

Case



| Serial Number | Name of applied equipment |
|---------------|---|
| 1 | Machining center devices |
| 2 | NC boring machine devices |
| 3 | Full function NC lathe devices |
| 4 | Water cutting machine devices |
| 5 | Upender devices |
| 6 | Ultrasonic cleaning devices - dryer |
| 7 | Automatic bending devices |
| 8 | Engraving and milling machine devices |
| 9 | Oil stone molding machine devices |
| 10 | High-speed laminating machine devices |
| 11 | Computerized flat knitting machine devices |
| 12 | Devices for adhesive injecting machine of socks |
| 13 | Automatic welding devices |
| 14 | Automatic feeding devices |
| 15 | Bag making machine devices |
| 16 | Dividing and cutting machine devices |
| 17 | Coil winding machine devices |
| 18 | Coiler machine devices |
| 19 | Wire cutting machine devices |
| 20 | Screen printing machine devices |
| 21 | Plate shearing machine devices |
| 22 | Rewinder devices |
| 23 | Metering pump devices |
| 24 | Woodworking devices |

POWTRAN Technology – The leading & professional variable speed AC drives & servo motor manufacturer in China.

Contact Us

Customer Hotline:
400-0411-755



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— China TOP Ten brands of inverter —



ADSD-S-A

Series

**交流永磁同步伺服驱动器
&电机**

AC Permanent-Magnet Synchronous
Servo Motor and Drive



www.powtran.com

公司简介 | Company Profile

POWTRAN Technology Co., Ltd. is a Hi-Tech enterprise. A&D Numerical Control Technique Co., Ltd. is a subsidiary company of POWTRAN. Founded under the joint investment among overseas returnees with doctoral degree in Japan, A&D is a Hi-Tech enterprise specialized in R&D, manufacture, sales and service of AC servo system. Establishing sales and service network extending to all over China from Shenzhen and Dalian, A&D is committed to supplying customers with high-precision, high-speed and high-efficiency servo products and overall solutions with optimal control. A&D adopts automatic production process and ensures stable and reliable product quality. Now, A&D products are sold well at home and abroad and they are highly praised by customers.



In 2008, ADSD-S series AC permanent-magnet synchronous servo products of A&D were rewarded as SMEs Technological Innovation Fund project of The Ministry of Science and Technology of the People's Republic of China. In the later acceptance of expert group from the ministry, the expert group thought that ADSD-S series AC permanent-magnet synchronous servo products have reached advanced level in technology in domestic counterparts and can be promoted and applied to high-grade, precision and sophisticated equipment.



As a rising star of motor control industry, A&D attended The China International Equipment Manufacturing Exposition (CIEEME) hosted in Northeast China, China International Industry Fair (CIIF) hosted in Shanghai and HANNOVER MESSE in 2009 and attended China International Machine Tool Show in 2010.

In the industry award of 2010 Servo China hosted by www.chuandong.com and Servo & Motion Control, assisted by Guangdong Province Automation Association (GAA), the products were rewarded as 2010 TOP Ten Innovative Products in servo and motion industry and TOP Ten Potential Brands in servo and motion industry.



Honesty • Dedicated • Efficient • Excellent

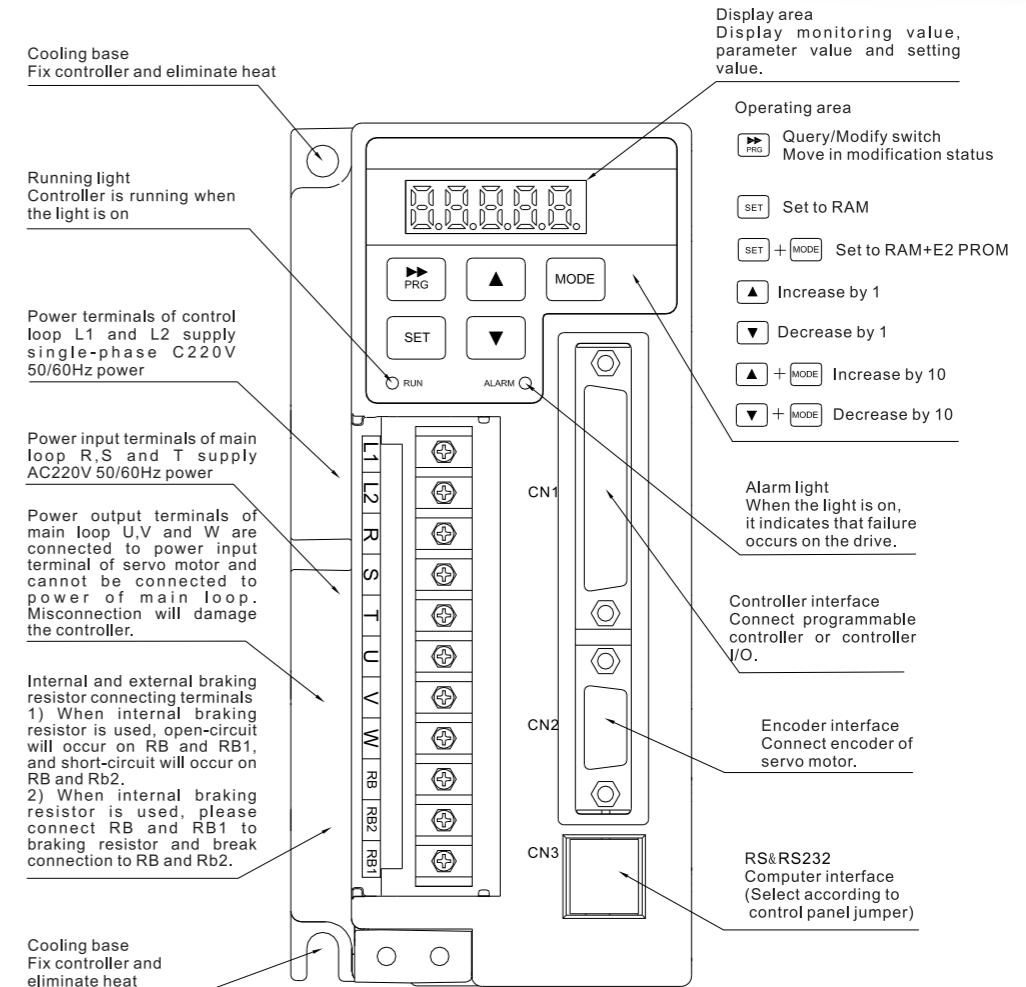


产品介绍 | Product Description

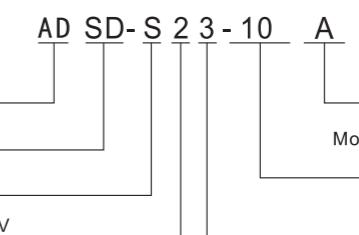
ADSD-S series AC permanent-magnet synchronous servo drive is the new generation AC servo drive developed by POWTRAN Technology. The drive is applicable to universal controllers in machinery manufacturing such as Numerically Controlled (NC) machine tool feed axis, automatic production line, engraving and milling machine, engraving machine and bag making machine, etc.



Parts Description



Model description



A&D brand

Servo drive

AC synchronous

Voltage grade: 2:220V

伺服驱动器 | Servo Driver

Product Overview

A&D servo drives are applicable to imported numerical control systems manufactured by Siemens, FAGOR etc. as well as domestic numerical control systems manufactured by GSK, TAIDA, HNC, Dalian NC etc.

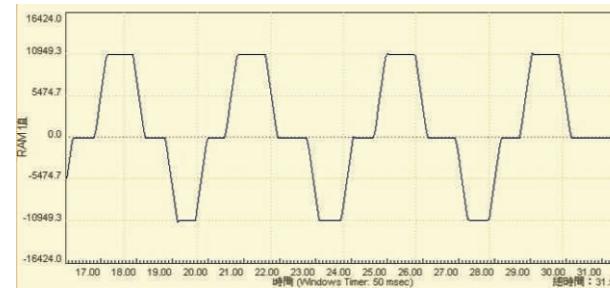
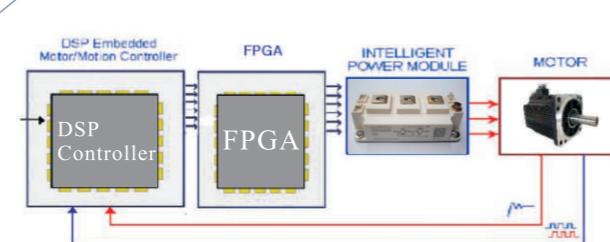
3 times overload capacity! Leading in China!



Product Characteristics

High-precision, High-speed, High-efficiency

DSP+FPGA+IPM-based hardware platform;
Quick frequency response;
Fine tuning control and vibration elimination;



Perfect Functions

Integrate position control, speed control, torque control and division control and accomplish dynamic switch between them;
Effective suppression of mechanical resonance;
Flexible operation mode of external terminals;
Innovative self-adaptive control;
Easy to customize running signal;
Excellent protection function

Convenient and Practical Communication Software

Fault history query;
Real-time status parameter display;
Parameter reading and writing;
Online oscilloscope function



Perfect Structure and Reliable Running

Easy and flexible to connect wire;
Space saving, small size;
Good performance in anti-electromagnetic interference;
Automatic detection during production process



Simple and Flexible, Easy to Operate

Can be controlled independently, e.g. use as rotating platform controller;
Applicable to various numerical control systems;
PLC control;

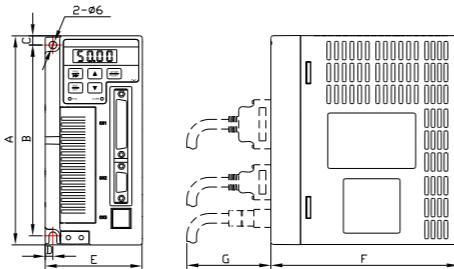


Product Characteristics

| | Item | Specifications | |
|---------------------|---------------------------------------|---|---|
| Control Performance | Power supply | Voltage frequency level | Single-phase 220V, 50/60HZ Three-phase 220V, 50/60HZ |
| | | Allowable fluctuation | Voltage: $\pm 15\%$; Frequency: $\pm 5\%$ |
| | | Control system | High performance vector controller based on 32-bit DSP |
| | Control method | Position control mode, speed control mode, torque control mode, division control mode | |
| | | Position/Speed mixed mode, Position/Torque mixed mode, Torque/Speed mixed mode | |
| | Torque control | Torque accuracy | $\pm 5\%$ rated torque |
| | | Torque limit | 0 ~ 300% arbitrary rated torque |
| | | Speed limit | Parameter setting mode or analog input |
| | Range of speed control | 1:5000 above | |
| | Position control | Highest precision | ± 1 pulse |
| | | Maximum input pulse frequency | 500KPPS |
| | | Range of position control | 0-231 pulse reference |
| | | Input mode | Two-phase A/B orthogonal pulse, Pulse + Direction, Positive/Back double pulse |
| | | Electronic gear | 1/50 |
| Running | Acceleration and deceleration control | Line, smooth filtering, S-shape acceleration and deceleration | |
| | Speed setting resolution | 0.183RPM | |
| | Overload capacity | 300% Rated current - 5 seconds | |
| | Input signal | Run method | Keyboard/Terminal/Communication method |
| | | Speed setting | Various speed setting method: analog, communication |
| | | Programmable digital input | Multi-function input such as servo start and abnormal reset, etc. It supports collector input, 8 points in total. |
| | | Programmable analog input | Channel 2 analog input port; speed, torque and position reference. |
| | Output signal | Running status | Display running status of motor, stop, acceleration, regular speed, running status of program |
| | | Programmable analog output | Channel 1 analog output, it refers to the analog output of speed, torque and bus voltage. |
| | | Programmable digital output | Multi-function collector output such as preparation for servo start and servo start, etc., 5 points in total. A, B and Z line drive output |
| Protection function | DC current braking | | External energy-consumption braking resistor; Make sure sufficient braking torque under normal current. |
| | Controller protection | Abnormal drive inhibit, encoder exception, over-current, overload, under-voltage, over-voltage, anabios, IPM, over-speed, emergency stop or position deviation is too large, etc. | |
| | Parameter protection | Save and call U00 and U01 parameters | |
| | Display | LCD display in Chinese and English+LED keyboard | Motor speed, speed command, analog speed command, number of feedback pulse of motor, number of pulse of position command, deviation between position command and feedback, torque command, etc. |
| | | Error message | Up to 10 error messages can be saved. You can query the fault type when it occurs. |
| Environment | Communication | Rs232 and Rs422 | You can select two communication modules isolated to each other; Can realize network communication with upper computer. |
| | Ambient temperature | 10°C ~ 40°C (no dewdrop) | |
| | Storage temperature | -20°C ~ 65°C (no dewdrop) | |
| | Ambient humidity | Not higher than 90% RH. | |
| | Height•Vibration | Less than 1,000m less than 5.9m/S2($=0.6g$) | |
| | Application location | No sunlight or corrosivity; keep away from explosive gas or water vapor | |
| | Cooling method | Forced air cooling and natural air cooling | |



External dimension



| Drive Model | External dimension (mm) | | | Installation dimension (mm) | | | | Net weight (kg) | |
|--------------|-------------------------|-----------|------------|-----------------------------|---|----|-------------------|-----------------|-----|
| | Length (E) | Width (F) | Height (A) | B | C | D | Installation hole | | |
| ADSD-S23-10A | 75 | 146 | 162 | 148 | 5 | 5 | 2-Φ6 | 75 | 1.7 |
| ADSD-S23-15A | | | | | | | | | |
| ADSD-S23-20A | 100 | 196 | 162 | 149 | 5 | 10 | 2-Φ6 | 75 | 2.2 |
| ADSD-S23-30A | | | | | | | | | |
| ADSD-S23-50A | 116 | 210 | 244 | 232 | 5 | 6 | 4-Φ6 | 75 | 4.5 |
| ADSD-S23-75A | | | | | | | | | |

Configuration information form

| Model of motor series | Motor model | Power of motor(KW) | Drive model |
|-----------------------|-------------------|--------------------|--------------|
| 60 Series | ADSM-S60-006M30 | 0.2 | ADSD-S23-10A |
| | ADSM-S60-013M30 | 0.4 | ADSD-S23-10A |
| | ADSM-S60-019M30 | 0.6 | ADSD-S23-15A |
| 80 Series | ADSM-S80-013M30 | 0.4 | ADSD-S23-10A |
| | ADSM-S80-024M30 | 0.75 | ADSD-S23-10A |
| | ADSM-S80-035M20 | 1 | ADSD-S23-10A |
| | ADSM-S80-040M25 | 1 | ADSD-S23-15A |
| 90 Series | ADSM-S90-024M30 | 0.75 | ADSD-S23-10A |
| | ADSM-S90-035M20 | 0.73 | ADSD-S23-10A |
| | ADSM-S90-040M25 | 1 | ADSD-S23-15A |
| 110 Series | ADSM-S110-020M30 | 0.6 | ADSD-S23-10A |
| | ADSM-S110-040M20 | 0.8 | ADSD-S23-15A |
| | ADSM-S110-040M30 | 1.2 | ADSD-S23-20A |
| | ADSM-S110-050M30 | 1.5 | ADSD-S23-20A |
| | ADSM-S110-060M20 | 1.2 | ADSD-S23-15A |
| | ADSM-S110-060M30 | 1.6 | ADSD-S23-20A |
| 130 Series | ADSM-S130-040M25 | 1 | ADSD-S23-15A |
| | ADSM-S130-050M25 | 1.3 | ADSD-S23-20A |
| | ADSM-S130-060M25 | 1.5 | ADSD-S23-20A |
| | ADSM-S130-077M25 | 2 | ADSD-S23-30A |
| | ADSM-S130-077M30 | 2.4 | ADSD-S23-30A |
| | ADSM-S130-100M10 | 1 | ADSD-S23-15A |
| | ADSM-S130-100M15 | 1.5 | ADSD-S23-20A |
| | ADSM-S130-100M25 | 2.6 | ADSD-S23-30A |
| | ADSM-S130-150M15 | 2.3 | ADSD-S23-30A |
| | ADSM-S130-150M25C | 3.8 | ADSD-S23-75A |
| | ADSM-S130-150M25M | 3.8 | ADSD-S23-50A |
| 150 Series | ADSM-S150-150M25 | 3.8 | ADSD-S23-75A |
| | ADSM-S150-150M20 | 3 | ADSD-S23-50A |
| | ADSM-S150-180M20 | 3.6 | ADSD-S23-50A |
| | ADSM-S150-230M20 | 4.7 | ADSD-S23-75A |
| | ADSM-S150-270M20 | 5.5 | ADSD-S23-75A |
| 180 Series | ADSM-S180-172M15 | 2.7 | ADSD-S23-50A |
| | ADSM-S180-190M15 | 3 | ADSD-S23-50A |
| | ADSM-S180-215M20 | 4.5 | ADSD-S23-50A |
| | ADSM-S180-270M10 | 2.9 | ADSD-S23-50A |
| | ADSM-S180-270M15 | 4.3 | ADSD-S23-50A |
| | ADSM-S180-350M10 | 3.7 | ADSD-S23-50A |
| | ADSM-S180-350M15 | 5.5 | ADSD-S23-75A |

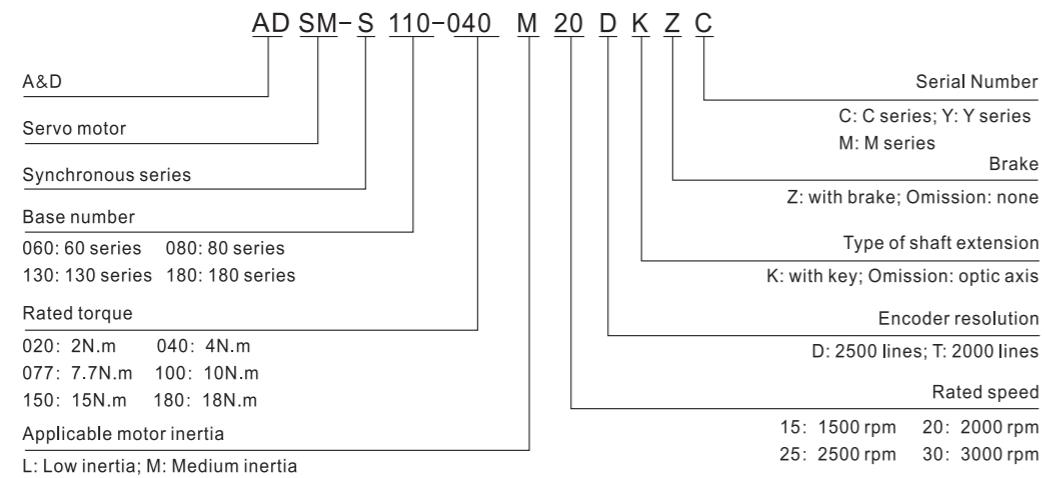
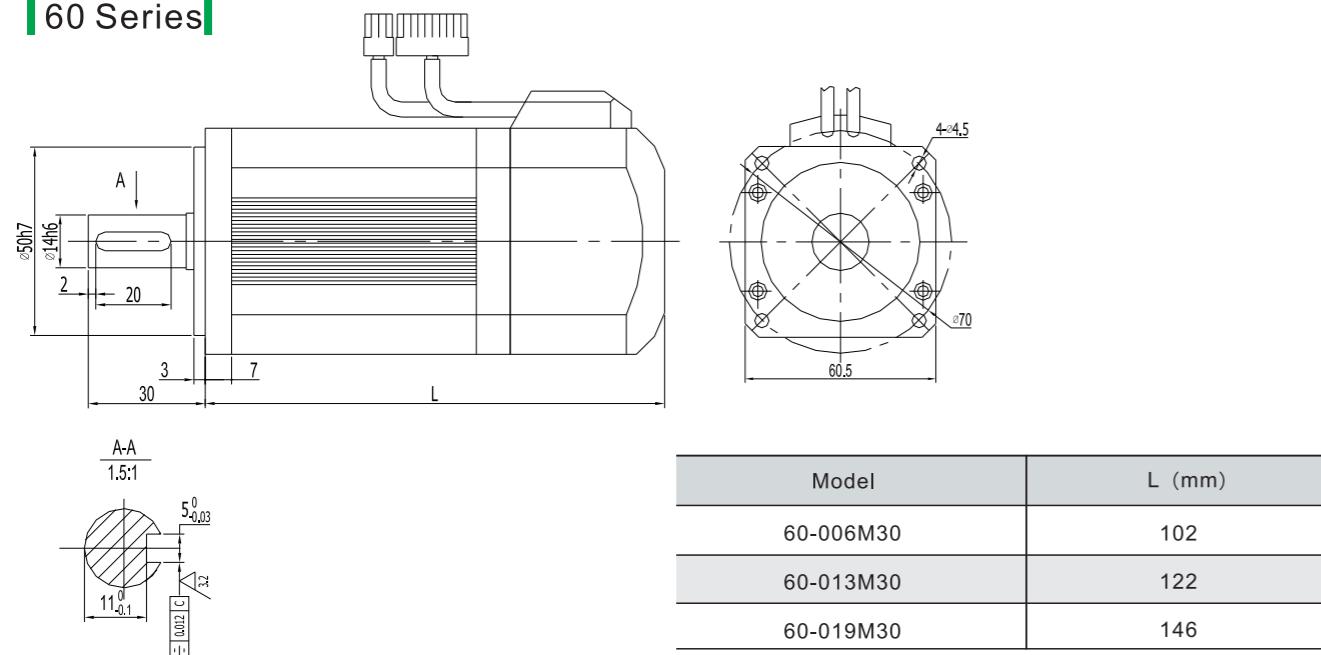
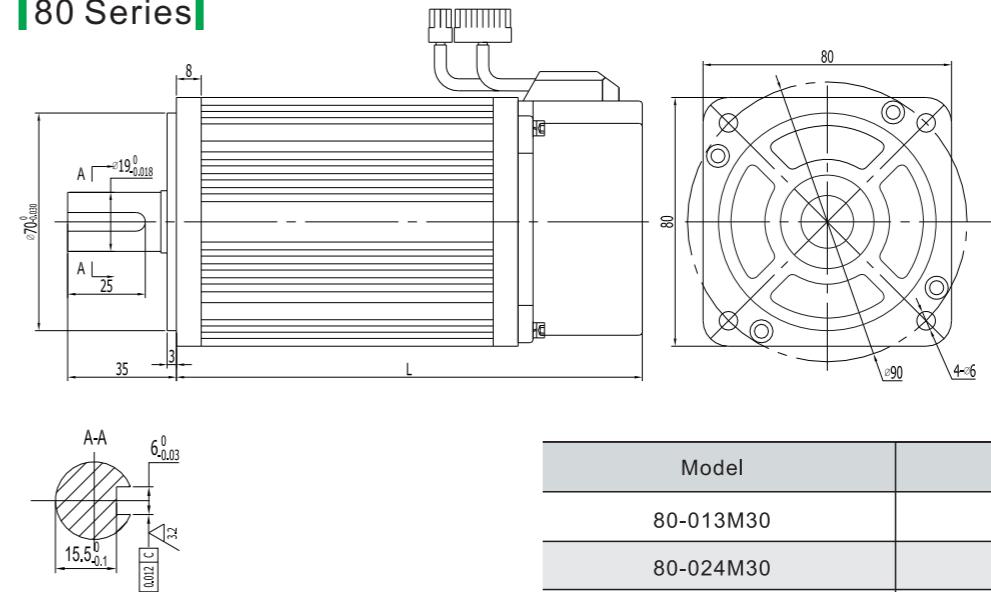
Remark: Configuration mentioned above is the basic configuration. You can adjust the drive specification depending on the load.

伺服电机 | servo motor

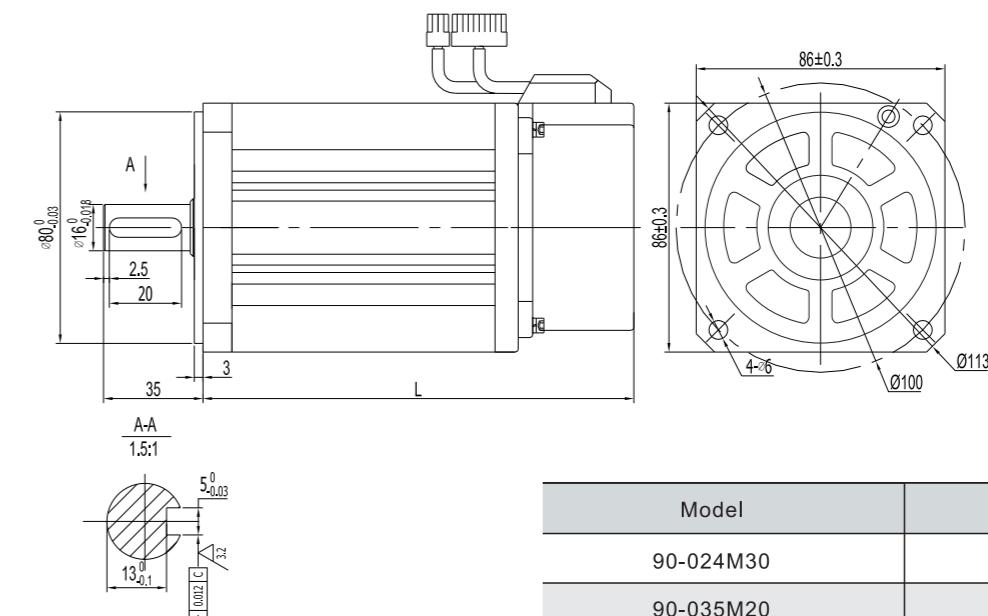
In terms of ADSM-S series AC permanent-magnet synchronous servo motor, there are SEVEN bases with different outer diameter respectively 60mm, 80mm, 90mm, 110mm, 130mm, 150mm and 180mm; There are FIVE rated speeds respectively 1000rpm, 1500rpm, 2000rpm, 2500rpm and 3000rpm; The standard number of lines of photoelectric encoder configured for motor is 2500 lines. Motor is made of high quality permanent magnet material with heat resistant and high magnetic energy. Electromagnetic parameters are designed to optimization. Motor can work well for long time with quick response. The protection level of motor reaches IP65, therefore it is especially applicable to industrial environment.

Standard Specifications

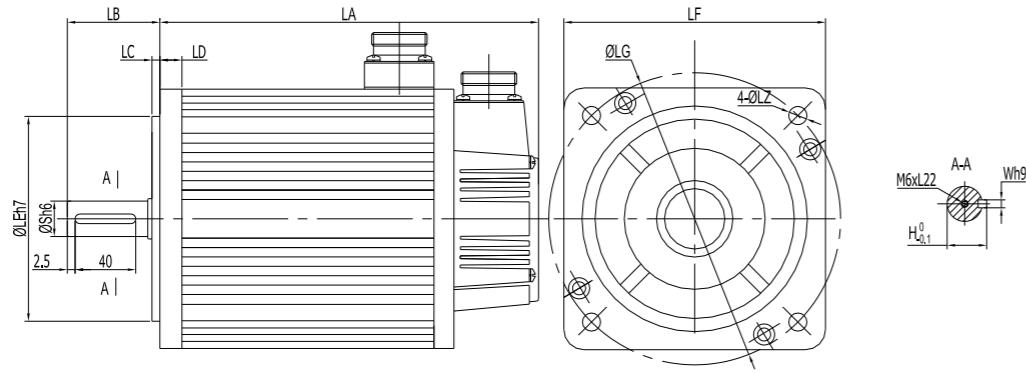
| Motor series | Motor model | Power (KW) | Rated torque (N.m) | Rated speed (Rpm) | Rated current (A) | Rotor inertia (Kgm2) | Electrical time constant (Ms) | Weight of motor (Kg) | Number of lines for encoder (C/T) | Insulation class | Operational condition | Degree of protection |
|--------------|-------------|------------|--------------------|-------------------|-------------------|-----------------------|-------------------------------|----------------------|-----------------------------------|------------------|-----------------------|----------------------|
| 60 series | 60 006M30 | 0.2 | 0.6 | 3000 | 1.5 | 0.017x10 ³ | 1.9 | 1.11 | | | | IP6 4 |
| | 60 013M30 | 0.4 | 1.3 | 3000 | 2.8 | 0.03x10 ³ | 2.1 | 1.33 | | | | |
| | 60 019M30 | 0.6 | 1.9 | 3000 | 3.5 | 0.044x10 ³ | 2.4 | 1.78 | | | | |
| 80 series | 80 013M30 | 0.4 | 1.27 | 3000 | 2 | 0.132x10 ³ | 1.66 | 1.78 | | | | |
| | 80 024M30 | 0.75 | 2.39 | 3000 | 3 | 0.24x10 ³ | 2.22 | 2.86 | | | | |
| | 80 035M20 | 0.73 | 3.5 | 2000 | 3 | 0.3x10 ³ | 2.4 | 3.7 | | | | |
| | 80 040M25 | 1.0 | 4 | 2500 | 4.4 | 0.35x10 ³ | 2.58 | 3.8 | | | | |
| 90 series | 90 024M30 | 0.75 | 2.4 | 3000 | 3 | 0.245x10 ³ | 2.2 | 3.4 | | | | |
| | 90 035M20 | 0.73 | 3.5 | 2000 | 3 | 0.34x10 ³ | 2.39 | 3.8 | | | | |
| | 90 040M25 | 1.0 | 4 | 2500 | 4 | 0.37x10 ³ | 2.3 | 4.13 | | | | |
| 110 series | 110 020M30 | 0.6 | 2 | 3000 | 2.5 | 0.31x10 ³ | 2.3 | 4.5 | | | | |
| | 110 040M20 | 0.8 | 4 | 2000 | 3.5 | 0.54x10 ³ | 3 | 5.5 | | | | |
| | 110 040M30 | 1.2 | 4 | 3000 | 5.0 | 0.54x10 ³ | 3.0 | 5.5 | | | | |
| | 110 050M30 | 1.5 | 5 | 3000 | 6.0 | 0.63x10 ³ | 3.33 | 6.1 | | | | |
| | 110 060M20 | 1.2 | 6 | 2000 | 4.5 | 0.76x10 ³ | 3.2 | 6.7 | | | | |
| | 110 060M30 | 1.8 | 6 | 3000 | 6.0 | 0.76x10 ³ | 3.2 | 6.7 | | | | |
| 130 series | 130 040M25 | 1.0 | 4 | 2500 | 4.0 | 0.85x10 ³ | 2.32 | 7.7 | | | | |
| | 130 050M25 | 1.3 | 5 | 2500 | 5.0 | 1.06x10 ³ | 2.66 | 8.2 | | | | |
| | 130 060M25 | 1.5 | 6 | 2500 | 6.0 | 1.26x10 ³ | 3.26 | 8.9 | | | | |
| | 130 077M25 | 2.0 | 7.7 | 2500 | 7.5 | 1.53x10 ³ | 3.8 | 10 | | | | |
| | 130 100M10 | 1.0 | 10 | 1000 | 4.5 | 1.94x10 ³ | 3.26 | 11.5 | | | | |
| | 130 100M15 | 1.5 | 10 | 1500 | 6.0 | 1.94x10 ³ | 3.93 | 11.5 | | | | |
| | 130 100M25 | 2.6 | 10 | 2500 | 10.0 | 1.94x10 ³ | 3.36 | 11.5 | | | | |
| | 130 150M15 | 2.3 | 15 | 1500 | 9.5 | 2.77x10 ³ | 4.05 | 14.4 | | | | |
| 150 series | 150 150M25 | 3.8 | 15 | 2500 | 13.5 | 2.77x10 ³ | 3.43 | 14.4 | | | | |
| | 150 150M20 | 3.0 | 15 | 2000 | 14 | 3.88x10 ³ | 4.7 | 15.2 | | | | |
| | 150 180M20 | 3.6 | 18 | 2000 | 17 | 4.6x10 ³ | 5.1 | 17.2 | | | | |
| | 150 230M20 | 4.7 | 23 | 2000 | 21 | 5.8x10 ³ | 5.3 | 21 | | | | |
| | 150 270M20 | 5.5 | 27 | 2000 | 24 | 6.8x10 ³ | 5.6 | 23.5 | | | | |
| 180 series | 180 172M15 | 2.7 | 17.2 | 1500 | 10.5 | 3.4x10 ³ | 5 | 19.5 | | | | |
| | | | | | | | | | | | | |

Model**Motor series****Motor size****60 Series****Motor size****80 Series**

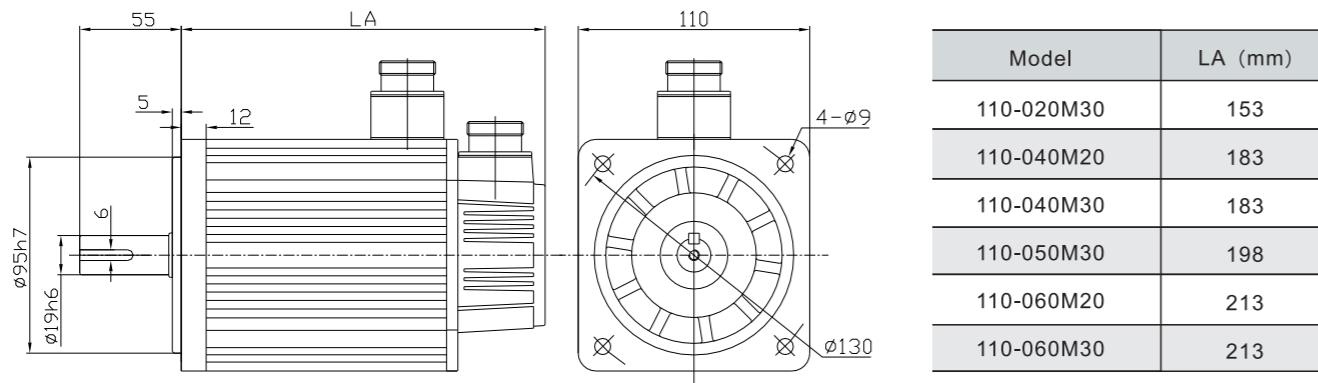
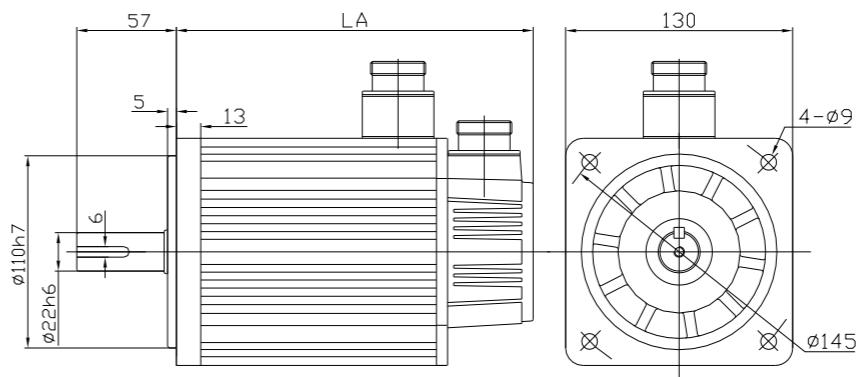
| Model | L (mm) |
|-----------|--------|
| 80-013M30 | 123 |
| 80-024M30 | 150 |
| 80-035M20 | 178 |
| 80-040M25 | 190 |

90 Series

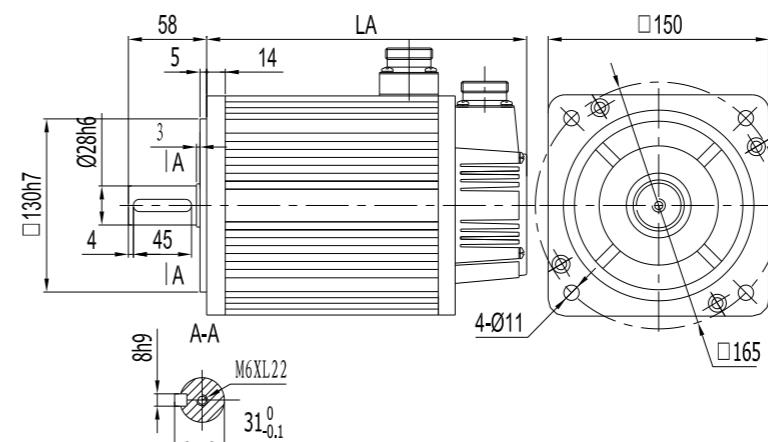
| Model | L (mm) |
|-----------|--------|
| 90-024M30 | 149 |
| 90-035M20 | 171 |
| 90-040M25 | 181 |

110 and 130 Series (M Series)


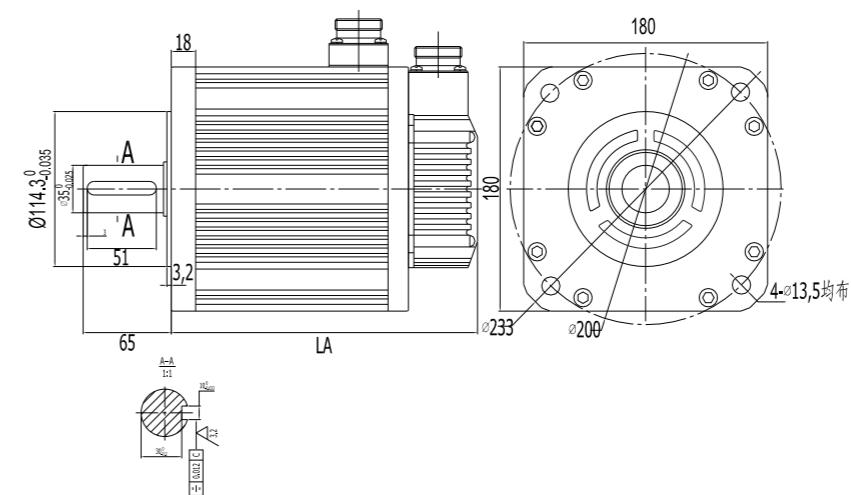
| | 110 series | | | | 130 series | | | | | | | | | | |
|--------|--------------------|------|------|------|------------|------|------|------|-----|----------|----------|----------|----------|----------|--|
| | Rated torque (N·m) | 2 | 4 | 5 | 6 | 4 | 5 | 6 | 7.7 | 1000 rpm | 1500 rpm | 2500 rpm | 1500 rpm | 2500 rpm | |
| LA(mm) | 159 | 189 | 204 | 219 | 166 | 171 | 179 | 192 | | 213 | 209 | 241 | 241 | 231 | |
| LB(mm) | 55 | 55 | 55 | 55 | 57 | 57 | 57 | 57 | | | 57 | | | 57 | |
| LC(mm) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | | 5 | | | 5 | |
| LD(mm) | 12 | 12 | 12 | 12 | 14 | 14 | 14 | 14 | | | 14 | | | 14 | |
| LE(mm) | 95 | 95 | 95 | 95 | 110 | 110 | 110 | 110 | | | 110 | | | 110 | |
| LF(mm) | 110 | 110 | 110 | 110 | 130 | 130 | 130 | 130 | | | 130 | | | 130 | |
| LG(mm) | 130 | 130 | 130 | 130 | 145 | 145 | 145 | 145 | | | 145 | | | 145 | |
| LZ(mm) | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | | 9 | | | 9 | |
| S(mm) | 19 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | | | 22 | | | 22 | |
| H(mm) | 21.5 | 21.5 | 21.5 | 21.5 | 24.5 | 24.5 | 24.5 | 24.5 | | | 24.5 | | | 24.5 | |
| W(mm) | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | 6 | | | 6 | |

110 Series (C Series)

130 Series (C Series)


| Model | LA (mm) |
|------------|---------|
| 130-040M25 | 159 |
| 130-050M25 | 164 |
| 130-060M25 | 172 |
| 130-077M25 | 185 |
| 130-100M15 | 206 |
| 130-100M25 | 202 |
| 130-150M15 | 234 |
| 130-150M25 | 224 |

150 Series


| Model | LA (mm) |
|------------|---------|
| 150-150M25 | 230 |
| 150-150M20 | 230 |
| 150-180M20 | 248 |
| 150-230M20 | 278 |
| 150-270M20 | 302 |

150 Series


| Model | LA (mm) |
|------------|---------|
| 180-172M15 | 226 |
| 180-190M15 | 232 |
| 180-215M20 | 243 |
| 180-270M10 | 262 |
| 180-270M15 | 262 |
| 180-350M10 | 292 |
| 180-350M15 | 292 |