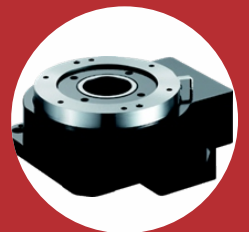
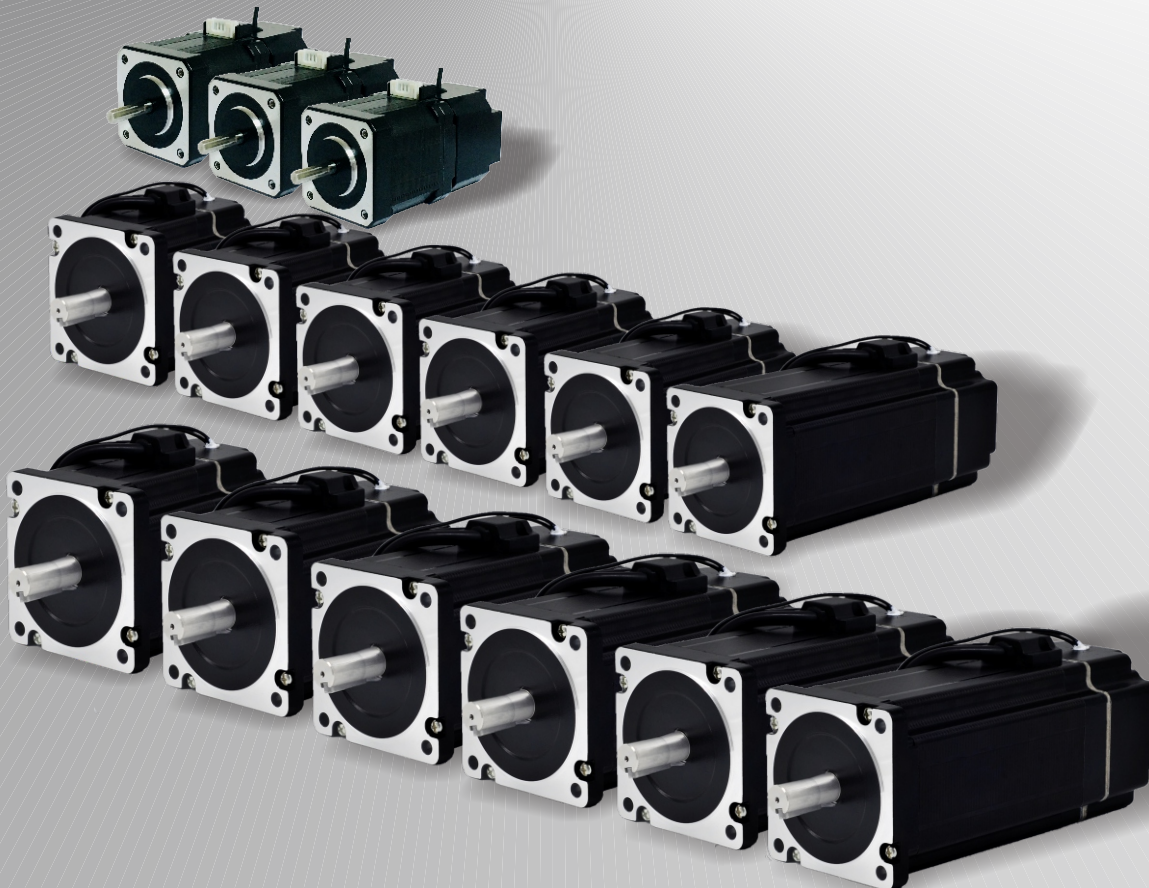


PRODUCT CATALOG

**2-Phase Standard
Hybrid Stepper Motors with Brake
Nema 17 to Nema 34**

**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

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.



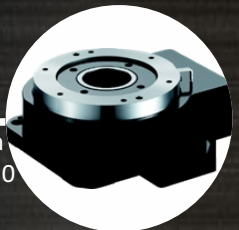
Auto Positioning Platform

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



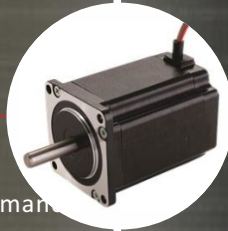
Rotar Actuators

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.



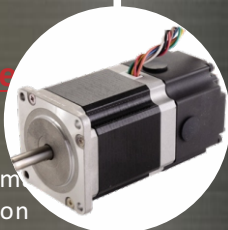
Electric Cylinders

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



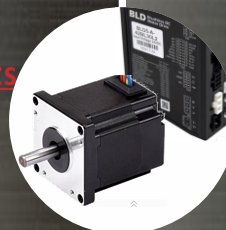
2 Phase Stepper Motor with Brake

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



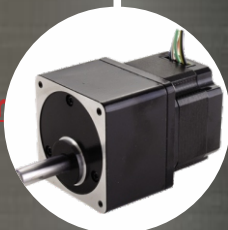
Electric Spindles

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



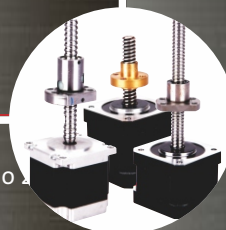
2 Phase Integrated Stepper Motor with Reducer

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 20N
Lead 0.61 to 10mm
World-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 SURVEILLANCE
TEXT BED SORTING WOOD WORK MARBLE WORK SEWING
GLASS WORK PLASMA ENGRAVING TEXTILE

Stepper Motors with Brake Overview

Nema 17 to Nema 34

Model	Holding Torque N.m	Current A/Ø	Resistance Ω/Ø	Inductance mH/Ø	Rotor Inertia g.cm ²	No. of Leads	Brake Torque N.m	Brake Voltage DC V	Weight Kg	Length Include Brake mm	Matching Drive mm
42AHS054-2004BR-75	0.54	2.0	1.8	4.0	66	4	0.6	24	0.5	75	Y2SD1R5
42AHS031-1606BR-66	0.31	1.6	1.9	1.8	56	6	0.6	24	0.41	65.5	Y2SD1R5
42AHS043-1106BR-66	0.43	1.1	3.8	7.2	56	6	0.6	24	0.41	65.5	Y2SD2
57AHS140-4204BR-96	1.4	4.2	0.4	1.3	245	4	1.5	24	1.15	96	Y2SD3
57AHS140-4408BR-106	1.4	4.4	0.4	1.3	330	8	1.5	24	1.3	106	Y2SD3
57AHS140-2208BR-106	1.4	2.2	1.4	5.2	330	8	1.5	24	1.3	106	Y2SD2
57AHS240-4204BR-119	2.4	4.2	2.4	2.2	470	4	1.5	24	1.55	119	Y2SD3
86AHS630-6408BR-124	6.3	6.4	0.33	2.7	1850	8	4.0	24	3.1	124	Y2SD3
86AHS630-3208BR-124	6.3	3.2	1.32	10.8	1850	8	4.0	24	3.1	124	Y2SD2
86HS304-6004BR-67	3.04	6.0	0.3	2.4	1300	4	2.0	24	2.51	67	Y2SD3
86HS400-6004BR-80	4.0	6.0	0.4	3.8	1850	4	2.0	24	3.0	78.5	Y2SD3
86HS608-6004BR-96	6.08	6.0	0.46	4.7	2500	4	2.0	24	3.65	95.5	Y2SD3
86HS800-6004BR-119	8.0	6.0	0.62	7.0	3700	4	2.0	24	4.6	118.5	Y2SD3
86HS920-6004BR-126	9.2	6.0	0.65	6.4	3900	4	2.0	24	4.83	124.0	Y2SD3
86HS1200-6004BR-159	12.0	6.0	0.85	10.1	5600	4	2.0	24	6.15	158.5	Y2SD3

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



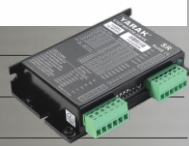
3 Phase High-Voltage AC Stepper Drive: Y3SA3

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**

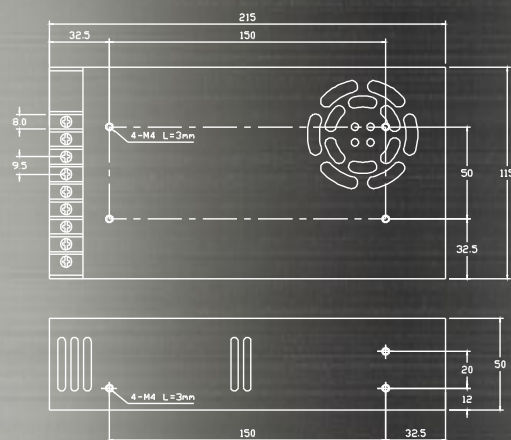
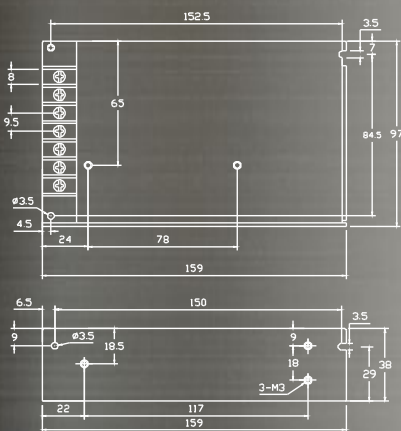
Advantages of Our Specially Designed Motion Control Power Supplies:

- **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

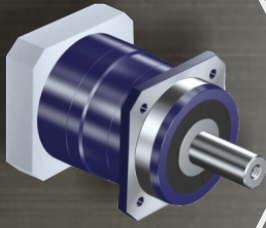
Model	Output Voltage	Output Current	Input Voltage	Dimensions mm	Weight kg
KF-150-24	24VDC	6.25 A	100~120VAC	159*97*38	0.5
			200~240VAC		
KF-350-24	24VDC	14.6 A	100~120VAC	215*115*50	0.8
			200~240VAC		
KF-150-36	36VDC	4.2 A	100~120VAC	159*97*38	0.5
			200~240VAC		
KF-350-36	36VDC	10A	100~120VAC	215*115*50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

Mechanical Dimensions in mm



Helical Gear Precision Planetary Gear Reducers

Matching All Motors

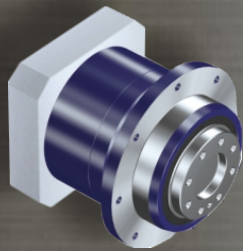
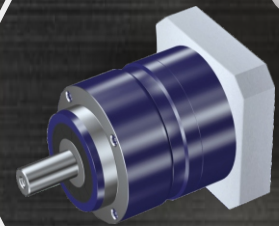


AF Series

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

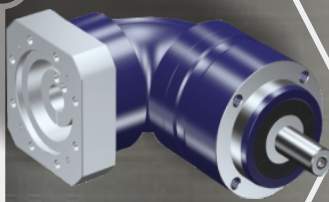
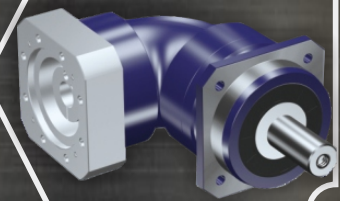


AH Series

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

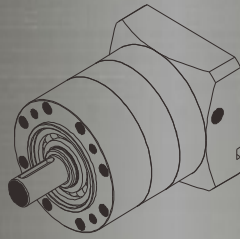
Frame Size(mm)	: 70, 90, 120, 155;
Reduction Ratios	: 3 to 10 (1 Stage), 16 to 100 (2 Stage);
Backlash	: 6 arcmin, 9 arcmin;
Input & Output Shaft Type	: All Main Stream, Customizable;
Average Lifetime	: >20000 Hours

Spur Gear Precision Planetary Gear Reducers

Matching All Motors

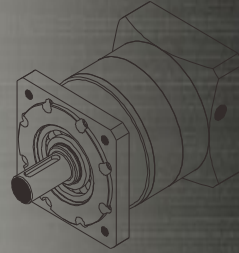
PLE series reducer (PLE060 PLE090 PLE120 PLE160)

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



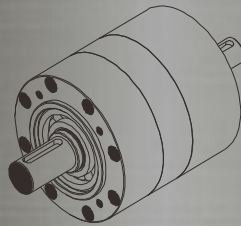
PLF series reducer (PLF060 PLF090 PLF120 PLF160)

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



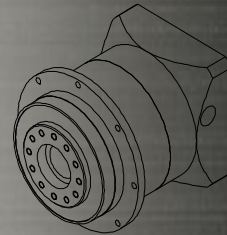
PLS series reducer (PLS060 PLS090 PLS120 PLS160)

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



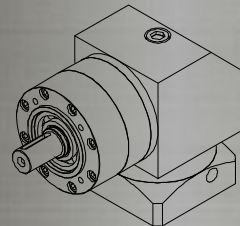
PLH series reducer (PLH064 PLH090 PLH120 PLH160)

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



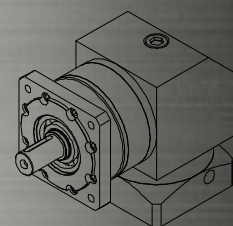
ZPLE series reducer (ZPLE060 ZPLE090 ZPLE120 ZPLE160)

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



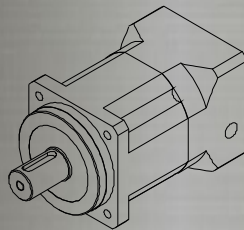
ZPLF series reducer (ZPLF060 ZPLF090 ZPLF120 ZPLF160)

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



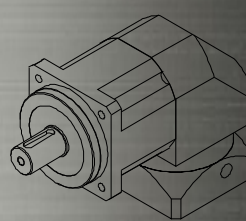
142 AB series reducer (AB060 AB090 AB120 AB160 AB200 AB250 AB300 AB350 AB400 AB450 AB500 AB550 AB600 AB650 AB700 AB750 AB800 AB850 AB900 AB950 AB1000 AB115 AB120 AB125 AB130 AB135 AB140 AB145 AB150 AB155 AB160 AB165 AB170 AB175 AB180 AB185 AB190 AB195 AB200 AB205 AB210 AB215 AB220 AB225 AB230 AB235 AB240 AB245 AB250 AB255 AB260 AB265 AB270 AB275 AB280 AB285 AB290 AB295 AB300 AB305 AB310 AB315 AB320 AB325 AB330 AB335 AB340 AB345 AB350 AB355 AB360 AB365 AB370 AB375 AB380 AB385 AB390 AB395 AB400 AB405 AB410 AB415 AB420 AB425 AB430 AB435 AB440 AB445 AB450 AB455 AB460 AB465 AB470 AB475 AB480 AB485 AB490 AB495 AB500 AB505 AB510 AB515 AB520 AB525 AB530 AB535 AB540 AB545 AB550 AB555 AB560 AB565 AB570 AB575 AB580 AB585 AB590 AB595 AB600 AB605 AB610 AB615 AB620 AB625 AB630 AB635 AB640 AB645 AB650 AB655 AB660 AB665 AB670 AB675 AB680 AB685 AB690 AB695 AB700 AB705 AB710 AB715 AB720 AB725 AB730 AB735 AB740 AB745 AB750 AB755 AB760 AB765 AB770 AB775 AB780 AB785 AB790 AB795 AB800 AB805 AB810 AB815 AB820 AB825 AB830 AB835 AB840 AB845 AB850 AB855 AB860 AB865 AB870 AB875 AB880 AB885 AB890 AB895 AB900 AB905 AB910 AB915 AB920 AB925 AB930 AB935 AB940 AB945 AB950 AB955 AB960 AB965 AB970 AB975 AB980 AB985 AB990 AB995)

9 optional size	80mm, 90mm, 115mm, 142mm, 180mm, 220mm, 280mm, 335mm, 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



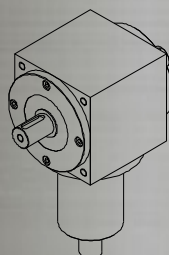
ABR series reducer (ABR060 ABR090 ABR115 ABR142 ABR180 ABR220 ABR280)

7 optional size	60mm, 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



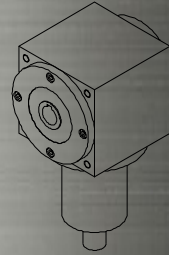
21 VS series reducer (VS09 VS11 VS14 VS17 VS21 VS25 VS30)

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	



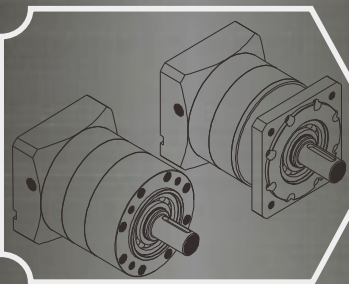
VA series reducer (VA09 VA11 VA14 VA17 VA21 VA24 VA28)

7 optional size	90mm, 110mm, 140mm, 170mm, 210mm, 240mm, 280mm	
The allowable input power	1.1KW~168KW	
Ratio	1, 1.5, 2, 3, 4, 5	



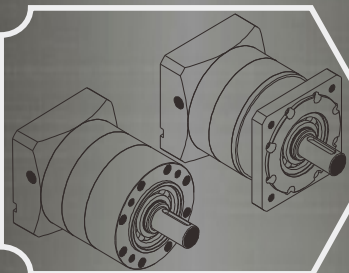
Cost-effective Planetary Gear Reducer

Matching Stepper Motors



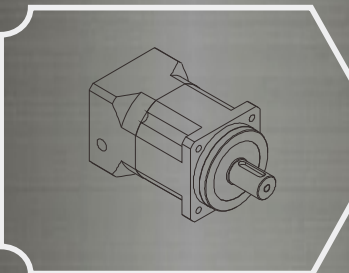
DLE42 & DLF42 Series

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



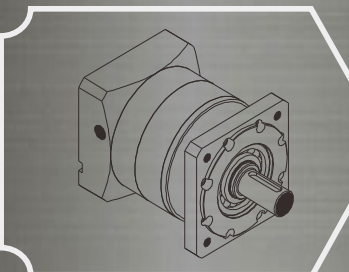
DLEP42 & DLFP42 Series

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



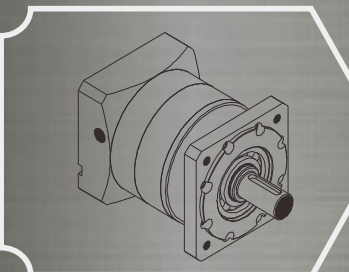
DLFS42 Series

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



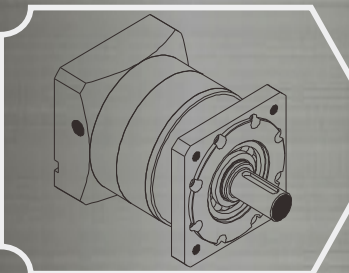
DLF57 Series

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 Hybrid Stepper Motors with Brake

Frame Size 42mm to 120mm

Advantages

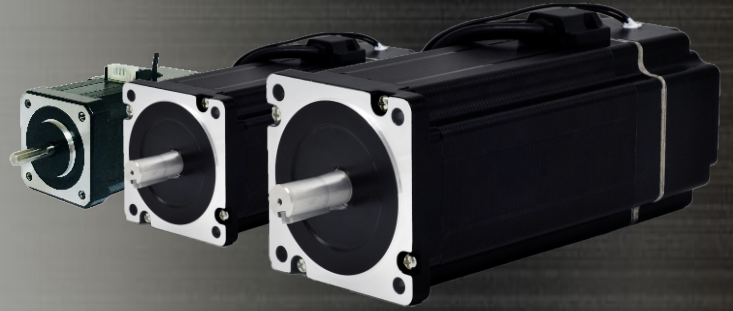
High Quality

Cost-effectiveness

Fast Delivery

Rich Experiences

Flexible Customization



Contents

- | | | |
|-------|--------------------------------|--------------------|
| 1-2. | 42AHS Series Motors with Brake | (0.31 to 0.54N.m) |
| 3-4. | 57AHS Series Motors with Brake | (1.4 to 2.4N.m) |
| 5-6. | 57HS Series Motors with Brake | (0.64 to 3.6N.m) |
| 7-8. | 86AHS Series Motors with Brake | (6.3 N.m) |
| 9-10. | 86HS Series Motors with Brake | (3.04 to 12.0 N.m) |

Naming Rules

57 HS 360 - 440 4 BR - 113

Length of Motor Body

Shaft Type:
BR(with Brake)

Quantity of Cable Leads

Rated Current per Phase:
 $440/100=4.4A$

Rated Holding Torque:
 $360/100=3.6N.m$

HS: Standard Hybrid Stepper Motor
AHS: Advanced Hybrid Stepper Motor

Motor Frame Size 57mm

42AHS Series Motors with Brake

Nema 17, 2 Phase Hybrid Stepper Motors



Specifications

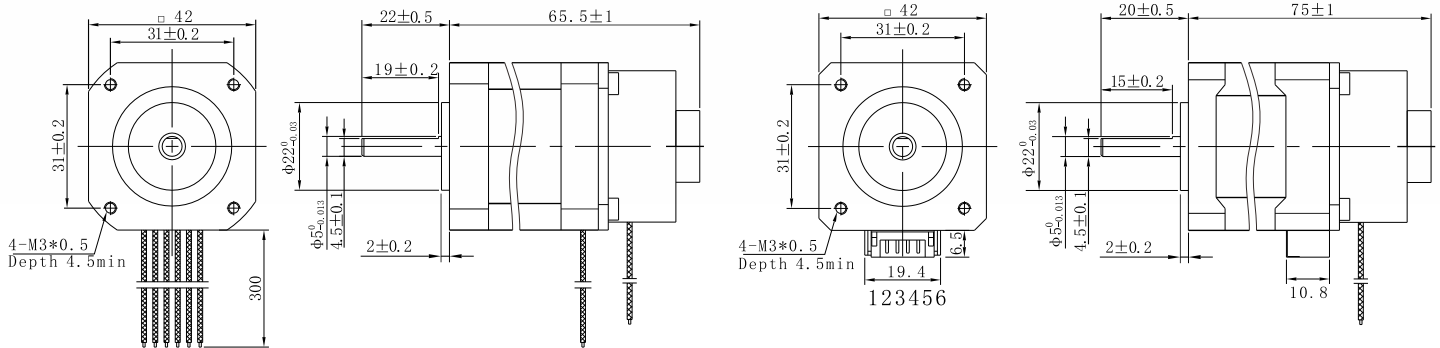
Step Angle	1.8°
Step Angle Accuracy	±0.09° (full step, no load)
Brake Power	5W
Brake Reaction Time	50ms
Max. Surface Temperature	100 °C Max.(max. allowed temp.)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Resistance	500VDC, 100 MΩ Min.
Dielectric Strength	500 VAC, 1min, Class B
Max. Radical Load	10N
Max. Axial Load	25N (15mm from installation point)

Highlights:

- Japanese Top Manufacturer;
- 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	Holding Torque N.m	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Rotor Inertia g.cm ²	Bi/Unipolar # of Leads	Brake Torque N.m	Brake Voltage DC V	Weight Kg	Length Include Brake mm
42AHS054-2004BR-75	0.54	2.0	1.8	4.0	66	Bi(4)	0.6	24	0.5	75
42AHS031-1606BR-66	0.31	1.6	1.9	1.8	56	Bi(6)	0.6	24	0.41	65.5
42AHS043-1106BR-66	0.43	1.1	3.8	7.2	56	Bi(6)	0.6	24	0.41	65.5

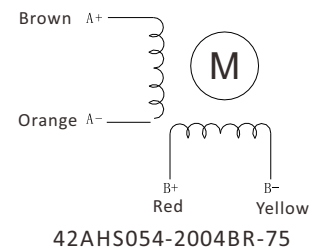
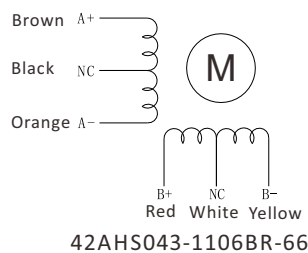
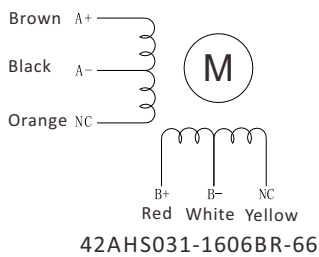
Mechanical Dimensions in mm



42AHS031-1606BR-66
42AHS043-1106BR-66

42AHS054-2004BR-75

Wiring Diagram

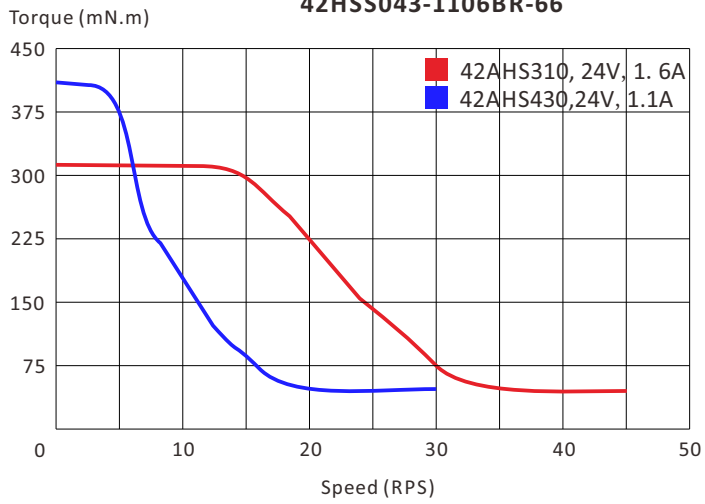


Note: Brake wiring as, Red for 24+ and Black for GND.

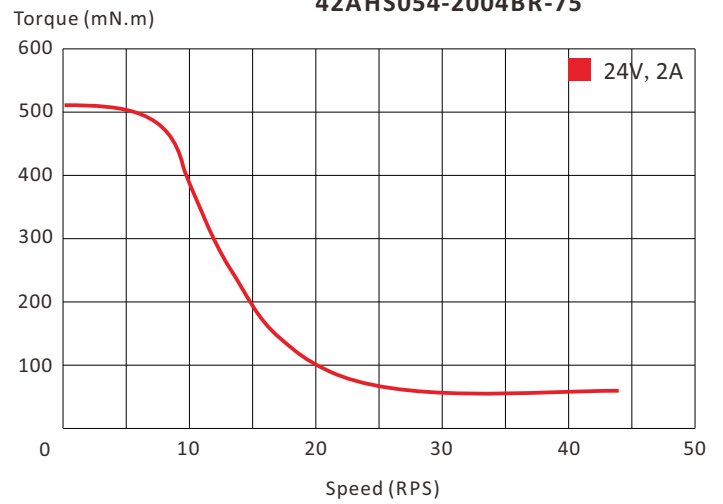
42AHS Series Torque Speed Curves

Nema 17, 2 Phase Hybrid Stepper Motors

42HSS031-1606BR-66
42HSS043-1106BR-66

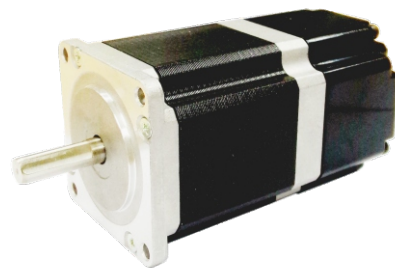


42AHS054-2004BR-75



57AHS Series Motors with Brake

Nema 23, 2 Phase Hybrid Stepper Motors



Specifications

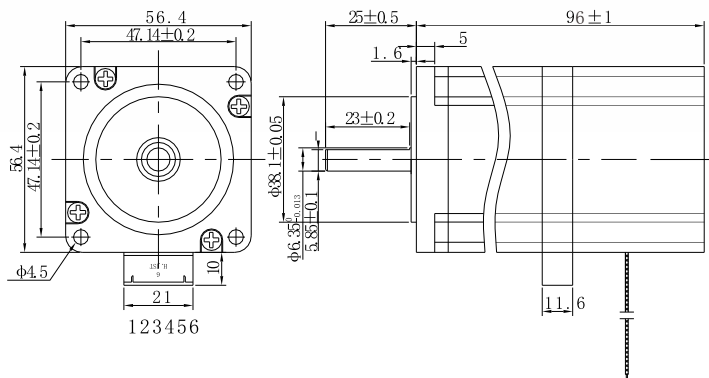
Step Angle	1.8°
Step Angle Accuracy	±0.09° (full step, no load)
Brake Power	4W
Brake Reaction Time	50ms
Max. Surface Temperature	100 °C Max. (max. allowed temp.)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Resistance	500VDC, 100 MΩ Min.
Dielectric Strength	500 VAC, 1min, Class B
Max. Radial Load	15N
Max. Axial Load	90N (15mm from installation point)

Highlights:

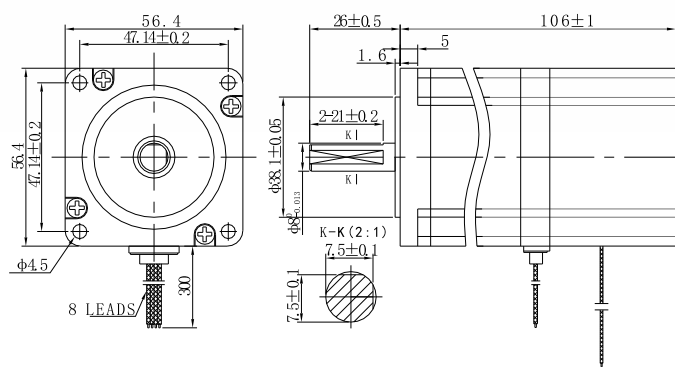
- Japanese Top Manufacturer;
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Holding Torque N.m	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Rotor Inertia g.cm ²	Bi/Unipolar # of Leads	Brake Torque N.m	Brake Voltage DC V	Weight Kg	Length Include Brake mm
57AHS140-4204BR-96	1.4	4.2	0.4	1.3	245	Bi(4)	1.5	24	1.15	96
57AHS140-4408BR-106	1.4	4.4	0.4	1.3	330	Bi(8)	1.5	24	1.3	106
57AHS140-2208BR-106	1.4	2.2	1.4	5.2	330	Bi(8)	1.5	24	1.3	106
57AHS240-4204BR-119	2.4	4.2	2.4	2.2	470	Bi(4)	1.5	24	1.55	119

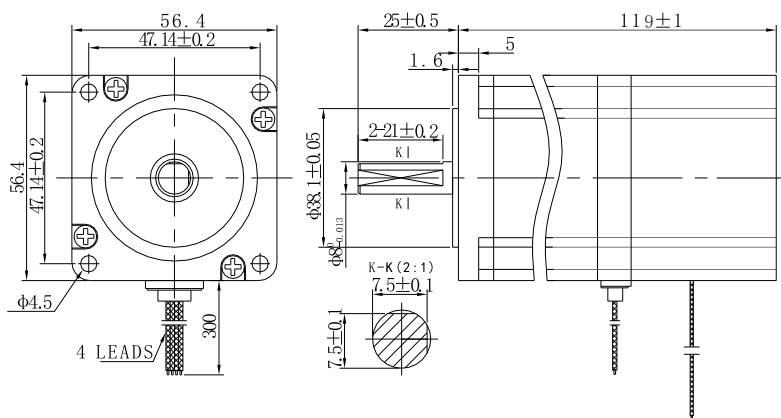
Mechanical Dimensions in mm



57AHS140-4204BR-96

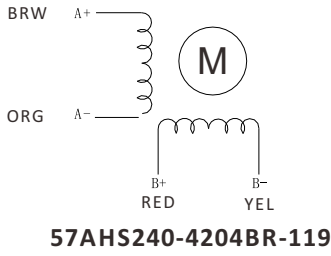
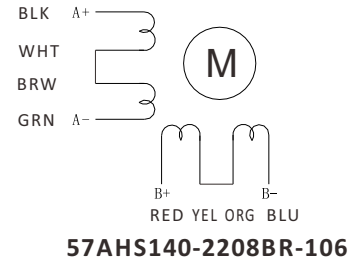
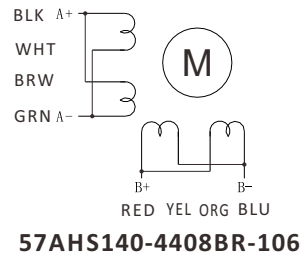
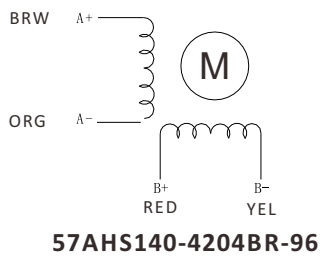


57AHS140-4408BR-106
57AHS140-2208BR-106



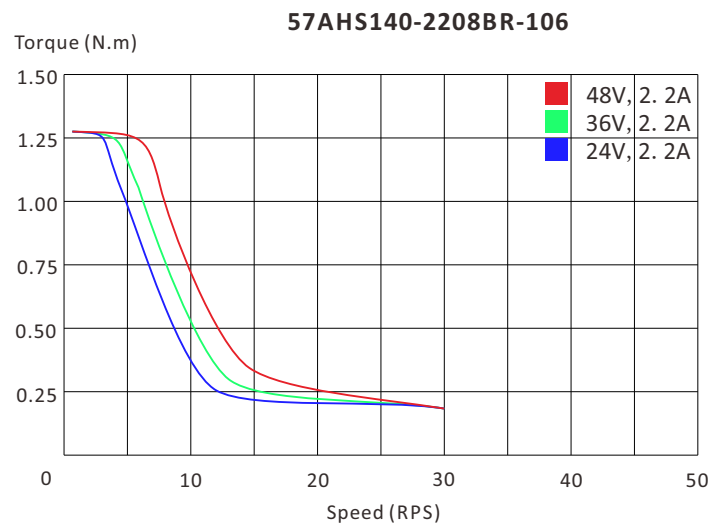
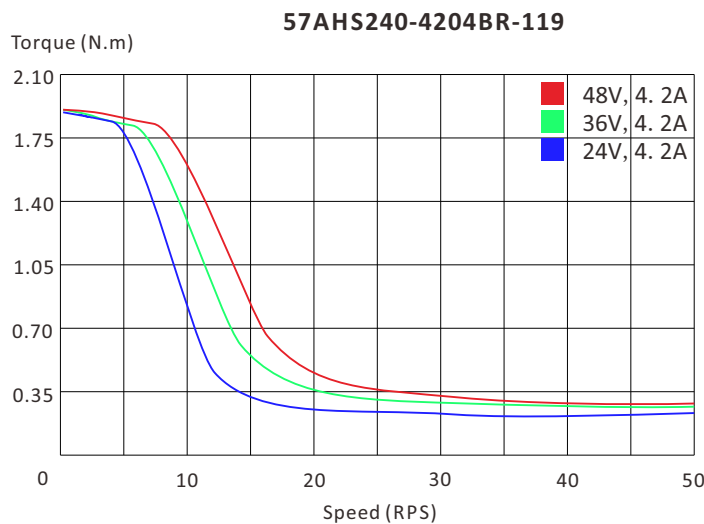
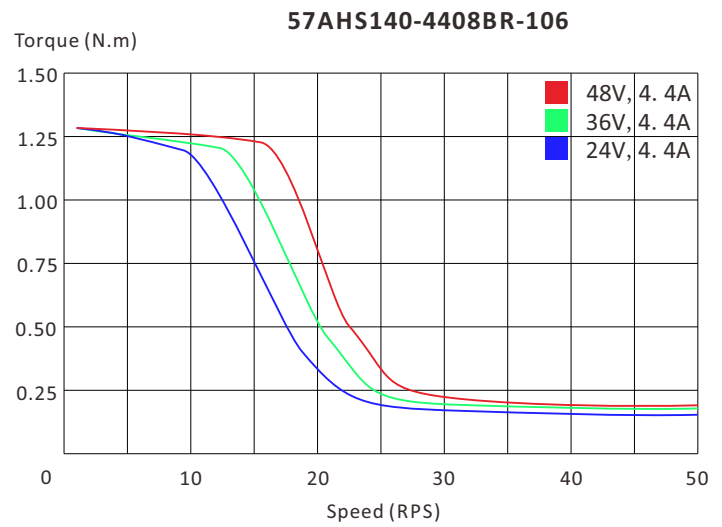
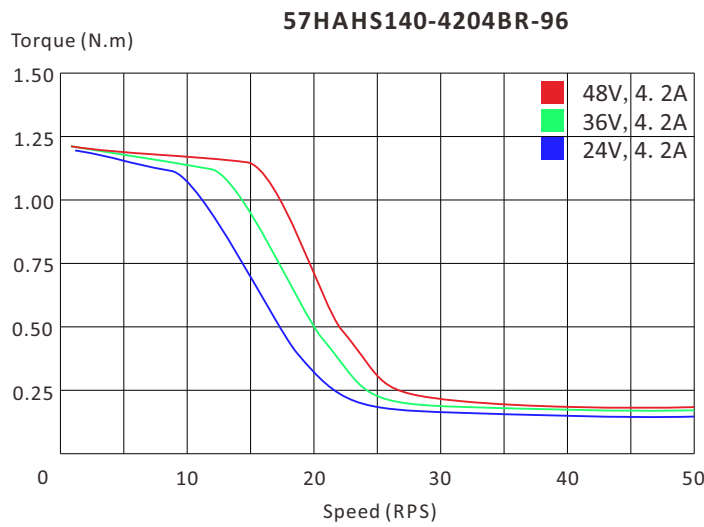
57AHS240-204BR-119

Wiring Diagram



Note: Brake wiring as, Red for 24+ and Black for GND.

Torque Speed Curves



Specifications

Step Angle	1.8°
Step Angle Accuracy	±0.09° (full step, no load)
Resistance Accuracy	±10%
Inductance Accuracy	±20%
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Resistance	500VDC, 100 MΩ Min.
Dielectric Strength	500 VAC, 1s, 3mA, Class B
Shaft Radial Play	0.02 Max. (450 g-load)
Shaft Axial Play	0.08 Max. (920 g-load)

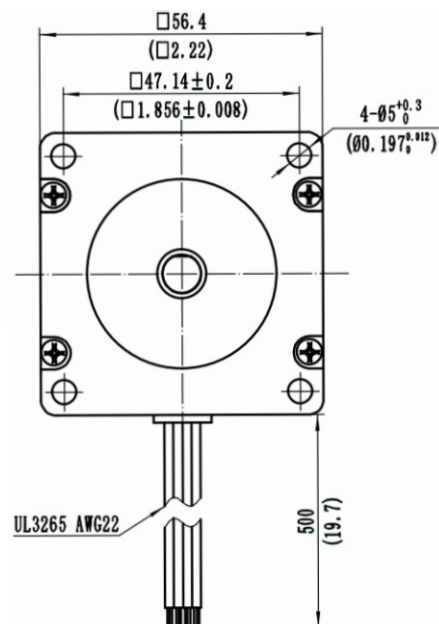
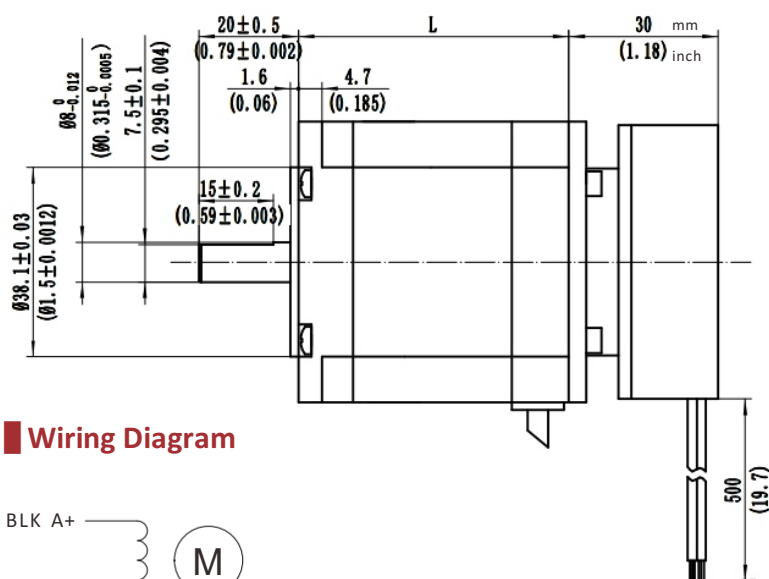


Highlights:

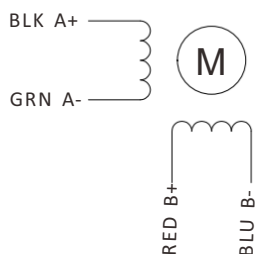
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Holding Torque N.m	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Rotor Inertia g.cm ²	Bi/Unipolar # of Leads	Brake Torque N.m	Brake Voltage V	Weight Kg	Length L mm
57HS064-2404BR-40	0.64	2.4	1.2	2.4	120	Bi(4)	1.0	24	0.8	40.5
57HS130-3504BR-53	1.3	3.5	0.8	2.4	260	Bi(4)	1.0	24	1.0	53.5
57HS230-4404BR-75	2.3	4.4	0.76	2.5	450	Bi(4)	1.0	24	1.4	75.5
57HS250-4404BR-81	2.5	4.4	0.81	3.0	520	Bi(4)	1.0	24	1.5	81.5
57HS310-4404BR-99	3.1	4.4	0.95	3.7	680	Bi(4)	1.0	24	1.8	99.5
57HS360-4404BR-113	3.6	4.0	1.16	4.5	810	Bi(4)	1.0	24	2.3	113.0

Mechanical Dimensions in mm



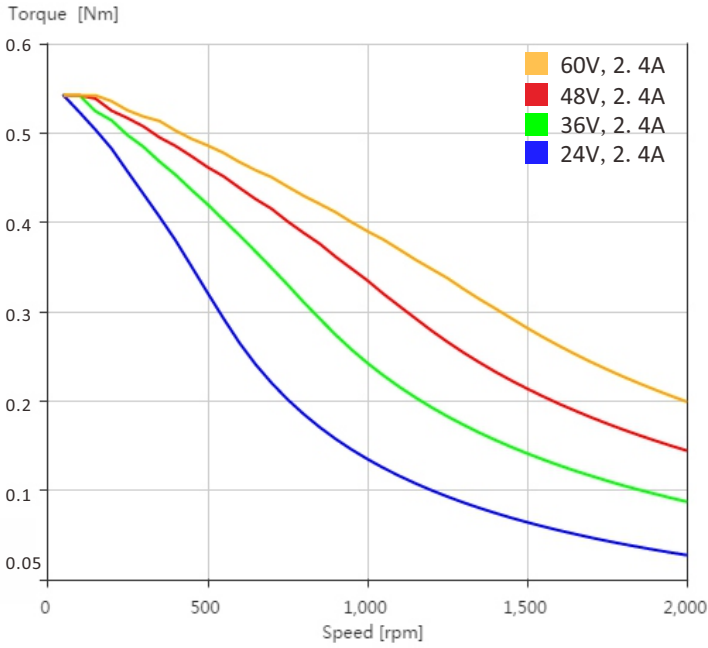
Wiring Diagram



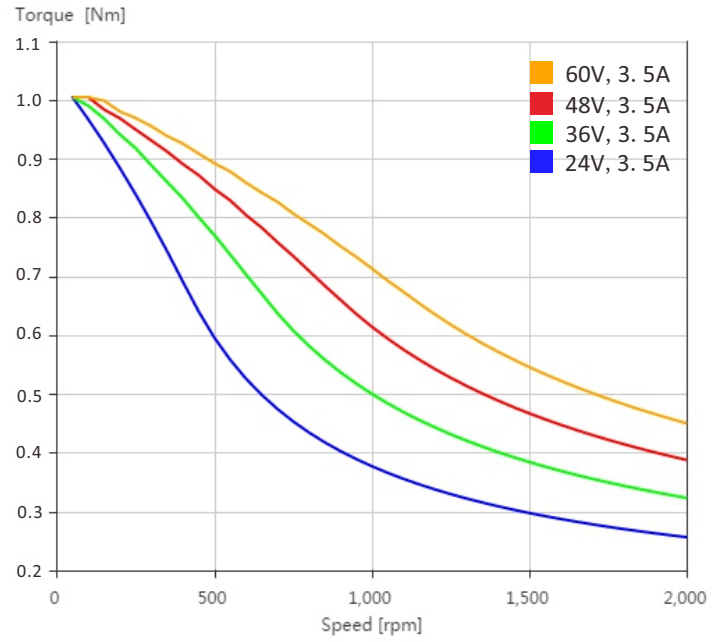
57HS Series Torque Speed Curves

Nema 23, 2 Phase Hybrid Stepper Motors

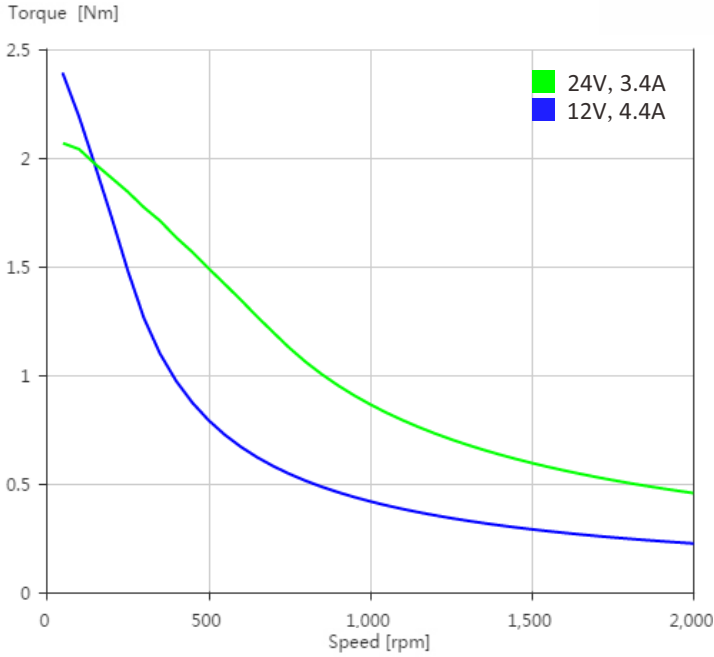
57HS064-2404BR-40



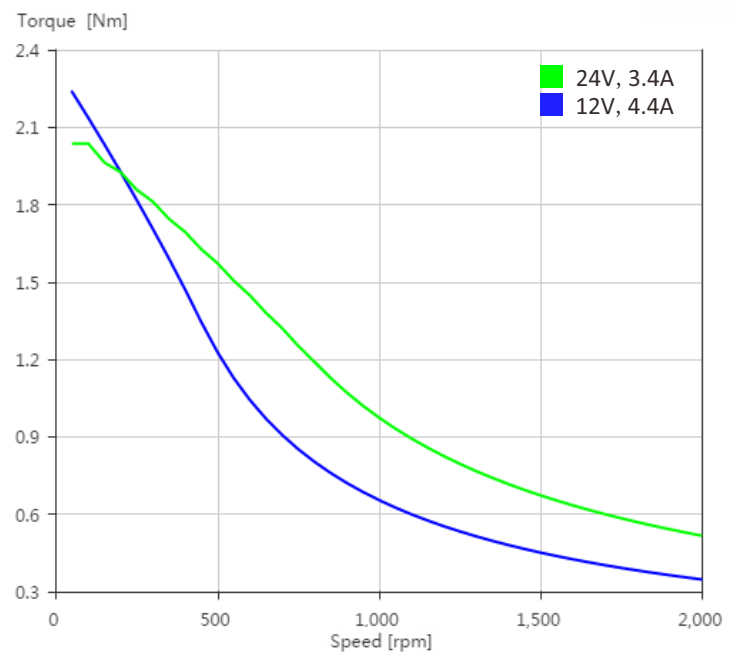
57HS130-3504BR-53



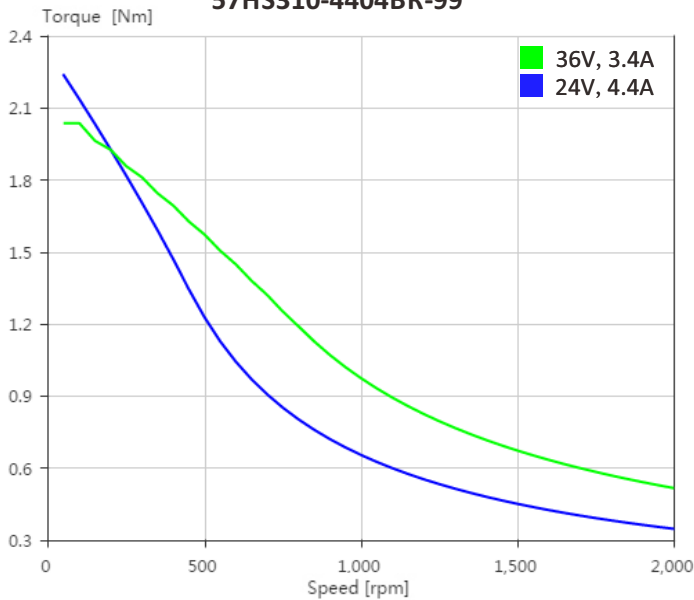
57HS230-4404BR-75



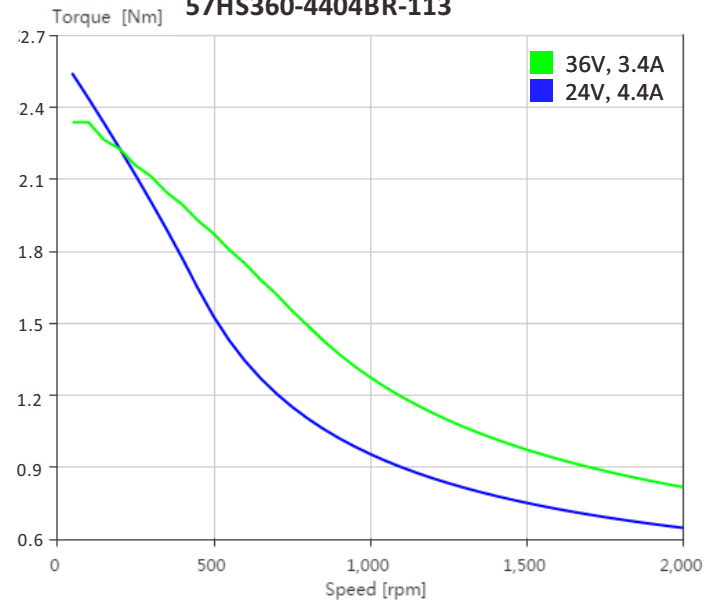
57HS250-4404BR-81



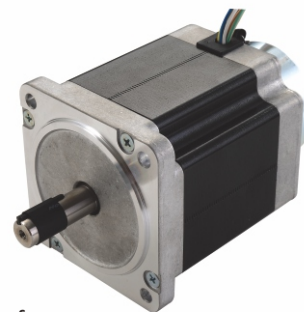
57HS310-4404BR-99



57HS360-4404BR-113



86AHS630 Stepper Motors with Brake Nema 34, 2 Phase Hybrid Stepper Motors



Specifications

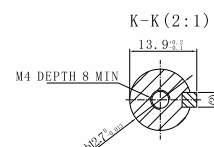
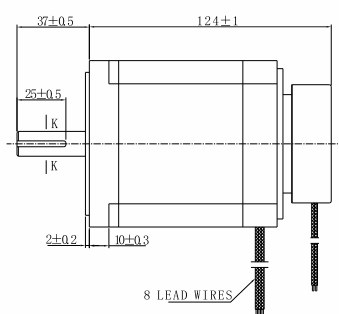
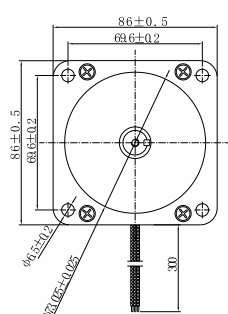
Step Angle	1.8°
Step Angle Accuracy	±0.09° (full step, no load)
Brake Power	12W
Brake Reaction Time	50ms
Max. Surface Temperature	100 °C Max.(max. allowed temp.)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Resistance	500VDC, 100 MΩ Min.
Dielectric Strength	500 VAC, 1min, Class B
Max. Radial Load	60N
Max. Axial Load	320N (25mm from installation point)

Highlights:

- Japanese Top Manufacturer;
- 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.

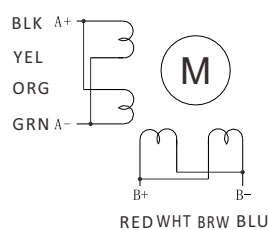
Model	Holding Torque N.m	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Rotor Inertia g.cm ²	Bi/Unipolar # of Leads	Brake Torque N.m	Brake Voltage DC V	Weight Kg	Length Include Brake mm
86AHS630-6408BR-124	6.3	6.4 Parallel	0.33	2.7	1850	Bi(8)	4.0	24	3.1	124
86AHS630-3208BR-124	6.3	3.2 Serial	1.32	10.8	1850	Bi(8)	4.0	24	3.1	124

Mechanical Dimensions in mm

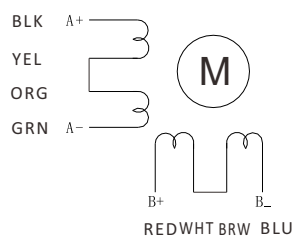


86AHS630-6408BR-124
86AHS630-3208BR-124

Wiring Diagram



86AHS630-6408BR-124

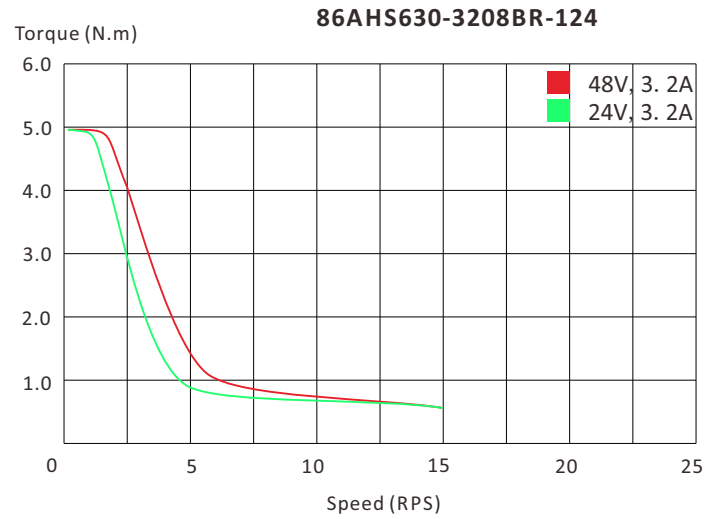
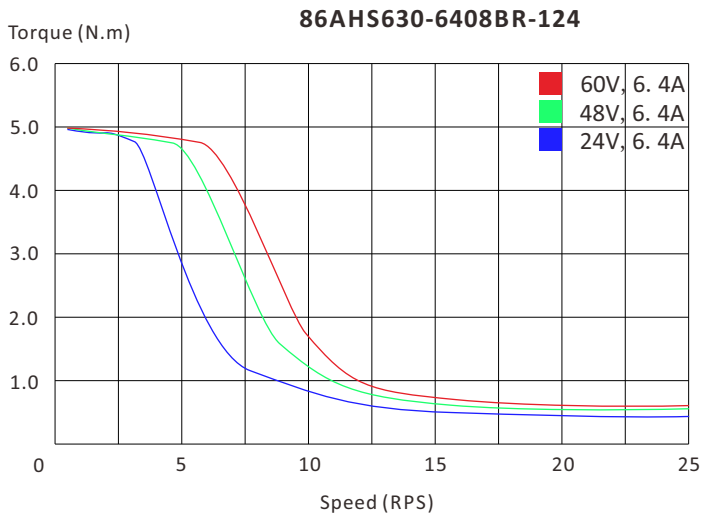


86AHS630-3208BR-124

Note: Brake wiring as, Red for 24+ and Black for GND.

86AHS Series Torque Speed Curves

Nema 34, 2 Phase Hybrid Stepper Motors



5

Specifications

Step Angle	1.8°
Step Angle Accuracy	±0.09° (full step, no load)
Resistance Accuracy	±10%
Inductance Accuracy	±20%
Temperature Rise	80 °C Max.(rated current)
Ambient Temperature	-20 °C ~ +50 °C
Insulation Resistance	500VDC, 100 MΩ Min.
Dielectric Strength	500 VAC, 1s, 3mA, Class B
Shaft Radial Play	0.02 Max. (450 g-load)
Shaft Axial Play	0.08 Max. (920 g-load)

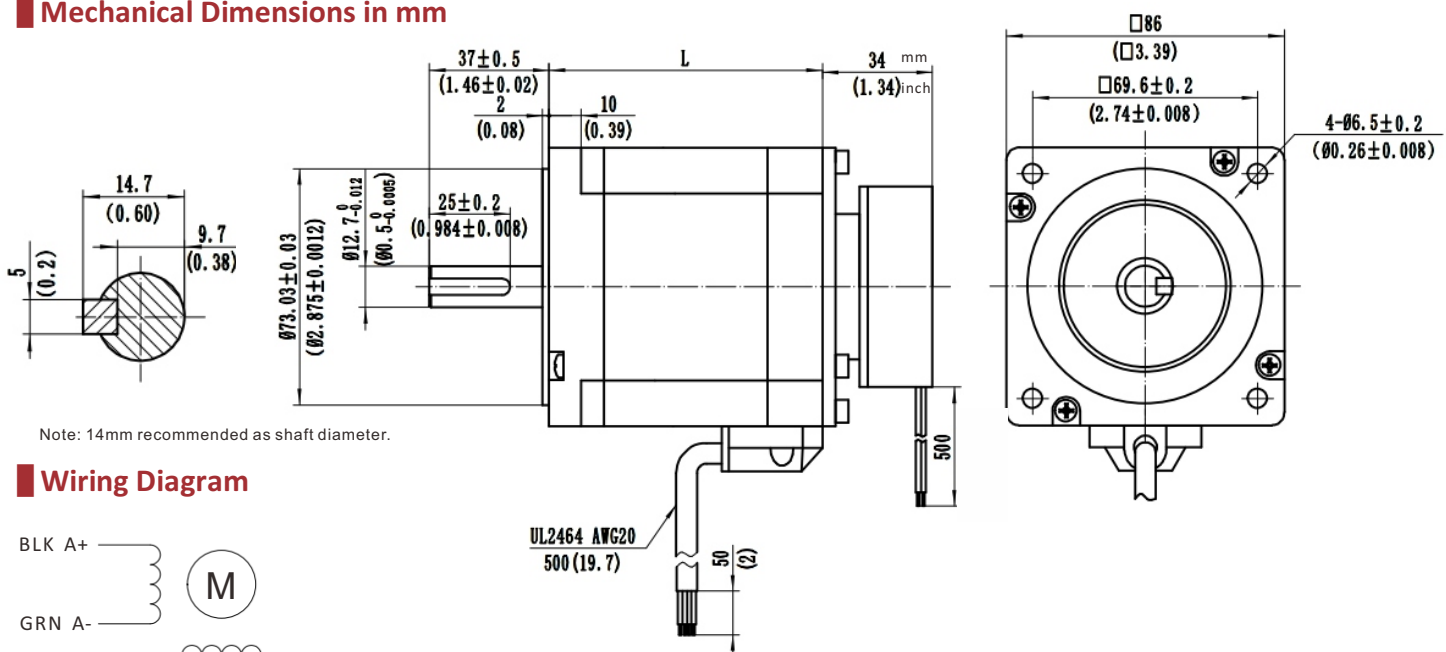


Highlights:

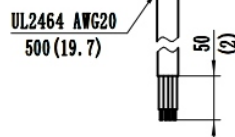
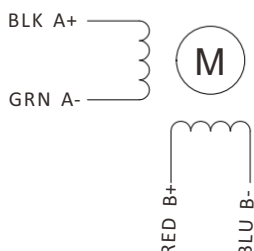
- Low Noise, Low Vibration;
- High Speed, High Smoothness;
- High Efficiency, Long lifetime ;
- Flexible in **Customization**:
Shaft Type(diameters, dual shaft, hollow shaft, flat, key),
Torque Values, Lead Type etc.

Model	Holding Torque N.m	Current A/∅	Resistance Ω/∅	Inductance mH/∅	Rotor Inertia g.cm ²	Bi/Unipolar # of Leads	Brake Torque N.m	Brake Voltage V	Weight Kg	Length L mm
86HS304-6004BR-67	3.04	6.0	0.3	2.4	1300	Bi(4)	2.0	24	2.51	67
86HS400-6004BR-79	4.0	6.0	0.4	3.8	1850	Bi(4)	2.0	24	3.0	78.5
86HS608-6004BR-96	6.08	6.0	0.46	4.7	2500	Bi(4)	2.0	24	3.65	95.5
86HS800-6004BR-119	8.0	6.0	0.62	7.0	3700	Bi(4)	2.0	24	4.6	118.5
86HS920-6004BR-124	9.2	6.0	0.65	6.4	3900	Bi(4)	2.0	24	4.83	124.0
86HS1200-6004BR-159	12.0	6.0	0.85	10.1	5600	Bi(4)	2.0	24	6.15	158.5

Mechanical Dimensions in mm



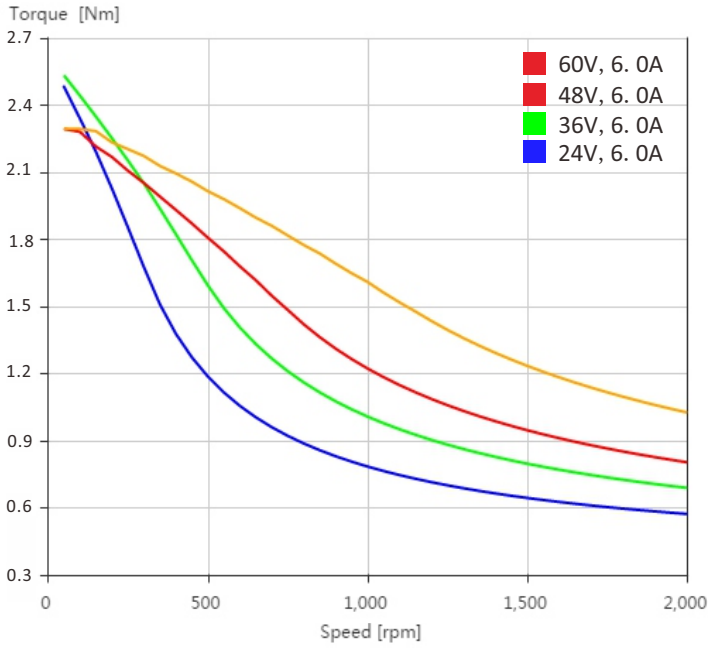
Wiring Diagram



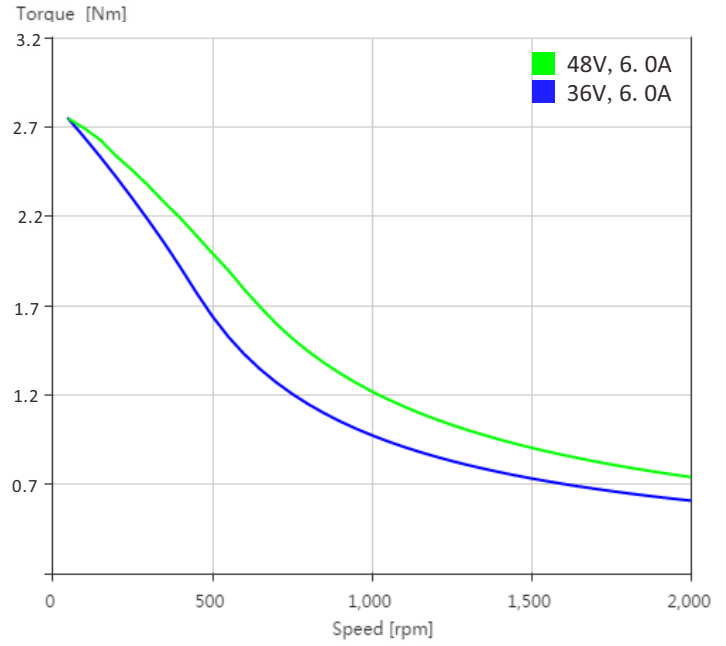
86HS Seris Torque Speed Curves

Nema 34, 2 Phase Hybrid Stepper Motors

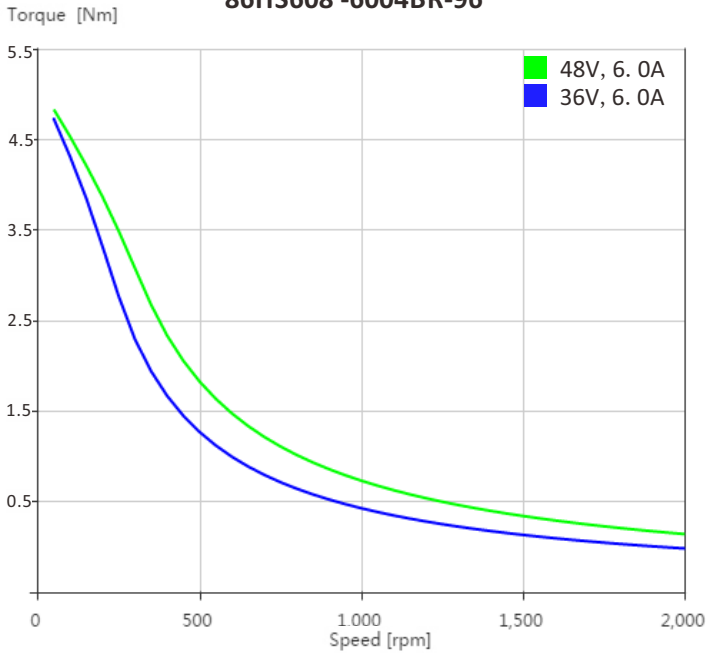
86HS304 -6004BR-67



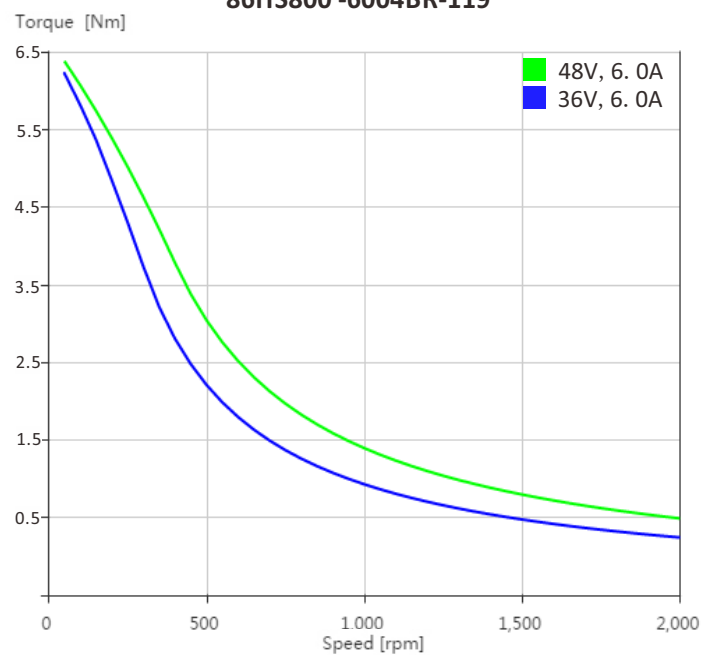
86HS400 -6004BR-80



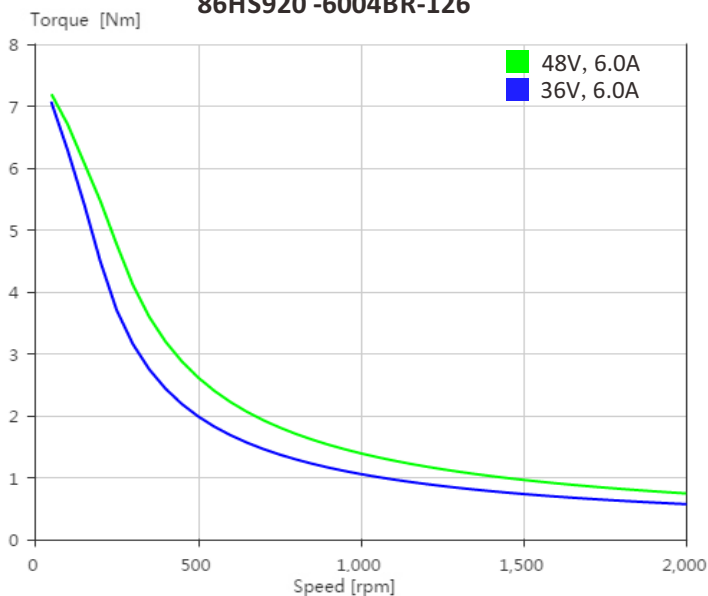
86HS608 -6004BR-96



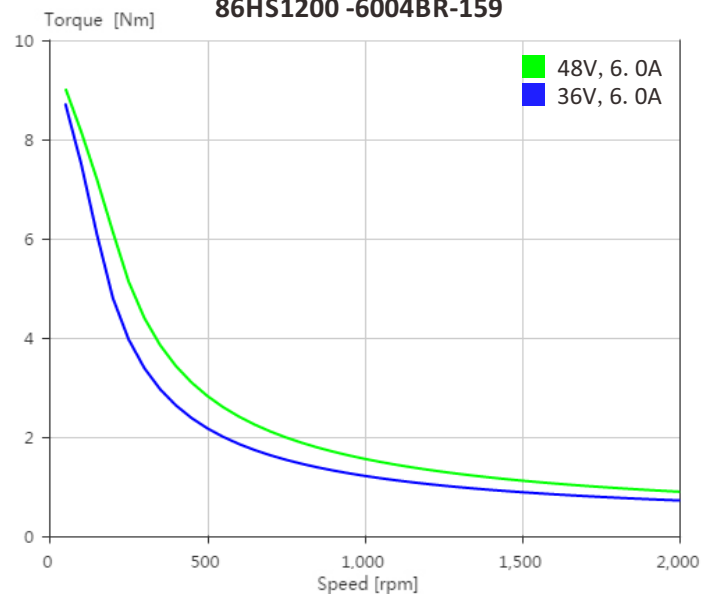
86HS800 -6004BR-119

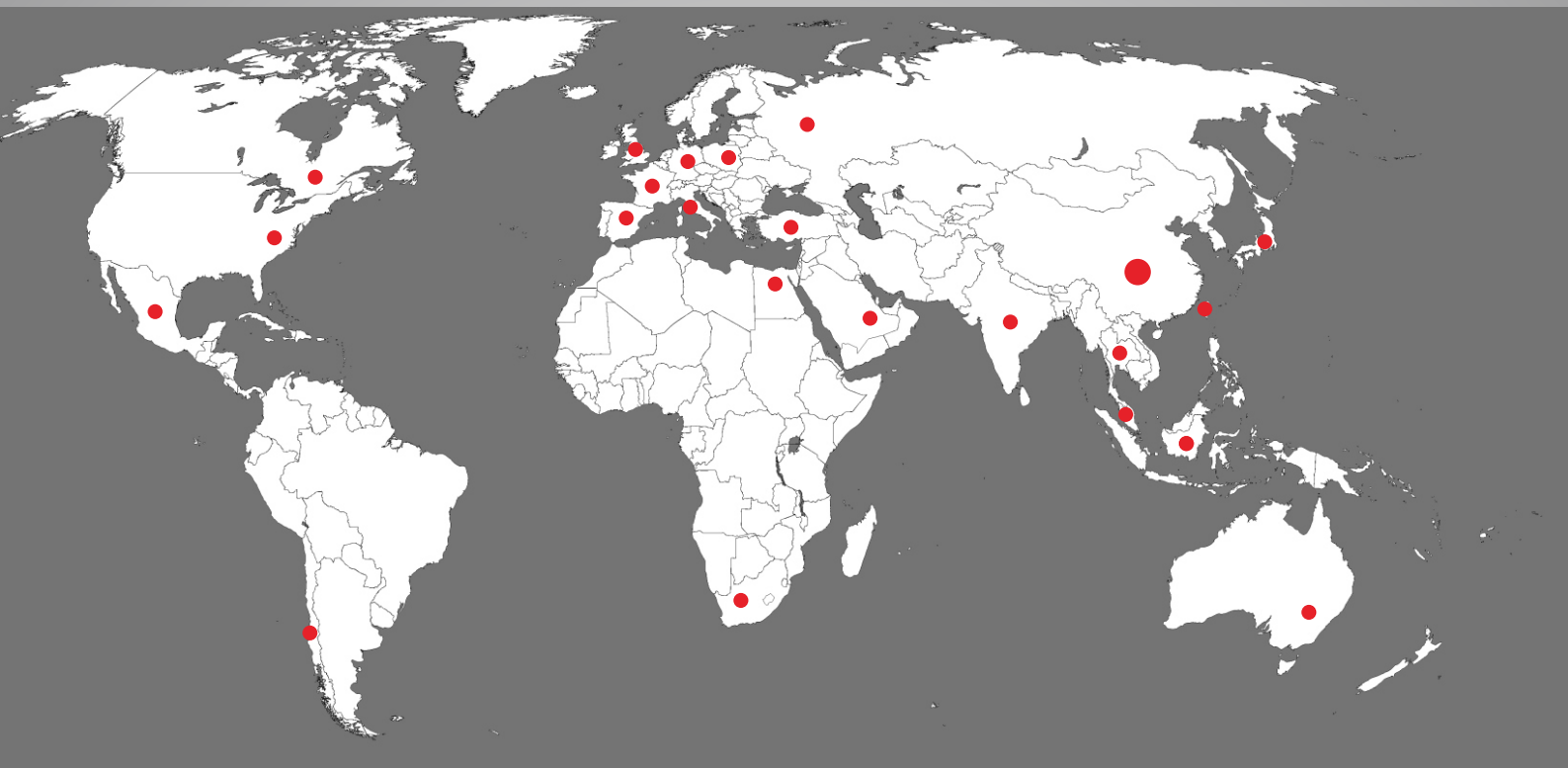


86HS920 -6004BR-126



86HS1200 -6004BR-159





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