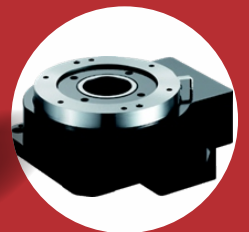


PRODUCT CATALOG

**3-Phase Standard
Hybrid Stepper Motors
Nema 23 to Nema 52**

**Precise and Reliable
Motion Control Solutions**

**Top Performance
High Reliability
Long Lifetime
Flexible Customization**



About Us

-Automate In A Better Way-

COMPANY

Reliable & Long-Term Partnership

Focused on Providing Comprehensive, Reliable and Precise Motion Control Solutions with High Quality & Competitive Pricing.
Rich Industrial Automation Experiences
Future Oriented Development Strategy
Open For Overseas Market Cooperation



RESEARCH & DEVELOPMENT

Deliver the Best

More than 15 Years Motion Control R&D Experiences of Key Experts
Wide International R&D Cooperation
Continuous Cutting-Edge & Practical Technology Implement
Flexible & Fast Customization

PRODUCTS

Beyond Your Expectation

Wide Range of Motion Control Solutions, Designed for Different Market Segments.
Top Level of Products Performance with High Reliability & Attractive Prices. .
100% Replacements of Top Brands with Extra Values and Benefits.

PRODUCTION

Deliver the Best

Strict Quality Control System
100% Functional Test
48 Hours Aging Test
ISO9001 Certificates of Factories
3C, UL, CE, RoHS, etc. Certificates.



Target Application Markets

Covering Majority of Automation Applications

Electronics and Semiconductors, CNC (Laser, Plasma, Water Jet, Cutting, Milling, Engraving, Polishing, Positioning, etc.), Machine Tools, Medical, Aerospace, Test Bed, Packaging(Marking, Labeling, Feeding, etc.), Sewing, Printing, Textile, Dying, Fabrication, Surveillance, Logistics, Factory Automation, Sorting, Farming, Robotics, Printing, Automotive, Telecom, SPM, etc.

SERVICES

Professional and In Time

7*24H Technical Support.
Remote and On-site Training
Local Market Co-marketing
≥18 Months Warranty (5Years for some products)
Quick Customization and Delivery

Reliability

Process

Technology

Innovation

Productivity

System


AUTOMATION

Repeatability

Control

Precision

Products and Applications

—Precise & Reliable Motion Control Solutions—

2 & 3 Phase Stepper Drive

Step & Step Servo Drive in One, 0.4-8.0A, DC(12-75V) and AC(80-265VAC), Pulse&DIR, CW&CCW, EtherCAT, CanOpen, Profinet Mode-bus Rich Special&Practical Functions, Wide Applications in High-End Market, Unique Design with Patents, Fast Customization.



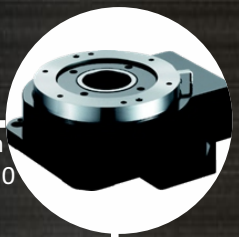
Auto Positioning Platform

Ultra Thin, Lightweight, Hollow structure, Hi Rigidity and Accuracy, Size in Full Range.



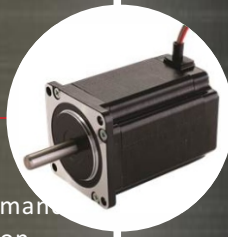
Rotar Actuators

Max. Torque 5-480N.m Reduction Ratio 5 to 250 IP65 Direct Connection Hollow Shaft Flexible Installation High Positioning Accuracy Easy Equipped with Moto



2 & 3 Phase Stepper Motor

Nema11 to Nema52, 0.07 to 33.0N.m, High Quality and Performance Low heating and Vibration, Hollow Shaft, Waterproof, High Speed etc. Fast Customization .



Planetary Gear Reducers

Round, Square, Right-angle Types, Size 28 to 120mm, Standard Precision 12-18arcmin, High Precision 3 and 5arcmin, Rich Reduction Ratios, High Input Speed, High Torque, >20000 hours Lifetime, Life-long Lubrication.



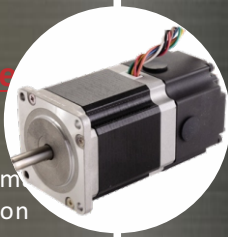
Electric Cylinders

Vertical, Horizontal, Guideway Reduction Ratio 5 to 250 IP65 Direct Connection Hollow Shaft Flexible Installation High Positioning Accuracy Easy Equipped with Moto



2 Phase Stepper Motor with Brake

Nema17 to Nema34 0.07 to 33.0N.m High Quality and Performance Low heating and Vibration Extra Long Lifetime Hollow Shaft, Waterproof, High Speed etc. Fast Customization



Brushless Products

30 to 750W 80 to 4000RPM Low Noise Low Vibration Low Heating Long Lifetime, Easy Maintenance Customization Supported



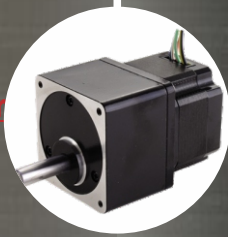
Electric Spindles

800W to above 30kW Water and Air Cooling Wood, Stone, Metal, Glass etc. High Precision and Performance Flexible Customization



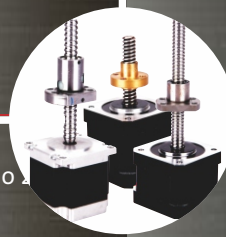
2 Phase Integrated Stepper Motor with Reducer

Nema17 to Nema34 0.2 to 12.0N.m Compact Design, High Reduction Ratios 1:3.6 to 1:100 High Smoothness Extra Long Lifetime Flexible Customization



2 Phase Linear Stepper Motor

Nema17 to Nema34 Rated Push Strength 5 to 20kg Lead 0.61 to 10mm Word-Class Lead Screw High performance Flexible Customization



Variable Frequency Drives

750W to above 30kW Vector Control Extra Long Life Time Rich Functions and Interfaces High Reliability



FACTORY AUTOMATION CUTTING MARKING ELECTRONIC
CABLING CNC LABELLING LASER MACHINE TOOL
METAL WORK PACKAGING MEDICAL SURVILLIANCE
TEXT BED SORTING WOOD WORK MARBLE WORK SEWING
GLASS WORK PLASMA ENGRAVING TEXTILE

3 Phase Stepper Motors Overview

Nema 23 to Nema 17

Model	Current A/Ø	Resistance Ω/Ø	Inductance mH/Ø	Holding Torque N.m	Rotor Inertia g.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive	Remarks
357HS045-5206S-42	5.2	1.3	1.1	0.45	100	6	0.48	42	Y3SD3	Y3SA3
357HS090-5606S-56	5.6	0.7	1.1	0.9	300	6	0.72	56	Y3SD3	Y3SA3
357HS150-5806S-70	5.8	1.05	1.3	1.5	480	6	1.1	79	Y3SD3	Y3SA3
360AHS090-5803S-55	5.8	0.32	0.8	0.9	260	3	0.8	54.5	Y3SD3	Y3SA3
360AHS150-5803S-77	5.8	0.50	1.3	1.5	460	3	1.3	76.5	Y3SD3	Y3SA3
386AHS190-5803S-67	5.8	0.38	2.4	1.9	1100	3	1.6	66.5	Y3SD3	Y3SA3
386HS226-1756S-67	1.75	4.25	12.3	2.26	1100	6	1.9	67	Y3SD3	Y3SA3
386HS452-2006S-97	2.0	5.4	23	4.52	1400	4	3.1	97	Y3SD3	Y3SA3
386HS452-5206S-97	5.2	1.1	6.8	4.52	1400	4	3.1	97	Y3SD3	Y3SA3
386HS452-5806S-97	5.8	0.9	3.2	4.52	1400	4	3.1	97	Y3SD3	Y3SA3
386HS678-2256S-127	2.25	9.0	41.0	6.78	2700	6	4.3	127	Y3SD3	Y3SA3
386HS678-5206S-127	5.2	2.75	13.7	6.78	2700	6	4.3	127	Y3SD3	Y3SA3
3110AHS900-4303S-139	4.3	1.00	11.9	9.0	8600	3	5.5	139.0	Y3SA3	Y3SD3
3110AHS1300-5003S-162	5.0	0.76	11.5	13.0	11900	3	7.1	162.0	Y3SA3	Y3SD3
3110AHS2500-6803S-221	6.8	1.24	22.0	25.0	19800	3	11.0	221.0	Y3SA3	Y3SD3
3110HS800-4304S-102	4.3	0.81	8.62	8	6000	4	5	102	Y3SD3	Y3SA3
3110HS1200-6004S-132	6.0	0.56	8.79	12.0	9720	4	6.5	132	Y3SD3	Y3SA3
3110HS1600-6504S-155	6.5	0.64	9.47	16.0	13560	4	8.9	155	Y3SD3	Y3SA3
3110HS2000-7004S-190	7.0	0.7	8.3	20.0	17400	4	11.0	190	Y3SD3	Y3SA3
3130AHS5000-6803S-280	6.8	0.95	19.0	28.0	34000	3	17	220	Y3SA3	Y3SD3
3130AHS3500-6803S-252	6.8	1.09	24.0	35.0	41400	3	19	252	Y3SA3	Y3SD3
3130AHS5000-6803S-280	6.8	1.08	18.3	50.0	47300	3	21	280	Y3SA3	Y3SD3

Stepper Drives Overview

2 Phase Compact DC Stepper Drive: Y2SD1R5

Item	Description
Input Voltage	12 to 48VDC
Output Current	0.4 to 3.0A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Micro Step Interpolation, Load Inertia Selection
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema 8 to Nema 17



2 Phase Compact DC Stepper Drive: Y2SD1R5 PLUS

Item	Description
Input Voltage	12 to 48VDC
Output Current	0.4 to 3.0A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Micro Step Interpolation, Load Inertia Selection, Alarm Output
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema11 to Nema17



2 Phase Regular DC Stepper Drive: Y2SD1

Item	Description
Input Voltage	12 to 48VDC
Output Current	0.3 to 2.2A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Micro Step Interpolation, Load Inertia Selection
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema17 and below
Power Suppliers	Adaptive to 2A and above DC Power Supplies



2 Phase Regular DC Stepper Drive: Y2SD2

Item	Description
Input Voltage	24 to 48VDC
Output Current	1.0 to 4.5A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 5-125 Micro Step Settings, From 1000 to 25000 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Alarm Output , Load Inertia Selection
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema17 to Nema34
Power Suppliers	Adaptive to 4A and above DC Power Supplies



2 Phase Regular DC Stepper Drive: Y2SD3

Item	Description
Input Voltage	24 to 75VDC
Output Current	2.4 to 7.8A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	8 Types, 2-256 Micro Step Settings, From 400 to 51200 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Alarm Output , Load Inertia Selection
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema23 to Nema47
Power Suppliers	Adaptive to 6A and above DC Power Supplies



2 Phase Regular DC Stepper Drive: Y2S3060

Item	Description
Input Voltage	20 to 60VDC
Output Current	0.9 to 3.0A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC
Micro Step Range	8 Types, 2-256 Micro Step Settings, From 400 to 51200 Pules/Round
Idle Current	Continuously Adjustable
Special Functions	Auto Tuning, Self Test, Load Inertia Selection
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema17 to Nema23
Power Suppliers	Adaptive to 4A and above DC Power Supplies



Stepper Drives Overview

2 Phase High-voltage AC Stepper Drive: Y2SA1

Item	Description
Input Voltage	80 to 265VAC
Output Current	0.6 to 2.5A (Peak)
Control Mode	Pulse and Direction,
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Alarm Output , Load Inertia Selection
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema23 to Nema34
Power Suppliers	Adaptive to 6A and above DC Power Supplies



2 Phase High-voltage AC Stepper Drive: Y2SA2

Item	Description
Input Voltage	80 to 265VAC
Output Current	0.4 to 4.0A (Peak)
Control Mode	Pulse and Direction, CW and CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	25%, 50%, 70% or 90% by Setting DIP Switch
Special Functions	Auto Tuning, Self Test, Alarm Output , Micro Step Interpolation Load Inertia Optimization
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema23 to Nema47
Power Suppliers	No Need AC/DC Power Supplies or Transformers



2 Phase High-voltage AC Stepper Drive: Y2SA3

Item	Description
Input Voltage	80 to 265VAC
Output Current	0.4 to 8.0A (Peak)
Control Mode	Pulse and Direction, CW and CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	25%, 50%, 70% or 90% by Setting DIP Switch
Special Functions	Auto Tuning, Self Test, Alarm Output , Micro Step Interpolation, Load Inertia Optimization
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema23 to Nema47
Power Suppliers	No Need AC/DC Power Supplies or Transformers



3 Phase High-Voltage AC Stepper Drive: Y3SA3

Item	Description
Input Voltage	80 to 265VAC
Output Current	0.4 to 8.0A (Peak)
Control Mode	Pulse and Direction, CW and CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Idle Current	25%, 50%, 70% or 90% by Setting DIP Switch
Special Functions	Auto Tuning, Self Test, Alarm Output , Micro Step Interpolation, Load Inertia Optimization
Input signal Filtering	150KHz Digital Filtering for Low Micro Step Scenarios 2MHz Digital Filtering for High Micro Step Scenarios
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Stepper Motors of Nema23 to Nema47
Power Suppliers	No Need AC/DC Power Supplies or Transformers



3 Phase Regular DC Stepper Drive: Y3SD3

Item	Description
Input Voltage	24 to 75VDC
Output Current	1.5 to 7.8A (Peak)
Control Mode	Pulse and Direction, CW & CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	8 Types, 5-256 Micro Step Settings, From 1000 to 51200 Pules/Round
Idle Current	50% or 90% by Setting Jumpers
Special Functions	Auto Tuning, Self Test, Alarm Output , Load Inertia Selection
Input signal Filtering	Available, not Open.
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection
Matching Motors	Adaptive to Three Phase Stepper Motors
Power Suppliers	Adaptive to 6A and above DC Power Supplies



2 Phase Regular DC Step Servo Drive: Y2SS3

Item	Description
Input Voltage	24 to 75VDC
Output Current	1.0 to 4.5A (Peak)
Control Mode	Pulse and Direction, CW and CCW
Control Signal	5VDC and 24VDC Compatible
Micro Step Range	16 Types, 1-128 Micro Step Settings, From 200 to 25600 Pules/Round
Special Functions	Auto Tuning, Alarm Output , Load Inertia Optimization, Load Current Automatic Adjustment
Input signal Filtering	Available, not Open
Protection	Metal, High EMC Performance, Multi-Level Electrical Protection



Power Supplies Overview

150W to 360W

■ Technical Features

Disadvantages of Regular AC/DC Switch Power Supplies:

- **Low-voltage Protection**
Caused by big starting current of stepper motors, which causes malfunction of drives.
- **High-voltage Protection & Over-current Protection**
Caused by feed-back current when a stepper motor decelerating.
- **Potential Damages of Drive's Electronic Circuits & Performance of Machines**



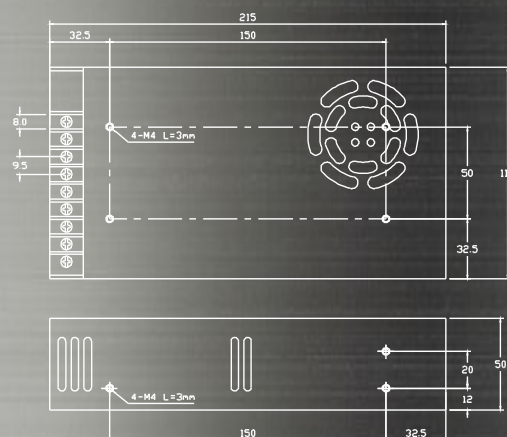
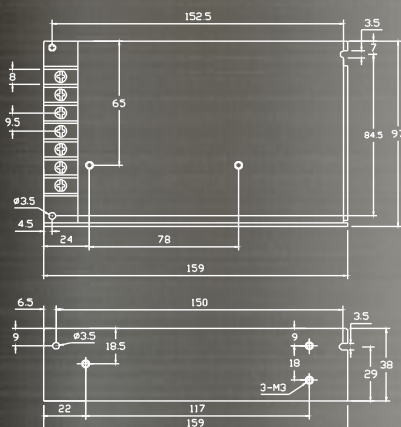
Advantages of Our Specially Designed Motion Control Power Supplies:

- **Wide Operation Voltage Range**
- **High Over-load Ratio**
- **Shortcut Protection, Over-load Protection, Over-voltage Protection**
- **Big Output Side Capacitor enables High Output Voltage Compatibility**
- **High Efficiency, Low Heating**
- **3-years Warranty**

■ Specifications

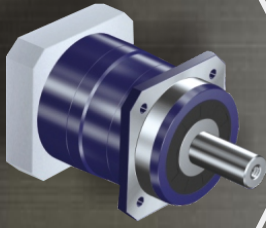
Model	Output Voltage	Output Current	Input Voltage	Dimensions mm	Weight kg
KF-150-24	24VDC	6.25 A	100~120VAC 200~240VAC	159*97*38	0.5
KF-350-24	24VDC	14.6 A	100~120VAC 200~240VAC	215*115*50	0.8
KF-150-36	36VDC	4.2 A	100~120VAC 200~240VAC	159*97*38	0.5
KF-350-36	36VDC	10A	100~120VAC 200~240VAC	215*115*50	0.8

■ Mechanical Dimensions in mm



Helical Gear Precision Planetary Gear Reducers

Matching All Motors

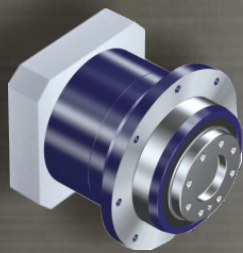
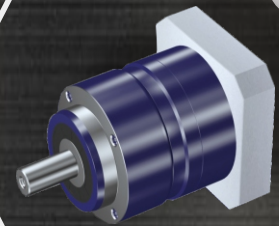


AF Series

Frame Size(mm)	: 60, 90, 110, 145, 180;
Reduction Ratios	: 3 to 10 (1 Stage), 15 to 100 (2 Stage);
Backlash	: 3 arcmin, 5 arcmin, 7 arcmin;
Input & Output Shaft Type	: All Main Stream, Customizable;
Average Lifetime	: >20000 Hours

AL Series

Frame Size(mm)	: 70, 90, 120, 155, 2095;
Reduction Ratios	: 3 to 10 (1 Stage), 15 to 100 (2 Stage);
Backlash	: 5 arcmin, 7 arcmin;
Input & Output Shaft Type	: All Main Stream, Customizable;
Average Lifetime	: >20000 Hours

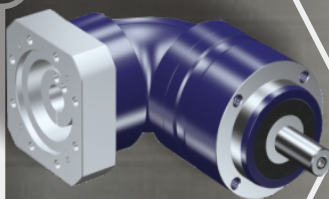
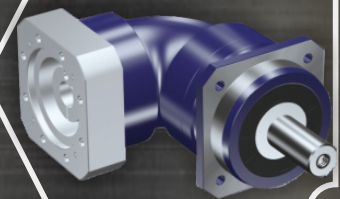


AH Series

Frame Size(mm)	: 64, 90, 110;
Reduction Ratios	: 4 to 10 (1 Stage), 16 to 100 (2 Stage);
Backlash	: 3 arcmin, 5 arcmin;
Input & Output Shaft Type	: All Main Stream, Customizable;
Average Lifetime	: >20000 Hours

ZAF Series

Frame Size(mm)	: 60, 90, 115, 140;
Reduction Ratios	: 3 to 10 (1 Stage), 16 to 100 (2 Stage);
Backlash	: 6 arcmin, 9 arcmin;
Input & Output Shaft Type	: All Main Stream, Customizable;
Average Lifetime	: >20000 Hours



ZAL Series

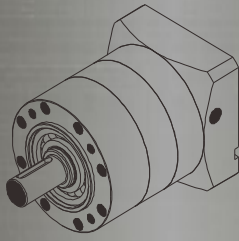
Frame Size(mm)	: 70, 90, 120, 155;
Reduction Ratios	: 3 to 10 (1 Stage), 16 to 100 (2 Stage);
Backlash	: 6 arcmin, 9 arcmin;
Input & Output Shaft Type	: All Main Stream, Customizable;
Average Lifetime	: >20000 Hours

Spur Gear Precision Planetary Gear Reducers

Matching All Motors

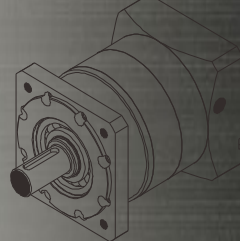
PLE series reducer (PLE060 PLE090 PLE120 PLE160)

4 optional size	60mm, 90mm, 120mm, 160mm	
Rated output torque	8.5Nm~680.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	3-stage	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <3 arc-min Standard: <8 arc-min
	2-stage	Precision: <5 arc-min Standard: <10 arc-min
	3-stage	Precision: <8 arc-min Standard: <12 arc-min



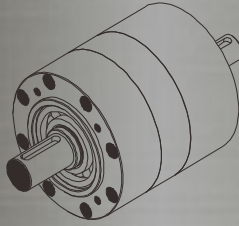
PLF series reducer (PLF060 PLF090 PLF120 PLF160)

4 optional size	60mm, 90mm, 120mm, 160mm	
Rated output torque	8.5Nm~680.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	3-stage	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <3 arc-min Standard: <8 arc-min
	2-stage	Precision: <5 arc-min Standard: <10 arc-min
	3-stage	Precision: <8 arc-min Standard: <12 arc-min



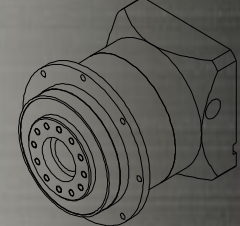
PLS series reducer (PLS060 PLS090 PLS120 PLS160)

4 optional size	60mm, 90mm, 120mm, 160mm	
Rated output torque	8.5Nm~680.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	3-stage	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <3 arc-min Standard: <8 arc-min
	2-stage	Precision: <5 arc-min Standard: <10 arc-min
	3-stage	Precision: <8 arc-min Standard: <12 arc-min



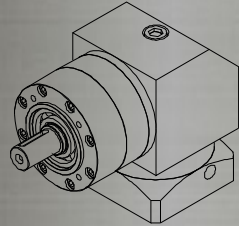
PLH series reducer (PLH064 PLH090 PLH120 PLH160)

4 optional size	64mm, 90mm, 120mm, 160mm	
Rated output torque	8.5Nm~680.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	3-stage	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <3 arc-min Standard: <8 arc-min
	2-stage	Precision: <5 arc-min Standard: <10 arc-min
	3-stage	Precision: <8 arc-min Standard: <12 arc-min



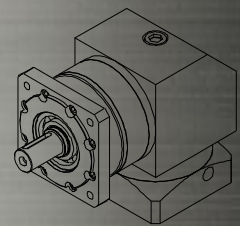
ZPLE series reducer (ZPLE060 ZPLE090 ZPLE120 ZPLE16)

4 optional size	60mm, 90mm, 120mm, 160mm	
Rated output torque	8.5Nm~680.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	3-stage	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <3 arc-min Standard: <8 arc-min
	2-stage	Precision: <5 arc-min Standard: <10 arc-min
	3-stage	Precision: <8 arc-min Standard: <12 arc-min



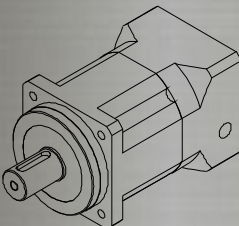
ZPLF series reducer (ZPLF060 ZPLF090 ZPLF120 ZPLF160)

4 optional size	60mm, 90mm, 120mm, 160mm	
Rated output torque	8.5Nm~680.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	3-stage	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <3 arc-min Standard: <8 arc-min
	2-stage	Precision: <5 arc-min Standard: <10 arc-min
	3-stage	Precision: <8 arc-min Standard: <12 arc-min



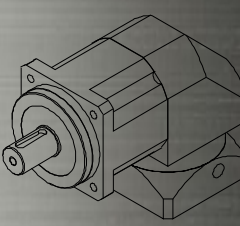
142 AB series reducer (AB060 AB090 AB120 AB160 AB220 AB280 AB350 AB400 AB115 AB)

9 optional size	80mm, 90mm, 115mm, 142mm, 180mm, 220mm, 280mm, 355mm, 400mm	
Rated output torque	18.5Nm~9800.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	9, 15, 20, 25, 30, 35, 40, 50, 70, 1000
	3-stage	64, 80, 100, 150, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <4 arc-min Standard: <8 arc-min
	2-stage	Precision: <6 arc-min Standard: <10 arc-min
	3-stage	Precision: <7 arc-min Standard: <18 arc-min



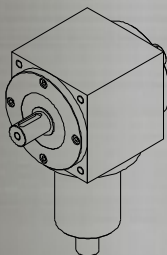
ABR series reducer (ABR060 ABR090 ABR115 ABR142 ABR180 ABR220 ABR280)

7 optional size	80mm, 90mm, 115mm, 142mm, 180mm, 220mm, 280mm	
Rated output torque	18.5Nm~5120.0Nm	
Ratio	1-stage	3, 4, 5, 7, 10
	2-stage	9, 15, 20, 25, 30, 35, 40, 50, 70, 1000
	3-stage	64, 80, 100, 150, 200, 250, 350, 400, 500, 700, 1000
backlash	1-stage	Precision: <5 arc-min Standard: <8 arc-min
	2-stage	Precision: <7 arc-min Standard: <10 arc-min
	3-stage	Precision: <9 arc-min Standard: <18 arc-min



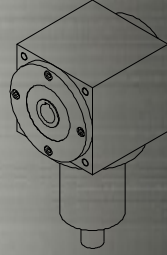
21 VS series reducer (VS09 VS11 VS14 VS17 VS)

7 optional size	90mm, 110mm, 140mm, 170mm, 210mm, 240mm, 280mm	
The allowable input power	1.1KW~138KW	
Ratio	1, 1.5, 2, 3, 4, 5	



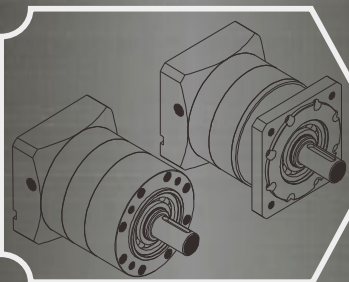
VA series reducer (VA09 VA11 VA14 VA17 VA21 VA24 VA28)

7 optional size	90mm, 110mm, 140mm, 170mm, 210mm, 240mm, 280mm	
The allowable input power	1.1KW~188KW	
Ratio	1, 1.5, 2, 3, 4, 5	



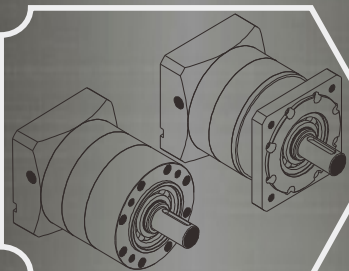
Cost-effective Planetary Gear Reducer

Matching Stepper Motors



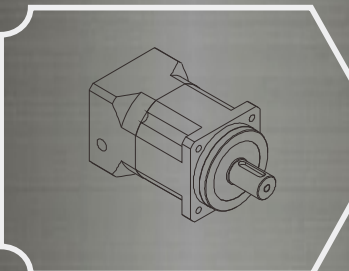
DLE42 & DLF42 Series

Frame Size(mm) : 42mm;
Reduction Ratios : 1:4/5/8/10/16/20/25/40/50/64/80/100/125/160/200
Backlash : 30 arcmin, 40 arcmin, 60 arcmin;
Input & Output Shaft Type: All Main Stream, Customizable;
Average Lifetime : >20000 Hours



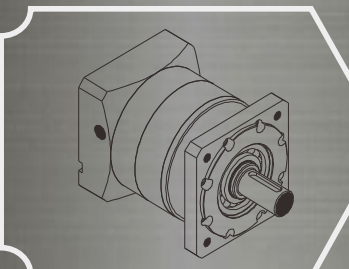
DLEP42 & DLFP42 Series

Frame Size(mm) : 42mm;
Reduction Ratios : 1:4/5/8/10/16/20/25/40/50/64/80/100/125/160/200
Backlash : 15 arcmin, 20 arcmin, 30 arcmin;
Input & Output Shaft Type: All Main Stream, Customizable;
Average Lifetime : >20000 Hours



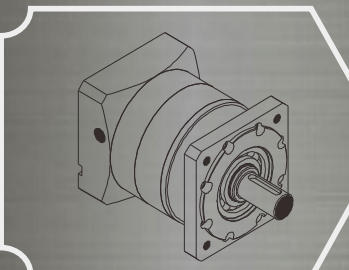
DLFS42 Series

Frame Size(mm) : 42mm;
Reduction Ratios : 1:4/5/7/10/16/20/25/28/35/40/50/70/100
Backlash : 5 arcmin, 7 arcmin;
Input & Output Shaft Type: All Main Stream, Customizable;
Average Lifetime : >20000 Hours



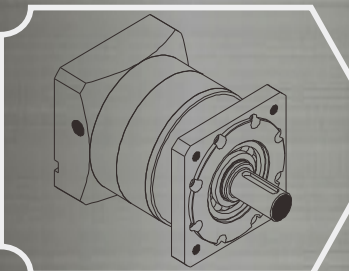
DLF57 Series

Frame Size(mm) : 57mm;
Reduction Ratios : 1:4/5/7/10/16/20/25/28/35/40/50/70/64/80/100/125/140/175/200
Backlash : 20 arcmin, 30 arcmin, 50 arcmin
Input & Output Shaft Type: All Main Stream, Customizable;
Average Lifetime : >20000 Hours



DLFP57 Series

Frame Size(mm) : 57mm;
Reduction Ratios: 1:4/5/7/10/16/20/25/28/35/40/50/70/64/80/100/125/140/175/200
Backlash : 15 arcmin, 20 arcmin, 30 arcmin;
Input & Output Shaft Type: All Main Stream, Customizable;
Average Lifetime : >20000 Hours



DLF86 Series

Frame Size(mm) : 86mm;
Reduction Ratios: 1:4/5/7/10/16/20/25/28/35/40/50/70/64/80/100/125/140/175/200
Backlash : 10 arcmin, 15 arcmin, 25 arcmin;
Input & Output Shaft Type: All Main Stream, Customizable;
Average Lifetime : >20000 Hours

Content of 3 Phase Hybrid Stepper Motors

Nema 23 to Nema 42

Advantages

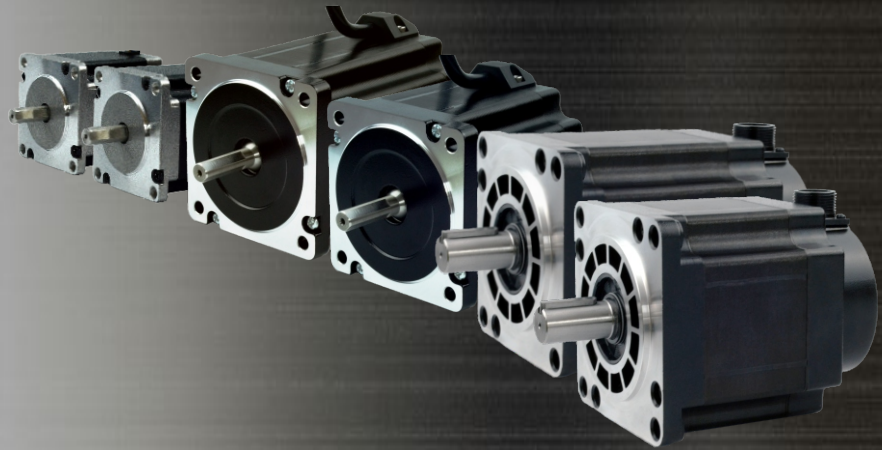
High Quality

Cost-effectiveness

Fast Delivery

Rich Experiences

Flexible Customization



Contents

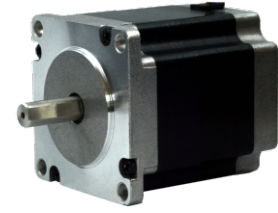
P1.	357HS045	P11.	3110AHS1300
P2.	357HS090	P12.	3110AHS2500
P3.	357HS150	P13.	3110HS800
P4.	360AHS090	P14.	3110HS1200
P5.	360AHS150	P15.	3110HS1600
P6.	386AHS190	P16.	3110HS2000
P7.	386HS226	P17.	3130AHS2800
P8.	386HS452	P18.	3130AHS3500
P9.	386HS678	P19.	3130AHS5000
P10.	3110AHS900		

Naming Rules



Specifications

Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC

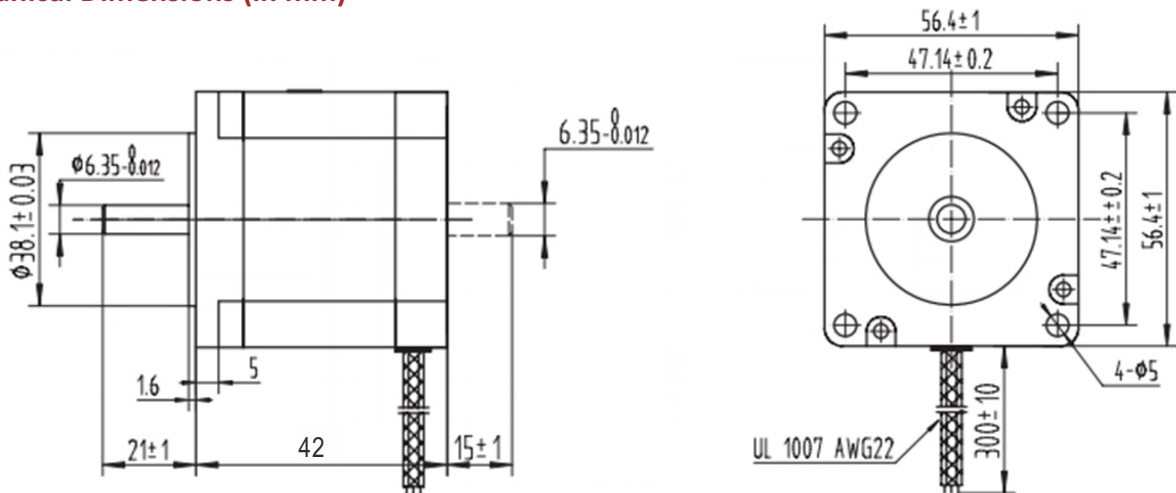


Highlights:

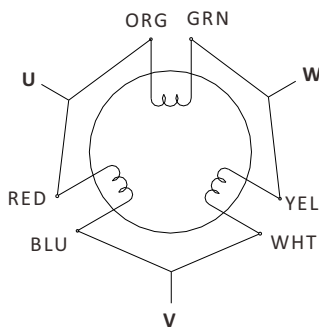
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Detent Torque	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m	N.cm	g.cm ²	# of Leads	kg	mm
357HS045-5206S-42	5.2	1.3	1.1	0.45	0.21	100	Bi (6)	0.48	42

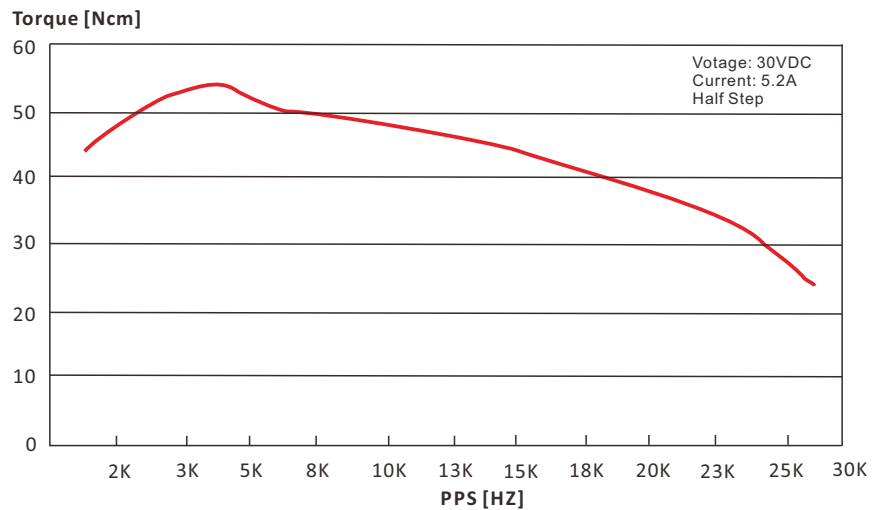
Mechanical Dimensions (in mm)



Wiring Diagram

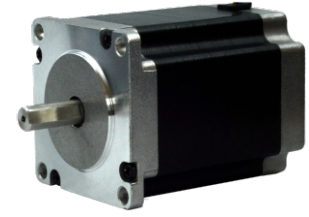


Torque Speed Curve



Specifications

Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC

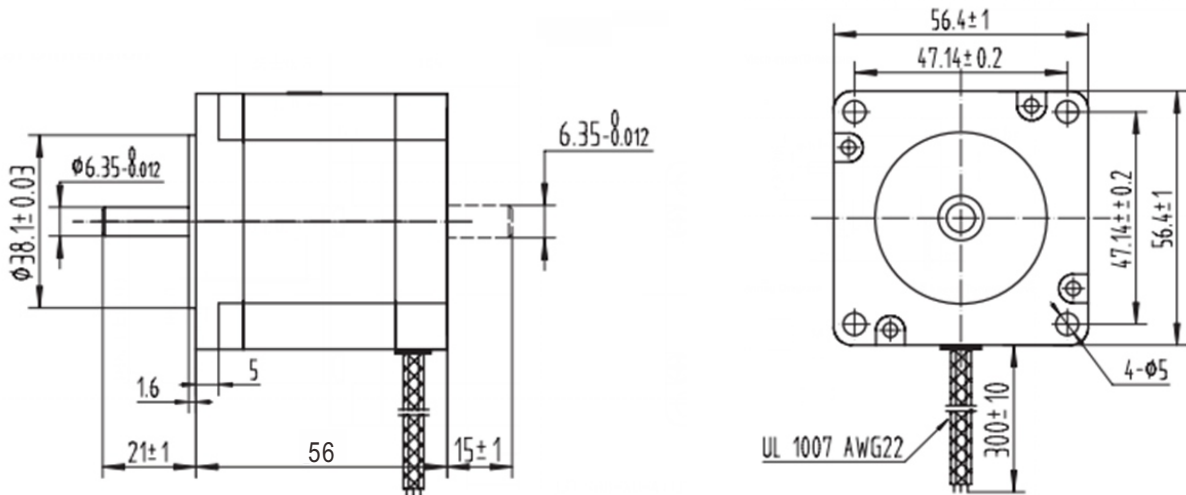


Highlights:

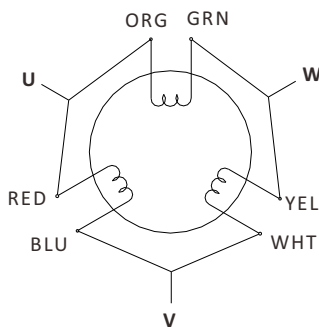
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Detent Torque	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m	N.cm	g.cm ²	# of Leads	kg	mm
357HS090-5606S-56	5.6	0.7	1.1	0.9	0.4	300	Bi (6)	0.72	56

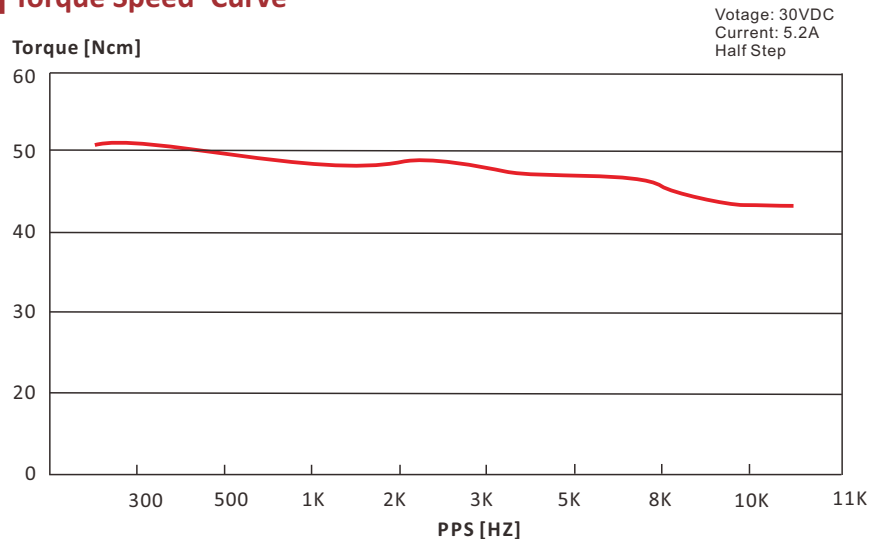
Mechanical Dimensions (in mm)



Wiring Diagram

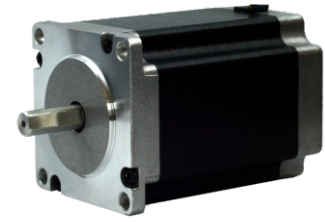


Torque Speed Curve



Specifications

Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC

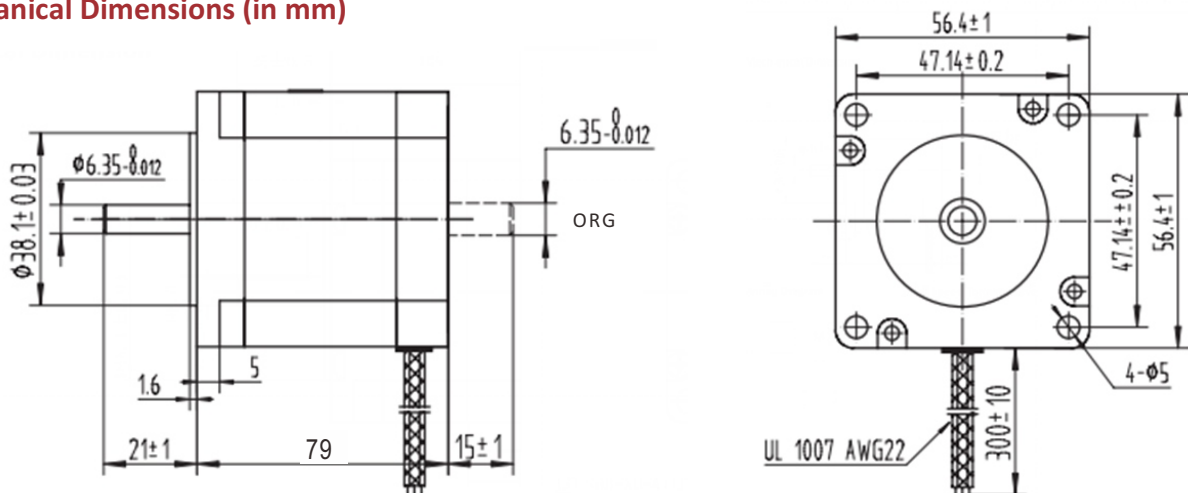


Highlights:

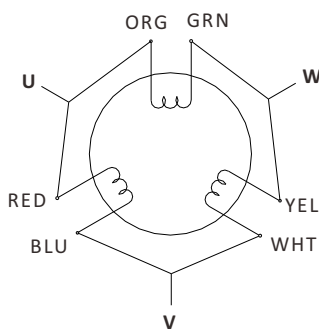
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Detent Torque	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m	N.cm	g.cm ²	# of Leads	kg	mm
357HS150-5806S-70	5.8	1.05	1.3	1.5	0.68	480	Bi (6)	1.1	79

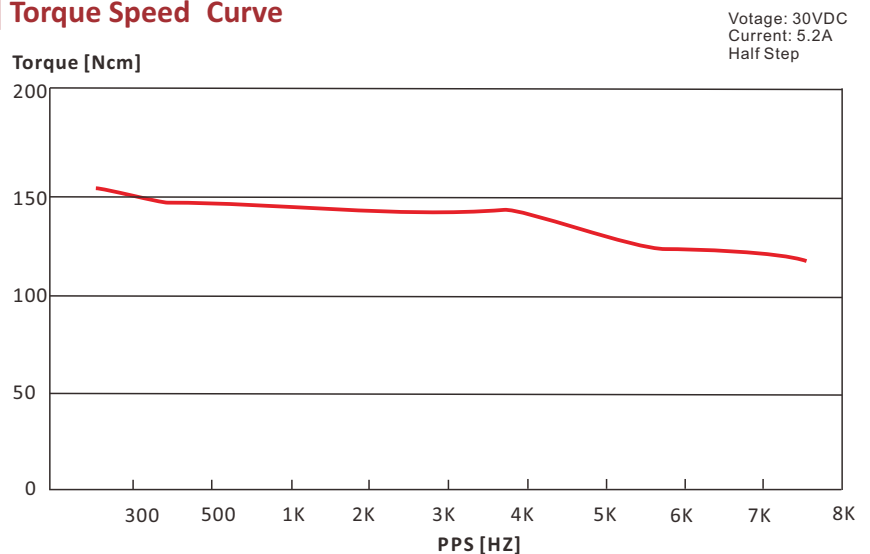
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve



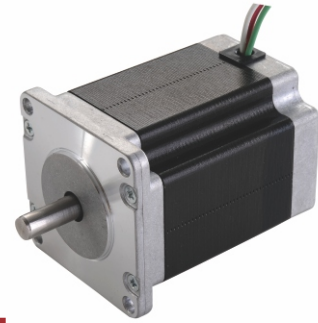
Voltage: 30VDC
Current: 5.2A
Half Step

360AHS090

Nema 24, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (Rated Current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Max. Axial Load	15N
Max. Radial Load	90N (15mm from mounting Surface)
Certificates	Rohs, CE, CCC

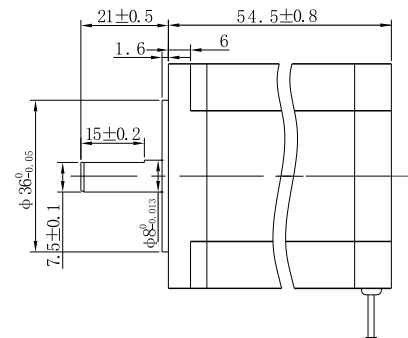
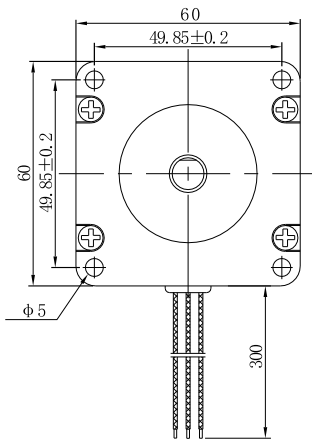


Highlights:

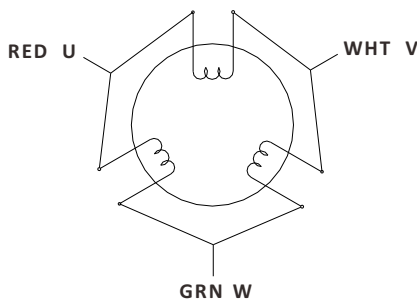
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia g.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
360AHS090-5803S-55	5.8	0.32	0.8	0.9	260	3	0.8	54.5	Y3SD3

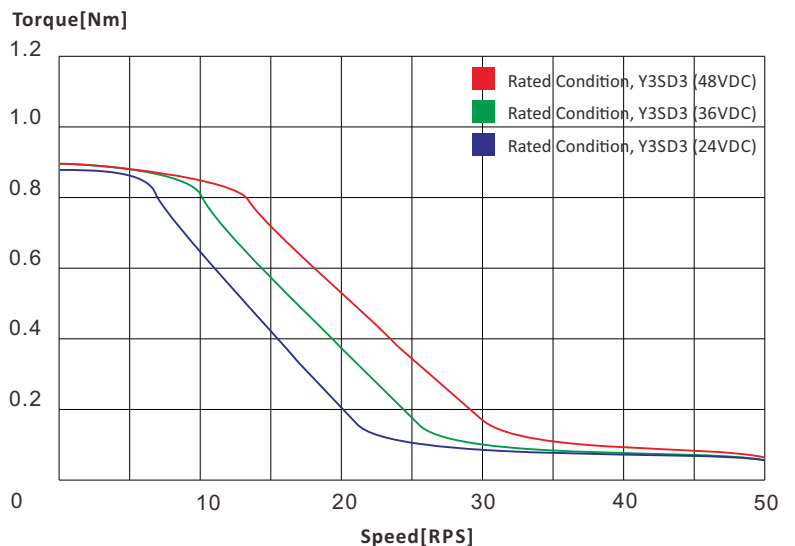
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curves

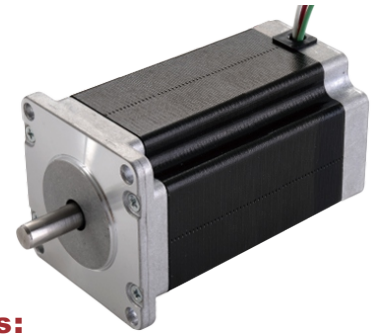


360AHS150

Nema 24, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (Rated Current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Max. Axial Load	15N
Max. Radial Load	90N (15mm from mounting Surface)
Certificates	Rohs, CE, CCC

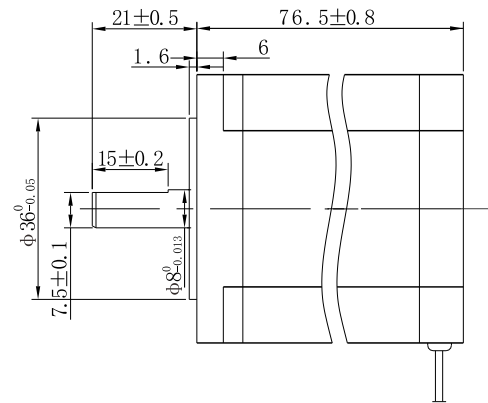
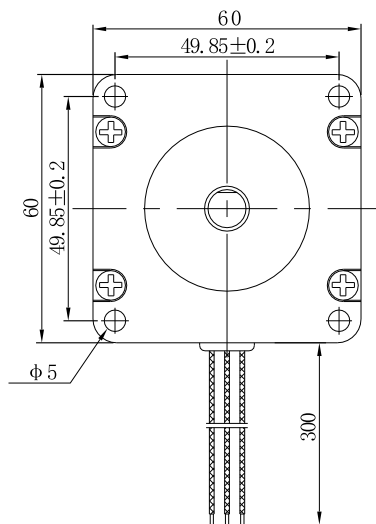


Highlights:

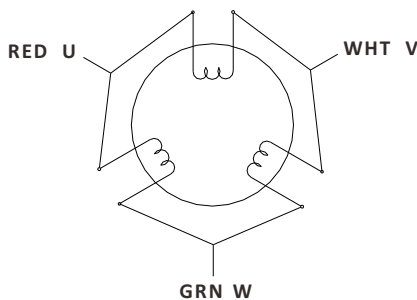
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia g.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
360AHS150-5803S-77	5.8	0.50	1.3	1.5	460	3	1.3	76.5	Y3SD3

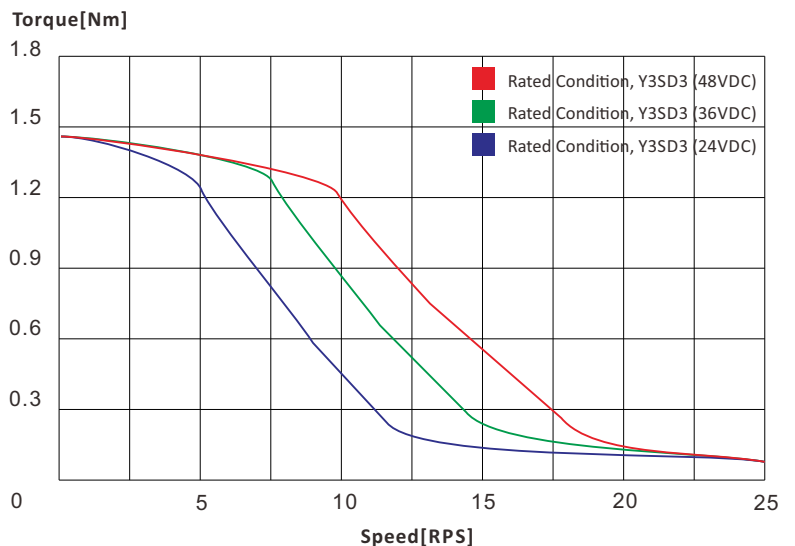
Mechanical Dimensions (in mm)



Wiring Diagram

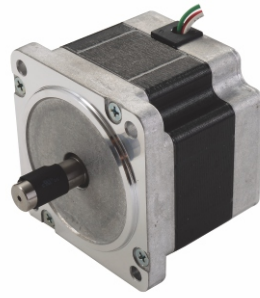


Torque Speed Curves



386AHS190

Nema 34, 3 Phase Standard Hybrid Stepper Motors



Specifications

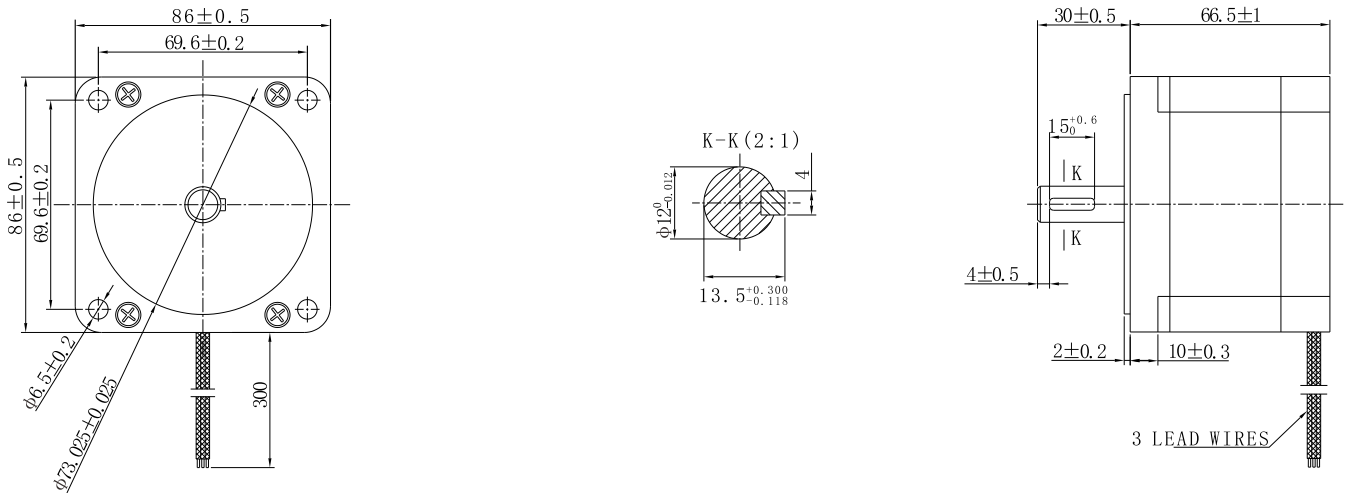
Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (Rated Current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Max. Axial Load	60N
Max. Radial Load	320N (20mm from mounting Surface)
Certificates	Rohs, CE, CCC

Highlights:

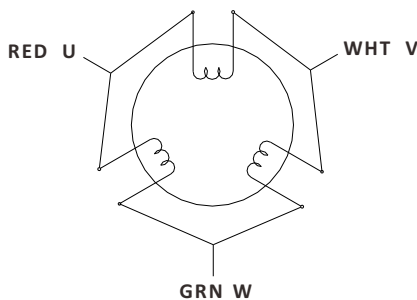
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
386AHS190-5803S-67	5.8	0.38	2.4	1.9	1.1	3	1.6	66.5	Y3SD3

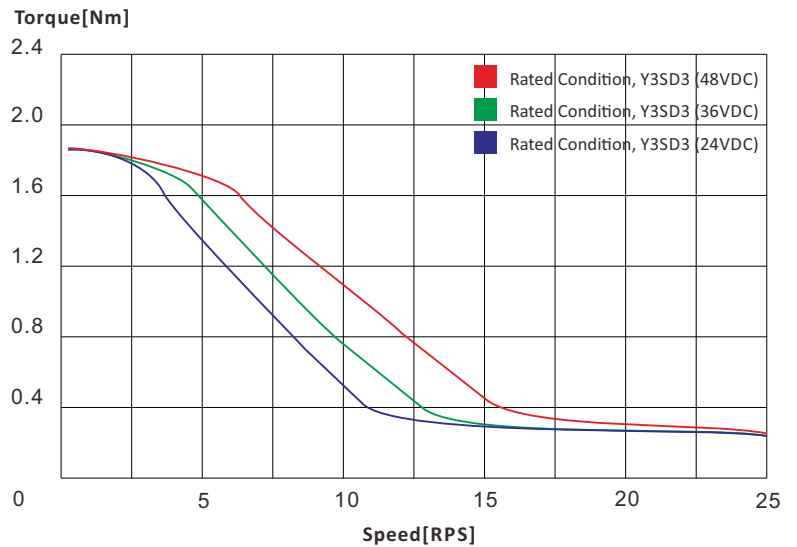
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curves



Specifications

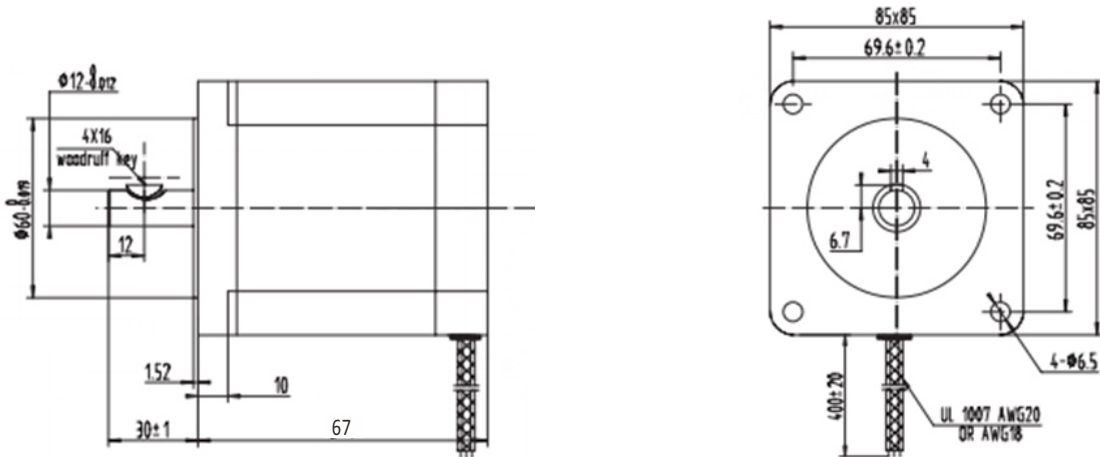
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



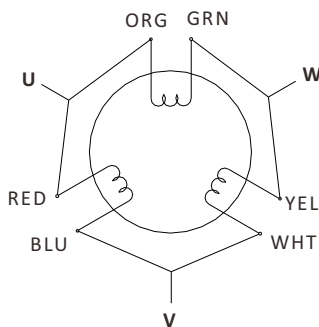
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Detent Torque	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m	N.cm	g.cm ²	# of Leads	kg	
386HS226-1756S-67	1.75	4.25	12.3	2.26	1	1100	Bi (6)	1.9	67

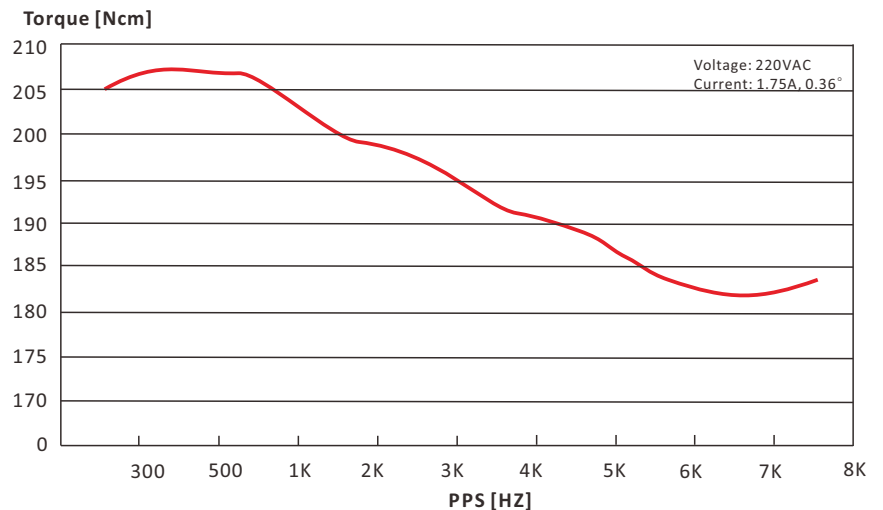
Mechanical Dimensions (in mm)



Wiring Diagram

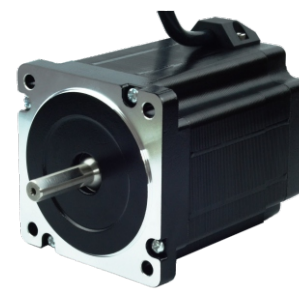


Torque Speed Curve



Specifications

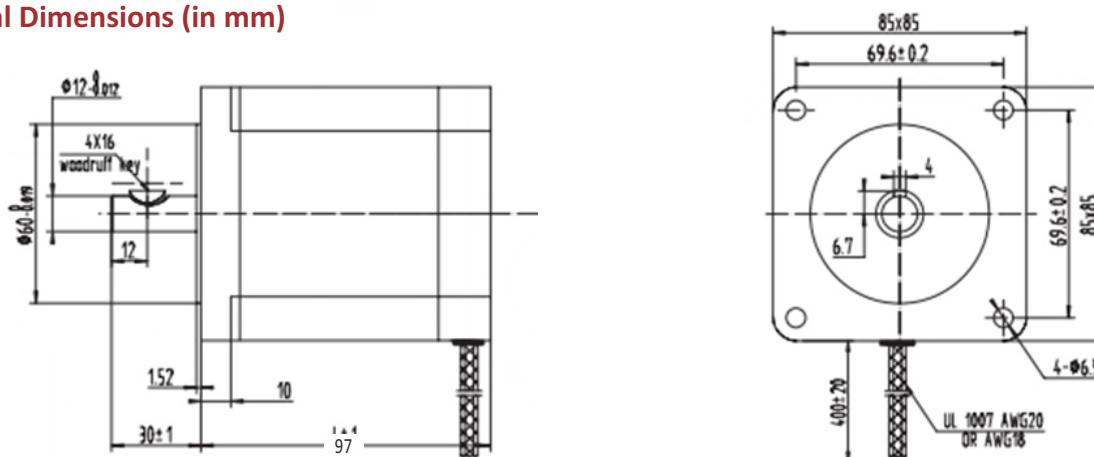
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



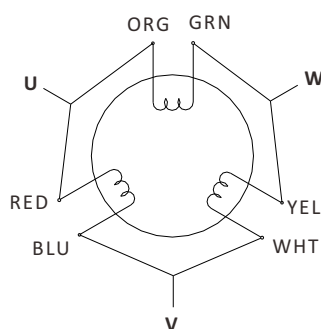
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Detent Torque	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m	N.cm	g.cm ²	# of Leads	kg	mm
386HS452-2006S-97	2.0	5.4	23	4.52	2	1400	Bi (4)	3.1	97
386HS452-5206S-97	5.2	1.1	6.8	4.52	2	1400	Bi (4)	3.1	97
386HS452-5806S-97	5.8	0.9	3.2	4.52	2	1400	Bi (4)	3.1	97

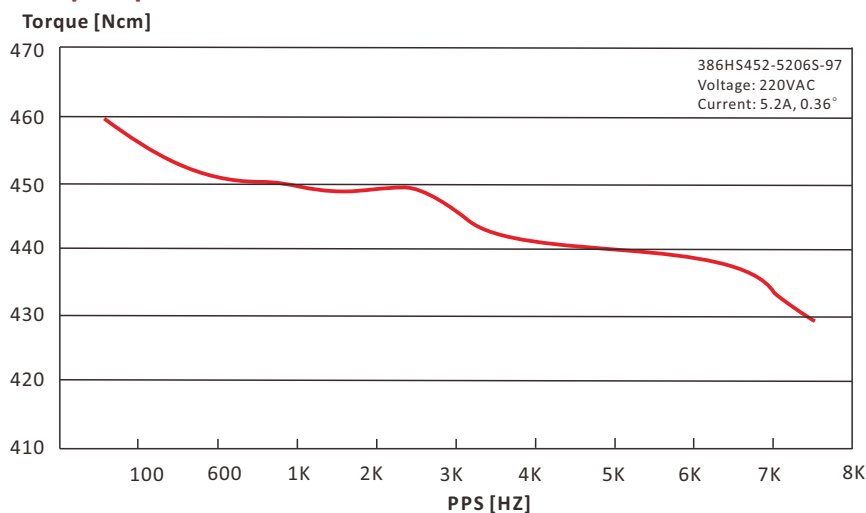
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve



386HS678 Series

Nema 34, 3 Phase Standard Hybrid Stepper Motors

Specifications

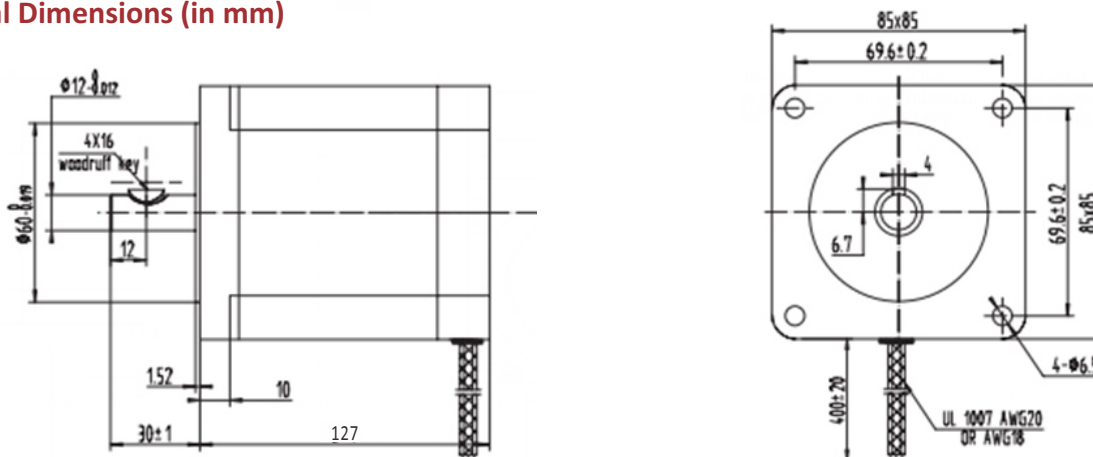
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



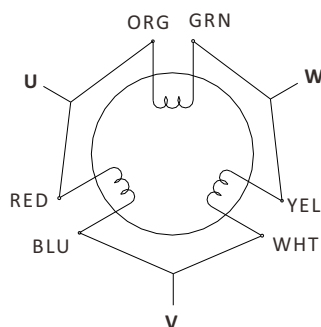
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Detent Torque	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m	N.cm	g.cm ²	# of Leads	kg	mm
386HS678-2256S-127	2.25	9.0	41.0	6.78	3	2700	Bi (6)	4.3	127
386HS678-5206S-127	5.2	2.75	13.7	6.78	3	2700	Bi (6)	4.3	127

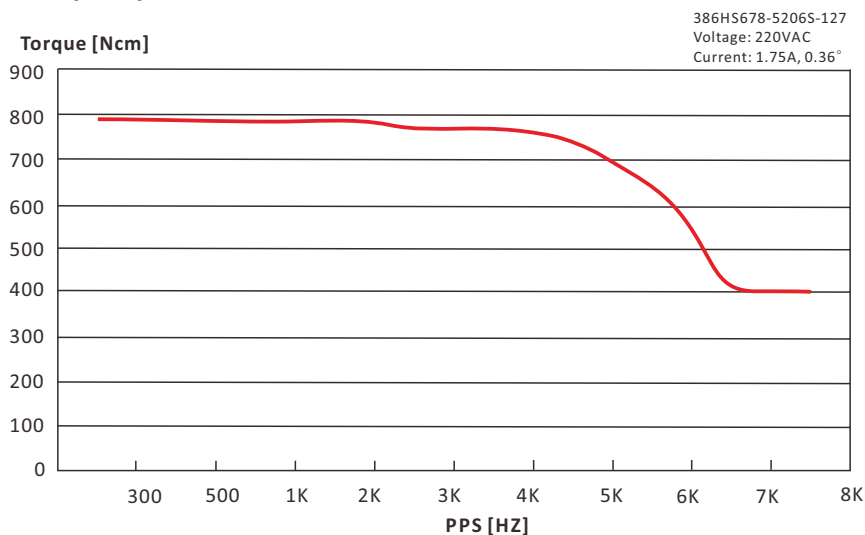
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve



3110AHS900

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (rated current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Max. Axial Load	150N
Max. Radial Load	490N (25mm from mounting Surface)
Certificates	Rohs, CE, CCC

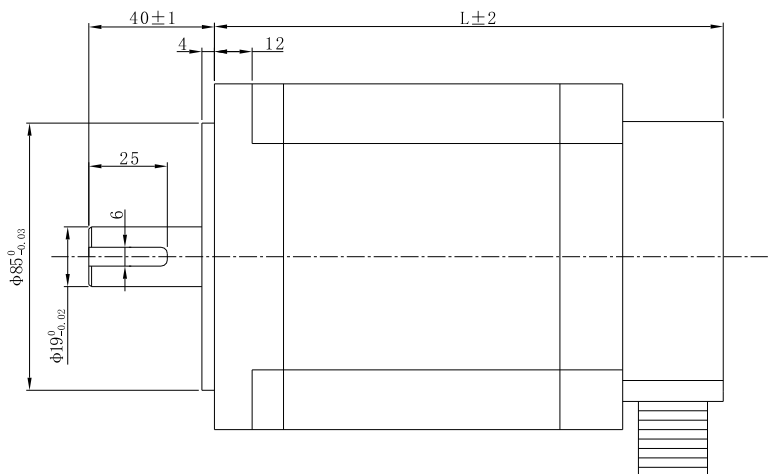
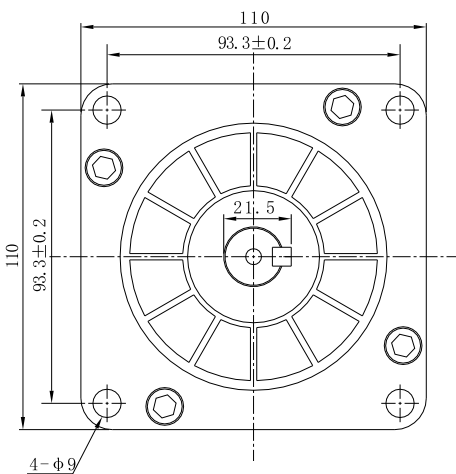


Highlights:

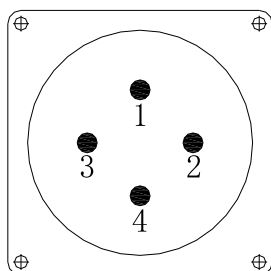
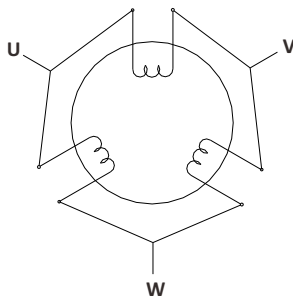
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
3110AHS900-4303S-139	4.3	1.00	11.9	9.0	8.6	3	5.5	139.0	Y3SA3

Mechanical Dimensions (in mm)



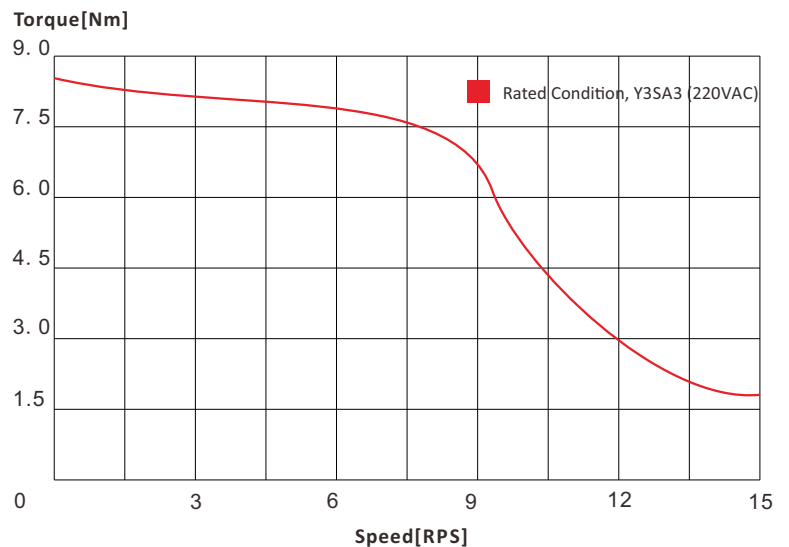
Wiring Diagram



4 Cores Aviation Plug

- 1: U
- 2: V
- 3: W
- 4: Grounding

Torque Speed Curves



3110AHS1300

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (rated current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Max. Axial Load	150N
Max. Radial Load	490N (25mm from mounting Surface)
Certificates	Rohs, CE, CCC

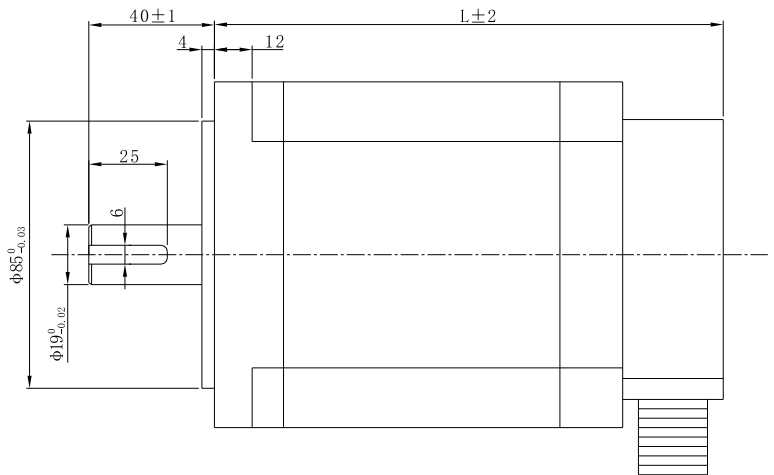
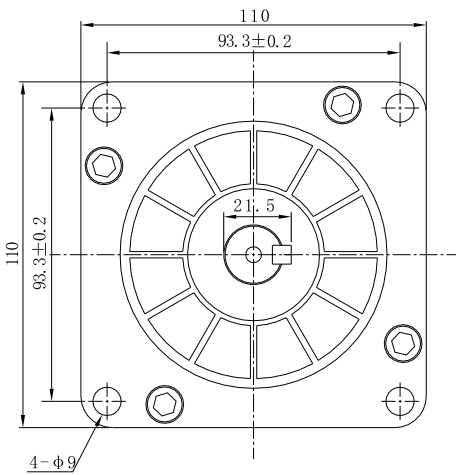


Highlights:

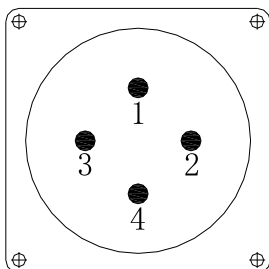
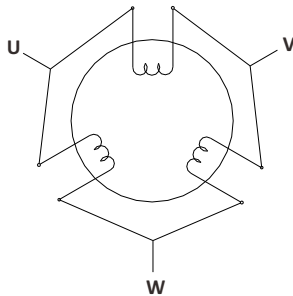
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
3110AHS1300-5003S-162	5.0	0.76	11.5	13.0	11.9	3	7.1	162.0	Y3SA3

Mechanical Dimensions (in mm)



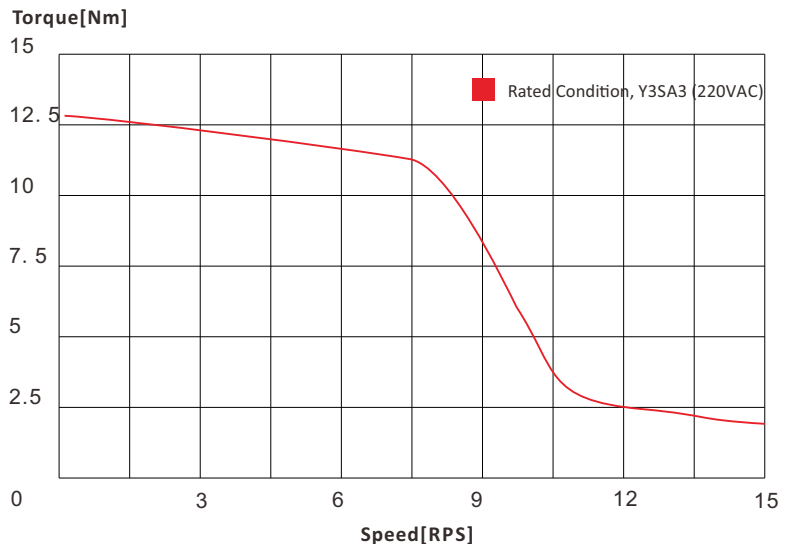
Wiring Diagram



4 Cores Aviation Plug

- 1: U
- 2: V
- 3: W
- 4: Grounding

Torque Speed Curves

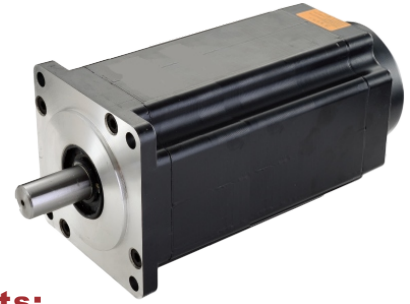


3110AHS2500

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (rated current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Max. Axial Load	150N
Max. Radial Load	490N (25mm from mounting Surface)
Certificates	Rohs, CE, CCC

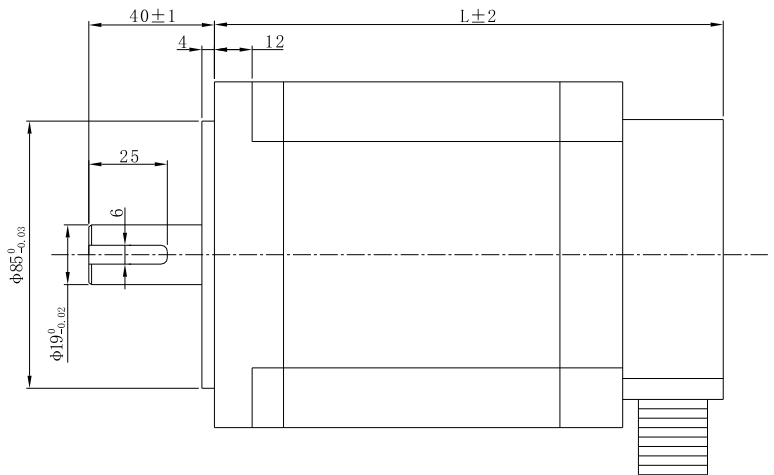
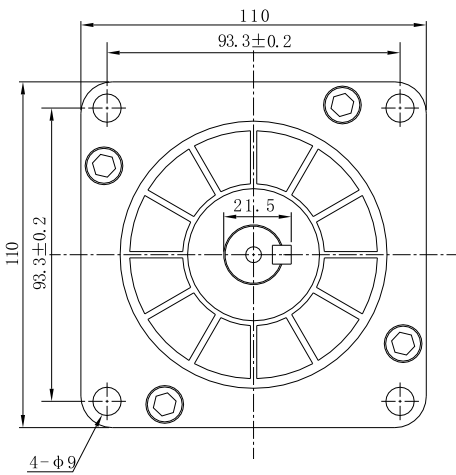


Highlights:

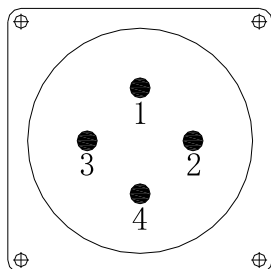
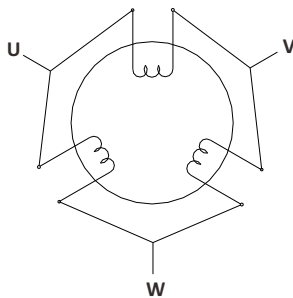
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
3110AHS2500-6803S-221	6.8	1.24	22.0	25.0	19.8	3	11.0	221.0	Y3SA3

Mechanical Dimensions (in mm)



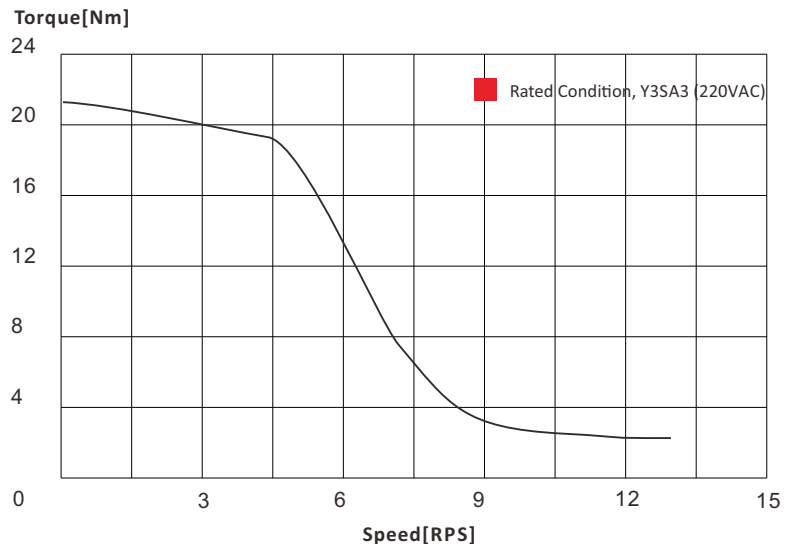
Wiring Diagram



4 Cores Aviation Plug

- 1: U
- 2: V
- 3: W
- 4: Grounding

Torque Speed Curves

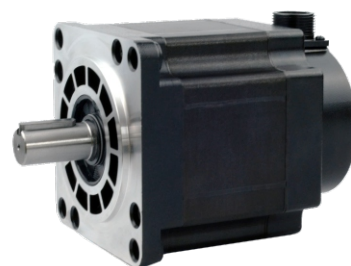


3110HS800

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

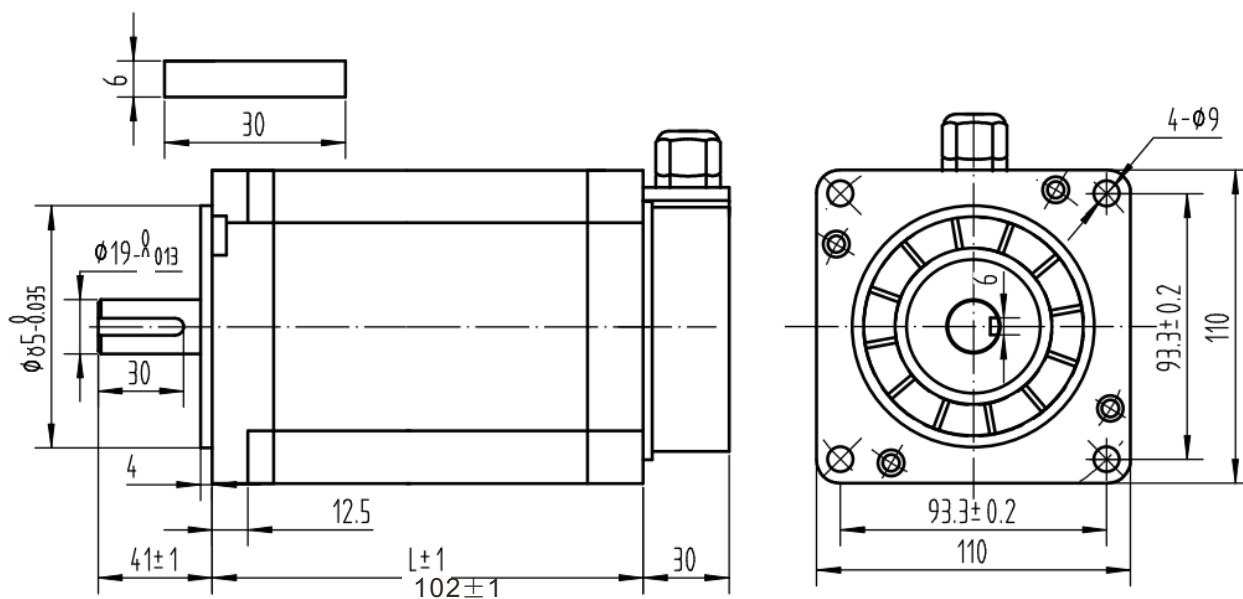
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



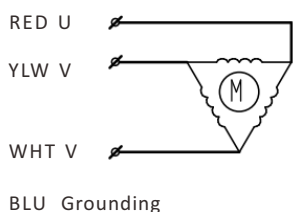
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Cable Type	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m		g.cm ²	# of Leads	kg	mm
3110HS800-4304S-102	4.3	0.81	8.62	8	Connector	6000	Bi (4)	5	102

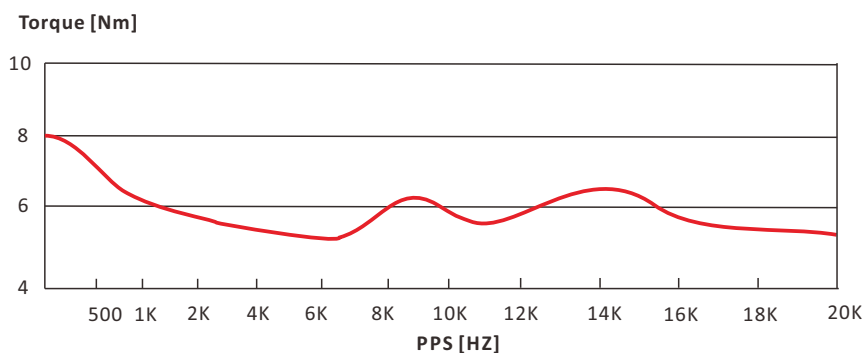
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve



3110HS1200

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

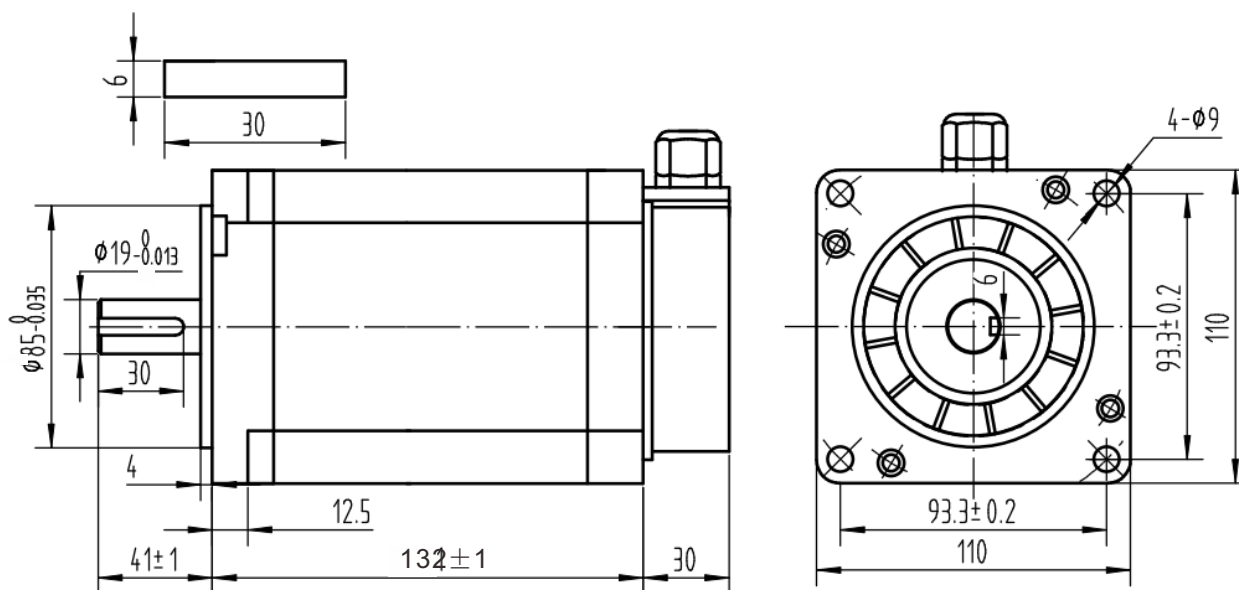
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



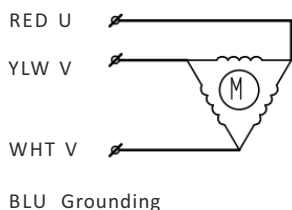
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Cable Type	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m		g.cm ²	# of Leads	kg	mm
3110HS1200-6004S-132	6.0	0.56	8.79	12.0	Connector	9720	Bi (4)	6.5	132

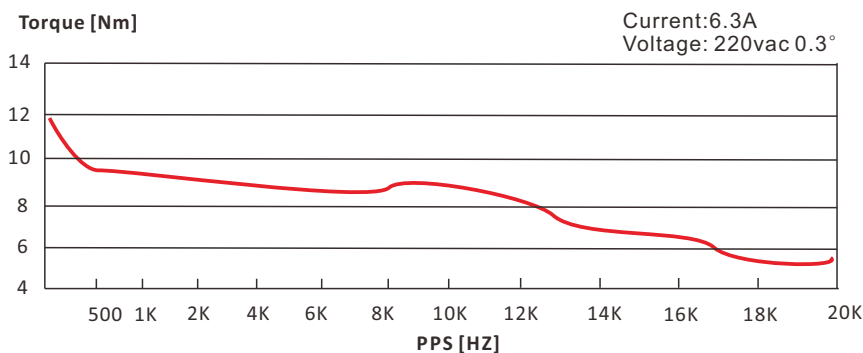
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve

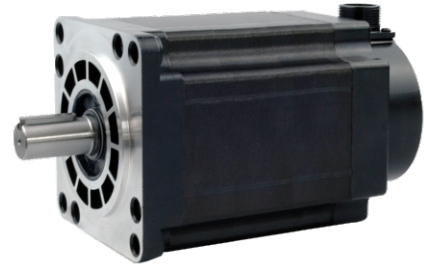


3110HS1600

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

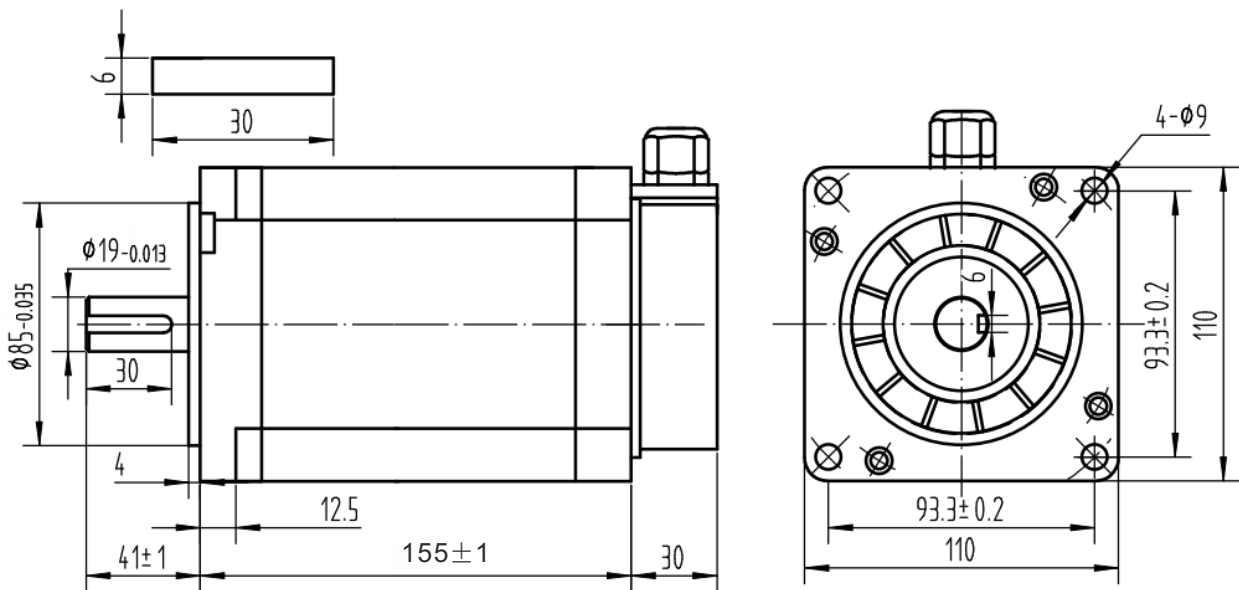
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



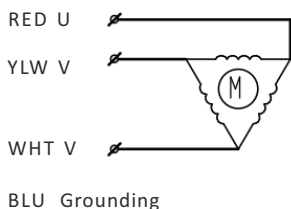
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Cable Type	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m		g.cm ²	# of Leads	kg	mm
3110HS1600-6504S-155	6.5	0.64	9.47	16.0	Connector	13560	Bi (4)	8.9	155

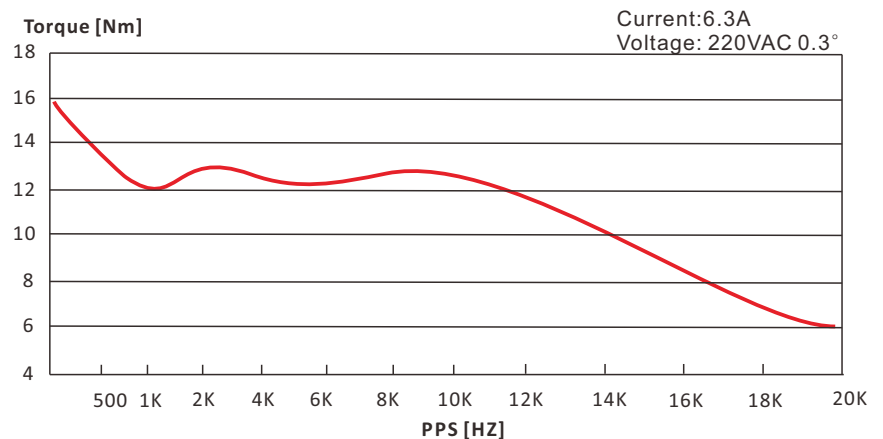
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve

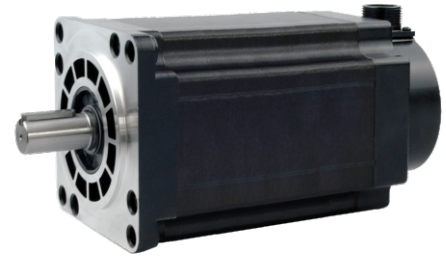


3110HS2000

Nema 42, 3 Phase Standard Hybrid Stepper Motors

Specifications

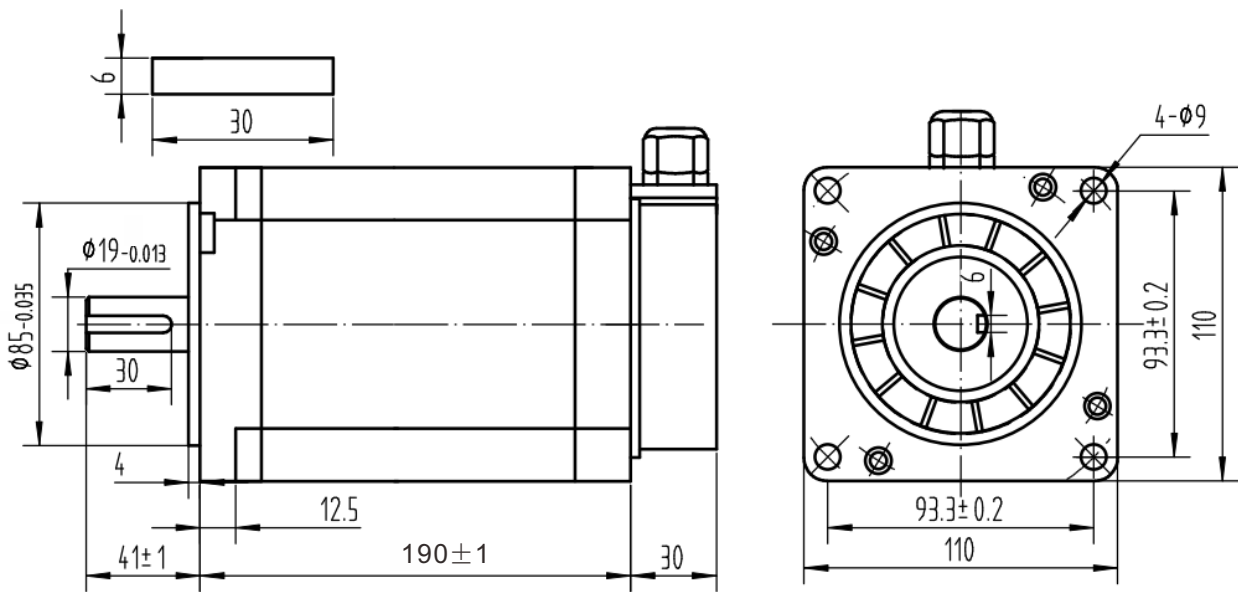
Step Angle	1.2° (3 Phase)
Shaft	Single (Dimension Customizable)
Resistance Accuracy	±10% (20°C Typ.)
Inductance Accuracy	±20% (20°C Typ.)
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Power Cable Connect	Lead
IP Grade	IP40
Certificates	Rohs, CE, CCC



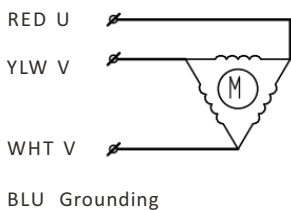
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current	Resistance	Inductance	Holding Torque	Cable Type	Rotor Inertia	Bi/Unipolar	Weight	Length
	A/∅	Ω/∅	mH/∅	N.m		g.cm ²	# of Leads	kg	mm
3110HS2000-7004S-190	7.0	0.7	8.3	20.0	Connector	17400	Bi (4)	11.0	190

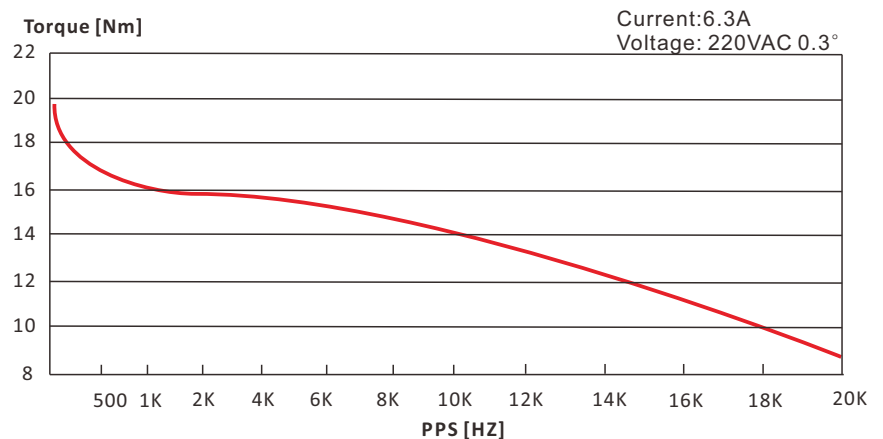
Mechanical Dimensions (in mm)



Wiring Diagram



Torque Speed Curve



3130AHS2800

Nema 52, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (rated current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Max. Axial Load	260N
Max. Radial Load	720N (30mm from mounting Surface)
Certificates	Rohs, CE, CCC

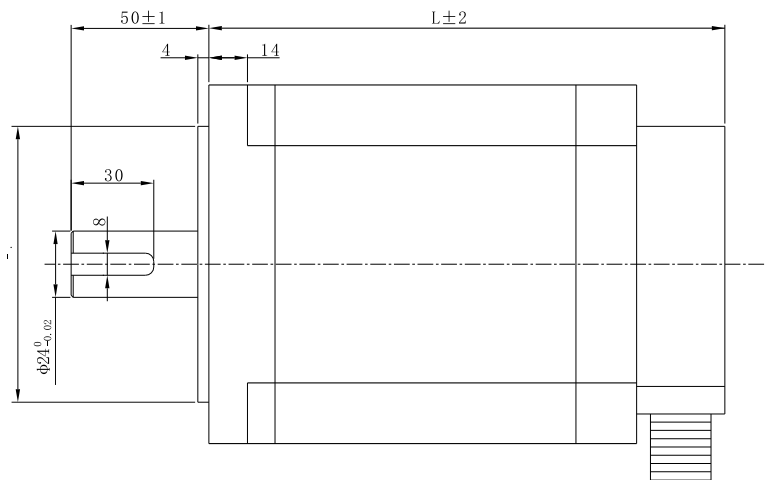
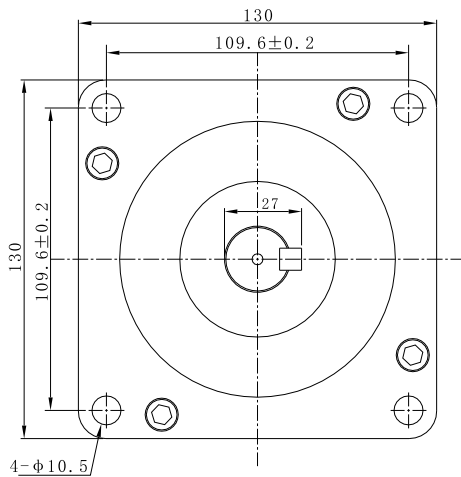


Highlights:

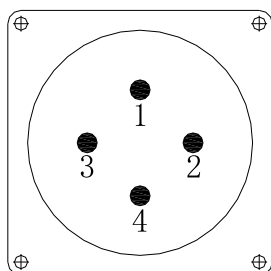
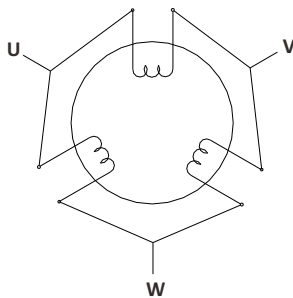
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
3130AHS2800-6803S-280	6.8	0.95	19.0	28.0	34.0	3	17	220	Y3SA3

Mechanical Dimensions (in mm)



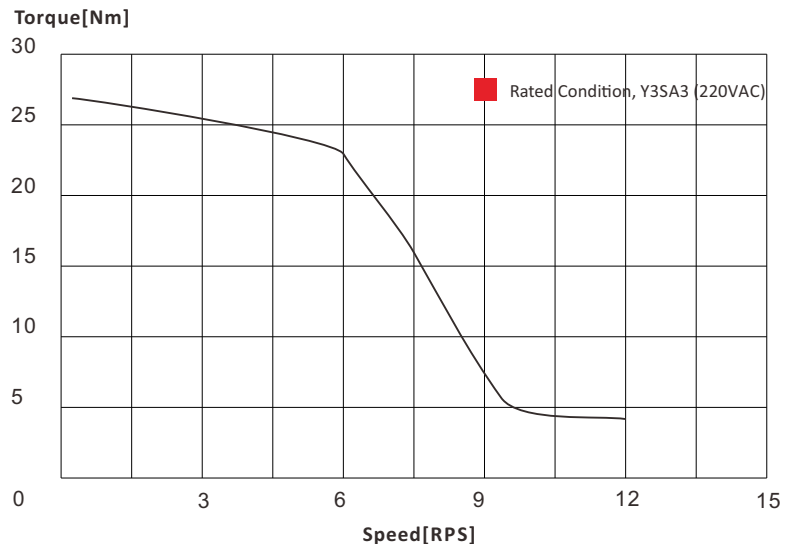
Wiring Diagram



4 Cores Aviation Plug

- 1: U
- 2: V
- 3: W
- 4: Grounding

Torque Speed Curves

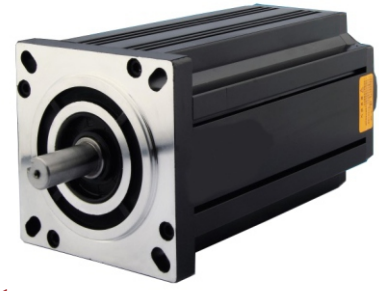


3130AHS3500

Nema 52, 3 Phase Standard Hybrid Stepper Motors

Specifications

Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (rated current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Max. Axial Load	260N
Max. Radial Load	720N (30mm from mounting Surface)
Certificates	Rohs, CE, CCC

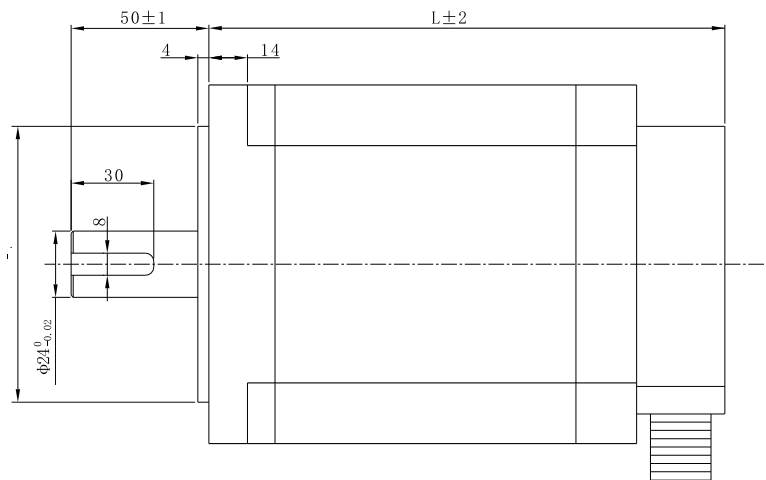
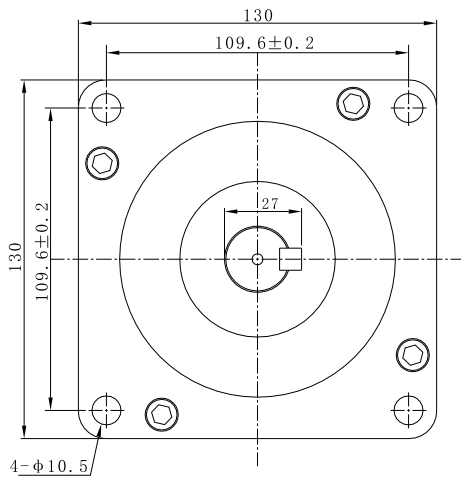


Highlights:

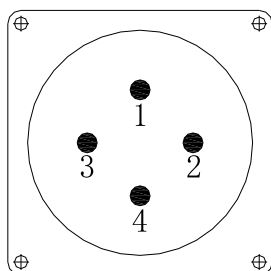
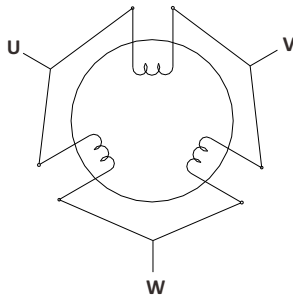
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
3130AHS3500-6803S-252	6.8	1.09	24.0	35.0	41.4	3	19	252	Y3SA3

Mechanical Dimensions (in mm)



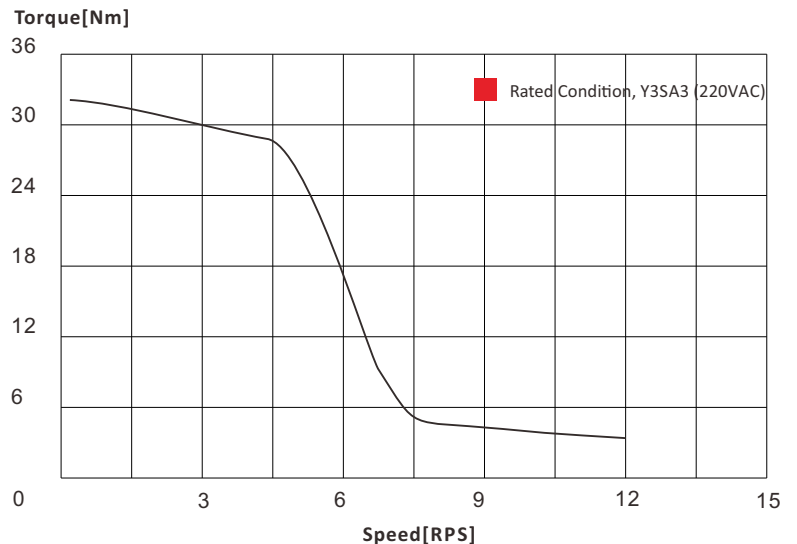
Wiring Diagram



4 Cores Aviation Plug

- 1: U
- 2: V
- 3: W
- 4: Grounding

Torque Speed Curves



3130AHS5000

Nema 52, 3 Phase Standard Hybrid Stepper Motors

Specifications



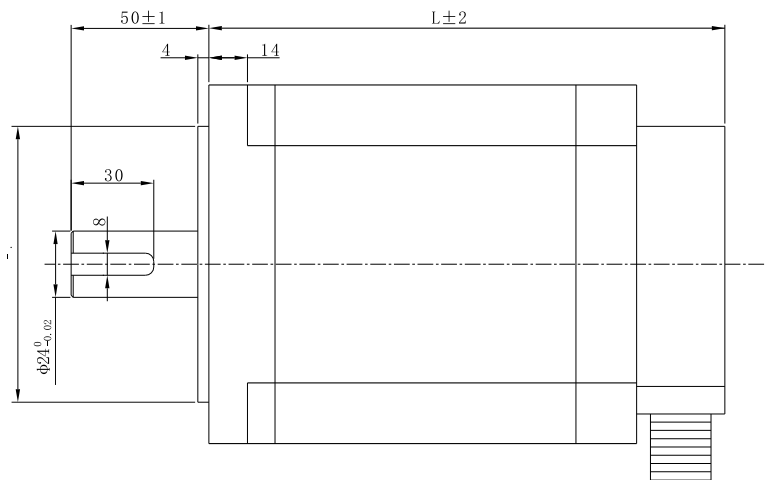
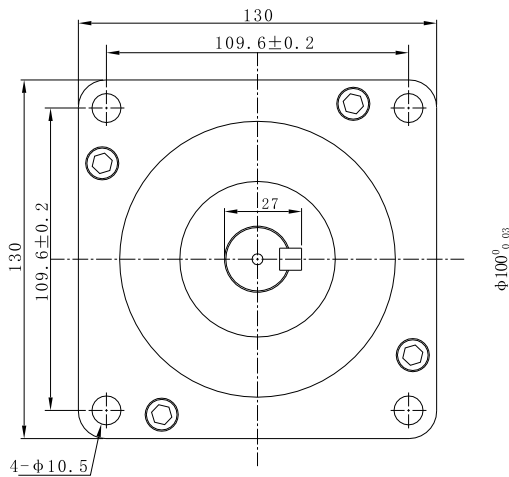
Step Angle	1.2° (3 Phase)
Step Angle Accuracy	0.06°
Shaft Type	Single (Customization Accepted)
Max. Temperature Rise	Less than 80 °C (rated current)
Max. Surface Temperatures	Max Allowed 100°C
Ambient Temperature	-20 °C ~ +50 °C
Insulation Grade	100 MΩ Min. , Class B
Dielectric Strength	1500 VAC for 1 Minute
Max. Axial Load	260N
Max. Radial Load	720N (30mm from mounting Surface)
Certificates	Rohs, CE, CCC

Highlights:

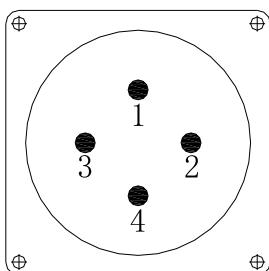
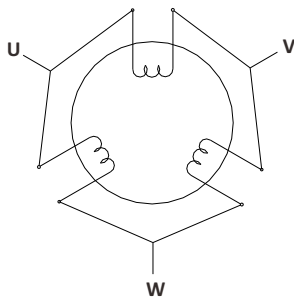
- By Japanese Top Manufacturer;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Holding Torque N.m	Rotor Inertia kg.cm ²	Lead # of Leads	Weight kg	Length mm	Matching Drive
3130AHS5000-6803S-280	6.8	1.08	18.3	50.0	47.3	3	21	280	Y3SA3

Mechanical Dimensions (in mm)



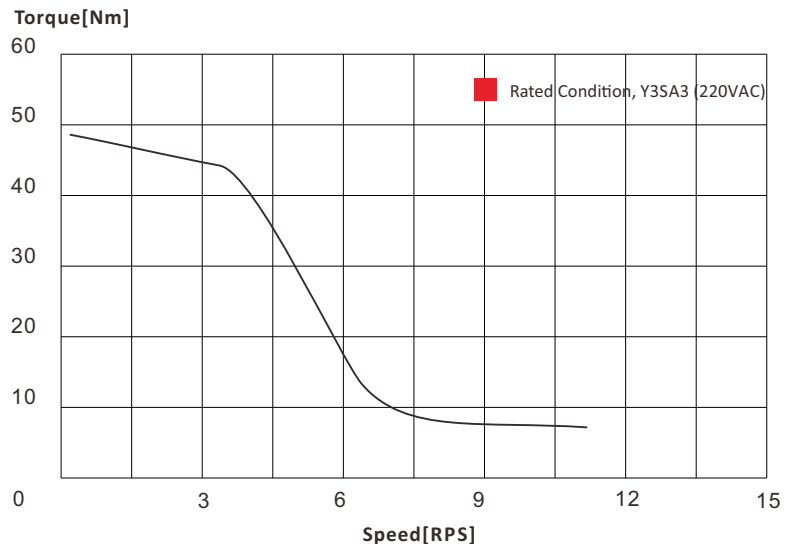
Wiring Diagram

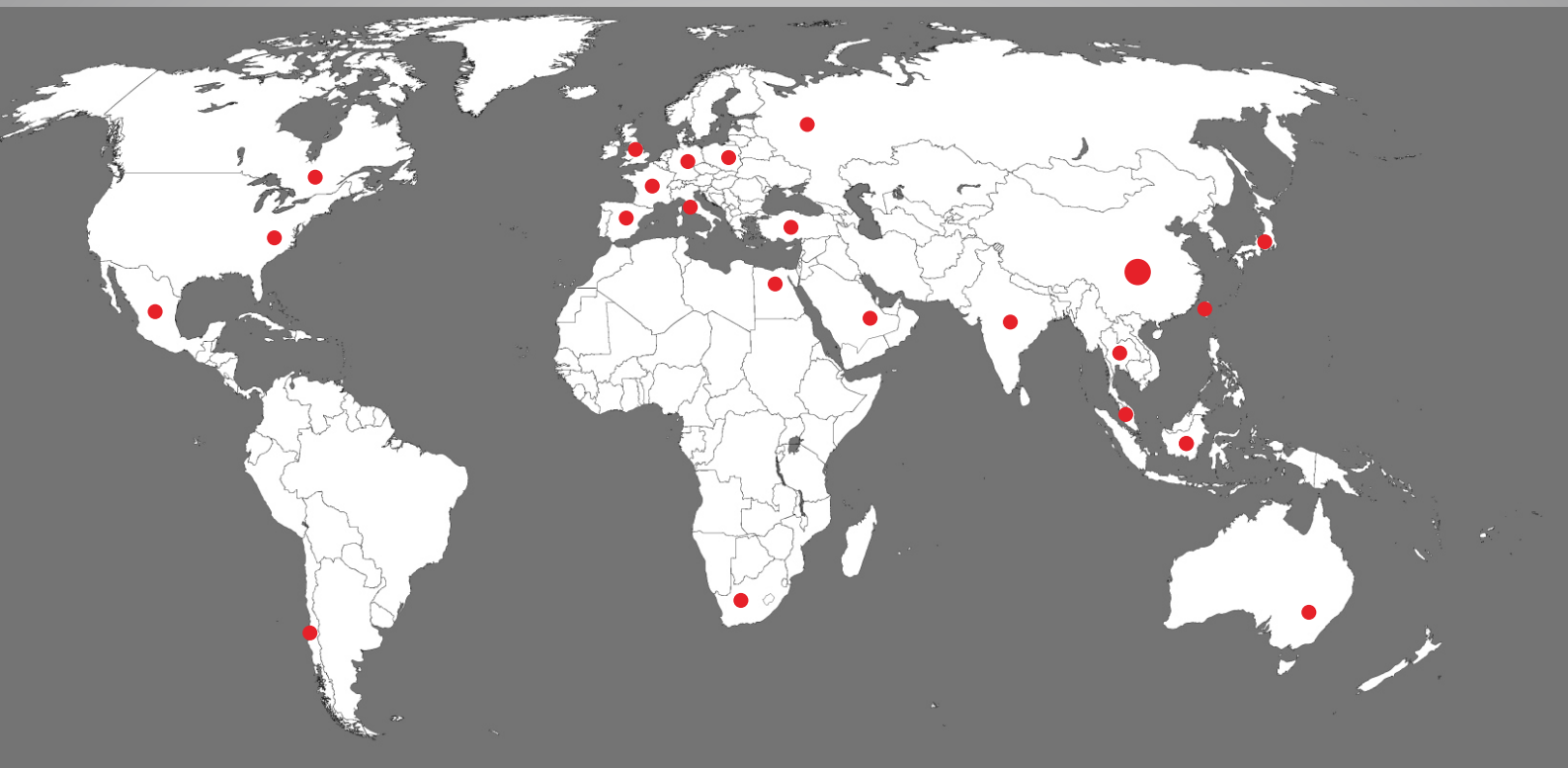


4 Cores Aviation Plug

- 1: U
- 2: V
- 3: W
- 4: Grounding

Torque Speed Curves





Contact Us

Zion Kaifull Automation Technology Co., Ltd.

Address: Floor 18, Tower B, No.89 of L.X. Road,
Longgang District, Shenzhen, China.

Email : sales@zionkaifull.com
technic@zionkaifull.com

Phone : 0086-18682160096

Fax : 0086-0755-2836 4232

Website : www.zionkaifull.com

