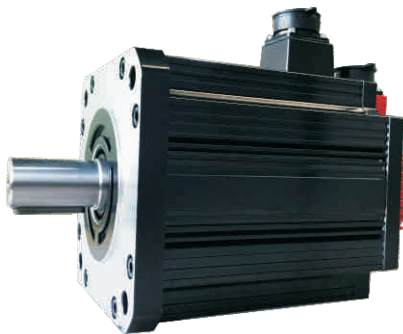
Model	Without brake (L)	With brake (L)
S130-2-040M25-A	166	223
S130-2-050M25-A	171	228
S130-2-060M25-A	179	236
S130-2-077M25-A	192	249
S130-2-100M10-A	213	294
S130-2-100M15-A	213	294
S130-2-100M25-A	209	290
S130-2-150M15-A	241	322
S130-2-150M25-A	231	312

## Flame Size 150



Model	Without brake (L)	With brake (L)
S150-2-150M25-A	230	303
S150-2-150M20-A	230	303
S150-2-180M20-A	248	321
S150-2-230M20-A	278	351
S150-2-270M20-A	302	375

Flame Size 180



Model	Without brake (L)	With brake (L)
S180-2-172M15-A	226	298
S180-2-190M15-A	232	304
S180-2-215M20-A	243	315
S180-2-270M10-A	262	334
S180-2-270M15-A	262	334
S180-2-350M10-A	292	364
S180-2-350M15-A	292	364
S180-2-480M15-A	346	418