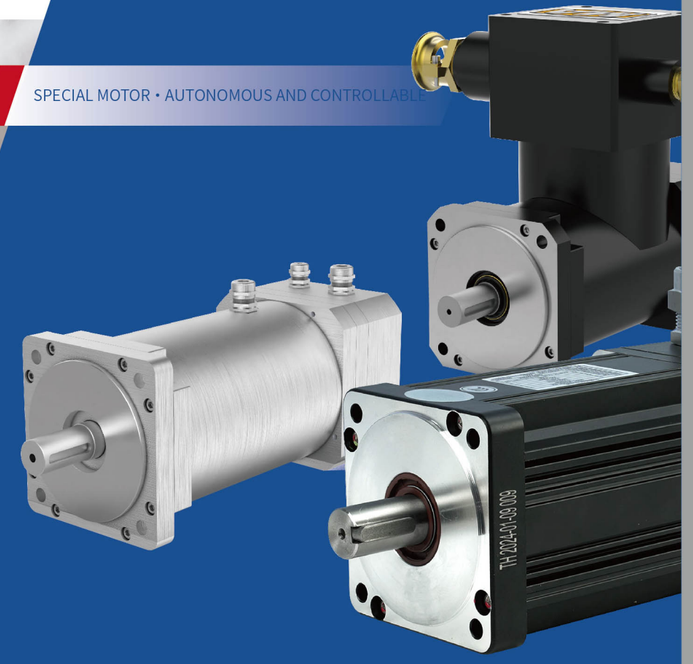
特种电机 自主可控

SPECIAL MOTOR • AUTONOMOUS AND CONTROLLABLE

Wheatstone

江苏惠斯通机电科技

Jiangsu Wheatstone Electrical Technology Co. Ltd.



Company Profile

Having been deeply engaged in the field of industrial automation for two decades, Jiangsu Wheatstone Electrome-chanical Technology Co., LTD. has developed into a national high-tech enterprise integration R&D, production and sales. The company is based in the two major intelligent manufacturing bases of Wuxi and Changzhou, and builds a digital production system relying on intelligent management system such as ERP, CRM, and MES. It has now formed a three-in-one industrial pattern of “special motors+intelligent detection+industrial control integration”. Special motor system solution:

Explosion-proof motor series

Explosion-proof servo motors/stepper explosion-proof feed motors/Mine explosion-proof servo all-in-one machine

Special environment adaptation type

Radiation-resistant high and low temperature vacuum motors, special motors for the nuclear industry

Military-grade customized products

Special equipment motors that meet the GJB national military standard system

Intelligent detection and integration

High-end laboratory testing equipment system
Relying on control motors to create system engineering design and manufacturing

Global access certification

International explosion-proof: IECEX/ATEX/China Explosion-proof CCC
Industry exclusive: China Classification Society/Coal Safety Certification (Class I)
Environmental adaptability:CE/Dust explosion-proof (Class III)/Gas explosion-proof(Class II)





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本手册是由江苏惠斯通机电科技有限公司提供的惠斯通电机产品的安装、接线、运行及维护方面的说明及指导

Motor Model Naming

Mine-Use Explosion-Proof Control Motor Series

SB - □ / □ Y

1 2 3 4

Serial Number	Content	Specific Instructions
1	Motor Type	S denotes servo motor, B denotes explosion-proof type
2	Rated Power	Indicates the rated power of the motor, with the value expressed in kilowatts (kW)
3	Voltage Level	Indicates the rated voltage of the motor, unit: V
4	Permanent magnet	Y indicates that the motor is a permanent magnet structure

AC/DC Servo Brushless Motor/Permanent Magnet Motor Series

130 ST X 100 30 B EX XXV C T6 J/H/Y

1 2 3 4 5 6 7 8 9 10 11

Serial Number	Content	Specific Instructions	Remark
1	Motor Base	40=40*40mm 110=110*110mm(Including EX) 40EX=45*45mm 130=130*130mm(Including EX) 60=60*60mm 150=150*150mm(Including EX) 60EX =65*65mm 180=180*180mm(Including EX) 80=80*80mm 220=220*220mm(Including EX) 90=90*90mm 260=265*265mm(Including EX) 400=400*400mm	
2	Servo Motor Type	ST indicates sinusoidal-driven permanent magnet synchronous motor BYG indicates stepper motor	
3	Feedback Element (Encoder)	M= Incremental Encoder H= Hall Sensor X= Rotary Transformer J= Absolute Encoder	Refer to ordering code for encoder details
4	Torque	Indicates rated motor torque, expressed as three digits × 0.1 in Nm	Torque ⩾ 100Nm is denoted by two digits + “A” suffix (e.g., 10A = 100Nm)
5	Speed	Indicates rated motor speed, expressed as two digits x 100 in rpm	Speed can be customized upon request
6	Brake	B= Motor with brake, default indicates motor without brake	Refer to ordering code for brake details
7	Motor Type	EX= Explosion-proof MA= Coal mine safety *GW= High temperature *DW= Low temperature *F= Radiation-resistant *FTZ= Radiation-resistant high-temperature vacuum motor *TZ= Special purpose *SS=under water	*-designated motor types require additional ordering code perAppendix 1
8	Voltage	AC：220VAC 380VAC 660VAC 1140VAC DC：96VDC 72VDC 48VDC 36VDC 24VDC	Custom voltages available upon request
9	Explosion-proof Type	C indicates explosion-proof category IIC Default indicates explosion-proof category IIB	
10	Temperature Class	Temperature class	
11	Series	J= Explosion-proof terminal block series H= Explosion-proof aviation connector series Y= Integrated unit series	

Stepper motor

86 BYG 140 - 4 1 1 GW

1 2 3 4 5 6

Serial Number	Content	Specific Instructions
1	86	Motor Base
2	BYG	Hybrid Stepper Motor
3	140	Motor body length
4	4	Number of motor leads
5	1	Derived Series Code First digit: Rotor type derivative Second digit: Stator type derivative
6	BYG	Motor Type

Asynchronous Motor Series

Y 254 - 310 - 2P1450 - (20)KW XXV - B

1 2 3 4 5 6 7 8

Serial Number	Content	Specific Instructions
1	Product Code	Y: Indicates squirrel-cage rotor asynchronous motor YR: Indicates wound-rotor asynchronous motor YB: Indicates explosion-proof asynchronous motor YT: Indicates axial-flow fan asynchronous motor VVP: Indicates variable-frequency speed-regulated asynchronous motor YD: Indicates variable-pole multi-speed asynchronous motor YZD: Indicates crane asynchronous motor
2	Base Number	Base Number: Indicated by the outer dimensions of the housing. For example, an outer diameter of 254mm is marked as 254
3	Stator core length	If the core length is 310mm, it is marked as 310
4	Extreme Number	For a 4-pole motor, it is denoted as 2P.
5	Speed	Indicates the rated speed of the motor, in units of rpm
6	Motor power	Motor rated power: For example, 20 kW is denoted as 20
7	Voltage	220V, 380V, 660V, 1140V, 3000V (voltage can be customized upon request)
8	Brake	Equipped with a brake is denoted by B; without a brake, the default setting applies.

Axial Flux Motor Series

AFM 360 - X100 - EX - 30 B - XXV - SSSR

1 2 3 4 5 6 7 8 9

Serial Number	Content	Specific Instructions
1	Product Code	AFM Axial Flux Motor
2	Base Number	Base Number: Indicated by the outer dimensions of the housing. For example, an outer diameter of 360mm is marked as 360.
3	Feedback Element (Encoder)	M=Incremental encoder X=Rotary Transformer J=Absolute encoder H=Hall sensor (Refer to ordering code for encoder details)
4	Torque	Indicates the rated torque of the motor, expressed as three digits multiplied by 0.1 in Nm. Note: For torques exceeding 100 Nm, the value is represented by two digits followed by an “A” suffix. For example, 10A denotes 100 Nm.
5	Motor Type	Default = Standard Servo ZD = 4-pole ZD5 = 5-pole ZD6 = 6-pole ZD7 = 7-pole ZD8 = 8-pole (and so on) EX = Explosion-proof MA = Coal mine safety EXL2 = Explosion-proof wide-temperature *GW(H) = High temperature *DW(L) = Low temperature *F = Radiation-proof HL, High/Low Temperature Motors *FTZ = Radiation-proof high-temperature vacuum motor *TZ = Special purpose *SS = Deep water (*Motor type codes require additional ordering codes per Appendix 1)
6	Speed	Indicates the motor's rated speed, expressed in two-digit X100 units of rpm (speed can be customized upon request).
7	Brake	Equipped with a brake is denoted by B; without a brake, the default setting applies.
8	Voltage	220V, 380V, 660V, 1140V, 3000V (voltage can be customized upon request)
9	Stator and Rotor Topology	SSSP: Single Stator Single Rotor SDSR: Single Stator Double Rotor DSSR: Double Stator Single Rotor MD: Multi-Disc

Frameless Torque Motor Series

52 WK - X 100 30 - XXV - 26 - 40 - XX

1 2 3 4 5 6 7 8 9

Serial Number	Content	Detailed description
1	Motor base	40 = Outer diameter 40mm 52 = Outer diameter 52mm 57 = Outer diameter 57mm 72 = Outer diameter 72mm 90 = Outer diameter 90mm 250 = Outer diameter 250mm
2	Motor Type	WK indicates that the motor is a frameless torque motor
3	Feedback component (encoder)	M=Incremental encoder H=Hall sensor X=Rotary Transformer J=Absolute encoder
4	Torque	Represents the rated torque of the motor, with a value of three digits × 0.1 Unit: Nm. Note: For torque >= 100 Nm the value is a combination of two digits and 'A'. For example, 10A represents 100 Nm
5	RPM	Represents the rated speed of the motor, with a value of two digits × 100 rpm
6	Voltage	Communication：220VAC 380VAC 660VAC 1140VAC Direct current：96VDC 72VDC 48VDC 36VDC 24VDC
7	Product inner diameter	Product Inner Diameter Size 26 = Inner Circle 26mm
8	Product Core Height Dimension	Product Core Height Dimension 40 = Core Thickness 40mm
9	Additional description	Defaults if no additional description is provided

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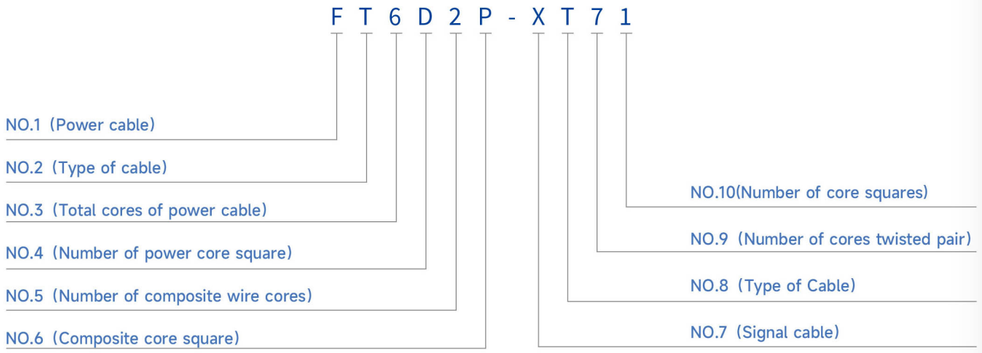
Encoder Ordering code

Encoder Ordering Code

Code Combination Table						Compatible Base								
Code	Type	Code	Agreement	Code	Resolution	40	60	90	110	130	150	180	220	260
G	Mechanical Single-Turn Absolute Encoder	G	485	G	Single lap,16bit		√	√	√	√	√	√	√	√
		X	Hiperface	Y	Single lap,128S/C			√	√	√	√	√	√	√
	Mechanical Multi-Turn Absolute Encoder	G	485	E	Single16,Multiple12				√	√	√	√	√	√
		H	Biss-C	C	Single24,Multiple12		√	√	√	√	√	√	√	√
			Biss-C	B	Single20,Multiple12		√	√	√	√	√	√	√	√
			Biss-C	A	Single17,Multiple12		√	√	√	√	√	√	√	√
			Biss-C	F	Single14,Multiple12		√	√	√	√	√	√	√	√
			Biss-C	N	Single lap23,Multiple turns12		√	√	√	√	√			
			485	M	Single lap23,Mutiple turns12		√	√	√	√	√	√	√	√
			Drive-cliq	Q	Single24,Multiple12		√	√	√	√	√	√	√	√
			Biss-C	K	Single lap19,Multiple turns12		√	√	√	√				
		X	Hiperface	Z	Single128S/C,Multiple12			√	√	√	√	√	√	√
		R	485	8	Single23,Multiple16		√	√	√	√	√	√	√	√
			485	7	Single17,Multiple16		√	√	√	√	√	√	√	√
			485	D	Single23,Multiple12		√	√	√	√	√	√	√	√
			485	A	Single17,Multiple12		√	√	√	√	√	√	√	√
J	Battery type multiturn absolute encoder (grating)	D	485	4	Single17,Multiple16		√	√	√	√	√	√	√	√
			485	5	Single23,Multiple16		√	√	√	√	√	√	√	√
		R	485	4	Single17,Multiple16	√	√	√	√	√	√	√	√	√
			485	5	Single23,Multiple16	√	√	√	√	√	√	√	√	√
		F	485	4	Single17,Multiple16		√	√	√	√	√	√	√	√
			485	5	Single23,Multiple16		√	√	√	√	√	√	√	√
	Battery multi -circle absolute value encoder(magnetic editor)	R	485	6	Single17,Multiple16	√	√	√						
	Absolute Encoder(Magnetic)			H	Singleturn,single17		√	√	√	√	√	√	√	√
M	Incremental(grating)	D		3	2500 pulse per revolution		√	√	√	√	√	√	√	√
		F		3	2500 pulse per revolution		√	√	√	√	√	√	√	√
		R		3	2500 pulse per revolution		√	√	√	√	√	√	√	√
	Incremental(grating saving line)	D		2	2500 pulse per revolution Save wire		√	√	√	√	√	√	√	√
		F		2	2500 pulse per revolution Save wire		√	√	√	√	√	√	√	√
		R		2	2500 pulse per revolution Save wire		√	√	√	√	√	√	√	√
	Incremental(magnetic editor)	R		3	2500 pulse per revolution		√	√	√	√	√	√	√	√
X	Rotary Transformer	D		1	1 polarity,0.5 ratio	√	√	√	√	√	√	√	√	√
		Y		1	1 polarity,,0.5 ratio		√	√	√	√	√	√	√	√
		T		1	1 polarity,,0.5 ratio		√	√	√	√	√	√	√	√
H	Hall Sensors	Z		0	120 degree Hall	√	√	√	√	√	√	√		
	(Permanent magnet synchronization) No feedback	0		0	(Permanent magnet synchroniz ation) No feedback	√	√	√	√	√	√	√	√	√

Cable Code Table



Comments:
1.When the power line contains other cores, it is defined as a composite power line(F).The 3rd bit expresses the total number of cores of the composite power line, and the 5th bit expresses the number of cores of the composite line
2.When there are only power lines, the first position is D, default 5 and 6
3.If the motor has more than one power or signal line the code can be repeated
4.If the motor does not have a signal line the corresponding position can be defaulted

e.g.1: 180ST-J19030B-EX Power cable type: TRVVP 4*2.5
Brake cable type: TRVV 2*0.5 Encoder cable type: TRVVSP 4*2*0.5
Model Expression: DT4D-DT2A-XT45

e.g.2: 90ST-M02430B-EX Power cable type: TRVVP 6*1.5
Brake cable and power cable lead together Encoder cable type: TRVVSP 1P0.35+6P0.2
Model Expression: FT6C2C-XT71

Cable code table

NO.1(Power Cable)		NO.2(Type of cable)		NO.3(Total cores of power cable)		NO.4(Number of power core square)		NO.5(Number of composite wire cores)	
Cable	Code	Type of Cable	Code	Number of cores	Code	Power cable square	Code	Number of composite cable cores	Code
Power cable	D	Drag chain cable	T	2	2	0.5	A	2	2
Composite power cable	F	Low temperature drag chain cable	L	3	3	0.75	B	4	4
		Radiation-resistant cable	R	4	4	1.5	C	2	
		Silicone Cable	G	5	5	2.5	D	4	
		Coal Safety Cable	M	6	6	4	E	2	
		Special cables	S	8	8	6	F	4	
		Flexible sheathed cable	V			3*6+1*4	G	2	
						10	H	4	
						16	I	2	
						3*16+1*10	J		
						25	K		
						3*25+1*16	L		
						35	M		
						50	N		
						8	P		

Cable code table

NO.6(Composite core square)		NO.7(Signal cable)		NO.8(Type of Cable)		NO.9(Number of cores twisted pair)		NO.10(Number of core squares)	
Square	Code	Cable	Code	Type of Cable	Code	Number of Encoder Cores-Twisted pair	Code	Square	Code
0.5	A	Signal cable	X	Drag chain cable	T	6	3	0.2	2
0.75	B			Low temperature drag chain cable	L	6	3	0.3	3
1	P			Radiation-resistant cable	R	6	3	0.5	5
1.5	C			Silicone Cable	G	8	4	0.2	2
2.5	D			Coal Safety Cable	M	8	4	24AWG	4
				Special cable	S	8	4	26AWG	6
				Flexible sheathed cable	V	14	7	0.2	2
						14	7	1P0.35+6P0.2	1
						5 (5core nontwisted)	0	0.75	7
						6 (6core nontwisted)	1		

Ordering Code Appendix 1(Internal Structure of an Electric Motor)

BIA - BA - D14E30 - D - N - L - XXXXXX
1 2 3 4 5 6 7

Serial Number	Content	Specific Instructions
1	Feedback Element Encoder	Refer to the specific encoder table
2	brake	Default = No Brake Brake Cable Outlet Configuration B1 = With Brake 24V A = Power Line Outlet B2 = With Brake 48V B = Signal Line Outlet B3 = With Brake 96V C = Separate Outlet B4 = Manual Release 24V B5 = Manual Release 48V
3	Temperature Sensor	Default = No temperature sensor K = KTY84-130 A = PT100 B = PT1000 Brake cable exit method A = Power line exit B = Signal line exit C = Separate exit
4	Shaft diameter and shaft extension	DXX = Shaft extension diameter EXX = Shaft extension length HXX = Spline outer diameter KXX = Hole depth NXX = Internal spline (keyway inner diameter) BXX = Flat wire width
5	Surface treatment	A=Powder coating B=Natural anodizing C=Hard anodizing D=Fluorocarbon paint E=Other custom finishes
6	Cooling method	N=Natural cooling F=Fan cooling Y=Liquid cooling
7	Cable length	N=Without Cable Z=Terminal Block H=Aviation Plug Type (ZLXX denotes a terminal block with XX-meter cable; Z alone denotes a terminal block without cable)

Ordering Code Appendix 2(Motor Application Scenarios)

H1 - L1 - RI - Z1 - S1

1 2 3 4

Serial Number	Content	Specific Instructions	Remark
1	Temperature Range	H1=High Temperature Resistance 80°C H2=High Temperature Resistance 120°C H3=High Temperature Resistance 150°C H4=High Temperature Resistance 180°C H5=High Temperature Resistance 200°C H6=High Temperature Resistance 300°C L1=Low Temperature Resistance -40°C L2=Low Temperature Resistance -55°C L3=Low Temperature Resistance -96°C L4=Low Temperature Resistance -196°C	Customizable upon request; wide-temperature motors are designated by a two-digit code combination
2	Radiation Resistance Rating	R1 = Radiation resistance 10^4 Gy R2 = Radiation resistance 10^5 Gy R3 = Radiation resistance 10^6 Gy R4 = Radiation resistance 10^7 Gy	Customizable upon request, resistant to neutron radiation, etc
3	Vacuum Level	ZI=Low Vacuum 10^5~10^2 Pa Z2=Medium Vacuum 10^2~10^{-1} Pa Z3=High Vacuum 10^{-1}~10^{-5} Pa Z4=Ultra-High Vacuum ＜10^{-5} Pa	Customized to specifications, with vacuum levels exceeding 10^{-7} Pa
4	Water resistance depth	S1=Dry-type sealed (depth 0–20 meters) S2=Dry-type oil-filled composite (depth 20–200 meters) S3A=Stator-potted pressure-resistant (depth ≤1000 meters) S3B=Stator-potted pressure-resistant (depth >1000 meters) S4A=Oil-filled type (depth ≤ 1000 meters) S4B=Oil-filled type (depth > 1000 meters) (Customizable upon request)	Customizable upon request

Ordering Code Appendix 3(Internal Structure of a Frameless Torque Motor)

MD3 - A - BA - D14E30 - N - L - XXXXXX

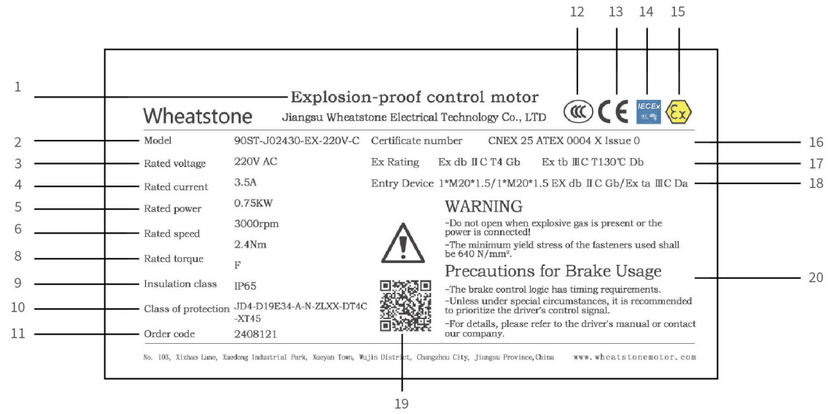
1 2 3 4 5 6 7

Serial Number	Content	Specific Instructions
1	Feedback Element Encoder	Refer to the specific encoder table
2	Installation Type	Brake Cable Wiring Configuration A=Customer-installed stator and rotor assemblies B=Internally assembled stator and rotor assemblies C=Customer-installed stator assembly D=Customer-installed rotor assembly
3	Temperature Sensor	Default = No temperature sensor K = KTY84-130 A = PT100 B = PT1000 Brake cable exit method A = Power line exit B = Signal line exit C = Separate exit
4	Rotor Mounting Dimensions	DXX = Shaft extension diameter EXX = Shaft extension length HXX = Spline outer diameter KXX = Hole depth NXX = Internal spline (keyway inner diameter) BXX = Flat wire width
5	Cooling method	N=Natural cooling F=Fan cooling Y=Liquid cooling
6	Cable length	LXX=With Cable XX indicates cable length in meters
7	Cable Details	Refer to the specific cable code table

Motor Products

Explosion-Proof Servo Motor Series EX

Product Nameplate (The nameplate contains relevant product data)



Nameplate Specifications - Explosion-Proof Control Motor Series

Location	Description/Technical Specifications
1	Product Name
2	Product Model
3	Motor Rated Voltage
4	Motor Rated Current
5	Motor Rated Power
6	Motor Rated Speed
7	Motor Rated Torque
8	Motor Insulation Class
9	Motor Protection Rating
10	Product Ordering Code
11	Generation Date
12	CCC Certification Mark
13	CE Certification Mark and EU Standards
14	IECE Certification Mark
15	ATEX International Explosion-Proof Certification
16	Explosion-Proof Certificate Number
17	Gas Environment Explosion-Proof Marking Dust Environment Explosion-Proof Marking
18	Introduction Device
19	Motor Information QR Code
20	Precautions

Advantages of Wheatstone Explosion-Proof Servo Motors

- Equipped with full-system international/domestic explosion-proof certificates (ATEX, IECEx,KCS, GB3836, etc.)
- Wide power range with multiple model options, from 50W to 120kW
- High efficiency and responsiveness, with efficiency up to 90% or above
- Strong environmental adaptability, resistant to high/low temperatures, operating temperature range: -40°C to +80°C
- High protection rating, up to IP65/IP66/IP67/IP68/IP69K
- Customizable speed/voltage
- High-precision control
- Flexible combination of motor and driver, supporting bus control (e.g., EtherCAT, PROFINET), facilitating system integration and expansion

Application Scenarios of Wheatstone Explosion-Proof Servo Motors

Industrial Manufacturing & Automation

Injection Molding & Press Equipment: Presses, injection molding hydraulic equipment
CNC Processing: CNC machines, marking machines, polishing equipment
Robots & Manipulators: Gantry robots, explosion-proof robots, welding robots, AGV/RGV inspection robots, intelligent pallets, palletizers, industrial robots
Fluid Control: Valve switches, automatic control valves, valve equipment, gear pumps, metering pumps

Chemical & Explosion-Hazardous Industries

Chemical Production: Chemical filling equipment, resin processing equipment, explosion-proof glass reactors
Oil & Natural Gas: Offshore drilling, oil & gas transportation, oil & natural gas energy equipment
Hazardous Goods Production: Solid propellant production equipment, propellant cleaning equipment

Energy & Transportation

Ship & Marine Engineering: Ship transportation, offshore drilling
Energy Transportation: Oil & gas transportation, natural gas transportation

Medical & Pharmaceutical

Pharmaceutical Equipment: Piston-free filling and packaging machines, cutting equipment, lithium battery liquid injection machines (partially medical-related)

3C & Electronic Manufacturing

3C Industry: Precision assembly, electronic manufacturing equipment

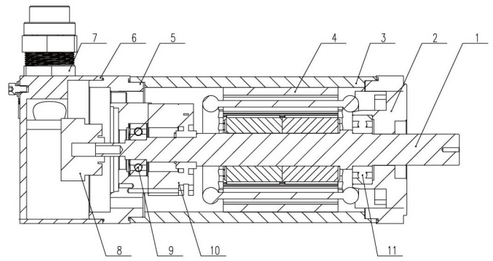
Packaging & Logistics

Packaging Equipment: Coding machines, piston-free filling and packaging machines
Logistics Automation: AGV/RGV inspection robots, palletizers, stackers

Other Industrial Applications

Mixing & Blending: Mixing equipment, fluid equipment
Lifting Equipment: Elevators, electric cylinders
Welding & Spraying: Welding machines, component spraying equipment
Special Processing: FRP winding machines, mining equipment

Structure of the Wheatstone Explosion-Proof Servo Motor



- 1-Rotor Assembly
- 2-Front cover
- 3-Chassis
- 4-Stator assembly
- 5-End cover
- 6-rear cover
- 7-Explosion-proof connector
- 8-Encoder
- 9-Rear bearing
- 10-Brake
- 11-Front bearing

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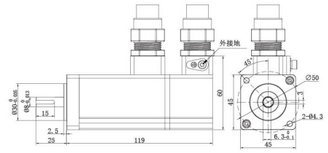
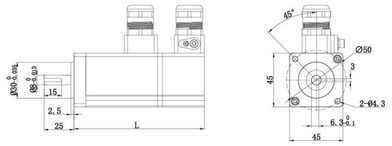
40 Explosion-Proof Motor









Motor Model	L(mm)	XXV
40ST-□00230-EX-XXV	109	DC24,48,72;AC220
40ST-□00330-EX-XXV	119	DC24.48,72;AC220
40ST-□00230B-EX-XXV	139	DC24,48,72;AC220
40ST-□0330B-EX-XXV	149	DC24,48,72;AC220

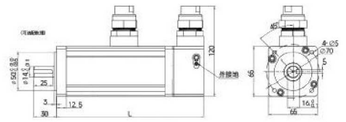
Electrical Parameters	DC24V		DC48V	
Motor Model	40ST-□00230	40ST-□00330	40ST-□00230	40ST-□00330
Rated Power(KW)	0.05	0.1	0.05	0.1
Rated Current(A)	2.6	5.2	1.3	2.6
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	0.16	0.32	0.16	0.32
Peak Torque(Nm)	0.48	0.96	0.48	0.96
Rotor Inertia(kg.cm²)	46	80	46	80

Electrical Parameters	DC72V		AC220V	
Motor Model	40ST-□00230	40ST-□00330	40ST-□00230	40ST-□00330
Rated Power(KW)	0.05	0.1	0.05	0.1
Rated Current(A)	0.9	1.7	0.69	1.27
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	0.16	0.32	0.16	0.32
Peak Torque(Nm)	0.48	0.96	0.48	0.96
Rotor Inertia(kg.cm²)	46	80	46	80

60 Explosion-Proof Motor

- servo motor with lead-out cables

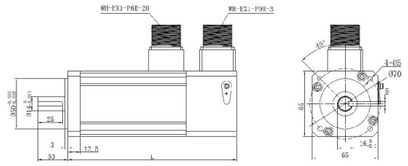




Motor Model	L(mm)	XXV
60ST-□00630-EX-XXV-ZD	144.5	DC24,48,72;AC220,380
60ST-□00630B-EX-XXV-ZD	179.5	DC24,48,72;AC220,380
60ST-□01330-EX-XXV-ZD	167.5	DC24,48,72;AC220,380
60ST-□01330B-EX-XXV-ZD	202.5	DC24,48,72;AC220,380
60ST-□02030-EX-XXV-ZD	189.5	DC24,48,72;AC220,380
60ST-□02030B-EX-XXV-ZD	224.5	DC24,48,72;AC220,380

- Explosion-proof aviation connector type

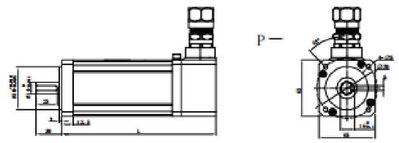




Motor Model	L(mm)
60ST-□006XX-EX-XXV-C(H)	154.5
60ST-□013XX-EX-XXV-C(H)	177.5
60ST-□020XX-EX-XXV-C(H)	199.5
60ST-□006XXB-EX-XXV-C(H)	184.5
60ST-□013XXB-EX-XXV-C(H)	207.5
60ST-□020XXB-EX-XXV-C(H)	229.5

- Explosion-proof permanent magnet type





Motor Model	L(mm)
60ST-□006XX-EX-XXV-ZD(JXZ)	154.5
60ST-□013XX-EX-XXV-ZD(JXZ)	177.5
60ST-□020XX-EX-XXV-ZD(JXZ)	199.5
60ST-□006XXB-EX-XXV-ZD(JXZ)	184.5
60ST-□013XXB-EX-XXV-ZD(JXZ)	207.5
60ST-□020XXB-EX-XXV-ZD(JXZ)	229.5

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Electrical Parameters	DC24V		
Motor Model	60ST-□00630	60ST-□01330	60ST-□02030
Rated Power(KW)	0.2	0.4	0.6
Rated Current(A)	11.1	22.2	33.3
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2
Peak Torque(Nm)	18	3.9	6
Rotor Inertia(kg.cm²)	0.33	0.5	0.66

Electrical Parameters	DC48V		
Motor Model	60ST-□00630	60ST-□01330	60ST-□02030
Rated Power(KW)	0.2	0.4	0.6
Rated Current(A)	5.2	10.4	15.6
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2
Peak Torque(Nm)	1.8	3.9	6
Rotor Inertia(kg.cm²)	0.33	0.5	0.66

Electrical Parameters	DC72V		
Motor Model	60ST-□00630	60ST-□01330	60ST-□02030
Rated Power(KW)	0.2	0.4	0.6
Rated Current(A)	3.5	6.9	10.4
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2
Peak Torque(Nm)	18	3.9	6
Rotor Inertia(kg.cm²)	0.33	0.5	0.66

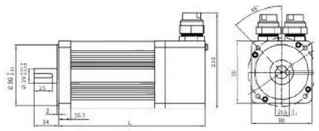
Electrical Parameters	AC220V		
Motor Model	60ST-□00630	60ST-□01330	60ST-□02030
Rated Power(KW)	0.2	0.4	0.6
Rated Current(A)	1.3	2.4	3.8
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2
Peak Torque(Nm)	1.8	3.9	6
Rotor Inertia(kg.cm²)	0.33	0.5	0.66

Electrical Parameters	AC380V		
Motor Model	60ST-□00630	60ST-□01330	60ST-□02030
Rated Power(KW)	0.2	0.4	0.6
Rated Current(A)	1.3	2.4	38
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2
Peak Torque(Nm)	1.8	3.9	6
Rotor Inertia(kg.cm²)	0.33	0.5	0.66

90 Explosion-Proof Servo Motor

- Lead wires terminal posts

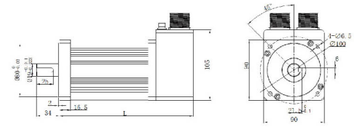




Motor Model	L(mm)
90ST-□00630-EX-XXV(J)/90ST-□00630-EX-XXV	164.5
90ST-□01330-EX-XXV(J)/90ST-□01330-EX-XXV	170.5
90ST-□02430-EX-XXV(J)/90ST-□02430-EX-XXV	198.5
90ST-□03330B-EX-XXV(J)/90ST-□03330-EX-XXV	232.5
90ST-□00630B-EX-XXV(J)/90ST-□00630B-EX-XXV	199.5
90ST-□01330B-EX-XXV(J)/90ST-□01330B-EX-XXV	205.5
90ST-□02430B-EX-XXV(J)/90ST-□02430B-EX-XXV	233.5
90ST-□03330B-EX-XXV(J)/90ST-□03330B-EX-XXV	267.5

- Explosion-proof aviation connector type

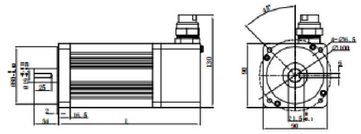




Motor Model	L(mm)
90ST-□006XX-EX-XXV-C(H)	164.5
90ST-□013XX-EX-XXV-C(H)	170.5
90ST-□024XX-EX-XXV-C(H)	198.5
90ST-□033XX-EX-XXV-C(H)	232.5
90ST-□006XXB-EX-XXV-C(H)	199.5
90ST-□013XXB-EX-XXV-C(H)	205.5
90ST-□024XXB-EX-XXV-C(H)	233.5
90ST-□033XXB-EX-XXV-C(H)	267.5

- Explosion-proof permanent magnet type





Motor Model	L(mm)
90ST-□006XX-EX-XXV(JXZ)	164.5
90ST-□013XX-EX-XXV(JXZ)	170.5
90ST-□024XX-EX-XXV(JXZ)	198.5
90ST-□006XXB-EX-XXV(JXZ)	199.5
90ST-□013XXB-EX-XXV(JXZ)	205.5
90ST-□024XXB-EX-XXV(JXZ)	233.5

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Electrical Parameters	DC24V			
Motor Model	90ST-□00630		90ST-□01330	
Rated Power(KW)	0.2		0.4	
Rated Current(A)	10.4		20.8	
Rated Speed(rpm)	3000		3000	
Maximum Speed(rpm)	6000		6000	
Rated Torque(Nm)	0.6		1.3	
Peak Torque(Nm)	1.8		3.9	
Rotor Inertia(kg.cm²)	0.3		0.6	

Electrical Parameters	DC48V			
Motor Model	90ST-□00630	90ST-□01330	90ST-□02430	90ST-□03330
Rated Power(KW)	0.2	0.4	0.75	1
Rated Current(A)	4.9	9.8	18.4	24.5
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2.4	3.3
Peak Torque(Nm)	1.8	3.9	7.2	9.9
Rotor Inertia(kg.cm²)	0.3	0.6	0.9	1.2

Electrical Parameters	DC72V			
Motor Model	90ST-□00630	60ST-□01330	90ST-□02430	90ST-□03330
Rated Power(KW)	0.2	0.4	0.75	1
Rated Current(A)	3.3	6.9	12.3	16.3
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2.4	3.3
Peak Torque(Nm)	1.8	3.9	7.2	9.9
Rotor Inertia(kg.cm²)	0.3	0.5	0.9	1.2

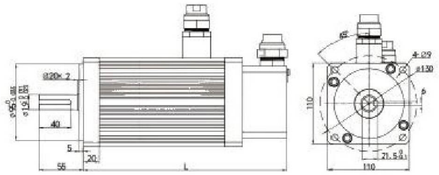
Electrical Parameters	AC220V			
Motor Model	90ST-□00630	90ST-□01330	90ST-□02430	90ST-□03330
Rated Power(KW)	0.2	0.4	0.75	1
Rated Current(A)	1.1	2.1	3.8	4.5
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2.4	3.3
Peak Torque(Nm)	1.8	3.9	7.2	9.9
Rotor Inertia(kg.cm²)	0.3	0.6	0.9	1.2

Electrical Parameters	AC380V			
Motor Model	90ST-□00630	90ST-□01330	90ST-□02430	90ST-□03330
Rated Power(KW)	0.2	0.4	0.75	1
Rated Current(A)	0.6	1.05	1.98	2.6
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	0.6	1.3	2.4	3.3
Peak Torque(Nm)	1.8	3.9	6	9.9
Rotor Inertia(kg.cm²)	0.3	0.6	0.9	1.2

110 Explosion-Proof Servo Motor

■ Servo Motor With Lead-out Cables

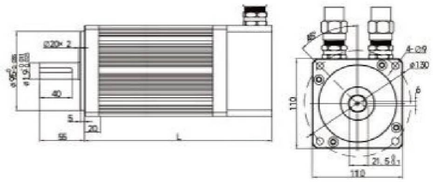




Motor Model	L(mm)	XXV
110ST-□02030-EX-XXV	227	DC24,48,72;AC220,380
10ST-□02030B-EX-XXV	252	DC24,48,72;AC220,380
110ST-□04030-EX-XXV	252	DC24,48,72;AC220,380
10ST-□04030B-EX-XXV	277	DC24,48,72;AC220,380
110ST-□06030-EX-XXV	282	DC24,48,72;AC220,380
10ST-□06030B-EX-XXV	307	DC24,48,72;AC220,380

■ Terminal Block Type

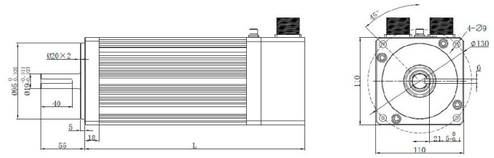




Motor Model	L(mm)	XXV
110ST-□02030-EX-XXV (J)	225	DC24,48,72;AC220,380
110ST-□02030B-EX-XXV (J)	250	DC24,48,72;AC220,380
110ST-□04030-EX-XXV (J)	250	DC24.48,72;AC220,380
110ST-□04030B-EX-XXV (J)	275	DC24,48,72;AC220,380
110ST-□06030-EX-XXV (J)	280	DC24,48,72;AC220,380
110ST-□06030B-EX-XXV (J)	305	DC24,48,72;AC220,380

■ Explosion-proof aviation connector type

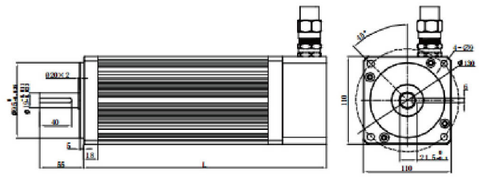




Motor Model	L(mm)
110ST-□020XX-EX-XXV-C(H)	195
110ST-□040XX-EX-XXV-C(H)	220
110ST-□060XX-EX-XXV-C(H)	250
110ST-□020XXB-EX-XXV-C(H)	220
110ST-□040XXB-EX-XXV-C(H)	245
110ST-□060XXB-EX-XXV-C(H)	275

■ Explosion-proof permanent magnet type





Motor Model	L(mm)
110ST-□020XX-EX-XXV-C(J)	195
110ST-□040XX-EX-XXV-C(J)	220
110ST-□060XX-EX-XXV-C(J)	250
110ST-□020XXB-EX-XXV-C(J)	220
110ST-□040XXB-EX-XXV-C(J)	245
110ST-□060XXB-EX-XXV-C(J)	275

Electrical Parameters	DC24V		
Motor Model	110ST-□02030	110ST-□04030	110ST-□06020
Rated Power(KW)	0.6	1.2	1.2
Rated Current(A)	31.3	62.5	62.5
Rated Speed(rpm)	3000	3000	2000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	2	4	6
Peak Torque(Nm)	6	12	18
Rotor Inertia(kg.cm²)	3.1	5.4	7.6

Electrical Parameters	DC48V		
Motor Model	110ST-□02030	110ST-□04030	110ST-□06030
Rated Power(KW)	0.6	1.2	1.8
Rated Current(A)	14.7	29.4	44.1
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	2	4	6
Peak Torque(Nm)	6	12	18
Rotor Inertia(kg.cm²)	3.1	5.4	7.6

Electrical Parameters	DC72V		
Motor Model	10ST-□02030	110ST-□04030	110ST-□06030
Rated Power(KW)	0.6	1.2	1.8
Rated Current(A)	9.8	19.6	29.4
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	2	4	6
Peak Torque(Nm)	6	12	18
Rotor Inertia(kg.cm²)	3.1	5.4	7.6

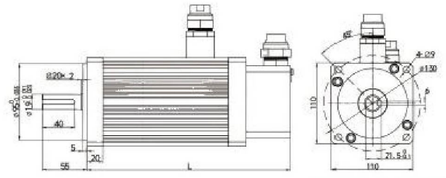
Electrical Parameters	AC220V		
Motor Model	110ST-□02030	110ST-□04030	110ST-□06030
Rated Power(KW)	0.6	1.2	1.8
Rated Current(A)	3.3	5.3	8
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	2	4	6
Peak Torque(Nm)	6	12	18
Rotor Inertia(kg.cm²)	3.1	5.4	7.6

Electrical Parameters	AC380V		
Motor Model	110ST-□02030	110ST-□04030	110ST-□06030
Rated Power(KW)	0.6	1.2	1.8
Rated Current(A)	1.9	3.0	4.6
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	2	4	6
Peak Torque(Nm)	6	12	18
Rotor Inertia(kg.cm²)	3.1	5.4	7.6

130 Explosion-Proof Servo Motor

- Servo Motor With Lead-out Cables

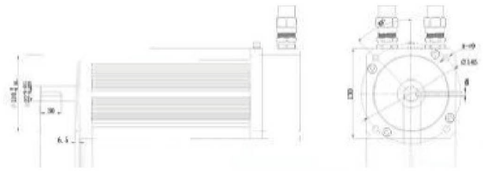




Motor Model	L(mm)	XXV
130ST-□02530-EX-XXV	253	DC24,48,72;AC220,380
130ST-□02530B-EX-XXV	278	DC24,48,72;AC220,380
130ST-□04030-EX-XXV	253	DC24,48,72;AC220,380
130ST-□04030B-EX-XXV	278	DC24,48,72;AC220,380
130ST-□06030-EX-XXV	264	DC24,48,72;AC220,380
130ST-□06030B-EX-XXV	289	DC24,48,72;AC220,380
130ST-□07730-EX-XXV	278	DC24,48,72;AC220,380
130ST-□07730B-EX-XXV	303	DC24,48,72;AC220,380
130ST-□10030-EX-XXV	312	DC24,48,72;AC220,380
130ST-□10030B-EX-XXV	337	DC24,48,72;AC220,380
130ST-□150XX-EX-XXV	346	DC48,72;AC220,380
130ST-□150XXB-EX-XXV	372	DC48,72;AC220,380

- Terminal Block Type

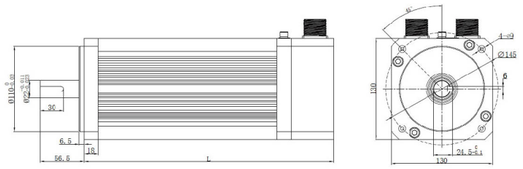




Motor Model	L(mm)
130ST-□025XX-EX-XXV-C/130ST-□025XX-EX-XXV-C(J)	235
130ST-□040XX-EX-XXV-C/130ST-□040XX-EX-XXV-C(J)	235
130ST-□060XX-EX-XXV-C/130ST-□060XX-EX-XXV-C(J)	245
130ST-□077XX-EX-XXV-C/130ST-□077XX-EX-XXV-C(J)	260
130ST-□100XX-EX-XXV-C/130ST-□100XX-EX-XXV-C(J)	296
130ST-□150XX-EX-XXV-C/130ST-□150XX-EX-XXV-C(J)	330
130ST-□025XXB-EX-XXV-C/130ST-□025XXB-EX-XXV-C(J)	260
130ST-□040XXB-EX-XXV-C/130ST-□040XXB-EX-XXV-C(J)	260
130ST-□060XXB-EX-XXV-C/130ST-□060XXB-EX-XXV-C(J)	270
130ST-□077XXB-EX-XXV-C/130ST-□077XXB-EX-XXV-C(J)	285
130ST-□100XXB-EX-XXV-C/130ST-□100XXB-EX-XXV-C(J)	321
130ST-□150XXB-EX-XXV-C/130ST-□150XXB-EX-XXV-C(J)	355

■ Explosion-proof aviation connector type

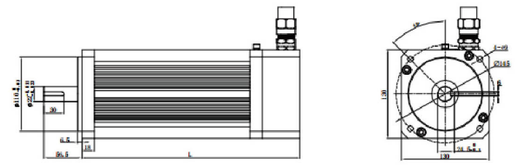




Motor Model	L(mm)
130ST-□040XX-EX-XXV(H)	235
130ST-□060XX-EX-XXV(H)	245
130ST-□077XX-EX-XXV(H)	260
130ST-□100XX-EX-XXV(H)	296
130ST-□150XX-EX-XXV(H)	330
130ST-□040XXB-EX-XXV(H)	260
130ST-□060XXB-EX-XXV(H)	270
130ST-□077XXB-EX-XXV(H)	285
130ST-□100XXB-EX-XXV(H)	321
130ST-□150XXB-EX-XXV(H)	355

■ Explosion-proof permanent magnet type





Motor Model	L(mm)
130ST-□025XX-EX-XXV-C(J)	235
130ST-□040XX-EX-XXV-C(J)	235
130ST-□060XX-EX-XXV-C(J)	245
130ST-□077XX-EX-XXV-C(J)	260
130ST-□100XX-EX-XXV-C(J)	296
130ST-□150XX-EX-XXV-C(J)	330
130ST-□025XXB-EX-XXV-C(J)	260
130ST-□040XXB-EX-XXV-C(J)	260
130ST-□060XXB-EX-XXV-C(J)	270
130ST-□077XXB-EX-XXV-C(J)	285
130ST-□100XXB-EX-XXV-C(J)	321
130ST-□150XXB-EX-XXV-C(J)	355

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Electrical Parameters	DC24V			
Motor Model	130ST-□04030	130ST-□06030	130ST-□07725	130ST-□10025
Rated Power(KW)	1.2	1.8	2	2.5
Rated Current(A)	62.5	93.8	104.2	130.2
Rated Speed(rpm)	3000	3000	2500	2500
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	4	6	7.7	10
Peak Torque(Nm)	12	18	23.1	30
Rotor Inertia(kg.cm²)	8.5	12.6	15.3	21.4

Electrical Parameters	DC48V			
Motor Model	130ST-□04030	130ST-□06030	130ST-□07730	130ST-□10030
Rated Power(KW)	1.2	1.8	2.4	3
Rated Current(A)	29.4	44.1	58.8	73.5
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	4	6	7.7	10
Peak Torque(Nm)	12	18	23.1	30
Rotor Inertia(kg.cm²)	8.5	12.6	15.3	21.4

Electrical Parameters	DC72V			
Motor Model	130ST-□04030	130ST-□06030	130ST-□07730	130ST-□10030
Rated Power(KW)	1.2	1.8	2.4	3
Rated Current(A)	19.6	29.4	39.2	49
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	4	6	7.7	10
Peak Torque(Nm)	12	18	23.1	30
Rotor Inertia(kg.cm²)	8.5	12.6	15.3	21.4

Electrical Parameters	DC220V				
Motor Model	130ST-□04030	130ST-□06030	130ST-□07730	130ST-□10030	130ST-□15030
Rated Power(KW)	1.2	1.8	2.4	3	4.5
Rated Current(A)	5.3	8	10.6	13.3	20
Rated Speed(rpm)	3000	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000	6000
Rated Torque(Nm)	4	6	7.7	10	15
Peak Torque(Nm)	12	18	23.1	30	45
Rotor Inertia(kg.cm²)	8.5	12.6	15.3	21.4	27.7

Electrical Parameters	DC380V		
Motor Model	130ST-□04030	130ST-□06030	130ST-□07730
Rated Power(KW)	1.2	1.8	2.4
Rated Current(A)	3	4.6	6.1
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	4	6	7.7
Peak Torque(Nm)	12	18	23.1
Rotor Inertia(kg.cm^2)	8.5	12.6	15.3

Electrical Parameters	AC380V	
Motor Model	130ST-□10030	130ST-□15030
Rated Power(KW)	3	4.5
Rated Current(A)	7.6	11.5
Rated Speed(rpm)	3000	3000
Maximum Speed(rpm)	6000	6000
Rated Torque(Nm)	10	15
Peak Torque(Nm)	30	45
Rotor Inertia(kg.cm^2)	21.4	27.7

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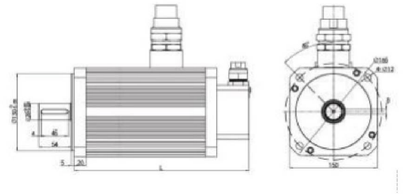
150 Explosion-Proof Servo Motor

■ Servo Motor With Lead-out Cables



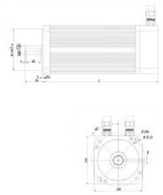


Motor Model	L(mm)
150ST-□100XX-EX-XXV	249
150ST-□120XX-EX-XXV	259
150ST-□150XX-EX-XXV	274
150ST-□190XX-EX-XXV	299
150ST-□240XX-EX-XXV	324
150ST-□280XX-EX-XXV	349
150ST-□100XX-EX-XXXV	224
150ST-□120XX-EX-XXXV	234
150ST-□150XX-EX-XXXV	249
150ST-□190XX-EX-XXXV	274
150ST-□240XX-EX-XXXV	299
150ST-□280XX-EX-XXXV	324
150ST-□100XXB-EX-XXV	289
150ST-□120XXB-EX-XXV	299
150ST-□150XXB-EX-XXV	314
150ST-□190XXB-EX-XXV	339
150ST-□240XXB-EX-XXV	364
150ST-□280XXB-EX-XXV	389
150ST-□100XXB-EX-XXXV	259
150ST-□120XXB-EX-XXXV	269
150ST-□150XXB-EX-XXXV	284
150ST-□190XXB-EX-XXXV	309
150ST-□240XXB-EX-XXXV	334
150ST-□280XXB-EX-XXXV	359

Motor Model	L(mm)
150ST-□100XX-EX-XXV-C	247
150ST-□120XX-EX-XXV-C	257
150ST-□150XX-EX-XXV-C	272
150ST-□190XX-EX-XXV-C	297
150ST-□240XX-EX-XXV-C	322
150ST-□280XX-EX-XXV-C	347
150ST-□100XX-EX-XXXV-C	222
150ST-□120XX-EX-XXXV-C	232
150ST-□150XX-EX-XXXV-C	247
150ST-□190XX-EX-XXXV-C	272
150ST-□240XX-EX-XXXV-C	297
150ST-□280XX-EX-XXXV-C	322
150ST-□100XXB-EX-XXV-C	287
150ST-□120XXB-EX-XXV-C	297
150ST-□150XXB-EX-XXV-C	312
150ST-□190XXB-EX-XXV-C	337
150ST-□240XXB-EX-XXV-C	362
150ST-□280XXB-EX-XXV-C	387
150ST-□100XXB-EX-XXXV-C	257
150ST-□120XXB-EX-XXXV-C	267
150ST-□150XXB-EX-XXXV-C	282
150ST-□190XXB-EX-XXXV-C	307
150ST-□240XXB-EX-XXXV-C	332
150ST-□280XXB-EX-XXXV-C	357

■ Terminal Block Type

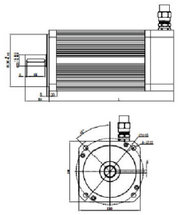




Motor Model	L(mm)
150ST-□100XX-EX-XXXV(J)	224
150ST-□120XX-EX-XXXV(J)	234
150ST-□150XX-EX-XXXV(J)	249
150ST-□190XX-EX-XXXV(J)	274
150ST-□240XX-EX-XXXV(J)	299
150ST-□280XX-EX-XXXV(J)	324
150ST-□100XXB-EX-XXXV(J)	259
150ST-□120XXB-EX-XXXV(J)	269
150ST-□150XXB-EX-XXXV(J)	284
150ST-□190XXB-EX-XXXV(J)	309
150ST-□240XXB-EX-XXXV(J)	334
150ST-□280XXB-EX-XXXV(J)	359

■ Explosion-proof permanent magnet type





motor model	L1
150ST-□100XX-EX-XXXV(J)	224
150ST-□120XX-EX-XXXV(J)	234
150ST-□150XX-EX-XXXV(J)	249
150ST-□190XX-EX-XXXV(J)	274
150ST-□240XX-EX-XXXV(J)	299
150ST-□280XX-EX-XXXV(J)	324
150ST-□100XXB-EX-XXXV(J)	259
150ST-□120XXB-EX-XXXV(J)	269
150ST-□150XXB-EX-XXXV(J)	284
150ST-□190XXB-EX-XXXV(J)	309
150ST-□240XXB-EX-XXXV(J)	334
150ST-□280XXB-EX-XXXV(J)	359

Electrical Parameters	DC24V					
Motor Model	150ST-□10030-EX-24V					
Rated Power(KW)	3					
Rated Current(A)	147.1					
Rated Speed(rpm)	3000					
Maximum Speed(rpm)	6000					
Rated Torque(Nm)	10					
Peak Torque(Nm)	30					
Rotor Inertia(kg.cm²)	24.4					

Electrical Parameters	DC48V					
Motor Model	150ST-□10030	150ST-□12030	150ST-□15030	150ST-□19030	150ST-□24025	150ST-□28030
Rated Power(KW)	3	3.7	4.5	6	6.2	8.5
Rated Current(A)	73.5	90.7	110.3	147Z1	152	208.3
Rated Speed(rpm)	3000	3000	3000	3000	2500	3000
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	10	12	15	19	24	28
Peak Torque(Nm)	30	36	45	57	72	84
Rotor Inertia(kg.cm²)	24.4	29.3	36.6	48.7	61	73.2

Electrical Parameters	DC72V					
Motor Model	150ST-□10030	150ST-□12030	150ST-□15030	150ST-□19030	150ST-□24030	150ST-□28030
Rated Power(KW)	3	3.7	4.5	6	75	8.5
Rated Current(A)	49	60.5	73.5	98	122.5	138.9
Rated Speed(rpm)	3000	3000	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	10	12	15	19	24	28
Peak Torque(Nm)	30	36	45	57	72	84
Rotor Inertia(kg.cm²)	24.4	29.3	36.6	48.7	61	73.2

Electrical Parameters	DC96V					
Motor Model	150ST-□10030	150ST-□12030	150ST-□15030	150ST-□19030	150ST-□24030	150ST-□28030
Rated Power(KW)	3	3.7	4.5	6	75	8.5
Rated Current(A)	36.8	45.3	55.1	73.5	91.9	104.2
Rated Speed(rpm)	3000	3000	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	10	12	15	19	24	28
Peak Torque(Nm)	30	36	45	57	72	84
Rotor Inertia(kg.cm²)	24.4	29.3	36.6	48.7	61	73.2

Electrical Parameters	AC220V					
Motor Model	150ST-□10030	150ST-□12030	150ST-□15030	150ST-□19030	150ST-□24030	150ST-□28030
Rated Power(KW)	3	3.7	4.5	6	7.5	8.5
Rated Current(A)	13.3	16.4	20	26.6	33.3	37.7
Rated Speed(rpm)	3000	3000	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	10	12	15	19	24	28
Peak Torque(Nm)	30	36	45	57	72	84
Rotor Inertia(kg.cm²)	24.4	29.3	36.6	48.7	61	73.2

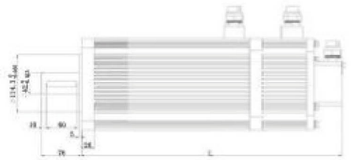
Electrical Parameters	AC380V					
Motor Model	150ST-□10030	150ST-□12030	150ST-□15030	150ST-□19030	150ST-□24030	150ST-□28030
Rated Power(KW)	3	3.7	4.5	6	7.5	8.5
Rated Current(A)	7.6	9.4	11.5	15.3	19.1	21.6
Rated Speed(rpm)	3000	3000	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	10	12	15	19	24	28
Peak Torque(Nm)	30	36	45	57	72	84
Rotor Inertia(kg.cm²)	24.4	29.3	36.6	48.7	6	73.2

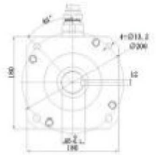
Wheatstone
江苏惠斯通机电科技

180 Explosion-Proof Servo Motor

- Servo Motor With Lead-out Cables





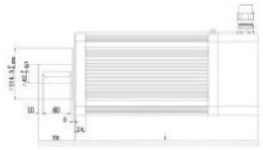


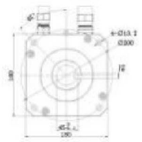
Motor Model	L(mm)
180ST-□150XX-EX-XXV	301
180ST-□190XX-EX-XXV	322
180ST-□250XX-EX-XXV	339
180ST-□300XX-EX-XXV	356
180ST-□360XX-EX-XXV	377
180ST-□420XX-EX-XXV	394
180ST-□500XX-EX-XXV	411
180ST-□700XX-EX-XXV	449
180ST-□150XXB-EX-XXV	401
180ST-□190XXB-EX-XXV	422
180ST-□250XXB-EX-XXV	439
180ST-□300XXB-EX-XXV	456
180ST-□360XXB-EX-XXV	477
180ST-□420XXB-EX-XXV	494
180ST-□500XXB-EX-XXV	511
180ST-□700XXB-EX-XXV	549

Motor Model	L(mm)
180ST-□150XX-EX-XXV-C	299
180ST-□190XX-EX-XXV-C	320
180ST-□250XX-EX-XXV-C	337
180ST-□300XX-EX-XXV-C	354
180ST-□360XX-EX-XXV-C	375
180ST-□420XX-EX-XXV-C	392
180ST-□500XX-EX-XXV-C	409
180ST-□700XX-EX-XXV-C	447
180ST-□150XXB-EX-XXV-C	399
180ST-□190XXB-EX-XXV-C	422
180ST-□250XXB-EX-XXV-C	439
180ST-□300XXB-EX-XXV-C	456
180ST-□360XXB-EX-XXV-C	477
180ST-□420XXB-EX-XXV-C	494
180ST-□500XXB-EX-XXV-C	511
180ST-□700XXB-EX-XXV-C	549

■ Terminal Block Type

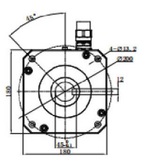


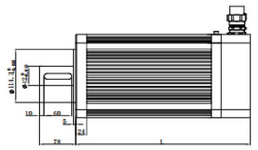




Motor Model	L(mm)
180ST-□150XX-EX-XXV(J)	294
180ST-□190XX-EX-XXV(J)	315
180ST-□250XX-EX-XXV(J)	332
180ST-□300XX-EX-XXV(J)	349
180ST-□360XX-EX-XXV(J)	370
180ST-□420XX-EX-XXV(J)	387
180ST-□500XX-EX-XXV(J)	404
180ST-□700XX-EX-XXV(J)	442
180ST-□150XXB-EX-XXV(J)	371
180ST-□190XXB-EX-XXV(J)	392
180ST-□250XXB-EX-XXV(J)	409
180ST-□300XXB-EX-XXV(J)	426
180ST-□360XXB-EX-XXV(J)	447
180ST-□420XXB-EX-XXV(J)	464
180ST-□500XXB-EX-XXV(J)	481
180ST-□700XXB-EX-XXV(J)	519

■ Explosion-proof permanent magnet type







Motor Model	L(mm)
180ST-□150XX-EX-XXV(J)	264
180ST-□190XX-EX-XXV(J)	285
180ST-□250XX-EX-XXV(J)	302
180ST-□300XX-EX-XXV(J)	319
180ST-□360XX-EX-XXV(J)	340
180ST-□420XX-EX-XXV(J)	357
180ST-□500XX-EX-XXV(J)	374
180ST-□700XX-EX-XXV(J)	412
180ST-□150XXB-EX-XXV(J)	371
180ST-□190XXB-EX-XXV(J)	392
180ST-□250XXB-EX-XXV(J)	409
180ST-□300XXB-EX-XXV(J)	426
180ST-□360XXB-EX-XXV(J)	447
180ST-□420XXB-EX-XXV(J)	464
180ST-□500XXB-EX-XXV(J)	481
180ST-□700XXB-EX-XXV(J)	519

Wheatstone
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Electrical Parameters	DC24V			
Motor Model	180ST-□16030	180ST-□19020	180ST-□25015	180ST-□30010
Rated Power(KW)	5	4	3.9	3
Rated Current(A)	260	208	203	156
Rated Speed(rpm)	3000	2000	500	1000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	16	19	25	30
Peak Torque(Nm)	40	47.5	62.5	75
Rotor Inertia(kg.cm^2)	32.6	45	55.1	65.2

Electrical Parameters	DC48V			
Motor Model	180ST-□16030	180ST-□19030	180ST-□25030	180ST-□30025
Rated Power(KW)	5	6	7.5	7.5
Rated Current(A)	123	147	184	184
Rated Speed(rpm)	3000	3000	3000	2500
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	16	19	25	30
Peak Torque(Nm)	40	47.5	62.5	75
Rotor Inertia(kg.cm^2)	32.6	45	55.1	65.2

Motor Model	180ST-□36020	180ST-□42020	180ST-□50020
Rated Power(KW)	7.2	8.5	10
Rated Current(A)	176	208	245
Rated Speed(rpm)	2000	2000	2000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	36	42	50
Peak Torque(Nm)	72	84	100
Rotor Inertia(kg.cm^2)	77.5	87.7	97.8

Electrical Parameters	DC72V			
Motor Model	180ST-□16030	180ST-□19030	180ST-□25030	180ST-□30030
Rated Power(KW)	5	6	7.5	9
Rated Current(A)	82	98	123	147
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	16	19	25	30
Peak Torque(Nm)	40	47.5	62.5	75
Rotor Inertia(kg.cm^2)	32.6	45	55.1	62.5

Motor Model	180ST-□36030	180ST-□42030	180ST-□50030
Rated Power(KW)	11	13	15
Rated Current(A)	180	212	245
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	36	42	50
Peak Torque(Nm)	72	84	100
Rotor Inertia(kg.cm^2)	77.5	87.7	97.8

Electrical Parameters	DC220V			
Motor Model	180ST-□16030	180ST-□19030	180ST-□25030	180ST-□30030
Rated Power(KW)	5	6	7.5	9
Rated Current(A)	22	27	33	40
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	16	19	25	30
Peak Torque(Nm)	40	47.5	62.5	75
Rotor Inertia(kg.cm^2)	32.6	45	55.1	66.2

Motor Model	180ST-□36030	180ST-□42030	180ST-□50030
Rated Power(KW)	1	13	15
Rated Current(A)	49	58	67
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	36	42	50
Peak Torque(Nm)	72	84	100
Rotor Inertia(kg.cm^2)	77.5	87.7	97.8

Electrical Parameters	AC380V			
Motor Model	180ST-☐16030	180ST-☐19030	180ST-☐25030	180ST-☐30030
Rated Power(KW)	5	6	7.5	9
Rated Current(A)	13	15	19	23
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	16	19	25	30
Peak Torque(Nm)	40	47.5	62.5	75
Rotor Inertia(kg.cm²)	32.6	45	55.1	65.2

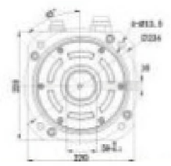
Motor Model	180ST-☐36030	180ST-☐42030	180ST-☐50030
Rated Power(KW)	11	13	15
Rated Current(A)	28	33	38
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	36	42	50
Peak Torque(Nm)	72	84	100
Rotor Inertia(kg.cm²)	77.5	87.7	97.8

220 Explosion-Proof Servo Motor

- Lead wires, terminal posts





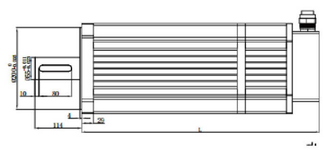


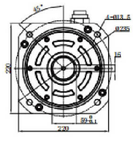
Motor Model	L(mm)
220ST-☐400XX-EX-XXV	374
220ST-☐600XX-EX-XXV	420
220ST-☐750XX-EX-XXV	454
220ST-☐850XX-EX-XXV	474
220ST-☐10AXX-EX-XXV	524
220ST-☐12AXX-EX-XXV	574
220ST-☐15AXX-EX-XXV	624
220ST-☐400XXB-EX-XXV	469
220ST-☐600XXB-EX-XXV	519
220ST-☐750XXB-EX-XXV	549
220ST-☐850XXB-EX-XXV	569
220ST-☐10AXXB-EX-XXV	619
220ST-☐12AXXB-EX-XXV	669
220ST-☐15AXXB-EX-XXV	719

Motor Model	L(mm)
220ST-☐400XX-EX-XXV(J)	409
220ST-☐600XX-EX-XXV(J)	459
220ST-☐750XX-EX-XXV(J)	489
220ST-☐850XX-EX-XXV(J)	509
220ST-☐10AXX-EX-XXV(J)	559
220ST-☐12AXX-EX-XXV(J)	609
220ST-☐15AXX-EX-XXV(J)	659
220ST-☐400XXB-EX-XXV(J)	499
220ST-☐600XXB-EX-XXV(J)	549
220ST-☐750XXB-EX-XXV(J)	579
220ST-☐850XXB-EX-XXV(J)	599
220ST-☐10AXXB-EX-XXV(J)	649
220ST-☐12AXXB-EX-XXV(J)	699
220ST-☐15AXXB-EX-XXV(J)	749

- Explosion-proof Permanent Magnet Type (with Brake)







Motor Model	L(mm)
220ST-☐400XXB-EX-XXV(J)	499
220ST-☐600XXB-EX-XXV(J)	549
220ST-☐750XXB-EX-XXV(J)	579
220ST-☐850XXB-EX-XXV(J)	599
220ST-☐10AXXB-EX-XXV(J)	649
220ST-☐12AXXB-EX-XXV(J)	699
220ST-☐15AXXB-EX-XXV(J)	749

Motor Model	L(mm)
220ST-☐400XX-EX-XXV(J)	379
220ST-☐600XX-EX-XXV(J)	429
220ST-☐750XX-EX-XXV(J)	459
220ST-☐850XX-EX-XXV(J)	479
220ST-☐10AXX-EX-XXV(J)	529
220ST-☐12AXX-EX-XXV(J)	579
220ST-☐15AXX-EX-XXV(J)	629

Electrical Parameters	DC48V				
Motor Model	220ST-☐40030	220ST-☐60020	220ST-☐75015	220ST-☐85015	220ST-☐10A10
Rated Power(KW)	12	12	11	13	10
Rated Current(A)	294	294	270	319	245
Rated Speed(rpm)	3000	2000	1500	1500	1000
Maximum Speed(rpm)	6000	6000	6000	6000	1200
Rated Torque(Nm)	40	60	75	85	100
Peak Torque(Nm)	80	120	150	170	200
Rotor Inertia(kg.cm²)	98	147	176	196	245

Electrical Parameters	DC72V					
Motor Model	220ST-☐40030	220ST-☐60030	220ST-☐75025	220ST-☐85025	220ST-☐10A20	220ST-☐12A15
Rated Power(KW)	12	18	19	22	20	18
Rated Current(A)	196	294	310	359	327	294
Rated Speed(rpm)	3000	3000	2500	2500	2000	1500
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	40	60	75	85	100	120
Peak Torque(Nm)	80	120	150	170	200	240
Rotor Inertia(kg.cm²)	98	147	176	196	245	294

Electrical Parameters	DC96V			
Motor Model	220ST-☐40030	220ST-☐60030	220ST-☐75030	220ST-☐85030
Rated Power(KW)	12	18	23	26
Rated Current(A)	147	221	282	319
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	40	60	75	85
Peak Torque(Nm)	80	120	150	170
Rotor Inertia(kg.cm²)	98	147	176	196

Motor Model	220ST-☐10A25	220ST-☐12A20	220ST-☐15A15
Rated Power(KW)	25	25	23
Rated Current(A)	306	306	282
Rated Speed(rpm)	2500	2000	1500
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	100	120	150
Peak Torque(Nm)	200	240	300
Rotor Inertia(kg.cm²)	245	294	343

Electrical Parameters	DC144V			
Motor Model	220ST-□40030	220ST-□60030	220ST-□75030	220ST-□85030
Rated Power(KW)	12	18	23	26
Rated Current(A)	98	147	188	212
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	40	60	75	85
Peak Torque(Nm)	80	120	150	170
Rotor Inertia(kg.cm^2)	98	147	176	196

Motor Model	220ST-□10A30	220ST-□12A30	220ST-□15A25
Rated Power(KW)	30	36	39
Rated Current(A)	245	294	319
Rated Speed(rpm)	3000	3000	2500
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	100	120	150
Peak Torque(Nm)	200	240	300
Rotor Inertia(kg.cm^2)	245	294	343

Electrical Parameters	AC220V/DC310V			
Motor Model	220ST-□40030	220ST-□60030	220ST-□75030	220ST-□85030
Rated Power(KW)	12	18	23	26
Rated Current(A)	53	80	102	15
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	40	60	75	85
Peak Torque(Nm)	80	120	150	170
Rotor Inertia(kg.cm^2)	98	147	176	196

Motor Model	220ST-□10A30	220ST-□12A30	220ST-□15A30
Rated Power(KW)	30	36	45
Rated Current(A)	133	160	200
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	100	120	150
Peak Torque(Nm)	200	240	300
Rotor Inertia(kg.cm^2)	245	294	343

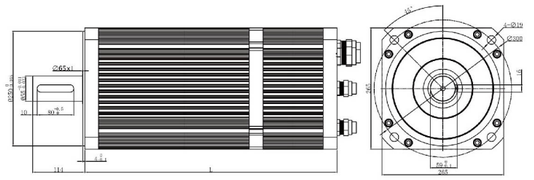
Electrical Parameters	AC380V/DC540V			
Motor Model	220ST-□40030	220ST-□60030	220ST-□75030	220ST-□85030
Rated Power(KW)	12	18	23	26
Rated Current(A)	31	46	59	66
Rated Speed(rpm)	3000	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	40	60	75	85
Peak Torque(Nm)	80	120	150	170
Rotor Inertia(kg.cm^2)	98	147	176	196

Motor Model	220ST-□10A30	220ST-□12A30	220ST-□15A30
Rated Power(KW)	30	36	45
Rated Current(A)	76	92	115
Rated Speed(rpm)	3000	3000	3000
Maximum Speed(rpm)	6000	6000	6000
Rated Torque(Nm)	100	120	150
Peak Torque(Nm)	200	240	300
Rotor Inertia(kg.cm^2)	245	294	343

Wheatstone
江苏惠斯通机电科技

260 Explosion-Proof Servo Motor



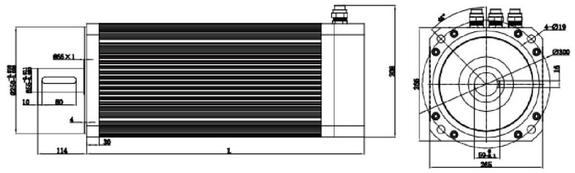


Motor Model	L(mm)
260ST-□570XX-EX-XXV	432
260ST-□850XX-EX-XXV	482
260ST-□11AXX-EX-XXV	532
260ST-□14AXX-EX-XXV	582
260ST-□17AXX-EX-XXV	632
260ST-□20AXX-EX-XXV	682

Motor Model	L(mm)
260ST-□570XXB-EX-XXV	520
260ST-□850XXB-EX-XXV	570
260ST-□11AXXB-EX-XXV	620
260ST-□14AXXB-EX-XXV	670
260ST-□17AXXB-EX-XXV	720
260ST-□20AXXB-EX-XXV	770

- Explosion-proof permanent magnet type





Motor Model	L(mm)
260ST-□570XX-EX-XXV	402
260ST-□850XX-EX-XXV	452
260ST-□11AXX-EX-XXV	502
260ST-□14AXX-EX-XXV	552
260ST-□17AXX-EX-XXV	602
260ST-□20AXX-EX-XXV	652

Motor Model	L(mm)
260ST-□570XXB-EX-XXV	520
260ST-□850XXB-EX-XXV	570
260ST-□11AXXB-EX-XXV	620
260ST-□14AXXB-EX-XXV	670
260ST-□17AXXB-EX-XXV	720
260ST-□20AXXB-EX-XXV	770

Electrical Parameters	DC48V			
Motor Model	260ST-□57030	260ST-□85020	260ST-□11A15	260ST-□14A10
Rated Power(KW)	18	18	17	15
Rated Current(A)	326	324	315	267
Rated Speed(rpm)	3000	2000	1500	1000
Maximum Speed(rpm)	6000	6000	6000	6000
Rated Torque(Nm)	57	85	110	140
Peak Torque(Nm)	114	170	220	280
Rotor Inertia(kg.cm²)	320	480	640	800

Electrical Parameters	DC72V				
Motor Model	260ST-□57030	260ST-□57030	260ST-□11A15	260ST-□14A10	260ST-□17A10
Rated Power(KW)	18	18	17	15	18
Rated Current(A)	326	326	315	267	332
Rated Speed(rpm)	3000	3000	1500	1000	1000
Maximum Speed(rpm)	6000	6000	6000	6000	6000
Rated Torque(Nm)	57	57	110	140	170
Peak Torque(Nm)	114	114	220	280	340
Rotor Inertia(kg.cm²)	320	320	640	800	960

Electrical Parameters	DC96V					
Motor Model	260ST-□57030	260ST-□85030	260ST-□11A20	260ST-□14A15	260ST-□17A15	260ST-□20A10
Rated Power(KW)	18	27	23	22	27	21
Rated Current(A)	219	327	282	269	335	257
Rated Speed(rpm)	3000	3000	2000	1500	1500	1000
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	57	85	110	140	170	200
Peak Torque(Nm)	114	170	220	280	340	400
Rotor Inertia(kg.cm²)	320	480	640	800	960	1120

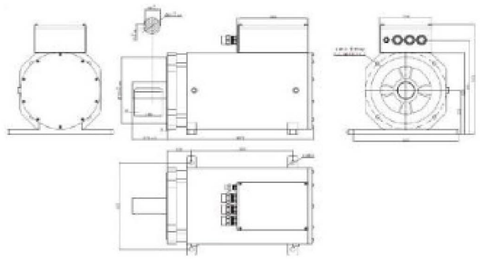
Electrical Parameters	DC144V					
Motor Model	260ST-□57030	260ST-□85030	260ST-□11A30	260ST-□14A20	260ST-□17A20	260ST-□20A15
Rated Power(KW)	18	27	35	29	36	31
Rated Current(A)	163	243	315	267	332	286
Rated Speed(rpm)	3000	3000	3000	2000	2000	1500
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	57	85	110	140	170	200
Peak Torque(Nm)	114	170	220	280	340	400
Rotor Inertia(kg.cm²)	320	480	640	800	960	1120

Electrical Parameters	AC220V/DC310V					
Motor Model	260ST-□57030	260ST-□85030	260ST-□11A30	260ST-□14A25	260ST-□17A25	260ST-□20A75
Rated Power(KW)	18	27	35	37	46	52
Rated Current(A)	76	113	146	155	193	222
Rated Speed(rpm)	3000	3000	3000	2500	2500	2500
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	57	85	110	140	170	200
Peak Torque(Nm)	114	170	220	280	340	400
Rotor Inertia(kg.cm²)	320	480	640	800	960	1120

Electrical Parameters	AC380V/DC540V					
Motor Model	260ST- 57030	260ST-□85030	260ST-□11A30	260ST-□14A25	260ST-□16A25	260ST-□20A25
Rated Power(KW)	18	27	35	37	46	52
Rated Current(A)	44	65	84	89	11	127
Rated Speed(rpm)	3000	3000	3000	2500	2500	2500
Maximum Speed(rpm)	6000	6000	6000	6000	6000	6000
Rated Torque(Nm)	57	85	110	140	170	200
Peak Torque(Nm)	114	170	220	280	340	400
Rotor Inertia(kg.cm²)	320	480	640	800	960	1120

400 Motor Series

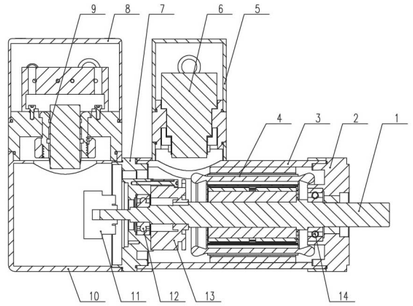




Motor Model	Rated Torque(N·m)	Rated Speed(rpm)	Rated Current(A)	Rated Power(kW)	Power Rating(V)
400ST-J16A20-380V	159	2000	66.7	31.4	380
400ST-J20A20-380V	208	2000	82.6	43.6	380
400ST-J27A20-380V	265	2000	106.6	55.5	380
400ST-J32A20-380V	315	2000	132.1	66	380
400ST-J37A20-380V	365	2000	143.1	76.4	380
400ST-J42A20-380V	422	2000	176.9	88.4	380
400ST-J47A20-380V	470	2000	197	98.4	380
400ST-J52A20-380V	520	2000	214	108.9	380

Mine-Use Explosion-Proof Servo Motor Series(MA)

Structure of Wheatstone Mining Explosion-Proof Motors

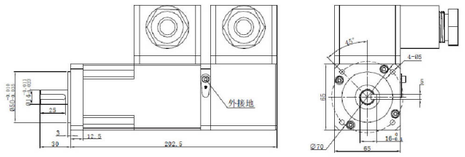


- 1-Rotor Assembly
- 2-Front cover
- 3-Chassis
- 4-Stator assembly
- 5-Power Junction Box
- 6-Power Connector
- 7-End cove
- 8-Signal Junction Box
- 9-Signal Flight Connector
- 10-rear cover
- 11-Encoder
- 12-Rear bearing
- 13-brake
- 14-Front bearing

60 Mine-Use Explosion-Proof Servo Motor



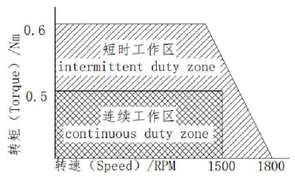
Voltage Range: AC18V



Motor Model	L(mm)
SB-0.08/18Y	202.5

Electrical Parameters	AC 18V
Specifications and Models	SB-0.08/18Y
Power (KW)	0.08
Rated Voltage (V)	18
Rated Current (A)	4
Rated frequency (Hz)	100
Rated Speed (RPM)	1500
Rated Torque (NM)	0.5
Frequency range (Hz)	10~120
Maximum Speed (RPM)	1800
Minimum Speed (RPM)	150
Motor Base (mm)	60

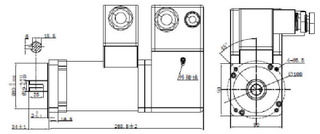
- Torque-Speed Characteristic Curve



SB-0.08/18Y

90Mine-Use Explosion-Proof Servo Motor

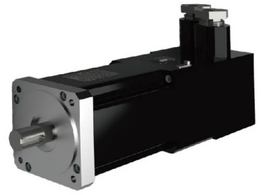


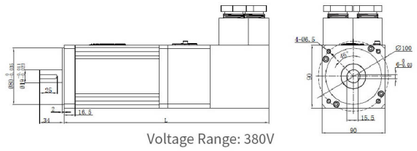


Voltage Range: 18V-51V

Motor Model	L(mm)
SB-0.2/380Y	268.5
SB-0.4/380Y	268.5
SB-0.75/380Y	268.5
SB-1/380Y	268.5

90Mine-Use Explosion-Proof Servo Motor



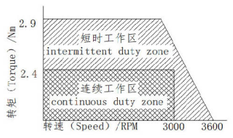


Voltage Range: 380V

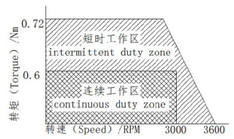
Motor Model	L(mm)
90ST-□006XX-EX-XXV-MAY	252.5
90ST-□013XX-EX-XXV-MAY	252.5
90ST-□024XX-EX-XXV-MAY	272.5
90ST-□033XX-EX-XXV-MAY	292.5
90ST-□006XXB-EX-XXV-MAY	252.5
90ST-□013XXB-EX-XXV-MAY	252.5
90ST-□024XXB-EX-XXV-MAY	272.5
90ST-□033XXB-EX-XXV-MAY	292.5

Motor Model	AC34V	AC380V	AC380V	AC380V	AC380V
Specifications and Models	SB-0.75/34Y	SB-0.2/380Y	SB-0.4/380Y	SB-0.75/380Y	SB-1/380Y
Power (KW)	0.75	0.2	0.4	0.75	1
Rated Voltage (V)	34	380	380	380	380
Rated Current (A)	18.5	0.6	1.3	2.3	3.2
Rated frequency (Hz)	200	200	200	200	200
Rated Speed (RPM)	3000	3000	3000	3000	3000
Rated Torque (NM)	2.4	0.6	1.3	2.4	3.3
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	3600	3600	3600	3600	3600
Minimum Speed (RPM)	150	150	150	150	150
Motor Base (mm)	90	90	90	90	90

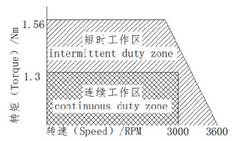
- Torque-Speed Characteristic Curve



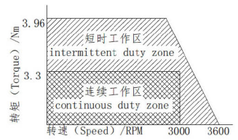
SB-0.75/380Y
SB-0.75/34Y



SB-0.2/380Y

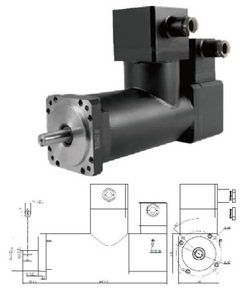


SB-0.4/380Y



SB-1/380Y

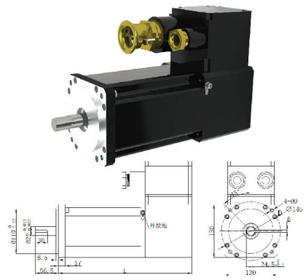
130Mine-Use Explosion-Proof Servo Motor



Voltage Range: AC18V-51V

Motor Model	L(mm)
SB-1.2/34Y	407
SB-1.2/51Y	407
SB-1.8/34Y	407
SB-1.8/51Y	407
SB-2.3/34Y	407
SB-2.3/51Y	407
SB-3/34Y	407
SB-3/51Y	407
SB-1.2/380Y	268.5
SB-1.8/380Y	268.5
SB-2.3/380Y	268.5
SB-3/380Y	268.5

130Mine-Use Explosion-Proof Servo Motor



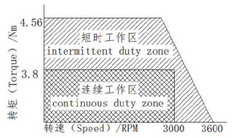
Voltage Range: 380V

Motor Model	L(mm)
130ST-□025XX-EX-XXV-MAY	265
130ST-□040XX-EX-XXV-MAY	265
130ST-□060XX-EX-XXV-MAY	277
130ST-□077XX-EX-XXV-MAY	292
130ST-□100XX-EX-XXV-MAY	328
130ST-□150XX-EX-XXV-MAY	362
130ST-□025XXB-EX-XXV-MAY	265
130ST-□040XXB-EX-XXV-MAY	265
130ST-□060XXB-EX-XXV-MAY	277
130ST-□077XXB-EX-XXV-MAY	292
130ST-□100XXB-EX-XXV-MAY	328
130ST-□150XXB-EX-XXV-MAY	362

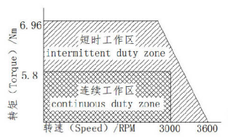
Motor Model	AC34V	AC51V	AC380V	AC34V	AC51V	AC380V
Specifications and Models	SB-1.2/34Y	SB-1.2/51Y	SB-1.2/380Y	SB-1.8/34Y	SB-1.8/51Y	SB-1.8/380Y
Power (KW)	1.2	1.2	1.2	1.8	1.8	1.8
Rated Voltage (V)	34	51	380	34	51	380
Rated Current (A)	30	20	3	44	30	4.2
Rated frequency (Hz)	200	200	200	200	200	200
Rated Speed (RPM)	3000	3000	3000	3000	3000	3000
Rated Torque (NM)	3.8	3.8	3.8	5.8	5.8	5.8
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	3600	3600	3600	3600	3600	3600
Minimum Speed (RPM)	150	150	150	150	150	150
Motor Base (mm)	130	130	130	130	130	130

Specifications and Models	SB-2.3/34Y	SB-2.3/51Y	SB-2.3/380Y	SB-3/34Y	SB-3/51Y	SB-3/380Y
Power (KW)	2.3	2.3	2.3	3	3	3
Rated Voltage (V)	34	51	380	34	51	380
Rated Current (A)	57	38	5.4	78	52	7
Rated frequency (Hz)	200	200	200	200	200	200
Rated Speed (RPM)	3000	3000	3000	3000	3000	3000
Rated Torque (NM)	7.4	7.4	7.4	9.6	9.6	9.6
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	3600	3600	3600	3600	3600	3600
Minimum Speed (RPM)	150	150	150	150	150	150
Motor Base (mm)	130	130	130	130	130	130

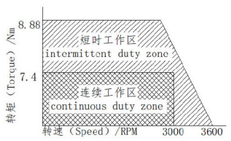
Torque-Speed Characteristic Curve



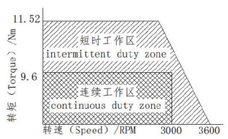
SB-1.2/34Y SB-1.2/51Y
SB-1.2/380Y



SB-1.8/34Y SB-1.8/51Y
SB-1.8/380Y

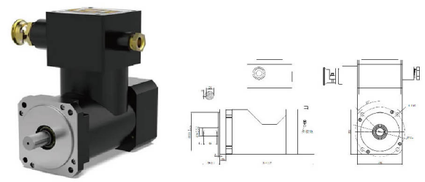


SB-2.3/34Y SB-2.3/51Y
SB-2.3/380Y



SB-3/34Y SB-3/51Y
SB-3/380Y

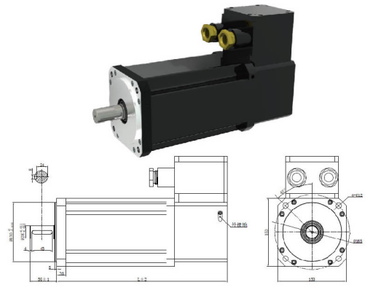
150Mine-Use Explosion-Proof Servo Motor



Voltage Range: AC18V-51V

Motor Model	L(mm)
SB-3.1/380Y	314
SB-3.8/380Y	314
SB-4.7/380Y	314
SB-6.3/380Y	314
SB-7.5/380Y	314
SB-8.8/380Y	314
SB-4.5/51Y	314

150 Mine-Use Explosion-Proof Servo Motor

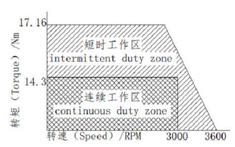


Voltage Range: AC380V

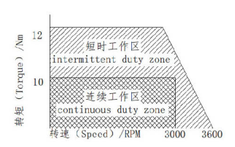
Motor Model	L(mm)
150ST-□100XX-EX-XXV-MAY	324
150ST-□120XX-EX-XXV-MAY	334
150ST-□150XX-EX-XXV-MAY	349
150ST-□190XX-EX-XXV-MAY	374
150ST-□240XX-EX-XXV-MAY	399
150ST-□280XX-EX-XXV-MAY	424
150ST-□100XXB-EX-XXV-MAY	324
150ST-□120XXB-EX-XXV-MAY	334
150ST-□150XXB-EX-XXV-MAY	349
150ST-□190XXB-EX-XXV-MAY	374
150ST-□240XXB-EX-XXV-MAY	399
150ST-□280XXB-EX-XXV-MAY	424

Motor Model	AC51V	AC380V	AC380V	AC380V	AC380V	AC380V	AC380V
Specifications and Models	SB-4.5/51Y	SB-3.1/380Y	SB-3.8/380Y	SB-4.7/380Y	SB-6.3/380Y	SB-7.5/380Y	SB-8.8/380Y
Power (KW)	4.5	3.1	3.8	4.7	6.3	7.5	8.8
Rated Voltage (V)	51	380	380	380	380	380	380
Rated Current (A)	74	9.7	11.7	14.6	19.5	23.3	27.2
Rated frequency (Hz)	200	200	200	200	200	200	200
Rated Speed (RPM)	3000	3000	3000	3000	3000	3000	3000
Rated Torque (NM)	14.3	10	12	15	20	24	28
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	3600	3600	3600	3600	3600	3600	3600
Minimum Speed (RPM)	150	150	150	150	150	150	150
Motor Base (mm)	150	150	150	150	150	150	150

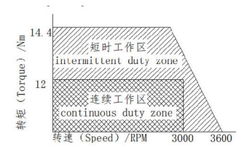
Torque-Speed Characteristic Curve



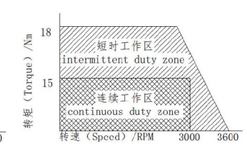
SB-4.5/51Y



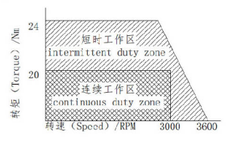
SB-3.1/380Y



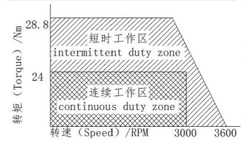
SB-3.8/380Y



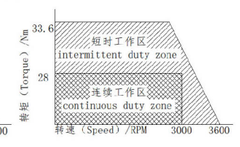
SB-4.7/380Y



SB-6.3/380Y

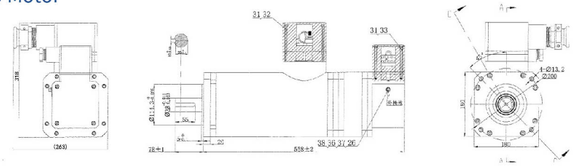


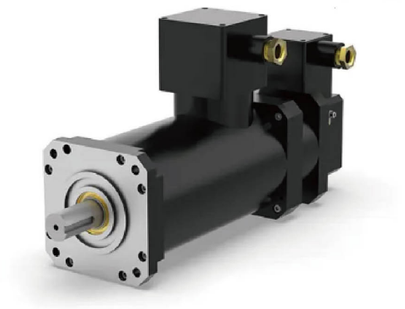
SB-7.5/380Y



SB-8.8/380Y

180Mine-Use Explosion-Proof Servo Motor





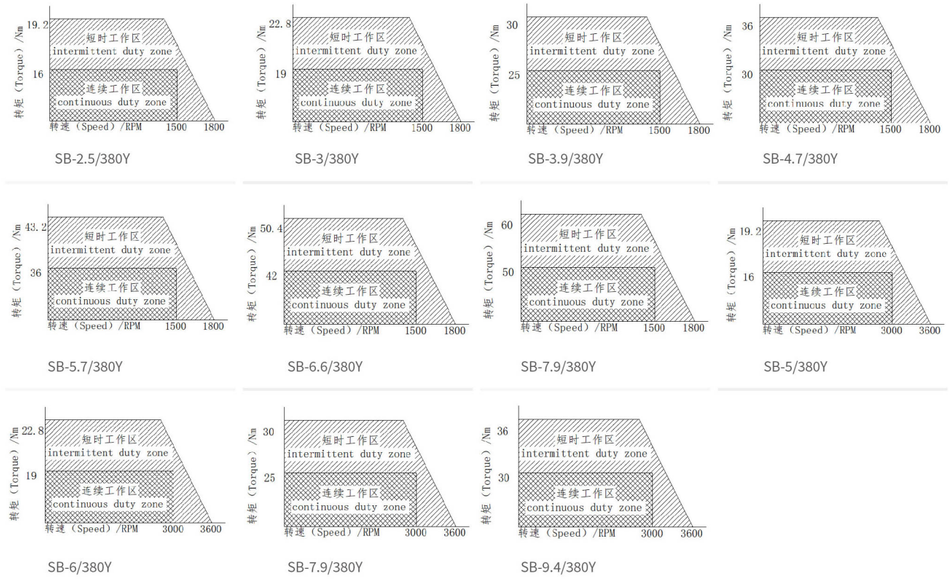
Voltage Range: 18V-51V

Motor Model	L(mm)
SB-2.5/380Y	558
SB-3/380Y	558
SB-3.9/380Y	558
SB-4.7/380Y	558
SB-5.7/380Y	558
SB-6.6/380Y	558
SB-7.9/380Y	558
SB-5/380Y	558
SB-6/380Y	558
SB-7.9/380Y	558
SB-9.4/380Y	558

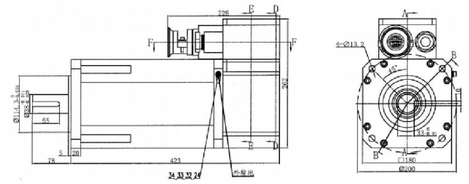
Motor Model	AC34V	AC51V	AC380V	AC34V	AC51V	AC380V
Specifications and Models	SB-2.5/380Y	SB-3/380Y	SB-3.9/380Y	SB-4.7/380Y	SB-5.7/380Y	SB-6.6/380Y
Power (KW)	2.5	3	3.9	4.7	5.7	6.6
Rated Voltage (V)	380	380	380	380	380	380
Rated Current (A)	7.8	9.2	12.2	14.6	17.5	20.4
Rated frequency (Hz)	100	100	100	100	100	100
Rated Speed (RPM)	1500	1500	1500	1500	1500	1500
Rated Torque (NM)	16	19	25	30	36	42
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	1800	1800	1800	1800	1800	1800
Minimum Speed (RPM)	150	150	150	150	150	150
Motor Base (mm)	180	180	180	180	180	180

Specifications and Models	SB-7.9/380Y	SB-5/380Y	SB-6/380Y	SB-7.9/380Y	SB-9.4/380Y
Power (KW)	7.9	5	6	7.9	9.4
Rated Voltage (V)	380	380	380	380	380
Rated Current (A)	24.3	15.6	18.5	24.3	29.2
Rated frequency (Hz)	100	200	200	200	200
Rated Speed (RPM)	1500	3000	3000	3000	3000
Rated Torque (NM)	50	16	19	25	30
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	1800	3600	3600	3600	3600
Minimum Speed (RPM)	150	150	150	150	150
Motor Base (mm)	180	180	180	180	180

Torque-Speed Characteristic Curve



180Mine-Use Explosion-Proof Servo Motor





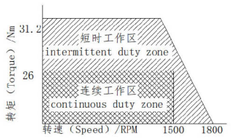
Voltage Range: 380V

Motor Model	L
180ST-□160XX-EX-MAY	313
180ST-□190XX-EX-MAY	334
180ST-□250XX-EX-MAY	351
180ST-□300XX-EX-MAY	368
180ST-□360XX-EX-MAY	389
180ST-□420XX-EX-MAY	406
180ST-□500XX-EX-MAY	423
180ST-□160XXB-EX-MAY	347
180ST-□190XXB-EX-MAY	368
180ST-□250XXB-EX-MAY	385
180ST-□300XXB-EX-MAY	402
180ST-□360XXB-EX-MAY	423

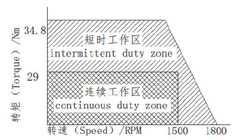
Motor Model	AC380V					
Specifications and Models	SB-2.2/380Y	SB-2.7/380Y	SB-4.1/380Y	SB-4.6/380Y	SB-5.5/380Y	SB-6.8/380Y
Power (KW)	2.2	2.7	4.1	4.6	5.5	6.8
Rated Voltage (V)	380	380	380	380	380	380
Rated Current (A)	6.8	8.3	12.6	14.1	17	20.9
Rated frequency (Hz)	100	100	100	100	100	100
Rated Speed (RPM)	1500	1500	1500	1500	1500	1500
Rated Torque (NM)	14	17	26	29	35	43
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	1800	1800	1800	1800	1800	1800
Minimum Speed (RPM)	150	150	150	150	150	150
Motor Base (mm)	180	180	180	180	180	180

Specifications and Models	SB-8/380Y	SB-4.4/380Y	SB-5.3/380Y	SB-8.2/380Y	SB-9.1/380Y
Power (KW)	8	4.4	5.3	8.2	9.1
Rated Voltage (V)	380	380	380	380	380
Rated Current (A)	24.8	13.6	16.5	25.3	28.2
Rated frequency (Hz)	100	200	200	200	200
Rated Speed (RPM)	1500	3000	3000	3000	3000
Rated Torque (NM)	51	14	17	26	29
Frequency range (Hz)	10~240	10~240	10~240	10~240	10~240
Maximum Speed (RPM)	1800	3600	3600	3600	3600
Minimum Speed (RPM)	150	150	150	150	150
Motor Base (mm)	180	180	180	180	180

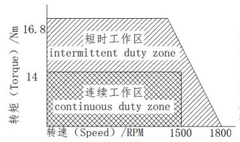
■ Torque-Speed Characteristic Curve



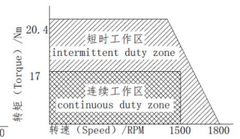
SB -2.2/380Y



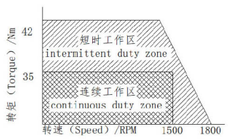
SB-2.7/380Y



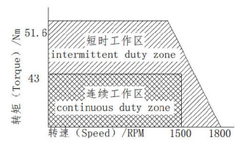
SB-4.1/380Y



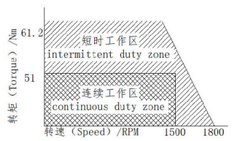
SB-4.6/380Y



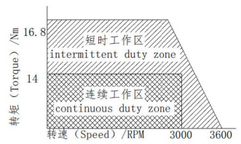
SB-5.5/380Y



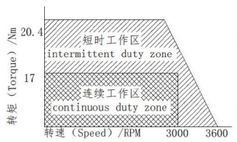
SB-6.8/380Y



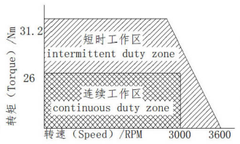
SB-8/380Y



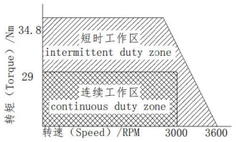
SB-4.4/380Y



SB-5.3/380Y



SB-8.2/380Y

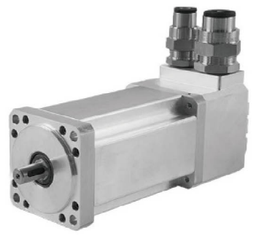


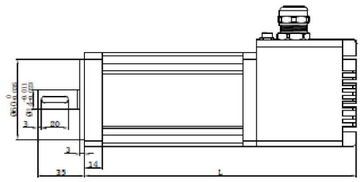
SB-9.1/380Y

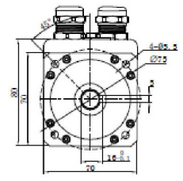
Wheatstone
江苏惠斯通机电科技

Explosion-proof integrated servo motor

▶ 70 Explosion-Proof All-in-One Series







Explosion-proof integrated servo motor Performance Parameters		
Basic Parameters	Rated Current (RMS)	10A±2%
	Maximum Current (RMS)	20A±2%
	Rated working power supply	48V/72VDC±15%
	Maximum power supply range	19V~96VDC
Protection level		IP66
Cooling Method		Natural cooling
Feedback method		①17-digit single-sided absolute value ②Single 23-bit, multi-turn 12-bit mechanical absolute value

70 Explosion-proof integrated servo motor Single-turn absolute value series without brake (48/72V)	
Motor Model	L(mm)
70ST-J00630-EX-48V-C(YTJ)	164
70ST-J01330-EX-48V-C(YTJ)	184
70ST-J00630-EX-72V-C(YTJ)	164
70ST-J01330-EX-72V-C(YTJ)	184
70ST-J02030-EX-72V-C(YTJ)	204

70 Explosion-proof integrated servo motor Single-turn Absolute Value Series with Brake (48/72V)	
Motor Model	L(mm)
70ST-J00630B-EX-48V-C(YTJ)	179
70ST-J01330B-EX-48V-C(YTJ)	199
70ST-J00630B-EX-72V-C(YTJ)	179
70ST-J01330B-EX-72V-C(YTJ)	199
70ST-J02030B-EX-72V-C(YTJ)	219

70 Explosion-proof integrated servo motor Multi-turn Absolute Value Series without Brake (48/72V)	
Motor Model	L(mm)
70ST-J00630-EX-48V-C(YTJ-GHM)	164
70ST-J01330-EX-48V-C(YTJ-GHM)	184
70ST-J00630-EX-72V-C(YTJ-GHM)	164
70ST-J01330-EX-72V-C(YTJ-GHM)	184
70ST-J02030-EX-72V-C(YTJ-GHM)	204

70 Explosion-proof integrated servo motor Multi-turn Absolute Value Series with Brake (48/72V)	
Motor Model	L(mm)
70ST-J00630B-EX-48V-C(YTJ-GHM)	179
70ST-J01330B-EX-48V-C(YTJ-GHM)	199
70ST-J00630B-EX-72V-C(YTJ-GHM)	179
70ST-J01330B-EX-72V-C(YTJ-GHM)	199
70ST-J02030B-EX-72V-C(YTJ-GHM)	219

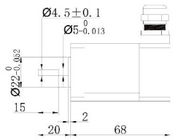
70 Explosion-Proof All-in-One Series - 48V		
Name	70 Series 200W-48V Explosion-Proof All-in-One Machine	70 Series 400W-48V Explosion-Proof All-in-One Machine
Motor Model	70ST-J00630-EX-48V-C(YTJ)	70ST-J01330-EX-48V-C(YTJ)
Rated Power(KW)	200	400
Rated Voltage (V)	48	48
Rated Current (A)	4.9	9.8
Rated Speed (rpm)	3000	3000
Maximum Speed (rpm)	3500	3500
Rated Torque (Nm)	0.67	0.127

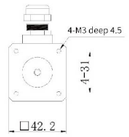
70 Explosion-Proof All-in-One Series - 72V			
Name	70 Series 200W -72V Explosion-Proof All-in-One Machine	70 Series 400W -72V Explosion-Proof All-in-One Machine	70 Series 600W -72V Explosion-Proof All-in-One Machine
Motor Model	70ST-J00630-EX-72V-C(YTJ)	70ST-J01330-EX-72V-C(YTJ)	70ST-J02030-EX-72V-C(YTJ)
Rated Power(KW)	200	400	600
Rated Voltage (V)	72	72	72
Rated Current (A)	3.3	6.5	9.8
Rated Speed (rpm)	3000	3000	3000
Maximum Speed (rpm)	3500	3500	3500
Rated Torque (Nm)	0.67	1.27	1.91

Explosion-proof stepper motor

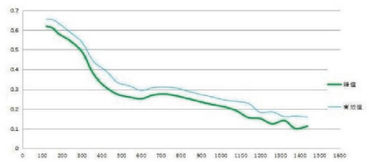
40Explosion-proof stepper motor







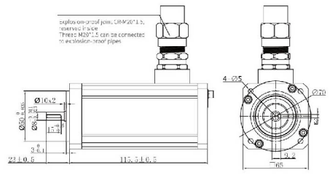
■ Moment frequency characteristic



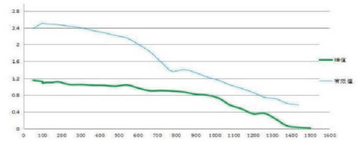
Motor Model	Maintain Torque (N.M)	Rated Current (A)	Resistance (Ω)	Mutual Inductance (mH)	Step angle (°)	Rotor Inertia (g. cm²)	Motor length (L)
40ST-H00330-EX	0.89	2.3	1.6	4	1.8	110	68

60 Explosion-proof stepper motor





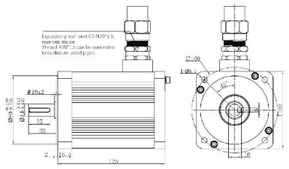
■ Moment frequency characteristic



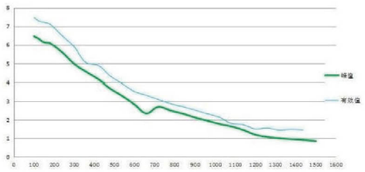
Electrical Parameters	60BYG450A-EX	60BYG450B-EX	60BYG450C-EX
Maintain Torque(N.m)	1.3	2.3	3.6
Rated Current(A)	3.5	4.4	4
Resistance(Ω)	0.8	0.76	1.16
Mutual Inductance(mH)	2.4	2.5	4.5
Step angle(°)	1.8	1.8	18
Rotor Inertia(g.cm²)	260	450	810
Number of Leads	4	4	4
Motor length L(mm)	115.5	137.5	170.5

90 Explosion-proof stepper motor





■ Moment frequency characteristic



Electrical Parameters	90BYG450A	90BYG450B	90BYG450C	90BYG450D
Maintain Torque(N.m)	3	6	8	9.2
Rated Current(A)	6	6	6	6
Resistance(Ω)	0.3	0.4	0.6	0.6
Mutual Inductance(mH)	2.4	4.7	7	6.4
Step angle(°)	18	1.8	18	1.8
Rotor Inertia(g.cm²)	1300	2500	3700	3900
Motor length L(mm)	125	153	183	203

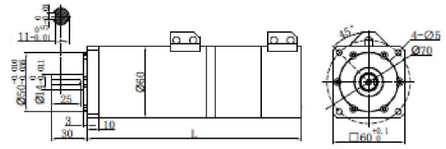
Radiation-Resistant High-LowTemperature Vacuum Motor

Edge-Lining Motor Series

60 Radiation-Resistant Sealed Motor Series (5-Pair Stage)



Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

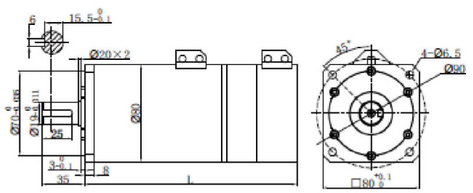


Serial Number	Motor Model	L(mm)
1	60ST-X006XX-F-XXV-Y-5P	122
2	60ST-X013XX-F-XXV-Y-5P	142
3	60ST-X020XX-F-XXV-Y-5P	162
4	60ST-X006XXB-F-XXV-Y-5P	160
5	60ST-X013XXB-F-XXV-Y-5P	180
6	60ST-X020XXB-F-XXV-Y-5P	200

80 Radiation-Resistant Sealed Motor Series (5-Pair Stage)

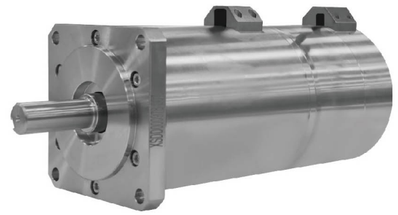


Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

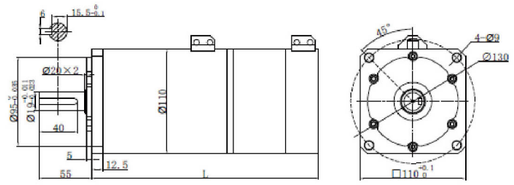


Serial Number	Motor Model	L(mm)
1	80ST-X013XX-F-XXV-Y-5P	141
2	80ST-X024XX-F-XXV-Y-5P	151
3	80ST-X033XX-F-XXV-Y-5P	171
4	80ST-X013XXB-F-XXV-Y-5P	165
5	80ST-X024XXB-F-XXV-Y-5P	175
6	80ST-X033XXB-F-XXV-Y-5P	195

110 Radiation-Resistant Sealed Motor Series (5-Pair Stage)



Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

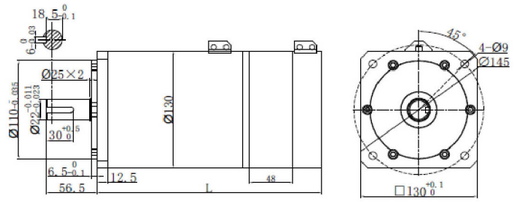


Serial Number	Motor Model	L(mm)
1	110ST-X020XX-F-XXV-Y-5P	143
2	110ST-X040XX-F-XXV-Y-5P	163
3	110ST-X060XX-F-XXV-Y-5P	183
4	110ST-X020XXB-F-XXV-Y-5P	198
5	110ST-X040XXB-F-XXV-Y-5P	218
6	110ST-X060XXB-F-XXV-Y-5P	238

130 Radiation-Resistant Sealed Motor Series (5-Pair Stage)



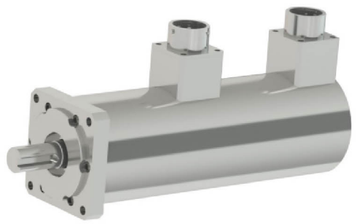
Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

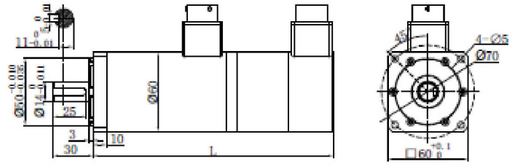


Serial Number	Motor Model	L(mm)
1	130ST-X040XX-F-XXV-Y-5P	152
2	130ST-X060XX-F-XXV-Y-5P	167
3	130ST-X077XX-F-XXV-Y-5P	182
4	130ST-X100XX-F-XXV-Y-5P	202
5	130ST-X150XX-F-XXV-Y-5P	212
6	130ST-X040XXB-F-XXV-Y-5P	200
7	130ST-X060XXB-F-XXV-Y-5P	215
8	130ST-X070XXB-F-XXV-Y-5P	230
9	130ST-X100XXB-F-XXV-Y-5P	250
10	130ST-X150XXB-F-XXV-Y-5P	260

Aviation connector type

60 Radiation-Resistant Aerospace Connector Motor Series (5-Pair Stage)

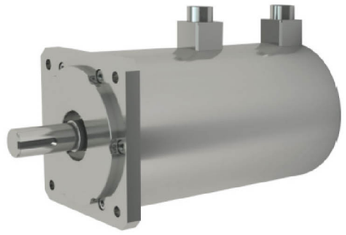


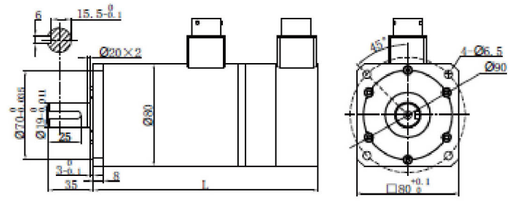


Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

Serial Number	Motor Model	L1
1	60ST-X006XX-F-XXV-H-5P	122
2	60ST-X013XX-F-XXV-H-5P	142
3	60ST-X020XX-F-XXV-H-5P	162
4	60ST-X006XXB-F-XXV-H-5P	160
5	60ST-X013XXB-F-XXV-H-5P	180
6	60ST-X020XXB-F-XXV-H-5P	200

80 Radiation-Resistant Aerospace Connector Motor Series (5-Pair Stage)



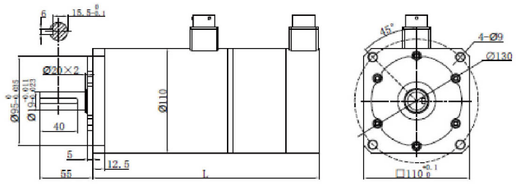


Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

Serial Number	Motor Model	L1
1	80ST-X013XX-F-XXV-H-5P	141
2	80ST-X024XX-F-XXV-H-5P	151
3	80ST-X033XX-F-XXV-H-5P	171
4	80ST-X013XXB-F-XXV-H-5P	165
5	80ST-X024XXB-F-XXV-H-5P	175
6	80ST-X033XXB-F-XXV-H-5P	195

110 Radiation-Resistant Aerospace Connector Motor Series (5-Pair Stage)

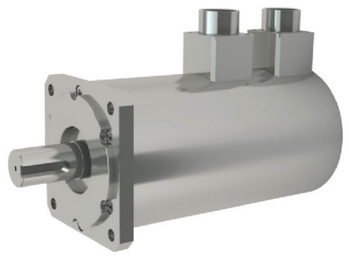


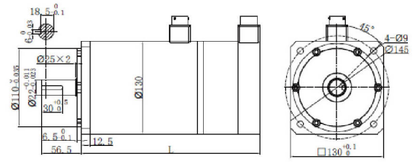


Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

Serial Number	Motor Model	L1
1	110ST-X020XX-F-XXV-H-5P	143
2	110ST-X040XX-F-XXV-H-5P	163
3	110ST-X060XX-F-XXV-H-5P	183
4	110ST-X020XXB-F-XXV-H-5P	198
5	110ST-X040XXB-F-XXV-H-5P	218
6	110ST-X060XXB-F-XXV-H-5P	238

130 Radiation-Resistant Aerospace Connector Motor Series (5-Pair Stage)

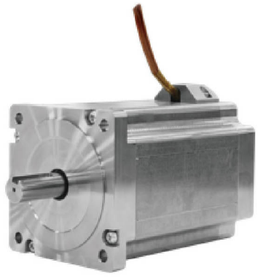




Vacuum level: 10^-7 Pa
Temperature range: -196°C to 200°C

Serial Number	Motor Model	L1
1	130ST-X040XX-F-XXV-H-5P	152
2	130ST-X060XX-F-XXV-H-5P	167
3	130ST-X077XX-F-XXV-H-5P	182
4	130ST-X100XX-F-XXV-H-5P	202
5	130ST-X150XX-F-XXV-H-5P	212
6	130ST-X040XXB-F-XXV-H-5P	200
7	130ST-X060XXB-F-XXV-H-5P	215
8	130ST-X070XXB-F-XXV-H-5P	230
9	130ST-X100XXB-F-XXV-H-5P	250
10	130ST-X150XXB-F-XXV-H-5P	260

High-Temperature Motor Series Products



Motor Model	L(mm)
86BYG79-GW	79
86BYG119-GW	119
86BYG124-GW	124
86BYG140-GW	140
86BYG159-GW	159

Low-Temperature Motor Series Products

Extreme Low Temperature Powerful Performance

The Industrial Core Built for Harsh Environments

Fearless in Deep chill

Stable Operation in an Ultra-Wide Temperature Range of -269'C to -60°C
Special Low-Temperature Materials Used to Eliminate Cold Brittleness

Rock-Solid

Exclusive Low-Temperature Lubrication and Sealing System for Doubled Service Life Vacuum-Impregnated Insulation Process for Moisture Resistance and Breakdown Resistance



Efficient & Energy-Saving

Optimized Electromagnetic Design for Outstanding Efficiency Even in Low-Tem-perature Environments
Helping Customers Reduce Operating Costs and lmprove Energy Efficiency

Tailor-Made

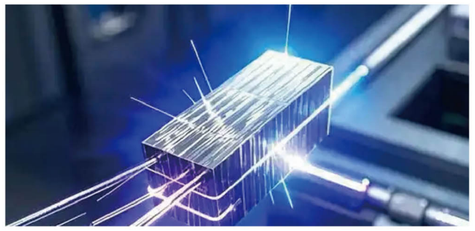
Multifaceted Solutions for LNG, Air Separation, Aerospace, Scientific Research andOther Fields
SupportingIn-Depth Customization of Power, Structure and Explosion ProtectionRating

Applications

- Liquefied Natural Gas



- Scientific Research



- Aerospace



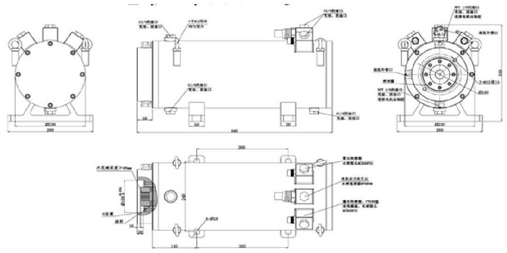
- Cryogenic Process



Underwater Motor Series Products

Underwater Electric Motor - 850 Meters Underwater

▶ Motor Model：220ST-H16A15-670V-SS850



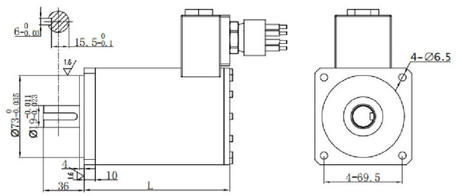


Main Performance Parameters			
Rated Power (KW)	25	Rated Voltage (V)	670~780VDC
Rated Torque (N•m)	165	Peak Torque (N.m)	330
Rated Speed (rpm)	1450	Maximum Speed (rpm)	1800
Insulation Class	H 180°C	Rated Current (A)	44
Locked-rotor torque (N.m)5S	330	Work System	S1
Protection Rating	Withstands water pressure at depths of 850 meters		

Underwater Electric Motor - 450 Meters Underwater

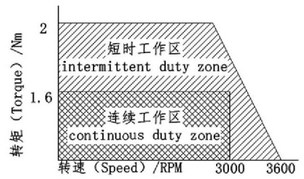
▶ Motor Model：86ST-H01630-24V-S450-86ST-H02420-24V-S450





Motor Model	L (mm)
86ST-H01630-24V-S450	99
86ST-H02420-24V-S450	129

■ Torque-Speed Characteristic Curve

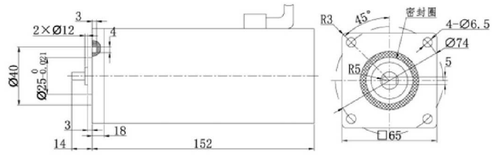


Main Performance Parameters			
Rated Power (KW)	25	Rated Voltage (V)	670~780VDC
Rated Torque (N•m)	165	Peak Torque (N.m)	330
Rated Speed (rpm)	1450	Maximum Speed (rpm)	1800
Insulation Class	H 180°C	Rated Current (A)	44
Locked-rotor torque (N.m)5S	330	Work System	S1
Protection Rating	Withstands water pressure at depths of 450 meters		

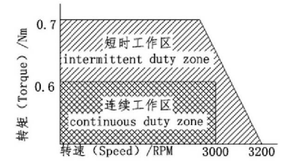
Underwater Electric Motor - 650 Meters Underwater

▶ Motor Model：60ST-H00630-48V-600





■ Torque-Speed Characteristic Curve



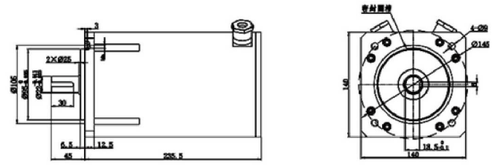
Main Performance Parameters			
Rated Power (KW)	0.2	Maximum torque (NM)	1.2
Rated Speed (rpm)	3000	Insulation Class	F 155°C
Rated Torque (NM)	0.6	Protection Rating	Withstands water pressure at depths of 600 meters
Rated Current (A)	6	Rotor Inertia (Kg.cm2)	0.33
Rated Voltage (V)	48VDC		

Working environment: seawater at 650 meters depth, airborne noise <50 dB(A)

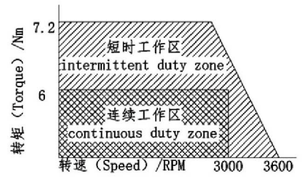
Underwater Electric Motor - 50 Meters Underwater

▶ Motor Model：130ST-X06030B-SS





■ Torque-Speed Characteristic Curve



Main Performance Parameters			
Rated Power (KW)	1.8	Maximum torque (NM)	18
Rated Speed (rpm)	3000	Insulation Class	F 155°C
Rated Torque (NM)	0.6	Protection Rating	Withstands water pressure at depths of 50 meters
Rated Current (A)	7.3	Rotor Inertia (Kg.cm2)	12.5
Rated Voltage (V)	220VAC		

Frameless motor

Motor characteristics:

- structure is extremely compact:
  Frameless motors eliminate the need for casings and bearingssignificantly reducing volume and weight, They can be seamlessly integrated into the interior ofequipment,achieving an extremely compact mechanical structure design.

- dynamic response is fast and prompt:
  The rotor inertia of the frameless motor is low andthe torque density is high, which can achieve extremely high acceleration and deceleration,making its start-stop and reversing response speed far exceed that of traditional servo

- Highly flexible design:
  Frameless motors offer independent stators and rotors, providingequipment manufacturers with a ereat deal of desien freedom, They can customize parame-terssuch as motor size,torque,and pole pairs according to specific applications.

- efficiency is significantly excellent:
  The frameless motor adopts a direct drive mode,eliminating the backlash and energy loss of the transmission chain. Meanwhile, theoptimized magnetic circuit design enables it to output higher efficiency and torquewithin the same volume.

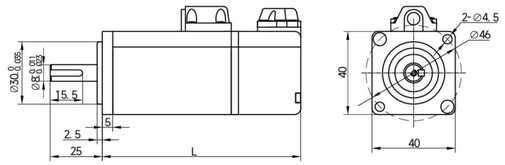


Application scenarios: Integrated servo electric cylinder 高效传动·精密驱动

AC/DC Servo Motor Products

40 Universal AC/DC Servo Motor



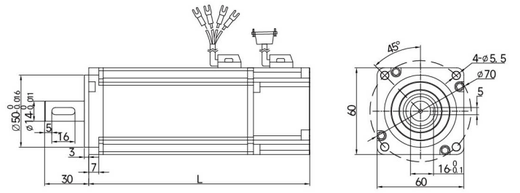


Motor Model	L(mm)	XXV
40ST-□00230-XXV	84.5	DC24,48,72, AC220
40ST-□00330-XXV	102.5	DC24,48,72, AC220
40ST-□00230B-XXV	117.6	DC24,48,72, AC220
40ST-□00330B-XXV	135.6	DC24,48,72, AC220

Other rotational speed voltages are available upon request

60 Universal AC Servo Motor



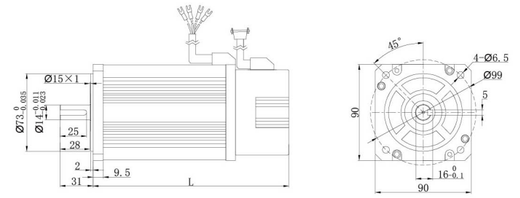


Motor Model	L(mm)	XXV
60ST-□00630-XXV	143	DC24,48,72, AC220, 380
60ST-□00630B-XXV	187	DC24,48,72, AC220, 380
60ST-□01330-XXV	168	DC24,48,72, AC220, 380
60ST-□01330B-XXV	212	DC24,48,72, AC220, 380
60ST-□02030-XXV	193	DC24,48,72, AC220, 380
60ST-□02030B-XXV	237	DC24,48,72, AC220, 380

Other rotational speed voltages are available upon request

90 Universal DC Servo Motor

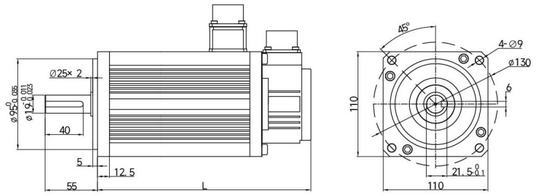




Motor Model	L(mm)	XXV
90ST-□02430	158.5	AC220, 380
90ST-□03530	158.5	AC220, 380
90ST-□05030	188.5	AC220, 380
90ST-□02430-XXV	158.5	DC24,48,72
90ST-□03530-XXV	158.5	DC24,48,72
90ST-□05030-XXV	188.5	DC24,48,72

Other rotational speed voltages are available upon request

110 Universal AC Servo Motor

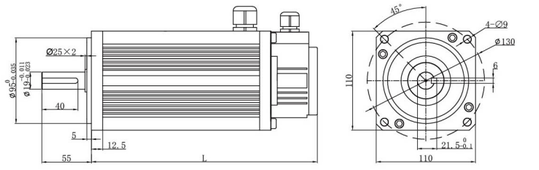




Motor Model	L(mm)	XXV
110ST-□02030	164.5	AC220 ,380
110ST-□02030B	217	AC220 ,380
110ST-□04030	189	AC220 ,380
110ST-□04030B	241.5	AC220 ,380
110ST-□06030	219	AC220 ,380
110ST-□06030B	271.5	AC220 ,380
110ST-□09030	249	AC220 ,380
110ST-□09030B	301.5	AC220 ,380

Other rotational speed voltages are available upon request

110 Universal DC Servo Motor

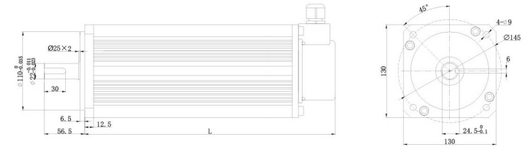




Motor Model	L(mm)	XXV
110ST-□02030-XXV	184.5	DC24,48,72
110ST-□02030B-XXV	237	DC24,48,72
110ST-□04030-XXV	219	DC24,48,72
110ST-□04030B-XXV	271.5	DC24,48,72
110ST-□06030-XXV	249	DC24,48,72
110ST-□06030B-XXV	301.5	DC24,48,72
110ST-□09030-XXV	279	DC24,48,72
110ST-□09030B-XXV	331.5	DC24,48,72

Other rotational speed voltages are available upon request

130 Universal AC Servo Motor

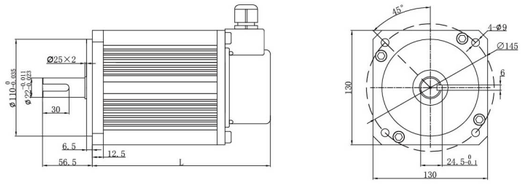




Motor Model	L(mm)	XXV
130ST-□04030	177.5	AC220 ,380
130ST-□04030B	226.5	AC220 ,380
130ST-□06030	187.5	AC220 ,380
130ST-□06030B	236.5	AC220 ,380
130ST-□07730	202	AC220 ,380
130ST-□07730B	251	AC220 ,380
130ST-□10030	238	AC220 ,380
130ST-□10030B	287	AC220 ,380
130ST-□15030	273.5	AC220 ,380
130ST-□15030B	342.5	AC220 ,380

Other rotational speed voltages are available upon request

130 Universal DC Servo Motor

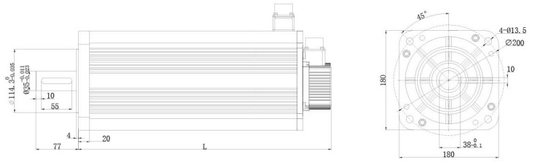




Motor Model	L1(mm)	L2(mm)	XXV
130ST-□04030-XXV	177.5	187.5	DC24,48,72
130ST-□04030B-XXV	256.5		DC24,48,72
130ST-□06030-XXV	187.5	197.5	DC24,48,72
130ST-□06030B-XXV	266.5		DC24,48,72
130ST-□07730-XXV	249		DC24,48,72
130ST-□07730B-XXV	301.5		DC24,48,72
130ST-□10030-XXV	238		DC24,48,72
130ST-□10030B-XXV	317		DC24,48,72
130ST-□15030-XXV	273.5		DC24,48,72
130ST-□15030B-XXV	372.5		DC24,48,72

其它转速电压可定制，130系列额定电流>70A时电机长度为L2
（若L2缺省,即长度为L1）

180 Universal AC Servo Motor

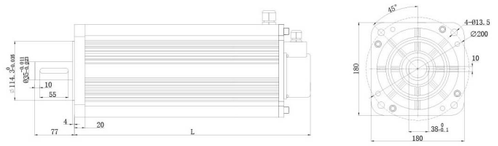




Motor Model	L(mm)	XXV
180ST-□160XX	236.5	AC220,380
180ST-□150XXB	326.5	AC220,380
180ST-□190XX	257.5	AC220,380
180ST-□190XXB	347.5	AC220,380
180ST-□250XX	274.5	AC220,380
180ST-□250XXB	364.5	AC220,380
180ST-□300XX	291.5	AC220,380
180ST-□300XXB	381.5	AC220,380
180ST-□360XX	312.5	AC220,380
180ST-□360XXB	402.5	AC220,380
180ST-□420XX	329.5	AC220,380
180ST-□420XXB	419.5	AC220,380
180ST-□500XX	346.5	AC220,380
180ST-□500XXB	436.5	AC220,380

Other rotational speed voltages are available upon request

180 Universal DC Servo Motor

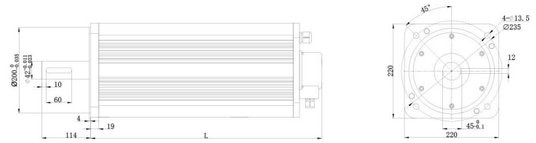




Motor Model	L1(mm)	L2(mm)	XXV
180ST-□160XX-XXV	256.5	276.5	DC24,48,72
180ST-□160XXB-XXV	346.5	366.5	DC24,48,72
180ST-□190XX-XXV	277.5	297.5	DC24,48,72
180ST-□190XXB-XXV	367.5	387.5	DC24,48,72
180ST-□250XX-XXV	294.5	314.5	DC24,48,72
180ST-□250XXB-XXV	384.5	404.5	DC24,48,72
180ST-□300XX-XXV	311.5	331.5	DC24,48,72
180ST-□300XXB-XXV	401.5	421.5	DC24,48,72
180ST-□360XX-XXV	332.5	352.5	DC24,48,72
180ST-□360XXB-XXV	422.5	442.5	DC24,48,72
180ST-□420XX-XXV	349.5	369.5	DC24,48,72
180ST-□420XXB-XXV	439.5	459.5	DC24,48,72
180ST-□500XX-XXV	366.5	386.5	DC24,48,72
180ST-□500XXB-XXV	456.5	476.5	DC24,48,72

其它转速电压可定制，180系列额定电流＞98A时电机长度为L2
（若L2缺省,即长度为L1）

220 Universal DC Servo Motor

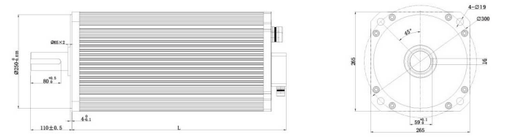




Motor Model	L(mm)	XXV
220ST-□400XX-XXV	354.5	DC48,72,96,144,310,540,AC220,380
220ST-□400XXB-XXV	449.5	DC48,72,96,144,310,540,AC220,380
220ST-□600XX-XXV	404.5	DC48,72,96,144,310,540,AC220,380
220ST-□600XXB-XXV	499.5	DC48,72,96,144,310,540,AC220,380
220ST-□750XX-XXV	434.5	DC48,72,96,144,310,540,AC220,380
220ST-□750XXB-XXV	529.5	DC48,72,96,144,310,540,AC220,380
220ST-□850XX-XXV	454.5	DC48,72,96,144,310,540,AC220,380
220ST-□850XXB-XXV	549.5	DC48,72,96,144,310,540,AC220,380
220ST-□10AXX-XXV	504.5	DC48,72,96,144,310,540,AC220,380
220ST-□10AXXB-XXV	599.5	DC48,72,96,144,310,540,AC220,380
220ST-□12AXX-XXV	554.5	DC48,72,96,144,310,540,AC220,380
220ST-□12AXXB-XXV	649.5	DC48,72,96,144,310,540,AC220,380
220ST-□15AXX-XXV	604.5	DC48,72,96,144,310,540,AC220,380
220ST-□15AXXB-XXV	699.5	DC48,72,96,144,310,540,AC220,380

Other rotational speed voltages are available upon request

260 Universal DC Servo Motor





Motor Model	L(mm)	XXV
260ST-□570XX-XXV	432	DC48,72,96,144,310,540,AC220,380
260ST-□570XXB-XXV	520	DC48,72,96,144,310,540,AC220,380
260ST-□850XX-XXV	482	DC48,72,96,144,310,540,AC220,380
260ST-□850XXB-XXV	570	DC48,72,96,144,310,540,AC220,380
260ST-□11AXX-XXV	532	DC48,72,96,144,310,540,AC220,380
260ST-□11AXXB-XXV	620	DC48,72,96,144,310,540,AC220,380
260ST-□14AXX-XXV	582	DC48,72,96,144,310,540,AC220,380
260ST-□14AXXB-XXV	670	DC48,72,96,144,310,540,AC220,380
260ST-□17AXX-XXV	632	DC48,72,96,144,310,540,AC220,380
260ST-□17AXXB-XXV	720	DC48,72,96,144,310,540,AC220,380
260ST-□20AXX-XXV	682	DC48,72,96,144,310,540,AC220,380
260ST-□20AXXB-XXV	770	DC48,72,96,144,310,540,AC220,380

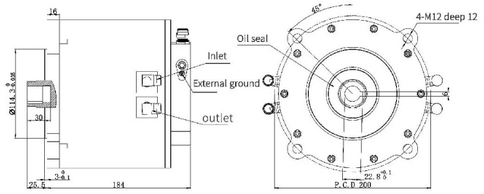
Other rotational speed voltages are available upon request

Other Specialized Motor Series Products(FTZ)

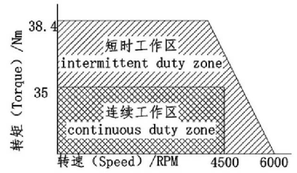
Electric Motors for New Energy Vehicles

Motor Model：190SV-16L45-YL-360V





- Torque-Speed Characteristic Curve

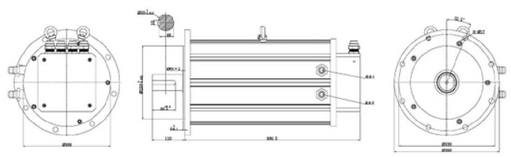


Main Performance Parameters			
Rated Power (KW)	16.5	Rated Voltage (V)	360VDC
Rated Torque (NM)	16	Rated Speed (rpm)	4500
Rated Current (A)	57	Maximum torque (NM)	105
Insulation Class	F 155°C	Protection Rating	IP65

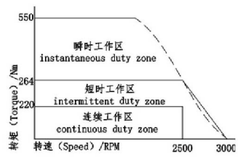
Liquid-cooled explosion-proof motor

Motor Model：260ST-J22A25-EX-380V-YL





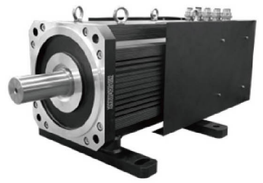
- Torque-Speed Characteristic Curve

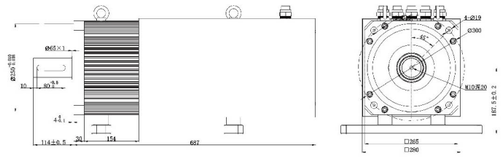


Main Performance Parameters			
Rated Power (KW)	58	Rated Voltage (V)	380VDC
Rated Torque (NM)	220	Rated Speed (rpm)	2500
Rated Current (A)	35	Maximum torque (NM)	550
Insulation Class	F 155°C	Protection Rating	IP65

Electric Motors for New Energy Vehicles

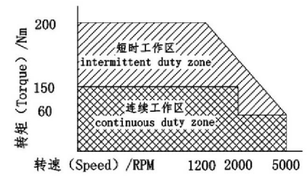
Motor Model：260ST-X15A20-EX-540V-FSW-T5





Main Performance Parameters			
Rated Power (KW)	30	Rated Voltage (V)	540VDC
Rated Torque (NM)	150	Rated Speed (rpm)	2000
Rated Current (A)	135	Maximum torque (NM)	300
Insulation Class	F 155 °C	Protection Rating	IP66
Cooling Method	Air-cooled	Rotor Inertia (Kg.cm2)	800

- Torque-Speed Characteristic Curve



Drives and Frequency Converters

High-performance two-phase hybridstepper motor driver



This driver is a high-performance stepper driver with constant torque and equal Angle subdivision. The driving voltage is AC18-60V/AC18-80V and it is powered by a single power supply. Two-phase hybrid stepping motors of various models suitable for current below 60A and outer diameters ranging from 57 to 86mm.

This driver adopts a bipolar constant current chopping method inside, which reduces motor noise and makes the motor run more smoothly. The increase in the voltage of the driving power supply greatly enhances the high-speed performance and driving capacity of the motor. When the step pulse stops for more than 100ms, select half-flow/full-flow lock as set. When the pulse frequency is not high, users can use low speed and high subdivision to improve the operation accuracy of the stepping motor, reduce vibration and lower noise.

Product features

- High performance, low price, low noise, and excellent stability
- It is equipped with 16 equal-angle constant torque subdivisions
- It adopts a unique control circuit, effectively reducing noise and enhancing rotational smoothness
- The maximum reaction frequency can reach up to 200Kpps
- The bipolar constant current chopping method enables the same motor to output greater speed and power
- When the step pulse stops for more than 100ms, the coil current is automatically halved

REF Current	PK Current	SW1	SW2	SW3
2.00A	2.40A	OFF	OFF	OFF
2.57A	3.08A	ON	OFF	OFF
3.14A	3.77A	OFF	ON	OFF
3.71A	4.45A	ON	ON	OFF
4.28A	5.14A	OFF	OFF	ON
4.86A	5.83A	ON	OFF	ON
5.43A	6.52A	OFF	ON	ON
6.00A	7.20A	ON	ON	ON

SW4:OFF=HalfCurrent(Half-stream lock)
ON=Full Current(Full-flow lock)

AC servo driver



It adopts a modular structure and is a servo driver with rich functions and powerful performance. The upper computer software adopts USB communication. The bus control can be selected from Modbus bus, CANopen bus, EtherCAT bus or PN bus. Meanwhile, this product features online and offline inertia identification, gain switching, automatic and manual notch filters, automatic and manual vibration suppression filters, internal point-to-point control, full closed-loop control, functional safety STO, support for multiple types of encoders, 16-bit analog input and other functions. This product is designed as a whole through electromagnetic compatibility, which not only meets the strong requirements

The anti-electromagnetic interference capability also meets users' environmental protection requirements for low noise and low electromagnetic interference in application sites.

Product features

- The response frequency is 2.0kHz, with high dynamic response, shortening the setting time and maximizing the high-end mechanical performance. The 23-bit high-precision encoder ensures more accurate positioning, smoother low-speed processing, and a smoother processing surface
- Internal multi-point positions, origin return, intelligent gain adjustment and switching, control as desired
- Speed observation and load inertia identification significantly enhance the accuracy of trajectory tracking
- Full closed-loop vibration suppression, low-frequency vibration suppression, disturbance suppression, friction torque compensation, automatic/manual filter notch setting, high rigidity, no micro-vibration
- High-quality applications of electronic cams and gantry synchronization
- Three times overload capacity, powerful performance
- Supports rotary motors, linear motors and third-party motors
- Supports PROFINET, EtherCAT, Modbus and CANopen high-speed industrial buses
- Power: 0.1kW-55kW

DC servo driver



Comprehensive upgrade of software and hardware;

The brand-new debugging software is more concise and convenient to use, supporting rapid switching and data reading among multiple drives. The driver supports various types such as Hall, incremental, absolute, and resolver

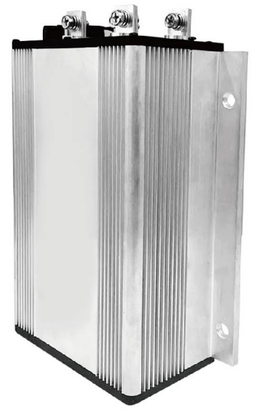
Encoder; It features multiple control methods such as analog quantity, direction + pulse, RS485, Canopen, and EtherCAT. It is equipped with a rich variety of common expansion interfaces such as brake, release, and temperature sensor functions

It has a wide coverage range and can drive low-voltage servo motors ranging from 20W to 45KW, with an extremely strong overload capacity.

Product features

- The response frequency is 2.0kHz, with high dynamic response, shortening the setting time and maximizing the high-end mechanical performance. 24-bit high-precision encoder: More accurate positioning, smoother low-speed processing, and a smoother processing surface
- Origin return, intelligent gain adjustment and switching, control of arbitrary speed observation and load inertia recognition, significantly improving trajectory tracking accuracy
- Full closed-loop vibration suppression, low-frequency vibration suppression, disturbance suppression, friction torque compensation, automatic/manual filter notch setting, high rigidity, no micro-vibration
- High-quality applications of electronic cams and gantry synchronization
- Three times overload capacity, powerful performance
- Supports rotary motors, linear motors and third-party motors

DC brushless driver



The TH10 series controller is a highly efficient, smooth and easy-to-install controller specially designed by our company for DC permanent magnet motors. It is suitable for DC brushless motors, DC servo motors, etc. This series of controllers can output a very high starting current and provide strict battery current limits. Therefore, it can not only operate under relatively small battery current conditions but also provide excellent acceleration and overload capacity.

The controller adopts a high-power MOSFET high-frequency design, with an efficiency of up to 95%. The powerful and intelligent DSP processing provides the controller with comprehensive and precise control. Users can also connect the computer to the controller and the corresponding application software through the connection cable we provide to obtain diagnostic information simply and quickly.

Product features

- Fault detection and protection can be achieved by identifying faults through the flashing code of the color-changing LED
- Real-time monitoring of battery voltage. The battery will stop working if the voltage is too high or too low
- Built-in current detection and overcurrent protection
- The controller is equipped with temperature measurement and protection functions
- The closed-loop function realizes the constant-speed mode
- The input of the 3-phase Hall position sensor is open collector output, and the controller provides a pull-up resistor

TH2000 High-performance vector frequency converter



The TH2000 series frequency converter is a new generation of high-performance vector control frequency converter developed by Wheatstone. It adopts an advanced vector control core, rich system functions and has a high voltage utilization rate

It features high power factor, fast dynamic response speed, high precision and low noise, which can meet the higher demands of customers. It supports SVC control of permanent magnet synchronous motors to achieve energy conservation to the greatest extent

Run; It offers a variety of personalized functional designs such as instant stop non-stop speed tracking, master-slave control, power balance, rapid and shock-free forward and reverse rotation switching, and automatic voltage and current limiting. The E2000 series is universal

In addition to supporting single-phase 220/230V and three-phase 380/480V, the frequency converter also supports three-phase 660/690V and 1140V voltage levels, and can be widely applied in mining, oil processing, water pumps, fans and other phases

Related to the industry.

Product features

- The advanced vector control technology makes the control more precise and the dynamic performance more excellent
- Optimize the flux control to further enhance the low-frequency output torque
- The output frequency ranges from 0.50 to 590Hz, and the resolution reaches 0.01HZ
- Configurable V/F curves and custom curves
- Ultra-low noise, with the carrier frequency adjustable within the range of 3K to 12K
- The control and protection are timely and reliable, and the system stability is high
- Optional built-in filter
- Compatible with European level interface standards
- The torque is automatically enhanced, with the starting torque reaching 150%/0.5Hz and the torque control accuracy reaching +5%

Power range

- Class 400V:0.4kW ~1000kW
- Class 690V: 15kW~ 1000kW
- Class 1140V:37kW~710kW

TH800 General-purpose vector frequency converter



The TH800 series of frequency converters is a new generation of general-purpose vector type frequency converters developed by Wheatstone. It adopts advanced control algorithms, rich system functions, and can be equipped with built-in EMI filters to enhance electromagnetic performance

The design is compact in structure and novel in appearance. It features high voltage utilization rate, high power factor, fast dynamic response speed, high precision and low noise, and can meet the light-load requirements of customers.

Product features

- Supports VVVF control of AC asynchronous motors and SVC control
- It features functions such as automatic carrier adjustment, automatic voltage adjustment, rapid current limiting, and speed tracking, meeting the requirements ,The demands of different customers
- Support SVC control of permanent magnet synchronous motors
- Optional built-in filter
- The output frequency is 0.50 to 590Hz(V/F),0.50 to 500Hz(SVC), and the resolution reaches 0.01Hz
- Protection functions: Overload, overcurrent, overvoltage, input undervoltage, overheating and other protection functions of the frequency converter

Power range

- 0.4kW~400kW

Applicable Drive Brands

Wheatstone
江苏惠斯通机电科技



SIEMENS



BECKHOFF



FANUC



ABB



rexroth
A Bosch Company



Nidec



invt



ESTUN
Automation



KCFA
禾川股份



XINJE
信捷电气



GSK



和利时
HollySys



KND
凯恩帝数控
KND CNC SYSTEM



MEGMEET



SIASUN 新松

