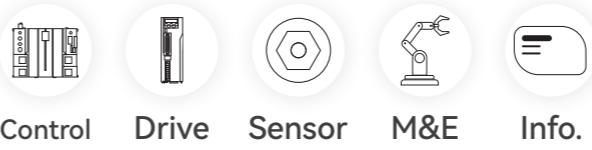


 400-012-6969



*Innovation Integrity Service*

## | X6 SERIES INTELLIGENT TYPE AC SERVO SYSTEM

## | X5E SERIES ADVANCED TYPE AC SERVO SYSTEM

Zhejiang Hechuan Technology Co.LTD  
[WWW.HCFA.COM.CN](http://WWW.HCFA.COM.CN)

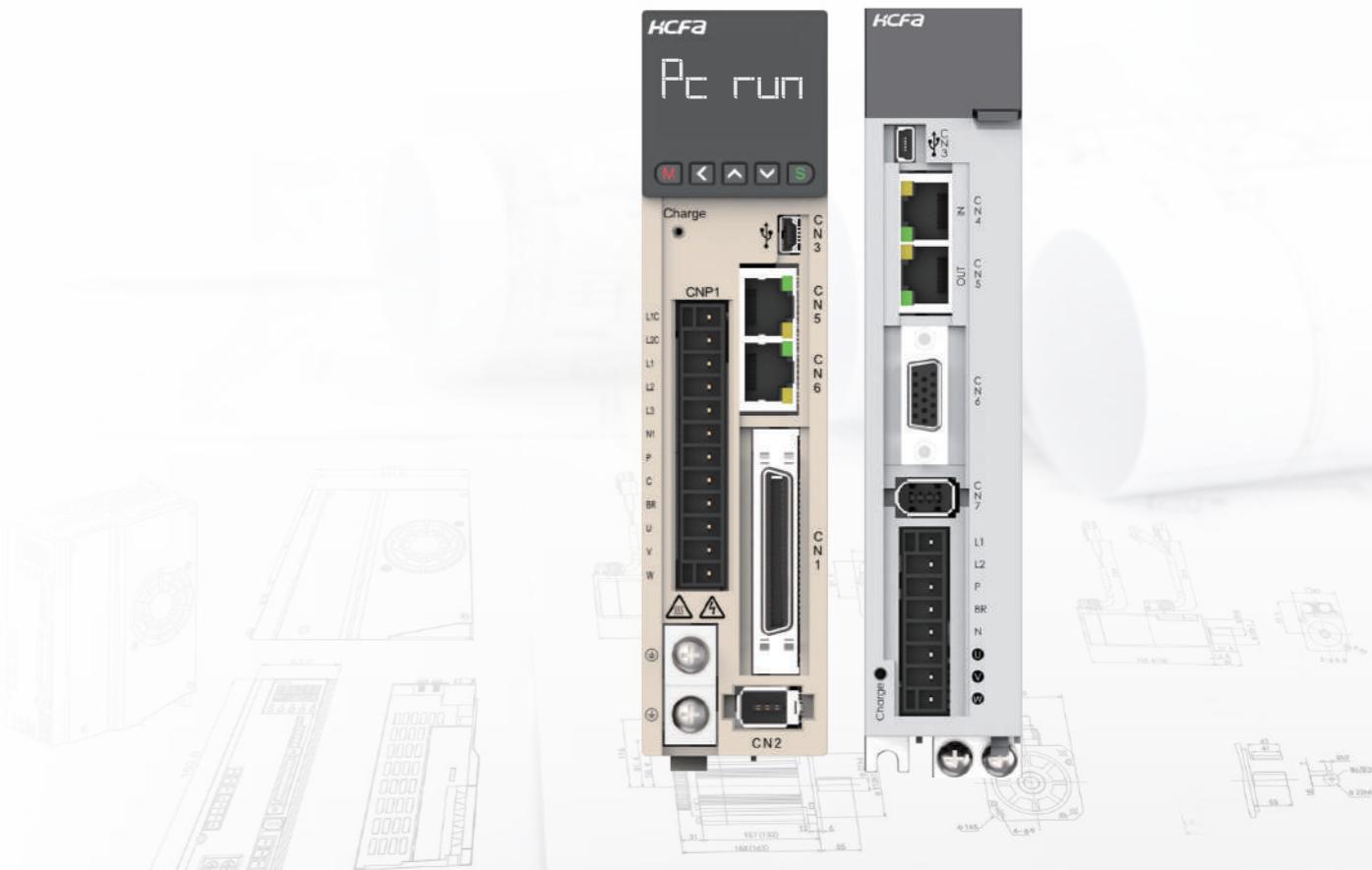
Headquarter address  
No.9,Fucai Road, Longyou industrial Zone, Quzhou City, Zhejiang Province,  
P.R.C

Hangzhou R&D Center  
Floor 4, Block D, Quzhou Overseas Haichuang Park, No.1001, Wenyi West  
Road, Yuhang District, Hangzhou City, Zhejiang Province, P.R.C

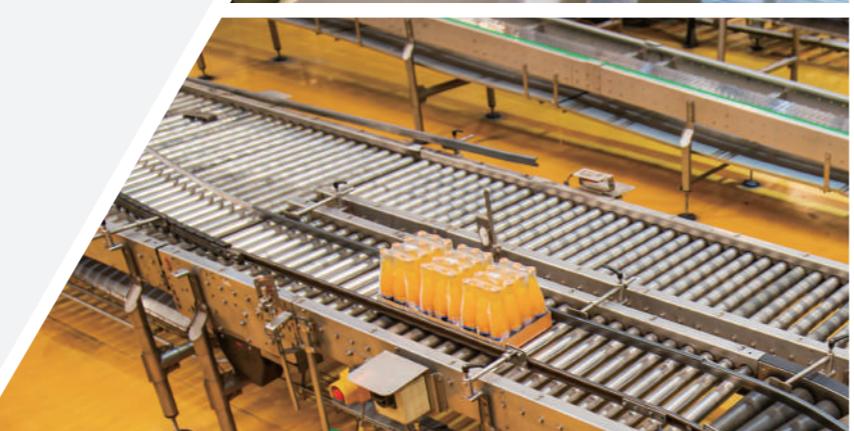
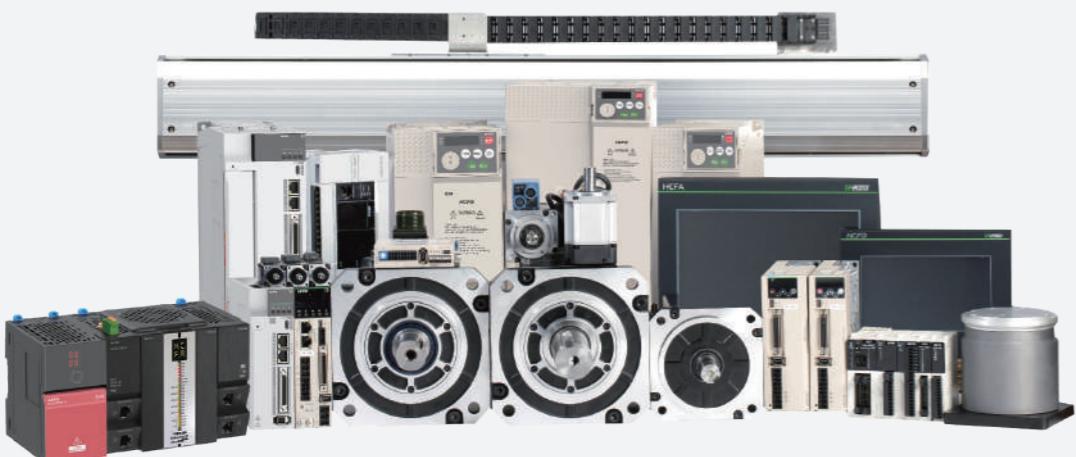
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Manual No.: October, 2021 Issue No. 8



To be the most valuable industrial automation  
core components and solutions provider



—禾川股份—

R&D Centers

4

Set up nationally

Sales Offices

40+

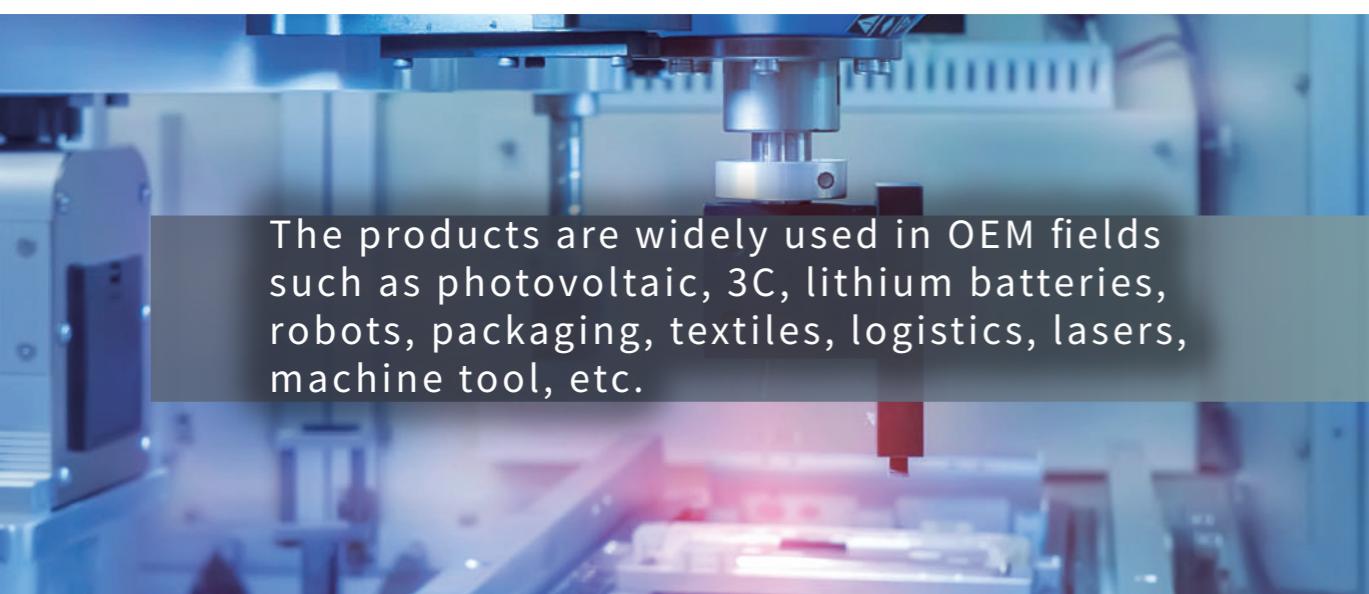
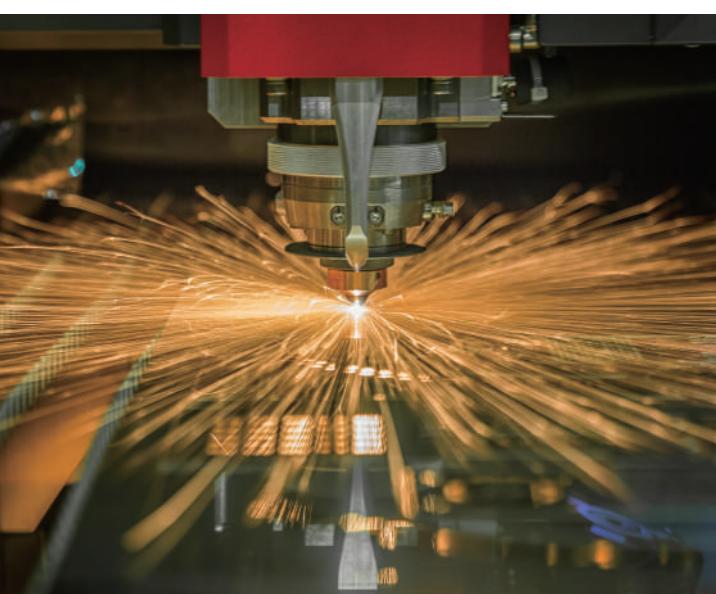
Sales elites gathering

Global Distributors

400+

Products sold worldwide

The products are widely used in OEM fields such as photovoltaic, 3C, lithium batteries, robots, packaging, textiles, logistics, lasers, machine tool, etc.



# X6

## Series Intelligent Servo Drive



### Naming Rule

SV-X6 E A - 075 - A - A 0 - 00 000

1 Functional classification	
E	Standart type
F	Full function type
L	Linear type

4 Voltage specifications	
A	AC220V
T	AC380V

2 Product type	
A	Standard Common type
B	EtherCAT bus-type
N	CANopen bus-type
R	PROFINET type

5 Control power	
A	AC power control

3 Product power	
005	50W
010	100W
020	200W
040	400W
075	750W
100	1KW
150	1.5KW
200	2KW
250	2.5KW
300	3KW
500	5KW
750	7.5KW

6 Product iteration serial no.	
2	N/A

7 Hardware type	
00	N/A

8 Software customized mark	
000	N/A



| LCD display | High ease of use Position control

| Compact Design | Automatic rigidity adjustment

| Rich bus-type EtherCAT Technology Group

## // General Specifications

Item		Specifications																										
SV-X6 Series		005	010	020	040	075	100	150	200	250	200	300	500	750														
Drive Power (W)		50	100	200	400	750	1000	1500	2000	2500	2000	3000	5000	7500														
Rated Current (Arms)		0.9	1.2	2	3	4.5	6	10	12.5	15.6	6	9	13.5	21														
Continuous running current (Arms)		0.9	1.2	2	3	4.5	6	10	12.5	15.6	6	9	13.5	21														
Max Output Current (Arms)		2.7	3.6	6	9	13.5	18	30	37.5	37.5	18	27	40.5	52.5														
Mian Circuit Power		single-phase220 50~60 Hz				3-phase 220 50~60Hz				3-phase 380 50~60Hz																		
Control Power		Single-phase220V				Single-phase 380V																						
Applicable encoder		17bit/23bit																										
Control mode		7 control modes: position control, speed control, torque control, position/speed control, position/torque control, speed/torque control, entire closed-loop control (support X6FA/X6FB)																										

## // Environment Specifications

Item		Specifications	
Temperature	Ambient temperature for use	0~55°C	
	Ambient temperature for storage	-20~65°C	
Humidity	Ambient temperature for use	20~85%RH or less(Without condensation)	
	Ambient temperature for storage	20~85%RH or less(Without condensation)	
Atmosphere for use& storage		Indoors(Not subject to direct sunlight); free from corrosive gas, flammable gas, oil mist, or dust	
Altitude		1000m or less	
Vibration		5.8m/s <sup>2</sup> (0.6G) or less, 10~60Hz(No continuous operation allowed at frequency of resonance)	
Insulation and dielectric strength		1 minute at 1500 VAC across the primary and FG	

## // Config. Specifications

Function	Pluses Standard	Pluses full-fuctions	EtherCAT standard	EtherCAT full-fuctions	CANOpen standard	CANOpen full-fuctions	Profinet standard	Profinet full-fuctions
Analog Input		2x		2x		2x		2x
Analog Output		2x		2x		2x		2x
Pluses Input	✓	✓						
Pulse divider output	✓	✓		✓		✓		✓
STO Function	✓	✓		✓		✓		✓
Secondary Encoder	USB/485	USB/485	USB	USB/485	USB/485	USB/485	USB	USB
Z-phase collector output		✓		✓		✓		✓
Serial communication		✓		✓		✓		✓

## // Technical Specifications

Item			Specifications	
Position control	Pulse input	Max input pulse frequency	Open-collector pulse input: Up to 200KHz, pulse width larger than 2.5us	
			General input: Up to 500KHz, pulse width larger than 1 us	
			High-speed input: Up to 4MHz, pulse width larger than 125ns	
	Pulse output	Input pulse form	Pulse+ direction, A-Phase + B-Phase, CW+CCW	
		Electronic gear setting	Electronic gear : A/B (Encoder resolution/10000000 < A/B <Encoder resolution/2.5)	
		Smoothing	Smoothing filter, FIR filter	
	Internal position mode		Segment 1-16 internal position planning	
Speed control	Control method		External analog command control/0~16 segments speed selection can be realized by DI terminal combination./Communication setting	
	Analog input voltage range		DC±10V(Maximum speed at 10V)	
	Torque limit function		Internal parameter setting or analog input	
Torque control	Control method		External analog instruction control/internal parameter/DI terminal switch(analog/internal parameter)/communication setting	
	Analog input voltage range		DC±10V(Rated torque at 10V)	
	Speed limit		Internal parameter setting or analog input	
Common functions	Control signal	I/O	9IN/9OUT	
	Analog signal	I/O	2IN (±10v)	
	Speed monitoring		Provided	
	Vibration control		Provided	
	Adaptive notch filter		Provided	
	Auto-tuning		Provided	
	Encoder output division and multiplication		Provided	
	Dynamic brake		Can be connected externally	
	Regeneration function		A larger power braking resistor can be connected	
	Protective functions		Overvoltage, power supply error, overcurrent, overheating, overload, encoder error, over speed, position deviation too large, parameter error	
Communication		USB	For PC communication (Servostudio connection)	
		Type	RS485	B:EtherCAT
				N:CANOPEN



### Main Power AC220V

#### Circuit breakers

Used to protect the power supply circuit and cut off the power supply in case of overcurrent.

#### Noise filter

Used to prevent noise outside.

#### Electromagnetic contactor

Turn on/off the servo power. Please install surge absorber when using.

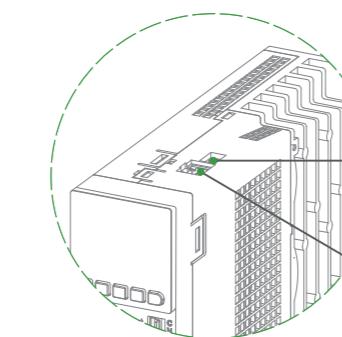
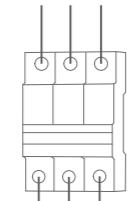
L1C/L2C  
AC control power input

L1/L2/L3  
AC main power input

N1 Main circuit busbar -  
P Main circuit busbar +

<sup>③</sup> P/C/BR Regenerative resistor connections

U/V/W  
Motor power output



**CN1** <sup>\*1</sup>  
RS485 communication and analogue output (AO) port

**CN2** <sup>\*1</sup>  
STO functional safety socket

#### CN3 PC communication interface

Dedicated software 「HCS-Studio」 for setting parameters and making adjustments

#### CN4/CN5 communication <sup>\*2</sup> interface

For RS485 communication, or bus connection

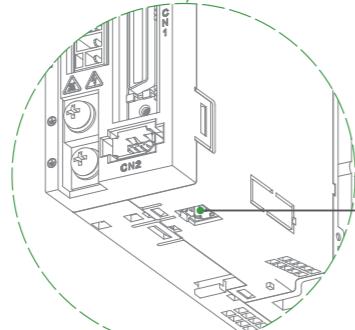
#### CN6 Function I/O signal interface

Connection to the Host controller

#### CN7 Encoder interface

For encoder cable connection

#### System grounding



<sup>\*1</sup> Only for full-functional models

<sup>\*2</sup> Pulse type for RS485 communication  
CANopen EtherCAT Pro finet models are used in bus communication interfaces

<sup>\*3</sup> P/C shorting required when using the driver's built-in regenerative resistor  
When an external regenerative resistor is used, P/BR is inserted and the P/C stub is removed

### Main Power AC380V

#### Circuit breakers

Used to protect the power supply circuit and cut off the power supply in case of overcurrent.

#### Noise filter

Used to prevent noise outside

#### Electromagnetic contactor

Turn on/off the servo power. Please install surge absorber when using.

L1C/L2C  
AC control power input

L1/L2/L3  
AC main power input

N1  
Main Circuit busbar -  
P  
Main Circuit busbar +

<sup>③</sup> P/C/BR  
Regenerative resistor connection

U/V/W  
Motor power output

#### System grounding



**CN1** <sup>\*1</sup>  
RS485 communication and analogue output (AO) port

**CN2** <sup>\*1</sup>  
STO functional safety socket

**CN3 PC communication interface**  
software 「HCS-Studio」 for setting parameters and making adjustments

**CN4/CN5 communication <sup>\*2</sup> interface**

For RS485 communication, or bus connection

**CN6 Function I/O signal interface**

Connection to the Host controller

**CN7 Encoder interface**

For encoder cable connection

**CN8 Second encoder interface** <sup>\*1</sup>

Connection to external displacement sensor

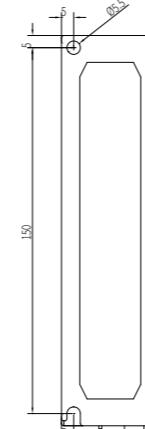
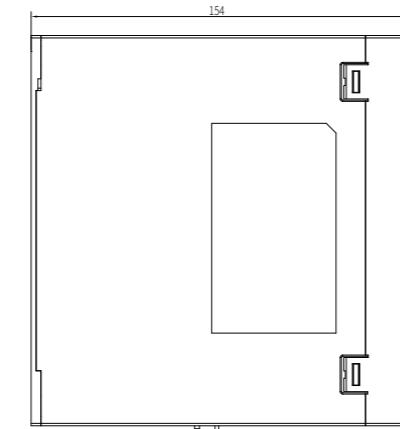
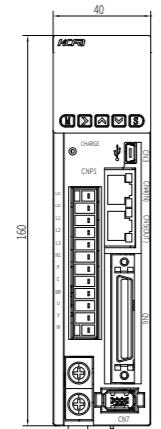
<sup>\*1</sup> Only for full-functional models

<sup>\*2</sup> Pulse type for RS485 communication  
CANopen EtherCAT Pro finet models are used in bus communication interfaces

<sup>\*3</sup> P/C shorting required when using the driver's built-in regenerative resistor  
When an external regenerative resistor is used, P/BR is inserted and the P/C stub is removed

External dimensions for 50W/100W/200W/400W

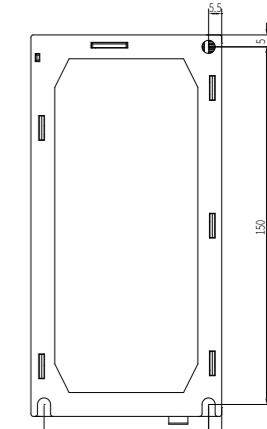
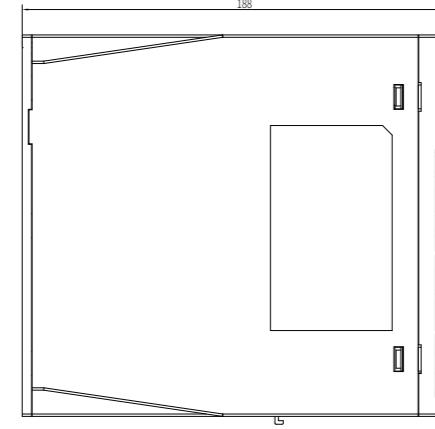
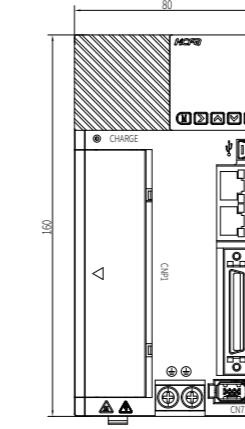
Weight (KG)  
0.8



Unit:mm

External dimensions for 2.5KW/3KW

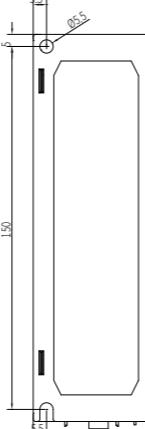
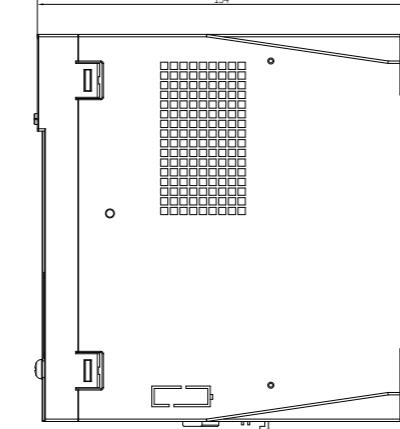
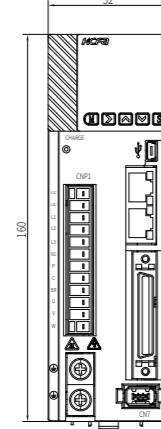
Weight (KG)  
1.7



Unit:mm

External dimensions for 750W/1KW

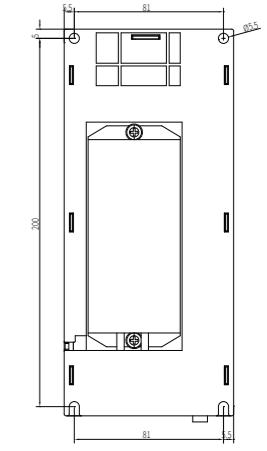
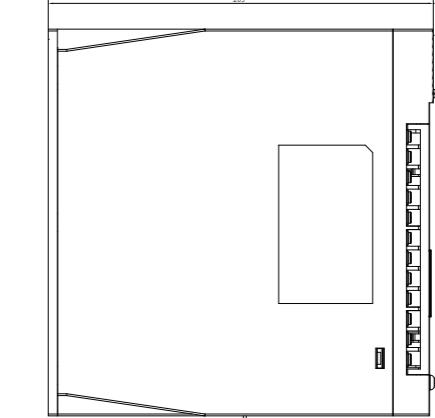
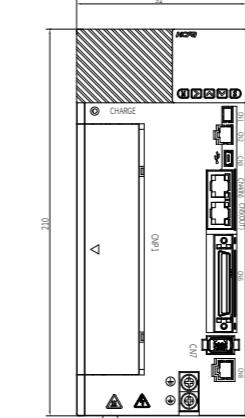
Weight (KG)  
1



Unit:mm

External dimensions for 5KW/7.5KW

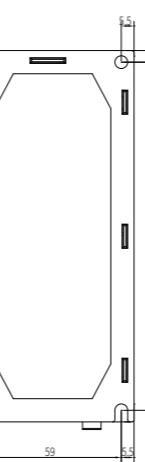
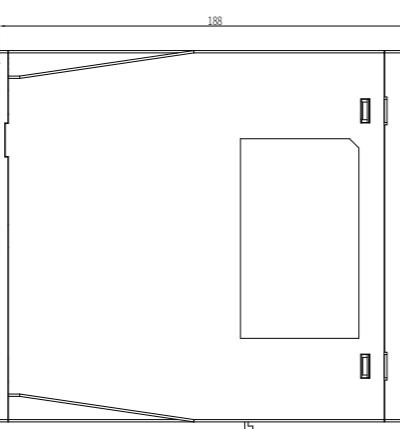
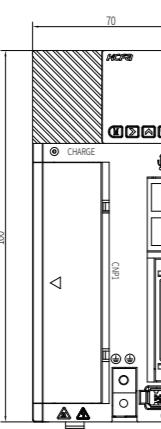
Weight (KG)  
3.1



Unit:mm

External dimensions for 1.5KW/2KW

Weight (KG)  
1.5



Unit:mm

# X5E Series Advanced Servo Drive

## Naming Rule

SV-X5E B - 075 - A - A 0 - 00 000

1                  2                  3                  4                  5                  6                  7

Product Type	
A	Standard type
B	EtherCAT bus-type
N	CANopen bus-type

Product Power	
010	100W
040	400W
075	750W
100	1KW
150	1.5KW
200	2KW
250	2.5KW

Voltage Specification	
A	AC220V



**Compact size**    **Powerful Performance**    **Prominent Features**

## // General Specifications

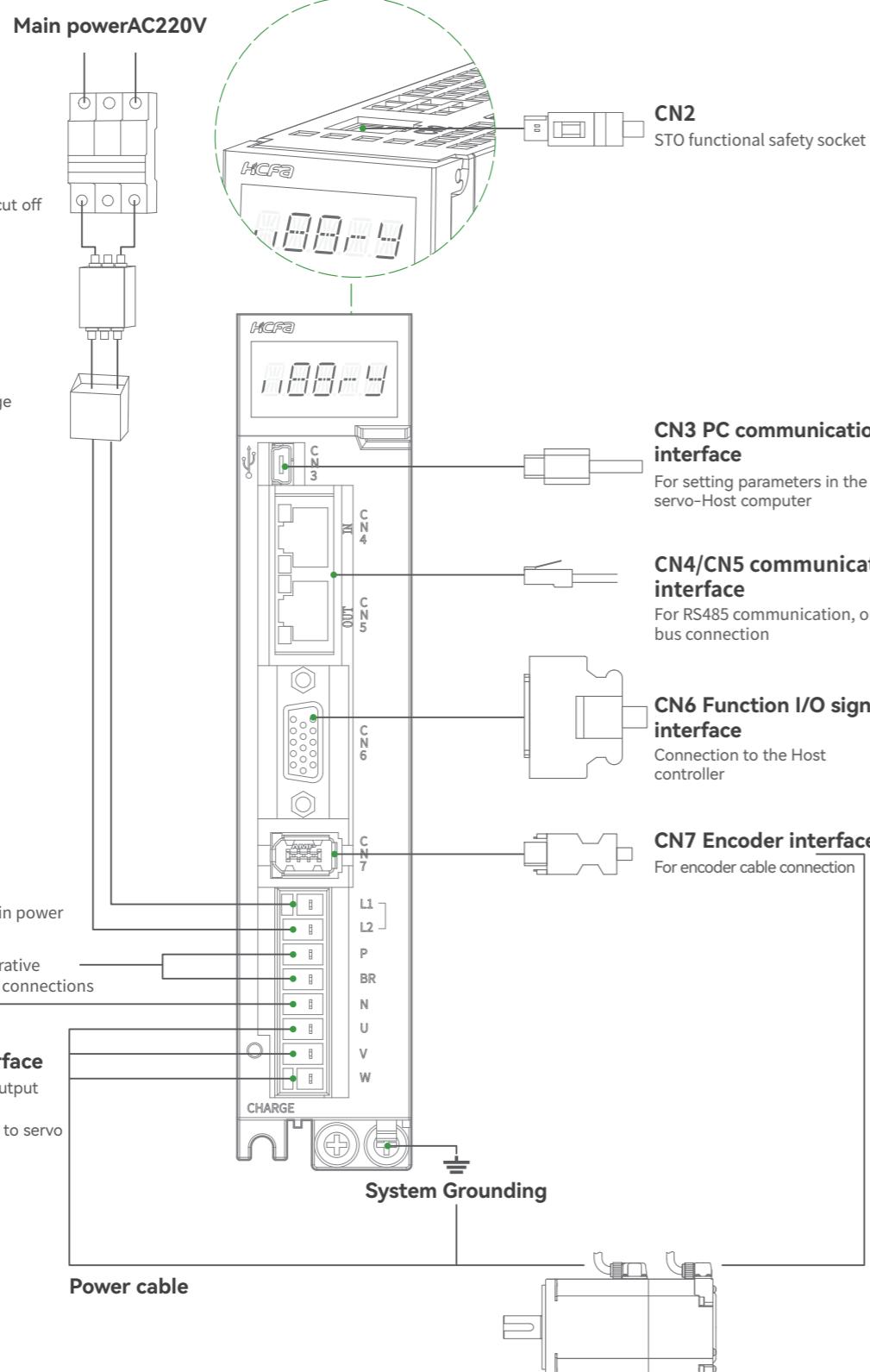
Item	Specifications										
Driver Type	010	040	075	100	150	200	250				
Power (W)	100	400	750	1000	1500	2000	2500				
Rated Current (Arms)	1.2	3	4.5	6	10	12.5	15.6				
Continuous running current (Arms)	1.2	3	4.5	6	10	12.5	15.6				
Max Output Current (Arms)	3.6	9	13.5	18	30	37.5	37.5				
Power Specification	Single-phase 220V 50~60Hz			3-phase 220V 50~60Hz							
Control Mode	control modes: position control, speed control, torque control, position/speed control, position/torque control, speed/torque control.										
Applicable encoder	17bit/23bit										

## // Environment Specifications

Item	Specifications	
Temperature	Ambient temperature for use	0~55°C
	Ambient temperature for storage	-20~65°C
Humidity	Ambient temperature for use	20~85%RH or less(Without condensation)
	Ambient temperature for storage	20~85%RH or less(Without condensation)
Atmosphere for use& storage	Indoors(Not subject to direct sunlight); free from corrosive gas, flammable gas, oil mist, or dust	
Altitude	1000m or less above sea level	
Vibration	5.8m/s <sup>2</sup> (0.6G) or less, 10~60Hz(No continuous operation allowed at frequency of resonance)	
Insulation and dielectric strength	1 minute at 1500 VAC across the primary and FG	

## // Technical Specifications

Item		Specifications	
Position Control	Pluse Input	Max Pluse frequency	Open-collector pulse input: Up to 200KHz, pulse width larger than 2.5us General input: Up to 500KHz, pulse width larger than 1 us High-speed input: Up to 4MHz, pulse width larger than 125ns
		Input pulse form	Pulse + Directions, Phase A + Phase B, CW + CCW
		Electronic gear setting	Electronic gear : A/B (Encoder resolution/10000000 < A/B < Encoder resolution/2.5)
		Smoothing	Smoothing filters, FIR filters
	Pluses Output	Output pulse function	Encoder position or pulse synchronisation output
		Division ratio	Arbitrary frequency division
		Output pulse form	Differential output: A/B/ Z, Open collector output: Z-phase
	Internal position mode		Segment 1-16 internal position planning
Speed Control	Control Method	Internal parameter P03.03 /1~16 segments speed selection can be realized by DI terminal combination	
	Torque Limiting Function	Internal parameter	
Torque Control	Control Method	Set the speed instruction value by P03.25	
	Speed Limiting Function	Set the positive and negative internal speed limit by P03.27, P03.28	
Common functions	Control signal	input/output	9IN/8OUT (busbar type 5IN/3OUT)
	Speed monitoring function		Provided
	Vibration control function		Provided
	adaptive notch filter		Provided
	Auto-tuning		Provided
	Encoder output division and multiplication		Provided
	dynamic brake		built-in
	Regeneration function		A larger power braking resistor can be connected
	protective function		Overvoltage, power supply error, overcurrent, overheat, overload, encoder error, over speed, position deviation too large, parameter error
	communication function	USB	For PC communication (for "Servostudio" connection)
		Type	RS485      B:EtherCAT      N:CANOPEN

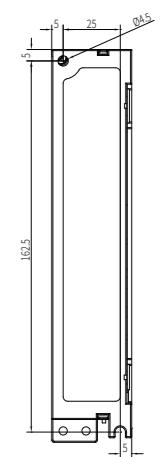
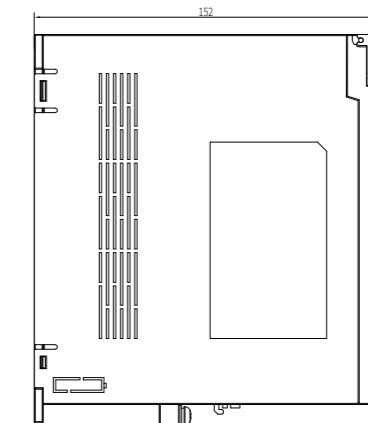
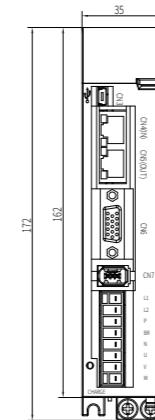


For using DC bus, do not connect the neutral line



External dimensions for 400W

Weight (KG)	0.75
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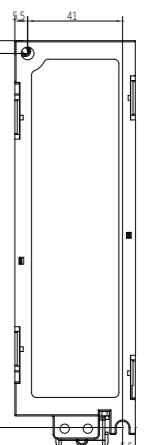
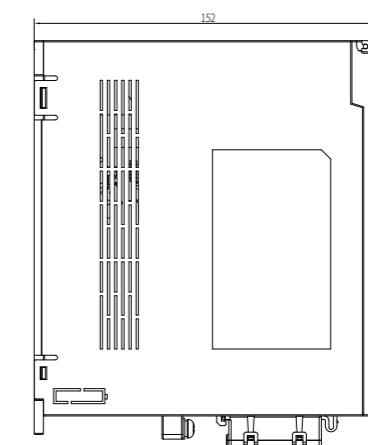
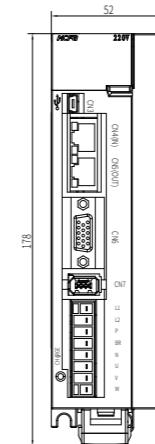


Unit: mm



External dimensions for 750W/1KW

Weight (KG)	1.1
-------------	-----



Unit: mm

# X2 Series

**17BIT Absolute**

**50W-2.3KW**

**0.16N.m-15N.m**

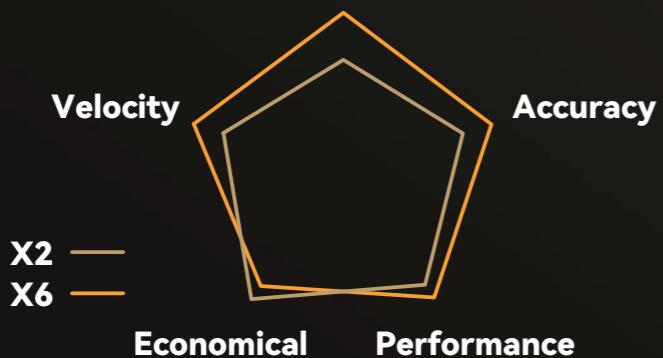
# X6 Series

**17BIT/23BIT Absolute**

**50W-7.5KW**

**0.16N.m-47.8N.m**

### Power specification



## Full range of high, middle and low inertia!

MA

### Low-inertia servo motor

Suitable for some occasions with light load and high-speed positioning. Quick response to start, accelerate and stop.

MM/MH

### Medium/high inertia servo motor

Suitable for occasions with heavy load and high stability requirements.

MHH

### Ultra-high inertia servo motor

Suitable for the same installation flange. With higher motor inertia, suitable for rollers and low-speed and stable occasions.

MQ

### Flat and special flange servo motor

Under the same power, with different sizes of flange design. The servo motor becomes shorter, but with larger inertia. Also suitable for rollers and low-speed stable occasions.

MGS

### Low-speed and large-torque servo motor

With the characteristics of low rated speed and large output torque, suitable for heavy load occasions.

### New manufacturing process

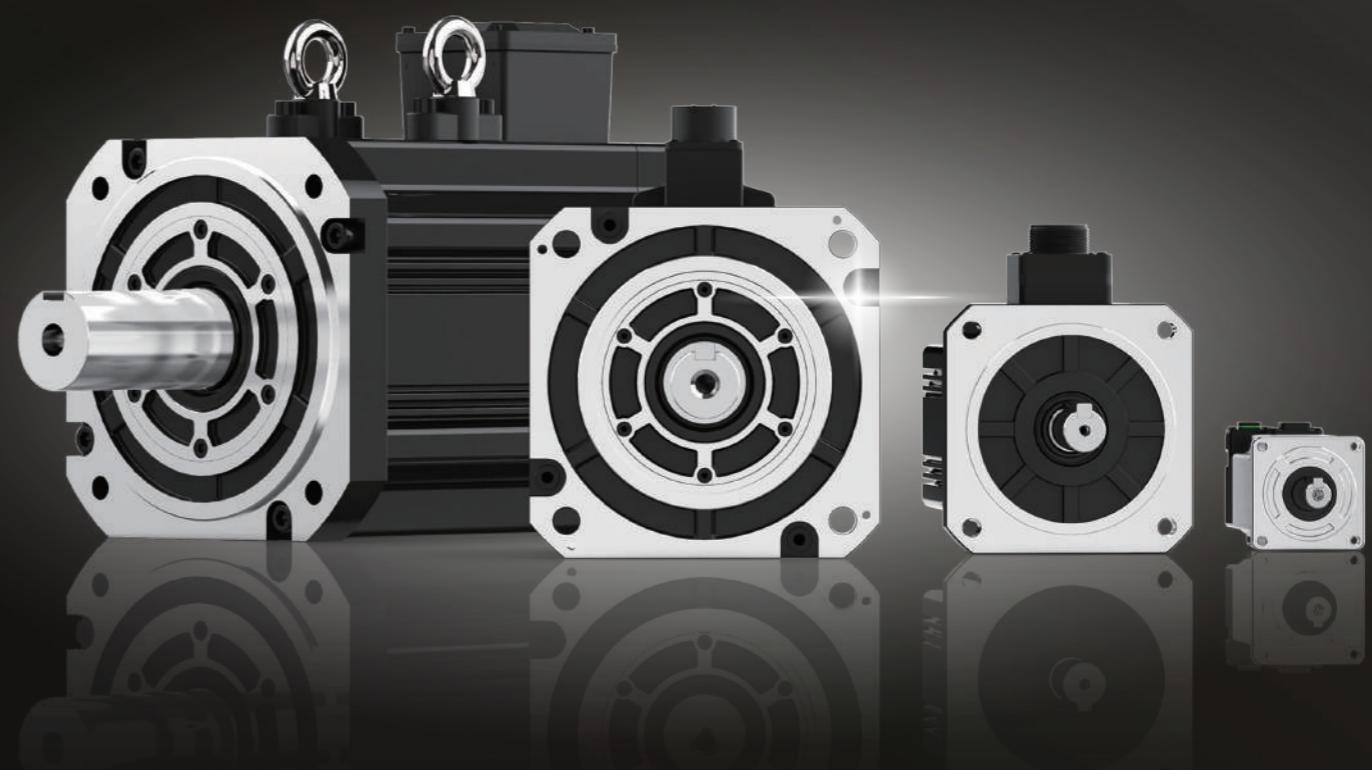
The newly-designed iron-core process makes the servo motor much smaller and lighter, 20% shorter than the previous generation

### New structure design

The integrated structure of the front flange and housing to be stronger, matching with connector-type motor. IP67 protection level

### New rotor design

The new design with 10-pole rotor + magnetic field analysis technology to reduce the width of pulsation and makes it smoother at low speed.



SV-X6 MA 040 A - N 2 C D - \*\*\*\*

1 2 3 4 5 6 7 8 Special specifications

Product Series	
SV-X6 Series	17BIT/23BIT

Inertia Specifications	
MA	Low Inertia
MM	Medium Inertia
MH	High Inertia
MHH	Ultra-high Inertia
MQ	Special flange/Flat-type/small flange
MG	Low-speed & high-torque
MGS	Low cogging cutting

Power Specification			
005	50W	180	1.8KW
010	100W	200	2KW
015	150W	240	2.4KW
020	200W	290	2.9KW
040	400W	300	3KW
075	750W	400	4KW
085	850W	440	4.4KW
100	1KW	500	5KW
130	1.3KW	550	5.5KW
150	1.5KW	750	7.5KW

E.g.  
23bitabsolute 220v 850W MG High torque at low speed naming rule SV-X6 MG 085A-N2LD  
23bitabsolute 380v 850W MG High torque at low speed naming rule SV-X6 MG 085A-N4LD

17bitabsolute 380v 850W MG High torque at low speed naming rule SV-X6 MG 085A-N4LA

Design No.	
A/B/C/E/F/H/K/S	

Brake Specification	
N	No brake
B	With brake

Power Voltage Specification	
2	AC220V
4	AC380V

Specification	
K	Key shaft/no oil seal
L	Key shaft/oil seal
C	Connector type/key shaft/with oil seal*1
D	Connector type/key shaft/no oil seal*1
J	Compact (customized)

Encoder Specifications	
D	Multi-turn 23bit absolute
A	Multi-turn 17bit absolute

Customization	
**	N/A

NOTE \*1:From the 2nd quarter of 2021, our company started releasing connector-type servo motor with 40~80 flanges as the regular model.

Lead-wire servo motors will be discontinued from December 2021, if still needed, the customized application process is required.

For details, refer to page 55 or consult our sales staff.



## X6 Series Servo Motor

Series	Specification	Type	50W	100W	150W	200W	400W	750W	1.0kW	1.5kW	2.0kW	3.0kW	4.0kW	5.0kW	7.5kW	
Flanges																
X6-MA	Rated [peak torque]		0.64 [1.91]	1.27 [3.82]	2.39 [7.16]	3.18 [9.55]	4.77 [14.3]	6.37 [19.1]	7.16 [21.5]	9.5 [28.6]	12.1 [33.3]	14.3 [42.9]	19.1 [57.3]	23.9 [71.6]	47.8 [119.4]	
Low Inert	Inertia:No brakes [brakes]		0.16 [0.17]	0.28 [0.29]	0.96 [1.07]	2.03 [2.35]	2.84 [3.17]	3.68 [4.01]	3.000 [5000]	3000 [5000]	3000 [5000]	3000 [5000]	3000 [5000]	3000 [5000]	3000 [5000]	3000 [5000]
X6-MM	Rotational speed rated [max speed]		3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]	3000 [6000]
Medium Inertia	220W/motor															
X6-MH	Rated [peak torque]		40	60	80	100	130	160	180	180	180	180	180	180	180	180
High Inertia	Inertia:No brakes [brakes]		0.16 [0.56]	0.32 [1.11]	0.477 [1.43]	0.64 [2.23]	1.271 [4.46]	2.39 [8.36]	4.77 [14.3]	7.16 [21.5]	9.5 [28.6]	12.1 [33.3]	14.3 [42.9]	19.1 [57.3]	23.9 [71.6]	47.8 [119.4]
X6-MHH	Rotational speed rated [max speed]		3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]
Ultra-high Inertia	220W/motor															
X6-MQ	Rated [peak torque]		40	60	80	100	130	160	180	180	180	180	180	180	180	180
Special flange	Inertia:No brakes [brakes]		0.038 [0.042]	0.071 [0.074]	0.13 [0.133]	0.29 [0.31]	0.56 [0.58]	1.56 [1.66]	30.8 [32]	38.5 [39.7]	31.4 [44.6]	2000 [3000]	2000 [3000]	2000 [3000]	2000 [3000]	2000 [3000]
flat	Rotational speed rated [max speed]		3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]	3000 [6500]
X6-MG	Rated [peak torque]		80	130	130	130	130	130	130	130	130	130	130	130	130	130
Low Speed & high-torque	Inertia:No brakes [brakes]		4.77 [14.3]	9.55 [28.6]	5.41 [16.2]	8.28 [24.84]	11.5 [34.5]	15.2 [45.8]	18.6 [46.5]	28.4 [71.1]	31.85 [87.5]	31.2 [11.13]	2.1 [2.1]	3.185 [11.13]	35 [87.5]	35 [87.5]
small fl	Rotational speed rated [max speed]		1500 [2000]	1000 [1500]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]
X6-MGS	Rated [peak torque]		130	130	130	130	130	130	130	130	130	130	130	130	130	130
Low cogging cutting	Inertia:No brakes [brakes]		5.39 [16.2]	2.88 [3]	12.1 [13.3]	20.2 [21.4]	26 [27.2]	31.3 [32.5]	47.2 [62.3]	68.6 [83.7]	47.2 [62.3]	18.6 [55.8]	28.4 [71.1]	18.6 [55.8]	28.4 [71.1]	28.4 [71.1]
cutter s	Rotational speed rated [max speed]		1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]	1500 [3000]
	380W/motor															
	Type															
X6MG075A	X6MG010A	X6MG020A	X6MG040A	X6MG075A	X6MG100A	X6MG130A	X6MG180A	X6MG240A	X6MG300A	X6MG400A	X6MG500A	X6MG600A	X6MG700A	X6MG800A	X6MG900A	X6MG1000A
X6MG085S	X6MG130S	X6MG180S	X6MG240S	X6MG085S	X6MG130S	X6MG180S	X6MG240S	X6MG300S	X6MG400S	X6MG500S	X6MG600S	X6MG700S	X6MG800S	X6MG900S	X6MG1000S	X6MG1100S

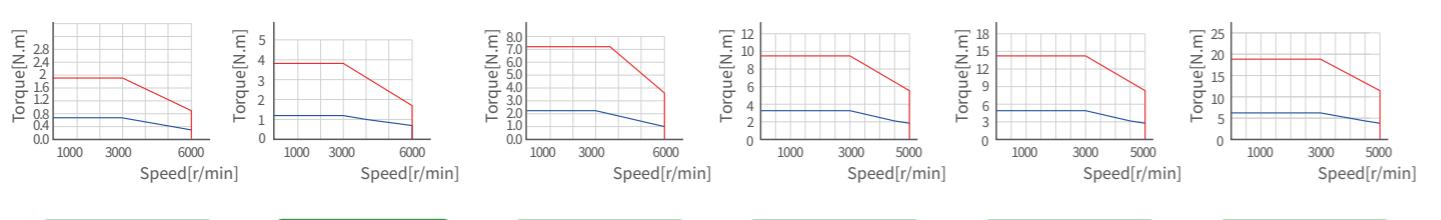
 Servo Motor Specifications

400 W 750 W 1 KW 1.5 KW 2 KW

Items		Unit	X6MA020A	X6MA040A	X6MA075A	X6MA100A	X6MA150A	X6MA200A
Rated power		W	200	400	750	1000	1500	2000
Rated voltage		V	220	220	220	220	220	220
Fitting flange size		mm	60	60	80	100	100	100
Rated torque		N.m	0.64	1.27	2.39	3.18	4.77	6.37
Instantaneous max. torque		N.m	1.91	3.82	7.16	9.55	14.3	19.1
Rated speed		r/min	3000	3000	3000	3000	3000	3000
Max. speed		r/min	6000	6000	6000	5000	5000	5000
Rated current		Arms	1.7	2.7	4.2	6.6	8.2	11.3
Instantaneous max. current		Arms	6.5	10.2	17.4	28	35	48
Moment of inertia	No brake	x10 <sup>4</sup> Kg.m <sup>2</sup>	0.16	0.28	0.96	2.03	2.84	3.68
	With brake	x10 <sup>4</sup> Kg.m <sup>2</sup>	0.17	0.29	1.07	2.35	3.17	4.01
Torque constant		N.m/A	0.427	0.488	0.583	0.52	0.628	0.607
Induced voltage constant per phase		mV[r/min]	14.5	17.9	21.33	18.15	21.92	21.247
Rated power rate	No brake	KW/S	25.6	57.6	59.5	49.82	80.12	110.26
	With brake	KW/S	24.1	55.6	53.4	43.03	71.775	101.19
Mechanical time constant	No brake	ms	0.775	0.561	0.463	0.619	0.507	0.425
	With brake	ms	0.824	0.581	0.516	0.717	0.566	0.463
Electrical time constant		ms	6.3	6.1	12.7	7.22	8.08	9.37
Phase q-axis/d-axis inductance		mH	19/5.6	10.7/7.5	7.6/4.9	—	—	—
Weight: No brake[with brake]		kg	0.9 [1.3]	1.28 [1.67]	2.25 [3.01]	3.5 [4.5]	4.4 [5.4]	5.3 [6.3]
Permissible load	Radial load	N	245	245	392	392	392	392
	Axial load	N	98	98	147	147	147	147
Brake specification	Rated voltage	V	DC24V±10%					
	Rated current	A	0.36	0.36	0.42	0.81±10%	0.81±10%	0.81±10%
	Brake power	w	9	9	10	20	20	20
	Static friction torque	N.m	1.6 or more	1.6 or more	3.8 or more	7.8 or more	7.8 or more	7.8 or more
Note: Holding brake	Suction time	ms	50 or less	50 or less	70 or less	50 or less	50 or less	50 or less
	Release time	ms	20 or less	20 or less	20 or less	15 or less	15 or less	15 or less
	Release voltage	ms	DC1V or more					

## Torque characteristics

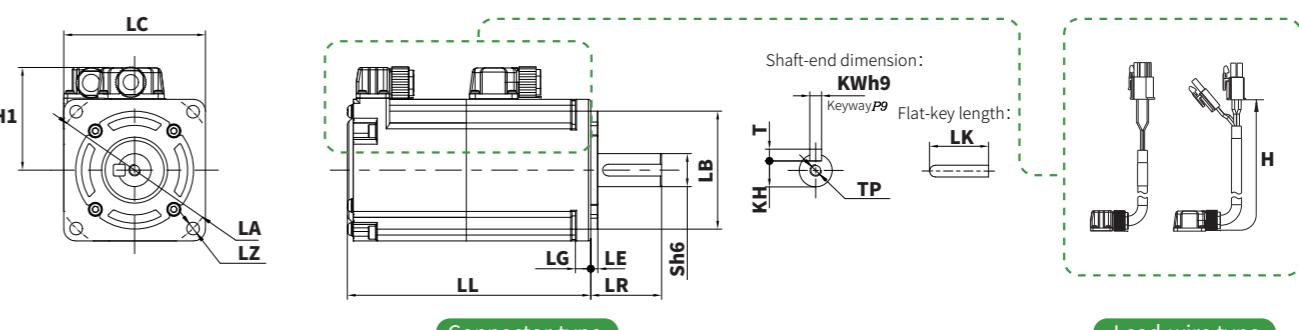
— Instantaneous operation range      — Continuous operation range



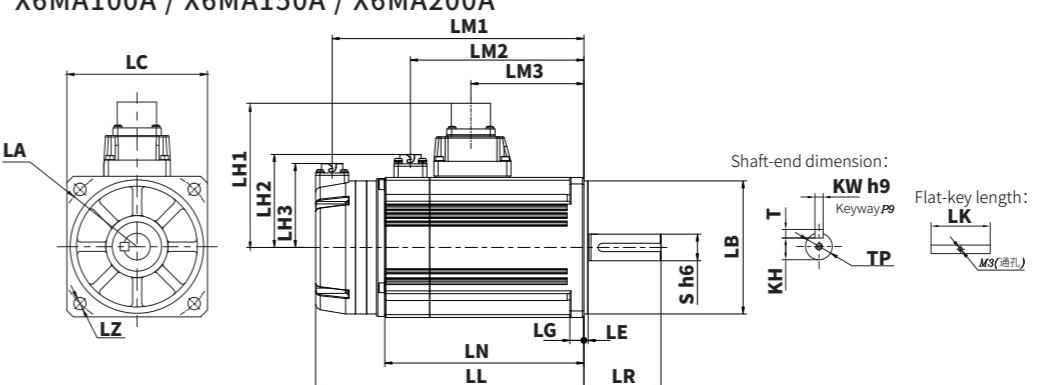
## External Dimensions for Servo Motor

Models	X6MA020A	X6MA040A	X6MA075A	X6MA100A	X6MA150A	X6MA200A
LC	60	60	80	100	100	100
LA	φ70	φ70	φ90	φ115	φ115	φ115
LB	φ50	φ50	φ70	φ95	φ95	φ95
LZ	4-φ5.4	4-φ5.4	4-φ6	4-φ9	4-φ9	4-φ9
LR	30	30	35	55	55	55
S	φ14 h6	φ14 h6	φ19 h6	φ19 h6	φ19 h6	φ19 h6
LL no brake [with brake]	73.5 [103]	93.2 [122.7]	105 [138.5]	123.5 [150.5]	142 [169]	161 [188]
LN no brake [with brake]	—	—	—	96.5 [123.5]	115 [142]	134 [161]
LG	6.5	6.5	8	10	10	10
LE	3	3	3	3	3	3
LM1 no brake [with brake]	—	—	—	111.5 [138.5]	130 [157]	149 [176]
LM2 no brake [with brake]	—	—	—	— [105]	— [123.5]	— [142.5]
LM3	—	—	—	62	80.5	99.5
LH1	44.5	44.5	54.5	103	103	103
LH2	—	—	—	66	66.5	66.5
LH3	—	—	—	55	55	55
LK	25	25	25	42	42	42
T	5	5	6	6	6	6
KW	5 h9	5 h9	6 h9	6 h9	6 h9	6 h9
KH	11	11	15.5	15.5	15.5	15.5
TP	M5depth12	M5depth12	M5depth10	M5depth12	M5depth12	M5depth12
H Cable length for lead-wire type	210	210	210	—	—	—

X6MA020A / X6MA040A / X6MA075A



**X6MA100A / X6MA150A / X6MA200A**



\*1:For X6 series servo motors, the lead-wire types are needed to be customized. For details, please contact our sales department.

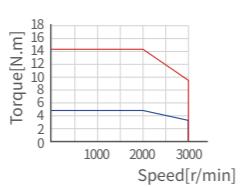
## Servo Motor Specifications

1 kW  
1.5 kW  
2 kW

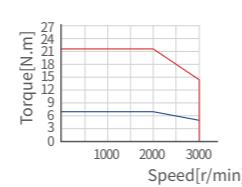
Items	Unit	X6MM100A	X6MM150A	X6MM200A
Rated power	W	1000	1500	2000
Rated voltage	V	220	220	220
Fitting flange size	mm	130	130	130
Rated torque	N.m	4.77	7.16	9.55
Instantaneous max. torque	N.m	14.3	21.5	28.6
Rated speed	r/min	2000	2000	2000
Max. speed	r/min	3000	3000	3000
Rated current	Arms	5.2	8	9.9
Instantaneous max. current	Arms	15.6	24	30
Moment of inertia	No brake $\times 10^{-4}$ Kg.m $^2$	6.18	9.16	12.1
	With brake $\times 10^{-4}$ Kg.m $^2$	7.4	10.4	13.3
Torque constant	N.m/A	0.918	0.895	0.9645
Induced voltage constant per phase	mV[r/min]	33.65	34.84	37.95
Rated power rate	No brake KW/S	36.8	56	75.4
	With brake KW/S	30.7	49.3	68.6
Mechanical time constant	No brake ms	1.51	1.16	1.05
	With brake ms	1.81	1.3	1.16
Electrical time constant	ms	11.1	14.6	15.38
Phase q-axis/d-axis inductance	mH	8.4/4.3	5.8/2.9	4.9/2.6
Weight: No brake[with brake]	kg	4.67 [6.27]	5.87 [7.47]	12.1 [13.3]
Permissible load	Radial load N	490	490	490
	Axial load N	196	196	196
Brake specification	Rated voltage V	DC24V±10%		
	Rated current A	0.9	0.9	0.9
	Brake power w	22	22	22
	Static friction torque N.m	14 or more	14 or more	14 or more
	Suction time ms	100 or less	100 or less	100 or less
	Release time ms	60 or less	60 or less	60 or less
	Release voltage ms	DC1V or more		

## Torque characteristics

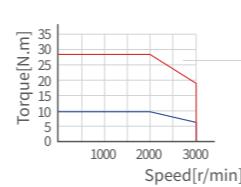
— Instantaneous operation range    — Continuous operation range



X6MM100A▲



X6MM150A▲

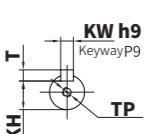
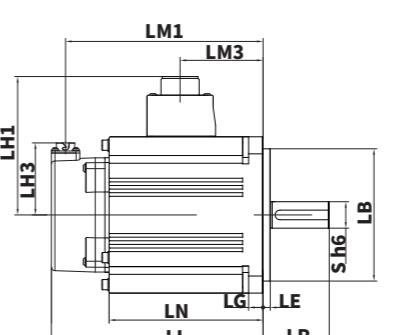
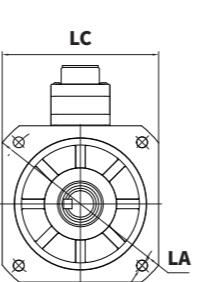


X6MM200A▲

## External Dimensions for Servo Motor

Models	X6MM100A	X6MM150A	X6MM200A
LC	130	130	130
LA	φ145	φ145	φ145
LB	φ110	φ110	φ110
LZ	4-φ9	4-φ9	4-φ9
LR	55	55	55
S	φ22 h6	φ22 h6	φ22 h6
LL no brake [with brake]	128 [148]	142 [162]	156 [176]
LN no brake [with brake]	80 [100]	94 [114]	108 [128]
LG	12	12	12
LE	6	6	6
LM1 no brake [with brake]	116.2 [136.2]	130.2 [150.2]	144.2 [164.2]
LM3	41	55	69
LH1	115	115	115
LH3	60	60	60
LK	45	45	45
T	7	7	7
KW	8 h9	8 h9	8 h9
KH	18	18	18
TP	M6depth20	M6depth20	M6depth20

## X6MM100A / X6MM150A / X6MM200A

Flat-key length:  
LK

Unit(mm)

X6MA-Low inertia

X6MM-Middle inertia

X6MH-High inertia

X6MHH-Ultrahigh inertia

X6MQ-Special flange

X6MG-Low-speed &amp; high-torque

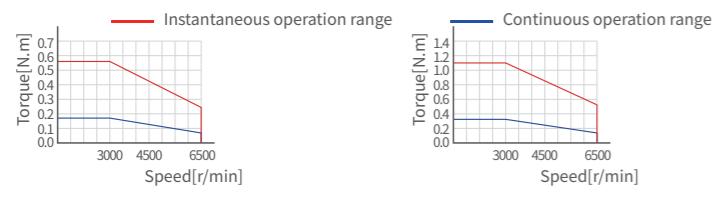
X6MS-Ultrahigh speed

### Servo Motor Specifications

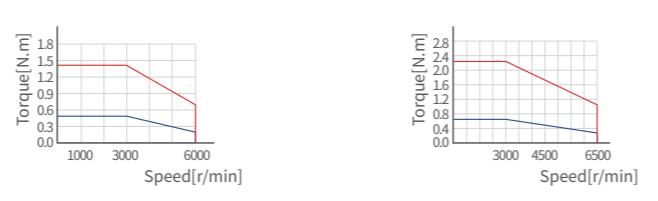
50W 100W 150W 200W

Items	Unit	X6MH005A	X6MH010A	X6MH015A	X6MH020A*2
Rated power	W	50	100	150	200
Rated voltage	V	220	220	220	220
Fitting flange size	mm	40	40	40	60
Rated torque	N.m	0.16	0.32	0.477	0.64
Instantaneous max. torque	N.m	0.56	1.11	1.43	2.23
Rated speed	r/min	3000	3000	3000	3000
Max. speed	r/min	6500	6500	6000	6500
Rated current	Arms	1.1	1.1	1.5	1.4
Instantaneous max. current	Arms	3.89	3.89	4.5	4.87
Moment of inertia	No brake $\times 10^{-4}$ Kg.m $^2$	0.038	0.071	0.13	0.29
	With brake $\times 10^{-4}$ Kg.m $^2$	0.042	0.074	0.133	0.31
Torque constant	N.m/A	0.168	0.327	0.33	0.5
Induced voltage constant per phase	mV[r/min]	5	11.1	12.2	14.61
Rated power rate	No brake KW/S	6.7	14.4	17.5	14.1
	With brake KW/S	6.1	13.8	17.1	13.2
Mechanical time constant	No brake ms	2.6	1.67	1.9	1.57
	With brake ms	2.85	1.74	1.94	1.68
Electrical time constant	ms	0.89	1.1	1.22	2.58
Phase q-axis/d-axis inductance	mH	5.1/3.4	9.4/6.3	7.2/4.8	10.2/5.8
Weight: No brake[with brake]	kg	0.33 [0.55]	0.45 [0.66]	0.83 [0.69]	0.87 [1.27]
Permissible load	Radial load N	68	68	68	245
	Axial load N	58	58	58	98
Brake specification	Rated voltage V	DC24V±10%			
	Rated current A	0.25	0.25	0.375	0.36
	Brake power w	6	6	9	9
	Static friction torque N.m	0.38 or more	0.38 or more	0.58 or more	1.6 or more
Note: Holding brake	Suction time ms	35 or less	35 or less	50 or less	50 or less
	Release time ms	20 or less	20 or less	20 or less	20 or less
	Release voltage ms	DC1V or more			

### Torque characteristics

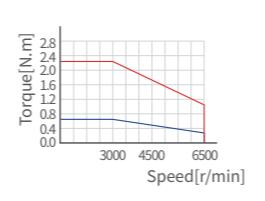


X6MH005A▲



X6MH010A▲

X6MH015A▲

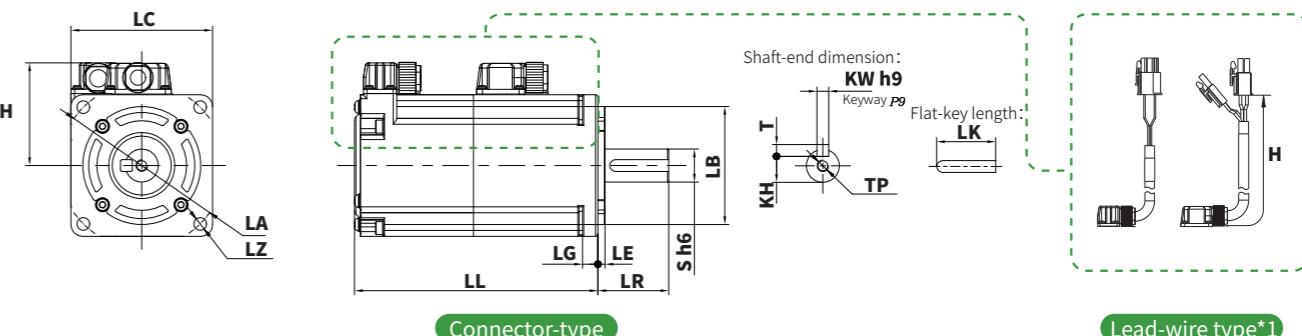


X6MH020A▲

### External Dimensions for Servo Motor

Models	X6MH005A	X6MH010A	X6MH015A	X6MH020A*2
LC	40	40	40	60
LA	φ46	φ46	φ46	φ70
LB	φ30	φ30	φ30	φ50
LZ	2-φ4.3	2-φ4.3	2-φ4.3	4-φ5.4
LR	25	25	25	30
S	φ8 h6	φ8 h6	φ8 h6	φ14 h6
LL no brake [with brake]	57 [91]	71 [105]	93.8 [127.8]	70.5 [100]
LG	5	5	5	6.5
LE	3	3	3	3
LH	35	35	35	44.5
LK	14	14	14	25
T	3	3	3	5
KW	3 h9	3 h9	3 h9	5 h9
KH	6.2	6.2	6.2	11
TP	M3depth6	M3depth6	M3depth6	M5depth 12
H Cable length for lead-wire type	210	210	210	210

### X6MH005A / X6MH010A / X6MH015A / X6MH020A



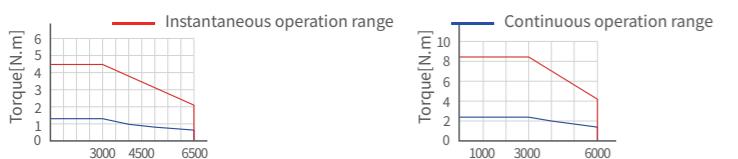
\*1: For X6 series servo motors, the lead-wire types are needed to be customized. For details, please contact our sales department.

## Servo Motor Specifications

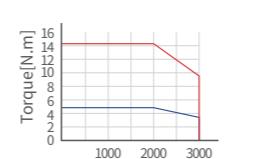
400W  
750W  
1kW  
1.5kW

Items	Unit	X6MH040A	X6MH075A	X6MH100A	X6MH150A
Rated power	W	400	750	1000	1500
Rated voltage	V	220	220	220	220
Fitting flange size	mm	60	80	130	130
Rated torque	N.m	1.27	2.39	4.77	7.16
Instantaneous max. torque	N.m	4.46	8.36	14.3	21.5
Rated speed	r/min	3000	3000	2000	2000
Max. speed	r/min	6500	6000	3000	3000
Rated current	Arms	2.1	3.8	5.2	8
Instantaneous max. current	Arms	7.36	13.3	15.6	24
Moment of inertia	No brake $\times 10^{-4}$ Kg.m <sup>2</sup>	0.56	1.56	30.8	38.5
	With brake $\times 10^{-4}$ Kg.m <sup>2</sup>	0.58	1.66	32	39.7
Torque constant	N.m/A	0.67	0.648	0.918	0.895
Induced voltage constant per phase	mV[r/min]	20.85	22.65	33.65	34.84
Rated power rate	No brake KW/S	28.8	36.6	7.39	13.3
	With brake KW/S	27.8	34.4	7.11	12.9
Mechanical time constant	No brake ms	1.24	0.97	7.54	4.9
	With brake ms	1.29	1.03	7.84	5.05
Electrical time constant	ms	2.97	6.59	11.1	14.63
Phase q-axis/d-axis inductance	mH	9.2/6.5	6/3.3	8.4/4.3	5.8/2.9
Weight: No brake[with brake]	kg	1.22 [1.61]	2.25 [3.01]	6.4[8.0]	7.8[9.4]
Permissible load	Radial load N	245	392	490	490
	Axial load N	98	147	196	196
Brake specification	Rated voltage V	DC24V±10%			
	Rated current A	0.36	0.42	0.9	0.9
	Brake power w	9	9	9	9
Note: Holding brake	Static friction torque N.m	1.6 or more	3.8 or more	14 or more	14 or more
	Suction time ms	50 or less	70 or less	100 or less	100 or less
	Release time ms	20 or less	20 or less	60 or less	60 or less
	Release voltage ms	DC1V or more			

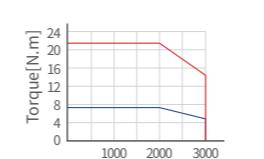
## Torque characteristics



X6MH040A ▲



X6MH075A ▲



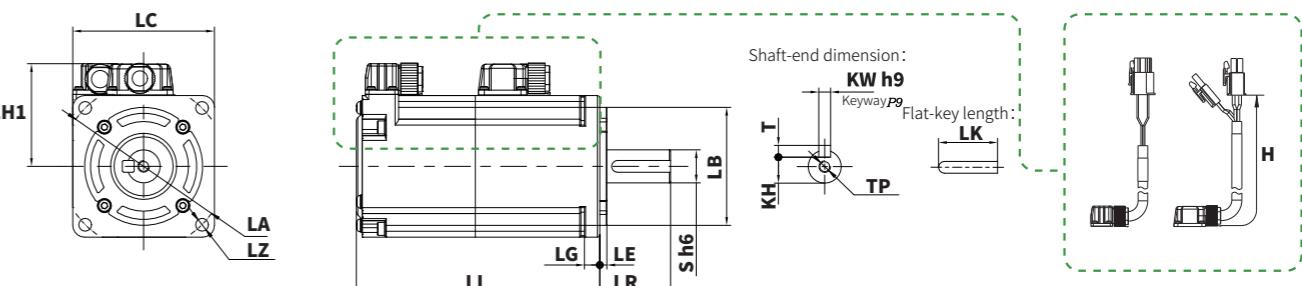
X6MH100A ▲

X6MH150A ▲

## External Dimensions for Servo Motor

Models	X6MH040A	X6MH075A	X6MH100A	X6MH150A
LC	60	80	130	130
LA	φ70	φ90	φ145	φ145
LB	φ50	φ70	φ110	φ110
LZ	4-φ5.4	4-φ6.5	4-φ9	4-φ9
LR	30	35	55	55
S	φ14 h6	φ19 h6	φ22 h6	φ22 h6
LL no brake [with brake]	87.5 [117]	94.5 [128.5]	156 [176]	170 [190]
LN no brake [with brake]	—	—	108 [128]	122 [142]
LG	6.5	8	12	12
LE	3	3	6	6
LM1 no brake [with brake]	—	—	144.2 [164.2]	158.2 [178.2]
LM3	—	—	69	83
LH1	44.5	54.5	115	115
LH3	—	—	60	60
LK	25	25	45	45
T	5	6	7	7
KW	5 h9	6 h9	8 h9	8 h9
KH	11	15.5	18	18
TP	M5depth12	M5depth12	M6depth20	M6depth20
H <small>H-type cable length for lead-wire type</small>	210	210	—	—

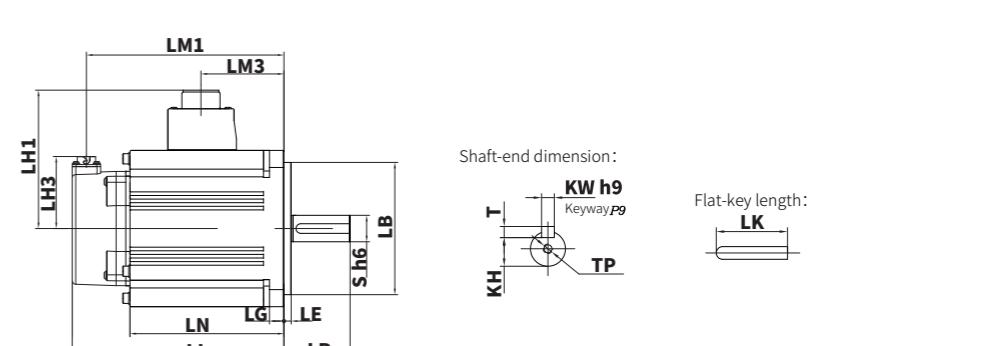
## X6MH040A / X6MH075A



Connector-type

Lead-wire type\*1

## X6MH100A / X6MH150A



Shaft-end dimension:

KW h9

Keyway P9

Flat-key length:

LK

TP

Lead-wire type

\*1: For X6 series servo motors, the lead-wire types are needed to be customized. For details, please contact our sales department.

## Servo Motor Specifications

100W  
200W  
400W  
750W

X6MA-Low inertia

X6MM-Middle inertia

X6MH-High inertia

X6MHH-Ultrahigh inertia

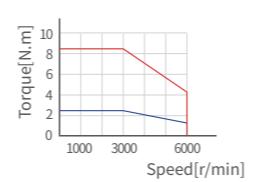
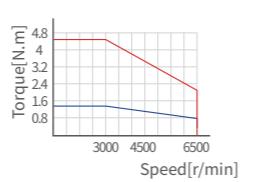
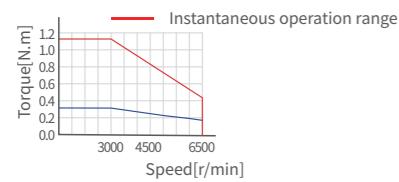
X6MQ-Special flange

X6MG-Low-speed &amp; high-torque

X6MGS-Low-cogging cutting

Items	Unit	X6MH010H	X6MH020H	X6MH040H	X6MH075H
Rated power	W	100	200	400	750
Rated voltage	V	220	220	220	220
Fitting flange size	mm	40	60	60	80
Rated torque	N.m	0.32	0.64	1.27	2.39
Instantaneous max. torque	N.m	1.11	2.23	4.46	8.36
Rated speed	r/min	3000	3000	3000	3000
Max. speed	r/min	6500	6500	6500	6000
Rated current	Arms	0.92	1.4	2.4	3.8
Instantaneous max. current	Arms	3.6	6.9	8.2	18.8
Moment of inertia	No brake $\times 10^{-4}$ Kg.m <sup>2</sup>	0.092	0.47	0.73	3.15
	With brake $\times 10^{-4}$ Kg.m <sup>2</sup>	0.095	0.49	0.75	—*2
Torque constant	N.m/A	0.327	0.5	0.531	0.648
Induced voltage constant per phase	mV[r/min]	13.3	14.61	20.4	22.65
Rated power rate	No brake KW/S	11.13	8.71	22.09	18.1
	With brake KW/S	10.78	8.36	21.5	17.85
Mechanical time constant	No brake ms	2.23	2.54	1.15	1.95
	With brake ms	2.3	2.65	1.18	1.98
Electrical time constant	ms	0.986	2.58	4.1	6.59
Phase q-axis/d-axis inductance	mH	11.9/8	10.2/5.8	6.9/4.3	6/3.3
Weight: No brake[with brake]	kg	0.44[0.65]	0.95 [1.29]	1.45 [1.85]	2.65 [—*2]
Permissible load	Radial load N	68	245	245	392
	Axial load N	58	98	98	147
Brake specification	Rated voltage V	DC24V±10%			
	Rated current A	0.25	0.36	0.36	0.42
	Brake power w	6	9	9	10
Note: Holding brake	Static friction torque N.m	0.38 or more	1.6 or more	1.6 or more	3.8 or more
	Suction time ms	35 or less	50 or less	50 or less	70 or less
	Release time ms	20 or less	20 or less	20 or less	20 or less
	Release voltage ms	DC1V or more			

## Torque characteristics



X6MH010H ▲

X6MH020H ▲

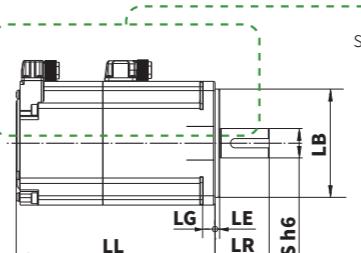
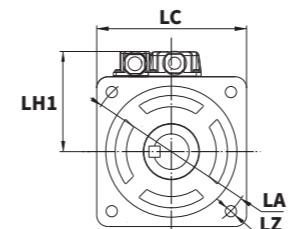
X6MH040H ▲

X6MH075H ▲

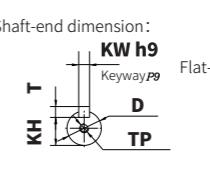
## External Dimensions for Servo Motor

Models	X6MH010H	X6MH020H(Lead-wire type)	X6MH040H	X6MH075H(Lead-wire type)
LC	40	60	60	80
LA	φ46	φ70	φ70	φ90
LB	φ30	φ50	φ50	φ70
LZ	2-φ4.3	4-φ5.5	4-φ5.5	4-φ6.6
LR	25	30	30	35
S	φ8 h6	φ14 h6	φ14 h6	φ19 h6
LL no brake [with brake]	76.7 [110.7]	82.4 [111.9]	98.5 [128]	122 [—*2]
LG	5	6.5	6.5	8
LE	3	3	3	3
LH1	34.5	43.5	43.5	53.5
LK	14	25	25	25
T	3	5	5	6
KW	3 h9	5 h9	5 h9	6 h9
KH	6.2	11	11	15.5
TP	M3depth6	M5depth12	M5depth12	M5depth12
H H-type cable length for lead-wire type	210	210	210	210

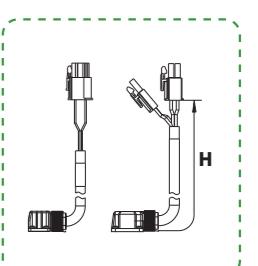
## X6MH010H / X6MH020H / X6MH040H / X6MH075H



Connector-type



Lead-wire type\*1



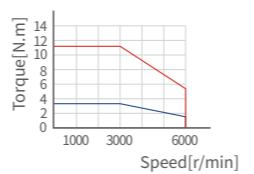
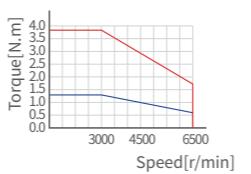
\*1: For X6 series servo motors, the lead-wire types are needed to be customized. For details, please contact our sales department.

## Servo Motor Specifications

100W  
200W  
400W  
1kW

Items	Unit	X6MQ010A	X6MQ020A	X6MQ040A	X6MQ100E
Rated power	W	100	200	400	1000
Rated voltage	V	220	220	220	220
Fitting flange size	mm	60	80	80	80
Rated torque	N.m	0.32	0.637	1.27	3.185
Instantaneous max. torque	N.m	0.96	1.91	3.82	11.13
Rated speed	r/min	3000	3000	3000	3000
Max. speed	r/min	6500	6500	6500	6000
Rated current	Arms	0.95	2	2.6	5.7
Instantaneous max. current	Arms	2.8	6.4	8.4	21.2
Moment of inertia	No brake $\times 10^{-4}$ Kg.m $^2$	0.16	0.47	0.87	2
	With brake $\times 10^{-4}$ Kg.m $^2$	0.18	0.5	0.9	2.1
Torque constant	N.m/A	0.369	0.318	0.488	0.552
Induced voltage constant per phase	mV[r/min]	11.6	12.2	19.6	21.2
Rated power rate	No brake KW/S	6.4	8.63	18.5	50.7
	With brake KW/S	5.69	8.12	17.92	48.31
Mechanical time constant	No brake ms	2.96	2.51	1.51	0.85
	With brake ms	3.33	2.67	1.57	0.897
Electrical time constant	ms	1.76	3.52	5.41	7.6
Phase q-axis/d-axis inductance	mH	13.9/7.8	7.3/3.9	9/4.9	3.8/2.6
Weight: No brake[with brake]	kg	0.68 [0.92]	1.24 [1.74]	1.6 [2.1]	2.68 [3.45]
Permissible load	Radial load N	68	245	245	392
	Axial load N	58	98	98	147
Brake specification	Rated voltage V	DC24V±10%			
	Rated current A	0.9	0.9	0.9	0.42
	Brake power w	22	22	22	22
	Static friction torque N.m	0.38-1.1	1.6 or more	1.6 or more	3.8 or more
	Suction time ms	60 or less	60 or less	60 or less	70 or less
	Release time ms	40 or less	40 or less	40 or less	20 or less
	Release voltage ms	DC1.5V or more			DC1V or more

## Torque characteristics



X6MQ010A ▲

X6MQ020A ▲

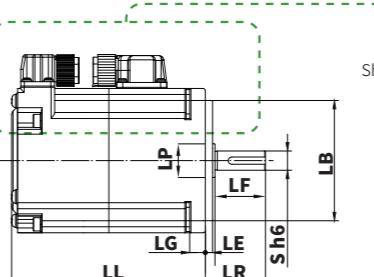
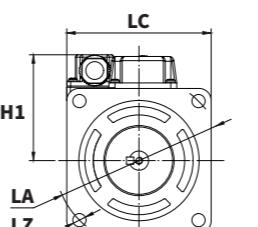
X6MQ040A ▲

X6MQ100E ▲

## External Dimensions for Servo Motor

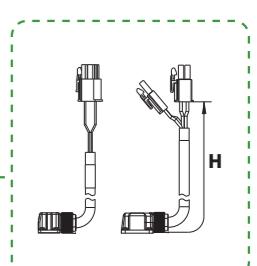
Models	X6MQ010A(Lead-wire type)	X6MQ020A(Lead-wire type)	X6MQ040A(Lead-wire type)	X6MQ100E
LC	60	80	80	80
LA	φ70	φ90	φ90	φ90
LB	φ50	φ70	φ70	φ70
LZ	4-φ5.4	4-φ6	4-φ6	4-φ6.5
LR	25	30	30	35
S	φ8 h6	φ11 h6	φ14 h6	φ19 h6
LL no brake [with brake]	61 [80.5]	66 [90]	76.8 [100.8]	108 [141.5]
LG	6.5	8	8	8
LE	3	3	3	3
LF	21	26	26	—
LP	φ14	φ19.7	φ19.7	—
LH1	43.5	53.5	53.5	53.5
LK	14	20	22	25
T	3	4	5	6
KW	3 h9	4 h9	5 h9	6 h9
KH	6.2	8.5	11	15.5
TP	M3depth6	M4depth8	M5depth12	M5depth12
H	H-type cable length for lead-wire type			
	210	210	210	210

## X6MQ010A / X6MQ020A / X6MQ040A / X6MQ100E



Shaft-end dimension:  
KW h9  
Keyway P9

Flat-key length:  
LK



Connector-type

Lead-wire type\*1

\*1: For X6 series servo motors, the lead-wire types are needed to be customized. For details, please contact our sales department.

## Servo Motor Specifications

850  
W

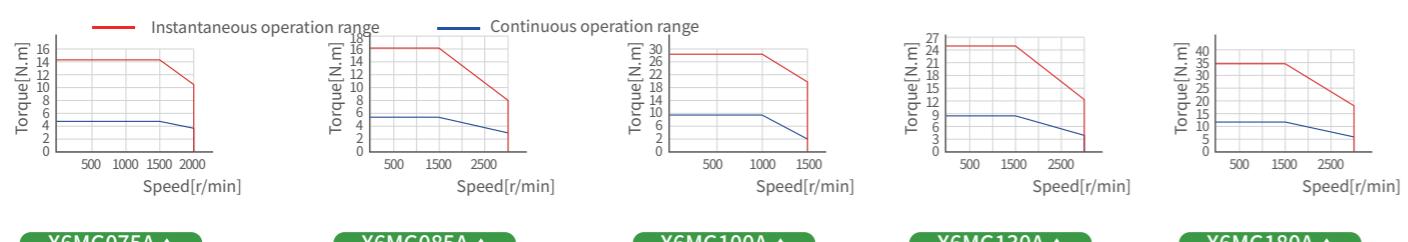
1  
KW

1.3  
KW

1.8  
KW

Items		Unit	X6MG075A	X6MG085A	X6MG100A	X6MG130A	X6MG180A
Rated power	W		750	850	1000	1300	1800
Rated voltage	V		220	220	220	220	220
Fitting flange size	mm		80	130	130	130	130
Rated torque	N.m		4.77	5.41	9.55	8.28	11.5
Instantaneous max. torque	N.m		14.3	16.2	28.6	24.84	34.5
Rated speed	r/min		1500	1500	1000	1500	1500
Max. speed	r/min		2000	3000	1500	3000	3000
Rated current	Arms		4.2	5.9	5.2	9.3	11.8
Instantaneous max. current	Arms		15	18	16	28	35.5
Moment of inertia	No brake	x10 <sup>-4</sup> Kg.m <sup>2</sup>	2.88	14	12.1	20.2	26
	With brake	x10 <sup>-4</sup> Kg.m <sup>2</sup>	3	15.2	13.3	21.4	27.2
Torque constant	N.m/A		1.135	0.918	1.83	0.895	0.964
Induced voltage constant per phase	mV[r/min]		43.3	33.65	67.3	34.84	40.18
Rated power rate	No brake	KW/S	79	63.29	75.4	33.9	50.87
	With brake	KW/S	75.84	58.26	68.6	32	48.6
Mechanical time constant	No brake	ms	1.01	3.43	1.12	2.57	2.06
	With brake	ms	1.05	3.72	1.23	2.72	2.15
Electrical time constant	ms		5.1	11.1	9.65	14.63	15.99
Phase q-axis/d-axis inductance	mH		8.4/5.7	8.4/4.3	11/8.7	5.8/2.9	4.9/2.6
Weight: No brake[with brake]	kg		3.46 [4.14]	5.53 [7.13]	6.91 [8.51]	6.89 [8.49]	8.14 [9.74]
Permissible load	Radial load	N	392	490	490	490	490
	Axial load	N	147	160	160	160	160
Brake specification	Rated voltage	V			DC24V±10%		
	Rated current	A	0.42	0.9	0.9	0.9	0.9
	Brake power	w	10	10	10	10	10
	Static friction torque	N.m	3.8 or more	14 or more	14 or more	14 or more	14 or more
Note: Holding brake	Suction time	ms	70 or less	100 or less	100 or less	100 or less	100 or less
	Release time	ms	20 or less	60 or less	60 or less	60 or less	60 or less
	Release voltage	ms			DC1V or more		

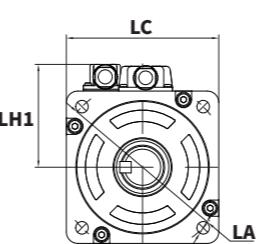
## Torque characteristics



## External Dimensions for Servo Motor

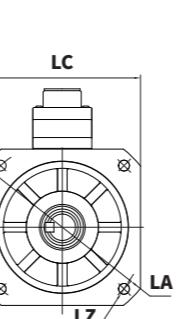
Models	X6MG075A(Lead-wire type)	X6MG085A	X6MG100A	X6MG130A	X6MG180A
C	80	130	130	130	130
A	φ90	φ145	φ145	φ145	φ145
B	φ70	φ110	φ110	φ110	φ110
Z	4-φ6.6	4-φ9	4-φ9	4-φ9	4-φ9
R	35	55	55	55	55
S	φ19 h6	φ22 h6	φ22 h6	φ22 h6	φ22 h6
L no brake [with brake]	134 [177]	156 [176]	156 [176]	170 [190]	184 [204]
N no brake [with brake]	—	108 [128]	108 [128]	122 [142]	136 [156]
G	8	12	12	12	12
E	3	6	6	6	6
M1 no brake [with brake]	—	144.2[164.2]	144.2 [164.2]	158.2 [178.2]	172.2[192.2]
M3	—	69	69	83	97
H1	54	115	115	115	115
H3	—	60	60	60	60
K	25	45	45	45	45
T	6	7	7	7	7
KW	6 h9	8 h9	8 h9	8 h9	8 h9
KH	15.5	18	18	18	18
TP	M5depth12	M6depth20	M6depth20	M6depth20	M6depth20
H	Cable length for lead-wire type	210	—	—	—

X6MG075A



A technical drawing of a cylinder assembly. The cylinder body is shown with two parallel horizontal rods extending from its left side. On the right side, there is a rod end assembly. A green dashed rectangular box highlights the area around the rod end. To the right of the cylinder body, there is a vertical label 'S h6' above a horizontal line, and further to the right, another label 'LB' below a horizontal line. At the bottom right, there is a label 'LE' above a horizontal line, and at the very bottom right, there is a label 'LR' below a horizontal line.

X6MG085A / X6MG100A / X6MG130A / X6MG180A



A technical drawing of a mechanical assembly. The top horizontal dimension is labeled LM1. Below it, a vertical dimension is labeled LM3. On the left side, two vertical dimensions are labeled LH1 and LH3. At the bottom, three horizontal dimensions are labeled LN, LG, and LE. The drawing shows various mechanical parts, including a central cylinder with internal features and a base plate with mounting holes.

\*1:For X6 series servo motors, the lead-wire types are needed to be customized. For details, please contact our sales department.

## X6 Series Low-cogging Cutting[220V] X6MG□□□S-□2□□

## Servo Motor Specifications

850W  
1.3KW  
1.8KW

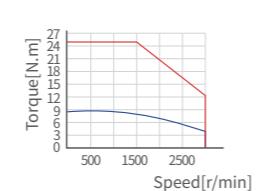
Items	Unit	X6MG085S	X6MG130S	X6MG180S
Rated power	W	850	1300	1800
Rated voltage	V	220	220	220
Fitting flange size	mm	130	130	130
Rated torque	N.m	5.39	8.28	11.5
Instantaneous max. torque	N.m	16.2	24.842	34.5
Rated speed	r/min	1500	1500	1500
Max. speed	r/min	3000	3000	3000
Rated current	Arms	6.7	9.6	15.6
Instantaneous max. current	Arms	20.1	28.8	46.8
Moment of inertia	No brake $\times 10^{-4}$ Kg.m $^2$	13.9	19.9	26
	With brake $\times 10^{-4}$ Kg.m $^2$	16	22	28.1
Torque constant	N.m/A	0.859	0.891	0.748
Induced voltage constant per phase	mV[r/min]	31.04	32.08	27
Rated power rate	No brake KW/S	20.9	35	50.9
	With brake KW/S	18.2	31.6	47.1
Mechanical time constant	No brake ms	2.74	2.23	1.95
	With brake ms	3.16	2.46	2.29
Electrical time constant	ms	10.2	10.7	11.14
Phase q-axis/d-axis inductance	mH	—	—	—
Weight: No brake[with brake]	kg	5.7 [7.7]	7.3[9.2]	8.8[11.2]
Permissible load	Radial load N	490	490	490
	Axial load N	196	196	196
Brake specification	Rated voltage V	DC24V±10%		
	Rated current A	0.41	0.41	0.41
Note: Holding brake	Brake power w	10	10	10
	Static friction torque N.m	14 or more	14 or more	14 or more
Suction time ms	100 or less	100 or less	100 or less	
Release time ms	80 or less	80 or less	80 or less	
Release voltage ms	DC1V or more			

## Torque characteristics

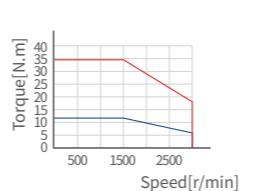
Instantaneous operation range



X6MG085S ▲



X6MG130S ▲

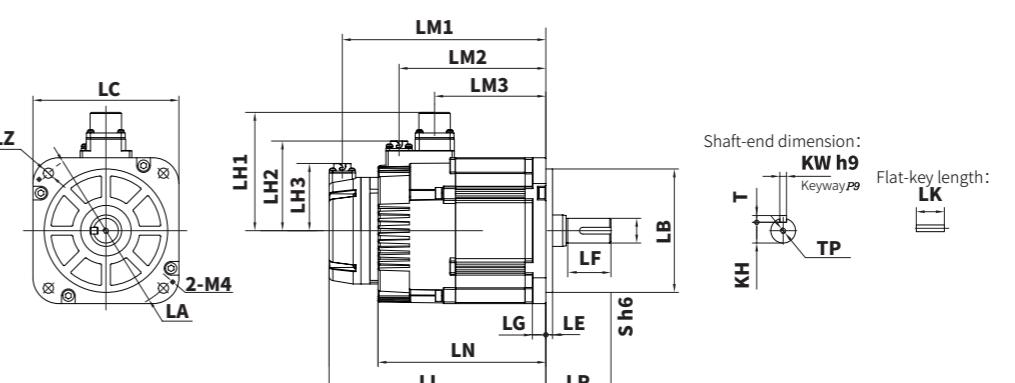


X6MG180S ▲

## External Dimensions for Servo Motor

Models	X6MG085S	X6MG130S	X6MG180S
LC	130	130	130
LA	φ145	φ145	φ145
LB	φ110	φ110	φ110
LZ	4-φ9	4-φ9	4-φ9
LR	58	58	58
S	φ19 h6	φ22 h6	φ24 h6
LL no brake [with brake]	141.1 [177.1]	157.1 [193.1]	175.1 [211.1]
LN no brake [with brake]	97.5[133.5]	113.5[149.5]	131.5[167.5]
LG	12	12	12
LE	6	6	6
LF	40	40	40
LM1 no brake [with brake]	129.4[165.4]	145.3[181.3]	163.3 [193.3]
LM2 no brake [with brake]	—[114.5]	—[130.5]	—[148.5]
LM3	83	99	117
LH1	105	105	105
LH2	79.5	79.5	79.5
LH3	60	60	60
LK	25	25	25
T	5	6	7
KW	5 h9	6 h9	8 h9
KH	16	18.5	20
TP	M5depth16	M5depth16	M5depth16

## X6MG085S/X6MG130S/X6MG180S



X6MA-Low inertia

X6MM-Middle inertia

X6MH-High inertia

X6MHH-Ultrahigh inertia

X6MQ-Special flange

X6MG-Low-speed &amp; high-tor

X6MS-Low-cogging cutting

Unit(mm)

X6MA-Low inertia

X6MM-Middle inertia

X6MH-High inertia

X6MHH-Ultrahigh inertia

X6MQ-Special flange

X6MG-Low-speed &amp; high-tor

X6MS-Ultrahigh speed

### Servo Motor Specifications

1 kW 1.5 kW 2 kW

Items	Unit	X6MM100A*1	X6MM150A*1	X6MM200A*1
Rated power	W	1000	1500	2000
Rated voltage	V	380	380	380
Fitting flange size	mm	130	130	130
Rated torque	N.m	4.77	7.16	9.55
Instantaneous max. torque	N.m	14.3	21.5	28.6
Rated speed	r/min	2000	2000	2000
Max. speed	r/min	3000	3000	3000
Rated current	Arms	3	4.3	5.3
Instantaneous max. current	Arms	9	13	16
Moment of inertia	No brake $\times 10^{-4}$ Kg.m $^2$	6.18	9.16	12.1
	With brake $\times 10^{-4}$ Kg.m $^2$	7.4	10.4	13.3
Torque constant	N.m/A	1.56	1.67	1.8
Induced voltage constant per phase	mV[r/min]	57.2	61.5	66
Rated power rate	No brake KW/S	36.9	56	75.4
	With brake KW/S	30.8	49.3	68.6
Mechanical time constant	No brake ms	1.72	1.34	1.33
	With brake ms	2.06	1.52	1.47
Electrical time constant	ms	1.72	12.27	13.9
Phase q-axis/d-axis inductance	mH	24.1/12.2	18.5/9.45	18/9.3
Weight: No brake[with brake]	kg	4.69[6.29]	5.8 [7.4]	6.88[8.48]
Permissible load	Radial load N	490	490	490
	Axial load N	196	196	196
Brake specification	Rated voltage V	DC24V±10%		
	Rated current A	0.9	0.9	0.9
	Brake power w	22	22	22
Note: Holding brake	Static friction torque N.m	14 or more	14 or more	14 or more
	Suction time ms	100 or less	100 or less	100 or less
	Release time ms	60 or less	60 or less	60 or less
	Release voltage ms	DC1V or more		

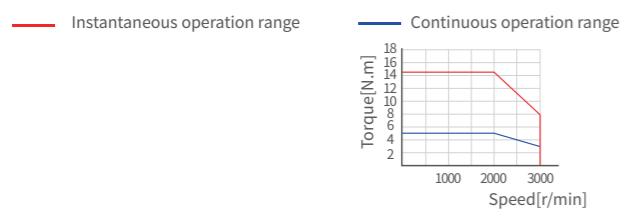
X6MM-Medium inertia

X6MH-High inertia

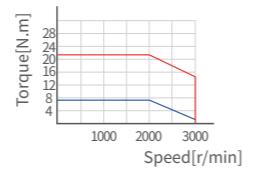
X6MG-Low speed and high torque

X6MGS-Low cogging cutting

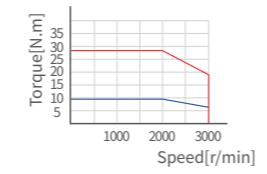
### Torque characteristics



X6MM100A ▲



X6MM150A ▲



X6MM200A ▲

### External Dimensions for Servo Motor

Models	X6MM100A*1	X6MM150A*1	X6MM200A*1
LC	130	130	130
LA	φ145	φ145	φ145
LB	φ110	φ110	φ110
LZ	4-φ9	4-φ9	4-φ9
LR	55	55	55
S	φ22 h6	φ22 h6	φ22 h6
LL(17bit) no brake [with brake]	107.5[127.5]	121.5[141.5]	135.5[155.5]
LL(23bit) no brake [with brake]	128[148]	142 [162]	156[176]
LN no brake [with brake]	80[100]	94[114]	108[128]
LG	12	12	12
LE	6	6	6
LM1(17bit) no brake [with brake]	95.5[115.5]	109.5[129.5]	123.5[143.5]
LM1(23bit) no brake [with brake]	116.2[136.2]	130.2[150.2]	144.2[164.2]
LM3 no brake [with brake]	41	55	69
LH1 no brake [with brake]	115	115	115
LH3(17bit) no brake [with brake]	56.5	56.5	56.5
LH3(23bit) no brake [with brake]	60	60	60
LK	45	45	45
T	7	7	7
KW	8 h9	8 h9	8 h9
KH	18	18	18
TP	M6depth20	M6depth20	M6depth20

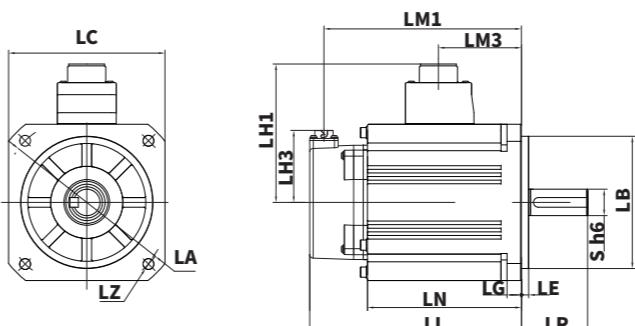
X6MGS-Low cogging cutting

X6MG-Low speed and high torque

X6MH-High inertia

X6MM-Medium inertia

### ▼ X6MM100A / X6MM150A / X6MM200A



Shaft-end dimension:

KW h9

Keyway P9

T

H9

Flat-key length:

LK

TP

## Servo Motor Specifications

**3 KW** **4 KW** **5 KW** **7.5 KW**

Items		Unit	X6MM300A	X6MM400A	X6MM500A	X6MM750H
Rated power	W		3000	4000	5000	7500
Rated voltage	V		380	380	380	380
Fitting flange size	mm		180	180	180	180
Rated torque	N.m		14.3	19.1	23.9	47.8
Instantaneous max. torque	N.m		42.9	57.3	71.6	119.4
Rated speed	r/min		2000	2000	2000	1500
Max. speed	r/min		3000	3000	3000	3000
Rated current	Arms		8.7	11.5	13.5	25.3
Instantaneous max. current	Arms		30	38	45	65.8
Moment of inertia	No brake	$\times 10^{-4}$ Kg.m <sup>2</sup>	43.5	54.7	66.7	136.4
	With brake	$\times 10^{-4}$ Kg.m <sup>2</sup>	63.2	68	80.8	150.8
Torque constant	N.m/A		1.8	1.82	2.04	2.1
Induced voltage constant per phase	mV[r/min]		62.9	63.5	71.3	74.3
Rated power rate	No brake	KW/S	47.2	66.7	85.5	167.5
	With brake	KW/S	32.5	53.6	70.5	151.5
Mechanical time constant	No brake	ms	1.4	1.29	1.10	0.96
	With brake	ms	2.03	1.61	1.33	1.06
Electrical time constant	ms		18.7	19	21.7	26.9
Phase q-axis/d-axis inductance	mH		5.8	4.4	4.5	2.5
Weight: No brake[with brake]	kg		14.3 [19]	16.5 [21.2]	19.4 [24.1]	28.2[32.9]
Permissible load	Radial load	N	784	784	784	2058
	Axial load	N	343	343	343	980
Brake specification	Rated voltage	V		DC24V±10%		
	Rated current	A	1.04	1.04	1.04	1.04
	Brake power	w	25	25	25	25
	Static friction torque	N.m	74 or more	74 or more	74 or more	74 or more
Note: Holding brake	Suction time	ms	120 or less	120 or less	120 or less	120 or less
	Release time	ms	30 or less	30 or less	30 or less	30 or less
	Release voltage	ms		DC0.5 or more		

## Torque characteristics

— Instantaneous operation range

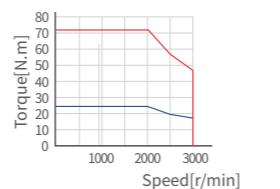
— Continuous operation range



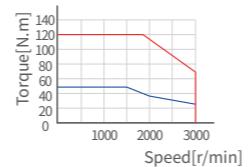
X6MM300A ▲



X6MM400A▲



X6MM500A ▲

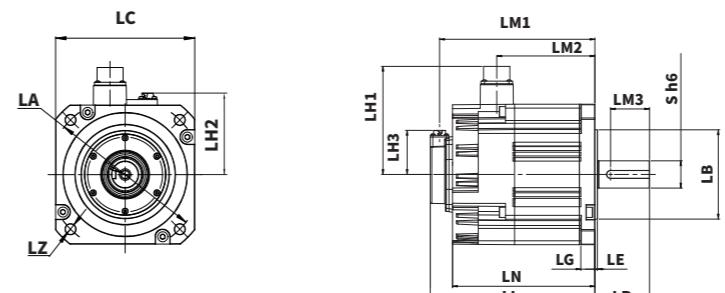


X6MM750H ▲

## External Dimensions for Servo Motor

Models	X6MM300A	X6MM400A	X6MM500A	X6MM750H
LC	180	180	180	180
LA	230	230	230	230
LB	φ114.3 h7	φ114.3 h7	φ114.3 h7	φ114.3 h7
LZ	4-φ13.5	4-φ13.5	4-φ13.5	4-φ13.5
LR	70±0.5	70±0.5	70±0.5	113±0.5
S	φ35 h6	φ35 h6	φ35 h6	φ42 h6
LL (17bit) no brake [with brake]	159±1[211±1]	173±1[225±1]	188±1[240±1]	253±1[305±1]
LL (23bit) no brake [with brake]	172±1[231.5±1]	186±1[245.5±1]	201±1[260.5±1]	266±1[325.5±1]
LN no brake [with brake]	128[182.5]	142[196.5]	157[211.5]	222[276.5]
LG	18	18	18	18
LE	3.2	3.2	3.2	3.2
LM1 (17bit) no brake [with brake]	147[199]	161[213]	176[228]	241[293]
LM1 (23bit) no brake [with brake]	160[220]	174[234]	189[248.7]	254[314]
LM2 no brake [with brake]	107[125.8]	121[139.8]	136[154.8]	201[219.8]
LM3	50	50	50	90
LH1 no brake [with brake]	144[138.6]	144[138.6]	144[138.6]	144[138.6]
LH2	105.3	105.3	105.3	105.3
LH3 (17bit) no brake [with brake]	55[56.4]	55[56.4]	55[56.4]	55[56.4]
LH3 (23bit) no brake [with brake]	60[59.8]	60[59.8]	60[59.8]	60[59.8]
LK	50	50	50	90
T	8	8	8	8
KW	10 h9	10 h9	10 h9	12 h9
KH	30	30	30	37
TP	M12depth25	M12depth25	M12depth25	M16depth32

▼ X6MM300A/X6MM400A/X6MM500A/X6MM750H



Shaft-end dimension:



### Servo Motor Specifications

2  
KW4  
KW

Items	Unit	X6MH200A	X6MH400A
Rated power	W	2000	4000
Rated voltage	V	380	380
Fitting flange size	mm	180	180
Rated torque	N.m	9.55	19.1
Instantaneous max. torque	N.m	28.6	57.3
Rated speed	r/min	2000	2000
Max. speed	r/min	3000	3000
Rated current	Arms	5.8	11.5
Instantaneous max. current	Arms	19	38
Moment of inertia	No brake $\times 10^{-4}$ Kg.m <sup>2</sup>	31.4	101.7
	With brake $\times 10^{-4}$ Kg.m <sup>2</sup>	44.6	115
Torque constant	N.m/A	1.83	1.82
Induced voltage constant per phase	mV[r/min]	63.9	63.5
Rated power rate	No brake KW/S	29	35.9
	With brake KW/S	20.4	31.7
Mechanical time constant	No brake ms	1.86	2.40
	With brake ms	2.64	2.71
Electrical time constant	ms	15.2	19
Phase q-axis/d-axis inductance	mH	9.5	4.5
Weight: No brake[with brake]	kg	12.7 [17.4]	17.8 [24]
Permissible load	Radial load N	784	784
	Axial load N	343	343
Brake specification	Rated voltage V	DC24V±10%	
	Rated current A	1.04	1.04
	Brake power w	25	25
	Static friction torque N.m	74 or more	74 or more
	Suction time ms	120 or less	120 or less
	Release time ms	30 or less	30 or less
	Release voltage ms	DC0.5V or more	

X6MM-Medium inertia

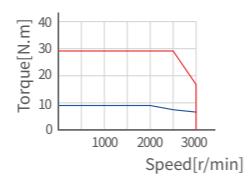
X6MH-High inertia

X6MG-Low speed and high torque

X6MGS-Low cogging cutting

### Torque characteristics

— Instantaneous operation range    — Continuous operation range



X6MH200A ▲



X6MH400A ▲

### External Dimensions for Servo Motor

Models	X6MH200A	X6MH400A
LC	180	180
LA	230	230
LB	φ114.3 h7	φ114.3 h7
LZ	4-φ13.5	4-φ13.5
LR	70±0.5	70±0.5
S	φ35 h6	φ35 h6
LL (17bit) no brake [with brake]	144±1[196±1]	191±1[243±1]
LL (23bit) no brake [with brake]	157±1[216.5±1]	204±1[263.5±1]
LN no brake [with brake]	113[167.5]	160[214.5]
LG	18	18
LE	3.2	3.2
LM1 (17bit) no brake [with brake]	132[184]	179[231]
LM1 (23bit) no brake [with brake]	145[205]	192[252]
LM2 no brake [with brake]	92[110.8]	139[157.8]
LM3	50	50
LH1 no brake [with brake]	144[138.6]	144[138.6]
LH2	105.3	105.3
LH3 (17bit) no brake [with brake]	55[56.4]	55[56.4]
LH3 (23bit) no brake [with brake]	60[59.8]	60[59.8]
LK	50	50
T	8	8
KW	10 h9	10 h9
KH	30	30
TP	M12depth25	M12depth25

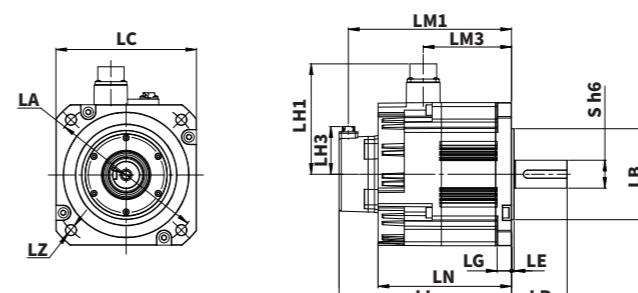
X6MGS-Low cogging cutting

X6MG-Low speed and high torque

X6MH-High inertia

X6MM-Medium inertia

### ▼ X6MH200A / X6MH400A



Shaft-end dimension:  
**KW h9**  
Keyway P9  
Flat-key length:  
**LK**

### Servo Motor Specifications

850W 1.3KW 1.8KW

Items	Unit	X6MG085A*1	X6MG130A*1	X6MG180A*1
Rated power	W	850	1300	1800
Rated voltage	V	380	380	380
Fitting flange size	mm	130	130	130
Rated torque	N.m	5.41	8.27	11.46
Instantaneous max. torque	N.m	16.2	24.8	34.4
Rated speed	r/min	1500	1500	1500
Max. speed	r/min	3000	3000	3000
Rated current	Arms	4	6	8.5
Instantaneous max. current	Arms	14	20	29
Moment of inertia	No brake $\times 10^{-4}$ Kg.m $^2$	14	20.2	26
	With brake $\times 10^{-4}$ Kg.m $^2$	15.2	21.4	27.2
Torque constant	N.m/A	1.316	1.36	1.335
Induced voltage constant per phase	mV[r/min]	48.7	50.4	49.4
Rated power rate	No brake KW/S	21.1	34.4	50.4
	With brake KW/S	18.3	31.1	46.9
Mechanical time constant	No brake ms	3.37	2.9	2.64
	With brake ms	4.29	3.2	2.84
Electrical time constant	ms	11.7	14	15
Phase q-axis/d-axis inductance	mH	20.14/10.27	14.2/7.28	10/5.15
Weight: No brake[with brake]	kg	5.68 [7.28]	6.95 [8.55]	8.16 [9.76]
Permissible load	Radial load N	490	490	490
	Axial load N	196	196	196
Brake specification				
Note: Holding brake	Rated voltage V	DC24V±10%		
	Rated current A	0.9	0.9	0.9
Brake power w	Brake power w	21.6	21.6	21.6
	Static friction torque N.m	14 or more	14 or more	14 or more
Suction time ms	Suction time ms	100 or less	100 or less	100 or less
	Release time ms	60 or less	60 or less	60 or less
Release voltage ms	Release voltage ms	DC1V or more		

X6MM-Medium inertia

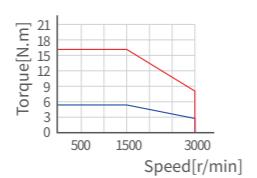
X6MH-High inertia

X6MG-Low speed and high torque

X6MG-Low cogging cutting

### Torque characteristics

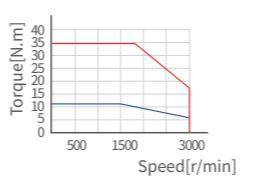
— Instantaneous operation range    — Continuous operation range



X6MG085A ▲



X6MG130A ▲



X6MG180A ▲

### External Dimensions for Servo Motor

Models	X6MG085A*1	X6MG130A*1	X6MG180A*1
LC	130	130	130
LA	φ145	φ145	φ145
LB	φ110	φ110	φ110
LZ	4-φ9	4-φ9	4-φ9
LR	55	55	55
S	φ22 h6	φ22 h6	φ22 h6
LL (17bit) no brake [with brake]	135.5 [155.5]	149.5 [169.5]	163.5 [183.5]
LL (23bit) no brake [with brake]	156 [176]	170 [190]	184 [204]
LN no brake [with brake]	108 [128]	122 [142]	136 [156]
LG	12	12	12
LE	6	6	6
LM1 (17bit) no brake [with brake]	123.5 [143.5]	137.5 [157.5]	151.5 [171.5]
LM1 (23bit) no brake [with brake]	144.2 [164.2]	158.2 [178.2]	172.2 [192.2]
LM3	69	83	97
LH1	115	115	115
LH3 (17bit)	56.5	56.5	56.5
LH3 (23bit)	60	60	60
LK	45	45	45
T	7	7	7
KW	8 h9	8 h9	8 h9
KH	18	18	18
TP	M6depth20	M6depth20	M6depth20

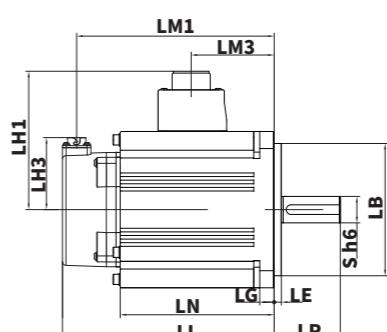
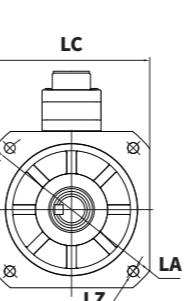
X6MG-S-Low cogging cutting

X6MG-Low speed and high torque

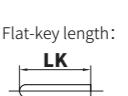
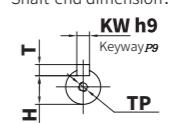
X6MH-High inertia

X6MM-Medium inertia

### ▼ X6MG085A / X6MG130A / X6MG180A



Shaft-end dimension:



**X6 Low-speed & High-torque[380V] X6MG□□□□-□4□□**
**Servo Motor Specifications**

 2.4  
KW  
2.9  
KW  
4.4  
KW  
5.5  
KW

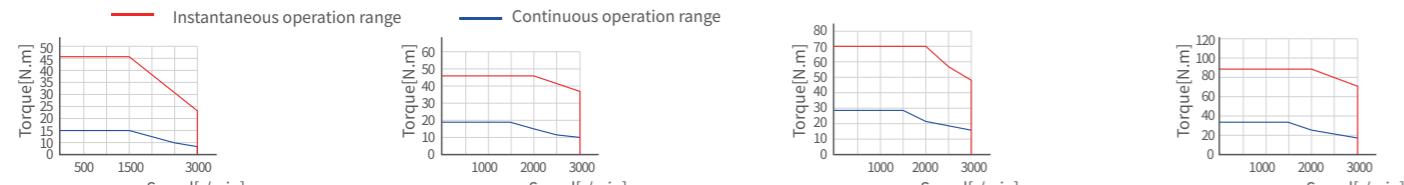
Items	Unit	X6MG240A*1	X6MG290A	X6MG440A	X6MG550A
Rated power	W	2400	2900	4400	5500
Rated voltage	V	380	380	380	380
Fitting flange size	mm	130	180	180	180
Rated torque	N.m	15.2	18.6	28.4	35
Instantaneous max. torque	N.m	45.7	46.5	71.1	87.5
Rated speed	r/min	1500	1500	1500	1500
Max. speed	r/min	3000	3000	3000	3000
Rated current	Arms	10	10	15.7	19.5
Instantaneous max. current	Arms	30	26	41	51
Moment of inertia	No brake With brake	x10 <sup>4</sup> Kg.m <sup>2</sup>	31.3 32.5	47.2 62.3	68.6 83.7
Torque constant	N.m/A	1.52	2.01	2.13	1.98
Induced voltage constant per phase	mV[r/min]	57.6	70.2	74.2	69.6
Rated power rate	No brake With brake	KW/S	123 116	73.3 55.5	114.4 93.8
Mechanical time constant	No brake With brake	ms	0.669 0.712	1.35 1.79	1.18 1.44
Electrical time constant	ms	20	19.2	19.9	22.9
Phase q-axis/d-axis inductance	mH	6.2/3.1	6.7	4.7	3.2
Weight: No brake[with brake]	kg	14.1[15.7]	16[20.7]	19.4 [24.1]	23.9[28.5]
Permissible load	Radial load Axial load	N	490 196	1470 490	1470 490
					1764 588
Brake specification	Rated voltage	V	DC24V±10%		
	Rated current	A	0.9	1.04	1.04
	Brake power	w	22	25	25
	Static friction torque	N.m	15.2 or more	74 or more	74 or more
	Suction time	ms	100 or less	120 or less	120 or less
	Release time	ms	60 or less	30 or less	30 or less
Note: Holding brake	Release voltage	ms	DC0.5 or more		

X6MM-Medium inertia

X6MH-High inertia

X6MG-Low speed and high torque

X6MGS-Low cogging cutting

**Torque characteristics**


X6MG240A ▲

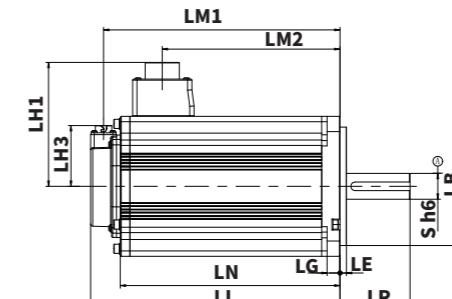
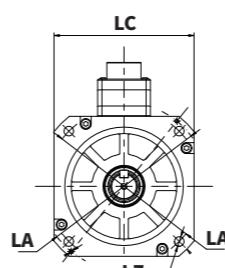
X6MG290A ▲

X6MG440A ▲

X6MG550A ▲

**External Dimensions for Servo Motor**

Models	X6MG240A*1	X6MG290A	X6MG440A	X6MG550A
LC	130	180	180	180
LA	φ145	230	230	230
LB	φ110 h7	φ114.3 h7	φ114.3 h7	φ114.3 h7
LZ	4-φ9	4-φ13.5	4-φ13.5	4-φ13.5
LR	65	79±0.5	79±0.5	113±0.5
S	φ24 h6	φ35 <sup>+0.01</sup> <sub>0</sub>	φ35 <sup>+0.01</sup> <sub>0</sub>	φ42 <sup>+0.01</sup> <sub>0</sub>
LL (17bit) no brake [with brake]	231.5±1[251.5±1]	165±1[217±1]	191±1[243±1]	220±1[272±1]
LL (23bit) no brake [with brake]	—	178±1[237.5±1]	204±1[263.5±1]	233±1[292.5±1]
LN no brake [with brake]	204[224]	134[188.5]	160[214.5]	189[243.5]
LG	12	18	18	18
LE	6	3.2	3.2	3.2
LM1 (17bit) no brake [with brake]	219.5[239.5]	153[205]	179[231]	208[260]
LM1 (23bit) no brake [with brake]	—	166[226]	192[252]	221[281]
LM2 no brake [with brake]	165[165]	113[131.8]	139[157.8]	168[186.8]
LM3	—	60	60	90
LH1 no brake [with brake]	115	144[138.6]	144[138.6]	144[138.6]
LH2		105.3	105.3	105.3
LH3 (Magnetic encoder) no brake [with brake]	56.5	55[56.4]	55[56.4]	55[56.4]
LH3 (Optical encoder) no brake [with brake]	—	60[59.8]	60[59.8]	60[59.8]
LK	51	60	60	90
T	7	8	8	8
KW	8 h9	10 h9	10 h9	12 h9
KH	20	30	30	37
TP	M6depth20	M12depth25	M12depth25	M16depth32

**▼ X6MG240A**


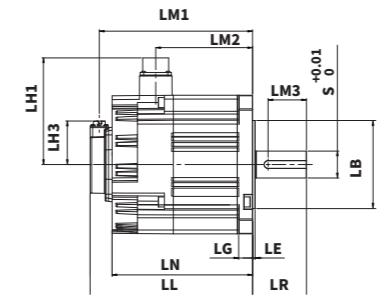
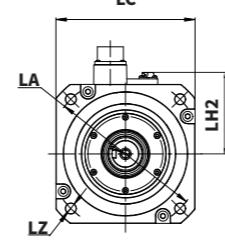
Shaft-end dimension:

KWh9

KeywayP9

Flat-key length:

LK

**▼ X6MG290A / X6MG440A / X6MG550A**


Shaft-end dimension:

KWh9

KeywayP9

Flat-key length:

LK

### Servo Motor Specifications

2.9  
kW  
4.4  
kW

Items	Unit	X6MG290S	X6MG440S
Rated power	W	2900	4400
Rated voltage	V	380	380
Fitting flange size	mm	180	180
Rated torque	N.m	18.6	28.4
Instantaneous max. torque	N.m	55.8	71.1
Rated speed	r/min	1500	1500
Max. speed	r/min	4000	4000
Rated current	Arms	13.5	20.3
Instantaneous max. current	Arms	44.5	53
Moment of inertia	No brake With brake	$\times 10^{-4}$ Kg.m <sup>2</sup>	$\times 10^{-4}$ Kg.m <sup>2</sup>
	No brake With brake	47.2 62.3	68.6 83.7
Torque constant	N.m/A	1.51	1.6
Induced voltage constant per phase	mV[r/min]	52.5	56
Rated power rate	No brake With brake	KW/S	KW/S
	No brake With brake	73.3 55.5	114.4 93.8
Mechanical time constant	No brake With brake	ms	ms
	No brake With brake	1.37 1.81	1.15 1.4
Electrical time constant	ms	18.5	18.3
Phase q-axis/d-axis inductance	mH	3.7	2.4
Weight: No brake[with brake]	kg	16 [20.7]	19.4 [24.1]
Permissible load	Radial load Axial load	N	N
	Radial load Axial load	1470 490	1470 490
Brake specification	Rated voltage Rated current Brake power Static friction torque	V A w N.m	DC24V±10% 1.04 25 74 or more
Note: Holding brake	Suction time Release time Release voltage	ms ms ms	120 or less 30 or less DC0.5V or more

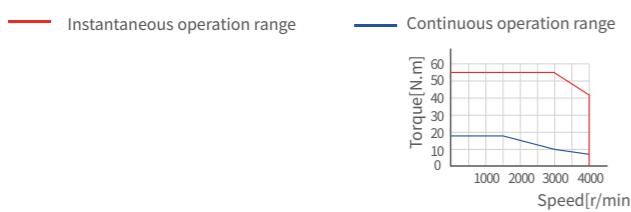
X6MM-Medium inertia

X6MH-High inertia

X6MG-Low speed and high torque

X6MGS-Low cogging cutting

### Torque characteristics



X6MG290S ▲



X6MG440S ▲

### External Dimensions for Servo Motor

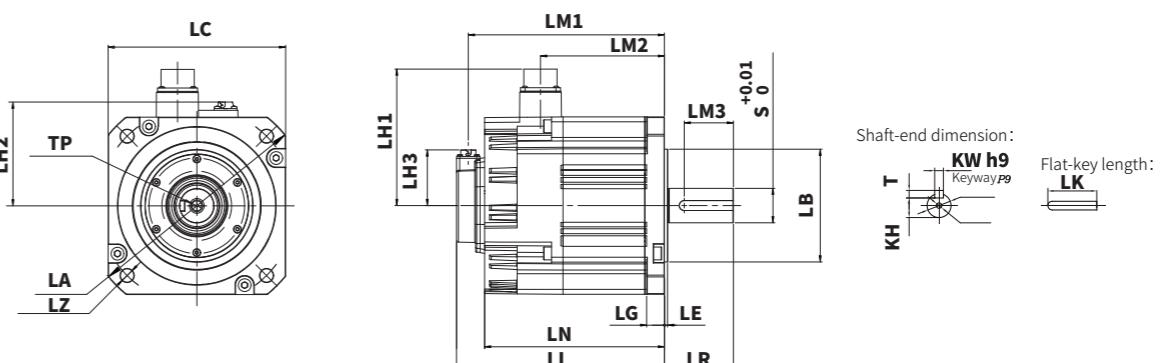
Models	X6MG290S	X6MG440S
LC	180	180
LA	230	230
LB	φ114.3 h7	φ114.3 h7
LZ	4-φ13.5	4-φ13.5
LR	79±0.5	79±0.5
S	φ35 <sup>+0.01</sup> <sub>0</sub>	φ35 <sup>+0.01</sup> <sub>0</sub>
LL (17bit) no brake [with brake]	165±1[217±1]	191±1[243±1]
LL (23bit) no brake [with brake]	178±1[237.5±1]	204±1[263.5±1]
LN no brake [with brake]	134[188.5]	160[214.5]
LG	18	18
LE	3.2	3.2
LM1 (17bit) no brake [with brake]	153[205]	179[231]
LM1 (23bit) no brake [with brake]	166[226]	192[252]
LM2 no brake [with brake]	113[131.8]	139[157.8]
LM3	60	60
LH1 no brake [with brake]	144[138.6]	144[138.6]
LH2	105.3	105.3
LH3 (17bit) no brake [with brake]	55[56.4]	55[56.4]
LH3 (23bit) no brake [with brake]	60[59.8]	60[59.8]
LK	60	60
T	8	8
KW	10 h9	10 h9
KH	30	30
TP	M12depth25	M12depth25

X6MGS-Low cogging cutting

X6MG-Low speed and high torque

X6MM-Medium inertia

### X6MG290S / X6MG440S



## ▼ Accessories specifications for connector-type servo motors if flange 40 to 80

- ① SVCAB-ENC075CA-ABS-\*\*\*L-05 Absolute encoder cable
  - ② SVCAB-ENC075CA-\*\*\*L-05 Incremental encoder ca
  - ③ SVCAB-PWR010CA-\*\*\*L-05 UVW power cable 50W-
  - ④ SVCAB-PWB010CA-\*\*\*L-05 UVWpower cable with b
  - ⑤ SVCAB-PWR075CA-\*\*\*L-05 UVWpower cable 200W
  - ⑥ SVCAB-PWB075CA-\*\*\*L-05 UVWpower cable with b

## ► Aviation connector specifications for servo motor of flange 100&130&180

- |     |   |   |
|-----|---|---|
| ⑪   | ENC-TE 1KW  | Encoder accessories (10-pin aviation connector + 1394 connector ) |
| ⑫   | PWR-CON 1KW   | 4-core power aviation connector, for flange 100&130               |
| ⑬   | PWR-CON 1KW-9P  | 9-pin brake power aviation connector, for flange 100&130          |
| W ⑭ | PWB-CON- 1KW  | 2-core brake power connector *1                                   |
| ⑮   | PWR-CON 7.5KW   | 4-core power aviation connector, for flange 180                   |
| W ⑯ | For flange 130 models, only X2MA100A/150A/200A/X2MG230A and |   |

#### ▼ Accessories specifications for lead-wire type servo motor of flange 40 to 80

- |    |              |  |
|----|--------------|--|
| 21 | ENC-TE 750W  | 2 packs of encoder accessories (6-hole plastic connector + 1394 connector) |
| 22 | PWR-CON 750W | 4-hole power plastic connector   |
| 23 | PWB-CON 750W | 6-hole power brake plastic connector                                       |

## Other accessories specifications



	Power	Models	23bit absolute	17bit absolute	Brake	Oil seal	Flange	Shaft diameter	Regular model	Applicable accessories			Power	Standard:X6E[ ]_A-A / full-fuction:X6F[ ]_A-A					X5E[ ]_A-A					Notes	
			[A]Pulse control	[N] CANopen	[B] EtherCAT	[R] PROFINET	Power specifications	[A]Pulse control	[N] CANopen	[B] EtherCAT	Power specifications														
X6-MHH Ultrahigh inertia	100W	X6MH010H-N2CD	●			●	40 flange	Φ8	Connector -type	① ③ ③1			X6-MHH Ultrahigh inertia	100W	X6EA010A-A	X6EN010A-A	X6EB010A-A	X6ER010A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
		X6MH010H-B2CD			●	●	60 flange	Φ14	Lead-wire type	① ④ ③1				200W	X6EA020A-A	X6EN020A-A	X6EB020A-A	X6ER020A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
	200W	X6MH020H-N2LD	●		●	●	60 flange	Φ14	Lead-wire type	②1 ②2 ③1				400W	X6EA040A-A	X6EN040A-A	X6EB040A-A	X6ER040A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
		X6MH020H-B2LD			●	●	60 flange	Φ14	Connector -type	②1 ②2 ③1				750W	X6EA075A-A	X6EN075A-A	X6EB075A-A	X6ER075A-A	Single-phase AC220V	X5EA075A-A	X5EN075A-A	X5EB075A-A	Single-phase AC220V		
	400W	X6MH040H-N2CD	●		●	●	60 flange	Φ14	Connector -type	① ⑤ ③1															
		X6MH040H-B2CD			●	●	80 flange	Φ19	Lead-wire type	① ⑥ ③1															
	750W	X6MH075H-N2LD	●			●	80 flange	Φ19	Lead-wire type	②1 ②2 ③1															
X6-MQ Special flange/flat-type /small flange	100W	X6MQ010A-N2LD	●			●	60 flange	Φ8	Lead-wire type	②1 ②2 ③1				100W	X6EA010A-A	X6EN010A-A	X6EB010A-A	X6ER010A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
		X6MQ010A-B2LD			●	●	60 flange	Φ8	Lead-wire type	②1 ②2 ③1				200W	X6EA020A-A	X6EN020A-A	X6EB020A-A	X6ER020A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
	200W	X6MQ020A-N2LD	●		●	●	80 flange	Φ11	Lead-wire type	②1 ②2 ③1				400W	X6EA040A-A	X6EN040A-A	X6EB040A-A	X6ER040A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
		X6MQ020A-B2LD			●	●	80 flange	Φ14	Lead-wire type	②1 ②2 ③1				750W	X6EA075A-A	X6EN075A-A	X6EB075A-A	X6ER075A-A	Single-phase AC220V	X5EA075A-A	X5EN075A-A	X5EB075A-A	Single-phase AC220V		
	400W	X6MQ040A-N2LD	●		●	●	80 flange	Φ14	Lead-wire type	②1 ②2 ③1															
		X6MQ040A-B2LD			●	●	80 flange	Φ19	Connector -type	① ⑤ ③1															
	1KW	X6MQ100E-N2CD	●		●	●	80 flange	Φ19	Connector -type	① ⑥ ③1				100W	X6EA100A-A	X6EN100A-A	X6EB100A-A	X6ER100A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
		X6MQ100E-B2CD			●	●	80 flange	Φ19	Connector -type	① ⑥ ③1				200W	X6EA020A-A	X6EN020A-A	X6EB020A-A	X6ER020A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
X6-MG Low-speed and Large-torque	750W	X6MG075A-N2LD	●			●	80 flange	Φ19	Lead-wire type	②1 ②2 ③1				400W	X6EA040A-A	X6EN040A-A	X6EB040A-A	X6ER040A-A	Single-phase AC220V	X5EA040A-A	X5EN040A-A	X5EB040A-A	Single-phase AC220V		
		X6MG075A-B2LD			●	●	80 flange	Φ19	Lead-wire type	②1 ②2 ③1				1KW	X6EA100A-A	X6EN100A-A	X6EB100A-A	X6ER100A-A	Three-phase AC220V	X5EA100A-A	X5EN100A-A	X5EB100A-A	Single-phase AC220V		
	1KW	X6MG100A-N2LD	●		●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				750W	X6EA075A-A	X6EN075A-A	X6EB075A-A	X6ER075A-A	Three-phase AC220V	X5EA075A-A	X5EN075A-A	X5EB075A-A	Three-phase AC220V		
		X6MG100A-B2LD			●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				1KW	X6EA100A-A	X6EN100A-A	X6EB100A-A	X6ER100A-A	Three-phase AC220V	X5EA100A-A	X5EN100A-A	X5EB100A-A	Three-phase AC220V		
	850W	X6MG085A-N2LD	●		●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				850W	X6EA100A-A	X6EN100A-A	X6EB100A-A	X6ER100A-A	Three-phase AC220V	X5EA100A-A	X5EN100A-A	X5EB100A-A	Single-phase AC220V		
		X6MG085A-B2LD			●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				1.3KW	X6EA150A-A	X6EN150A-A	X6EB150A-A	X6ER150A-A	Three-phase AC220V	X5EA150A-A	X5EN150A-A	X5EB150A-A	Three-phase AC220V		
	1.3KW	X6MG130A-N2LD	●		●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				1.8KW	X6EA250A-A	X6EN250A-A	X6EB250A-A	X6ER250A-A	Three-phase AC220V	X5EA250A-A	X5EN250A-A	X5EB250A-A	Three-phase AC220V		
		X6MG130A-B2LD			●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				850W	X6EA150A-A	X6EN150A-A	X6EB150A-A	X6ER150A-A	Three-phase AC220V	X5EA150A-A	X5EN150A-A	X5EB150A-A	Three-phase AC220V		
	1.8KW	X6MG180A-N2LD	●		●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				1.3KW	X6EA150A-A	X6EN150A-A	X6EB150A-A	X6ER150A-A	Three-phase AC220V	X5EA150A-A	X5EN150A-A	X5EB150A-A	Three-phase AC220V		
		X6MG180A-B2LD			●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				1.8KW	X6EA250A-A	X6EN250A-A	X6EB250A-A	X6ER250A-A	Three-phase AC220V	X5EA250A-A	X5EN250A-A	X5EB250A-A	Three-phase AC220V		
X6-MGS Low-cogging Cutting	850W	X6MG085S-N2LD	●			●	130 flange	Φ19	Aviation connector	⑪ ⑫ ⑬ ⑳				850W	X6EA150A-A	X6EN150A-A	X6EB150A-A	X6ER150A-A	Three-phase AC220V	X5EA150A-A	X5EN150A-A	X5EB150A-A	Three-phase AC220V		
		X6MG085S-B2LD			●	●	130 flange	Φ19	Aviation connector	⑪ ⑫ ⑬ ⑳				1.3KW	X6EA150A-A	X6EN150A-A	X6EB150A-A	X6ER150A-A	Three-phase AC220V	X5EA150A-A	X5EN150A-A	X5EB150A-A	Three-phase AC220V		
	1.3KW	X6MG130S-N2LD	●		●	●	130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑳				1.8KW	X6EA250A-A	X6EN250A-A	X6EB250A-A	X6ER250A-A	Three-phase AC220V	X5EA250A-A	X5EN250A-A	X5EB250A-A	Three-phase AC220V		
		X6																							

	Power	Models	23bit absolute	17bit absolute	Brake	Oil seal	Flange	Shaft diameter	Regular model	Applicable accessories			Power	Standard:X6E[ ]_A-A/full-function:X6F[ ]_A-A					Notes
			[A]Pulse control	[N] CANopen	[B] EtherCAT	[R] PROFINET													
<b>X6-MM Middle Inertia</b>	1KW	X6MM100A-N4LD	●			●		130 flange	Φ22	Aviation connector	11 12 31		1KW	X6EA200T-A	X6EN200T-A	X6EB200T-A	X6ER200T-A	Three-phase AC380V	
		X6MM100A-B4LD			●						11 13 31			X6FA200T-A	X6FN200T-A	X6FB200T-A	X6FR200T-A		
		X6MM100A-N4LA		●		●					11 12								
		X6MM100A-B4LA		●		●					11 13								
	1.5KW	X6MM150A-N4LD	●			●		130 flange	Φ22	Aviation connector	11 12 31			X6EA200T-A	X6EN200T-A	X6EB200T-A	X6ER200T-A	Three-phase AC380V	
		X6MM150A-B4LD			●						11 13 31			X6FA200T-A	X6FN200T-A	X6FB200T-A	X6FR200T-A		
		X6MM150A-N4LA		●		●					11 12								
		X6MM150A-B4LA		●		●					11 13								
	2KW	X6MM200A-N4LD	●			●		130 flange	Φ22	Aviation connector	11 12 31			X6EA200T-A	X6EN200T-A	X6EB200T-A	X6ER200T-A	Three-phase AC380V	
		X6MM200A-B4LD			●						11 13 31			X6FA200T-A	X6FN200T-A	X6FB200T-A	X6FR200T-A		
		X6MM200A-N4LA		●		●					11 12								
		X6MM200A-B4LA		●		●					11 13								
	3KW	X6MM300A-N4LD	●			●		180 flange	Φ35	Aviation connector	11 15 31			X6EA300T-A	X6EN300T-A	X6EB300T-A	X6ER300T-A	Three-phase AC380V	
		X6MM300A-B4LD			●						11 15 14 31			X6FA300T-A	X6FN300T-A	X6FB300T-A	X6FR300T-A		
		X6MM300A-N4LA		●		●					11 15								
		X6MM300A-B4LA		●		●					11 15 14								
	4KW	X6MM400A-N4LD	●			●		180 flange	Φ35	Aviation connector	11 15 31			X6EA500T-A	X6EN500T-A	X6EB500T-A	X6ER500T-A	Three-phase AC380V	
		X6MM400A-B4LD			●						11 15 14 31			X6FA500T-A	X6FN500T-A	X6FB500T-A	X6FR500T-A		
		X6MM400A-N4LA		●		●					11 15								
		X6MM400A-B4LA		●		●					11 15 14								
	5KW	X6MM500A-N4LD	●			●		180 flange	Φ35	Aviation connector	11 15 31			X6EA750T-A	X6EN750T-A	X6EB750T-A	X6ER750T-A	Three-phase AC380V	
		X6MM500A-B4LD			●						11 15 14 31			X6FA750T-A	X6FN750T-A	X6FB750T-A	X6FR750T-A		
		X6MM500A-N4LA		●		●					11 15								
		X6MM500A-B4LA		●		●					11 15 14								
	7.5KW	X6MM750H-N4LD	●			●		180 flange	Φ42	Aviation connector	11 15 31			X6EA750T-A	X6EN750T-A	X6EB750T-A	X6ER750T-A	Three-phase AC380V	
		X6MM750H-B4LD			●						11 15 14 31			X6FA750T-A	X6FN750T-A	X6FB750T-A	X6FR750T-A		
		X6MM750H-N4LA		●		●					11 15								
		X6MM750H-B4LA		●		●					11 15 14								
<b>X6-MH High Inertia</b>	2KW	X6MH200A-N4LD	●			●		180 flange	Φ35	Aviation connector	11 15 31			X6EA200T-A	X6EN200T-A	X6EB200T-A	X6ER200T-A	Three-phase AC380V	
		X6MH200A-B4LD			●						11 15 14 31			X6FA200T-A	X6FN200T-A	X6FB200T-A	X6FR200T-A		
		X6MH200A-N4LA		●		●					11 15								
		X6MH200A-B4LA		●		●					11 15 14								
	4KW	X6MH400A-N4LD	●			●		180 flange	Φ35	Aviation connector	11 15 31			X6EA500T-A	X6EN500T-A	X6EB500T-A	X6ER500T-A	Three-phase AC380V	
		X6MH400A-B4LD			●						11 15 14 31			X6FA500T-A	X6FN500T-A	X6FB500T-A	X6FR500T-A		
		X6MH400A-N4LA		●		●					11 15								
		X6MH400A-B4LA		●		●					11 15 14								

▼ Accessories specifications for connector-type servo motors if flange 40 to 80

- ① SVCAB-ENC075CA-ABS-\*\*\*L-05 Absolute encoder cable
- ② SVCAB-ENC075CA-\*\*\*L-05 Incremental encoder cable
- ③ SVCAB-PWR010CA-\*\*\*L-05 UVW power cable 50W~100W
- ④ SVCAB-PWB010CA-\*\*\*L-05 UVW power cable with brake 50W~100W
- ⑤ SVCAB-PWR075CA-\*\*\*L-05 UVW power cable 200W~1KW
- ⑥ SVCAB-PWB075CA-\*\*\*L-05 UVW power cable with brake 200W~1KW

▼ Aviation connector specifications for servo motor of flange 100&130&180

- ⑪ ENC-TE 1KW Encoder accessories (10-pin aviation connector + 1394 connector)
- ⑫ PWR-CON 1KW 4-core power aviation connector, for flange 100&130
- ⑬ PWR-CON 1KW-9P 9-pin brake power aviation connector, for flange 100&130
- ⑭ PWB-CON- 1KW 2-core brake power connector \*1
- ⑮ PWR-CON 7.5KW 4-core power aviation connector, for flange 180
- ⑯ For flange 130 models, only X2MA100A/150A/200A/X2MG230A and 180 flange models require PWB-CON- 1KW

▼ Accessories specifications for lead-wire type servo motor of flange 40 to 80

- ⑲ ENC-TE 750W 2 packs of encoder accessories (6-hole plastic connector + 1394 connector)
- ⑳ PWR-CON 750W 4-hole power plastic connector
- ㉑ PWB-CON 750W 6-hole power brake plastic connector

▼ Other accessories specifications

- ㉒ SV-BAT Absolute battery box with 1394 connector
- 

	Power	Models	23bit absolute	17bit absolute	Brake	Oil seal	Flange	Shaft diameter	Regular model	Applicable accessories			Power	Standard:X6E[ ]_A-A/full-fuction:X6F[ ]_A-A					Notes
			[A]Pulse control	[N] CANopen	[B] EtherCAT	[R] PROFINET	Power specifications												
<b>X6-MG Low-speed and Large-torque</b>	850W	X6MG085A-N4LD	●			●		130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑯		850W	X6EA200T-A	X6EN200T-A	X6EB200T-A	X6ER200T-A	Three-phase AC380V	
		X6MG085A-B4LD			●						⑪ ⑬ ⑯			X6FA200T-A	X6FN200T-A	X6FB200T-A	X6FR200T-A		
		X6MG085A-N4LA		●		●					⑪ ⑫								
		X6MG085A-B4LA		●		●					⑪ ⑬								
	1.3KW	X6MG130A-N4LD	●			●		130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑯			1.3KW	X6EA200T-A	X6EN200T-A	X6EB200T-A	X6ER200T-A	Three-phase AC380V
		X6MG130A-B4LD			●						⑪ ⑬ ⑯			X6FA200T-A	X6FN200T-A	X6FB200T-A	X6FR200T-A		
		X6MG130A-N4LA		●		●					⑪ ⑫								
		X6MG130A-B4LA		●		●					⑪ ⑬								
	1.8KW	X6MG180A-N4LD	●			●		130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑯			1.8KW	X6EA300T-A	X6EN300T-A	X6EB300T-A	X6ER300T-A	Three-phase AC380V
		X6MG180A-B4LD			●						⑪ ⑬ ⑯			X6FA300T-A	X6FN300T-A	X6FB300T-A	X6FR300T-A		
		X6MG180A-N4LA		●		●					⑪ ⑫								
		X6MG180A-B4LA		●		●					⑪ ⑬								
	2.4KW	X6MG240A-N4LD	●			●		130 flange	Φ22	Aviation connector	⑪ ⑫ ⑬ ⑯			2.4KW	X6EA500T-A	X6EN500T-A	X6EB500T-A	X6ER500T-A	Three-phase AC380V
		X6MG240A-B4LD			●						⑪ ⑬ ⑯			X6FA500T-A	X6FN500T-A	X6FB500T-A	X6FR500T-A		
		X6MG240A-N4LA		●		●					⑪ ⑫								
		X6MG240A-B4LA		●		●					⑪ ⑬								
	2.9KW	X6MG290A-N4LD	●			●		180 flange	Φ35	Aviation connector	⑪ ⑮ ⑯			2.9KW	X6EA300T-A	X6EN300T-A	X6EB300T-A	X6ER300T-A	Three-phase AC380V
		X6MG290A-B4LD			●						⑪ ⑮ ⑯			X6FA300T-A	X6FN300T-A	X6FB300T-A	X6FR300T-A		
		X6MG290A-N4LA		●		●					⑪ ⑮								
		X6MG290A-B4LA		●		●					⑪ ⑮ ⑯								
	4.4KW	X6MG440A-N4LD	●			●		180 flange	Φ35	Aviation connector	⑪ ⑮ ⑯			4.4KW	X6EA500T-A	X6EN500T-A	X6EB500T-A	X6ER500T-A	Three-phase AC380V
		X6MG440A-B4LD			●						⑪ ⑮ ⑯			X6FA500T-A	X6FN500T-A	X6FB500T-A	X6FR500T-A		
		X6MG440A-N4LA		●		●					⑪ ⑮								
		X6MG440A-B4LA		●		●					⑪ ⑮ ⑯								
	5.5KW	X6MG550A-N4LD	●			●		180 flange	Φ42	Aviation connector	⑪ ⑮ ⑯			5.5KW	X6EA750T-A	X6EN750T-A	X6EB750T-A	X6ER750T-A	Three-phase AC380V
		X6MG550A-B4LD			●						⑪ ⑮ ⑯			X6FA750T-A	X6FN750T-A	X6FB750T-A	X6FR750T-A		
		X6MG550A-N4LA		●		●					⑪ ⑮								
		X6MG550A-B4LA		●		●					⑪ ⑮ ⑯								
<b>X6-MGS Low-cogging Cutting</b>	2.9KW	X6MG290S-N4LD	●			●		180 flange	Φ35	Aviation connector	⑪ ⑮ ⑯			2.9KW	X6EA750T-A	X6EN750T-A	X6EB750T-A	X6ER750T-A	Three-phase AC380V
		X6MG290S-B4LD			●						⑪ ⑮ ⑯			X6FA750T-A	X6FN750T-A	X6FB750T-A	X6FR750T-A		
		X6MG290S-N4LA		●		●					⑪ ⑮								
		X6MG290S-B4LA		●		●					⑪ ⑮ ⑯								
	4.4KW	X6MG440S-N4LD	●			●		180 flange	Φ35	Aviation connector	⑪ ⑮ ⑯			4.4KW	X6EA750T-A	X6EN750T-A	X6EB750T-A	X6ER750T-A	Three-phase AC380V
		X6MG440S-B4LD			●						⑪ ⑮ ⑯			X6FA750T-A	X6FN750T-A	X6FB750T-A	X6FR750T-A		
		X6MG440S-N4LA		●		●					⑪ ⑮								
		X6MG440S-B4LA		●		●					⑪ ⑮ ⑯								

▼ Accessories specifications for connector-type servo motors if flange 40 to 80

- ① SVCAB-ENC075CA-ABS-\*\*\*L-05 Absolute encoder cable
- ② SVCAB-ENC075CA-\*\*\*L-05 Incremental encoder cable
- ③ SVCAB-PWR010CA-\*\*\*L-05 UVW power cable 50W~100W
- ④ SVCAB-PWB010CA-\*\*\*L-05 UVWpower cable with brake 50W~100W
- ⑤ SVCAB-PWR075CA-\*\*\*L-05 UVWpower cable 200W~1KW
- ⑥ SVCAB-PWB075CA-\*\*\*L-05 UVWpower cable with brake 200W~1KW

▼ Aviation connector specifications for servo motor of flange 100&130&180

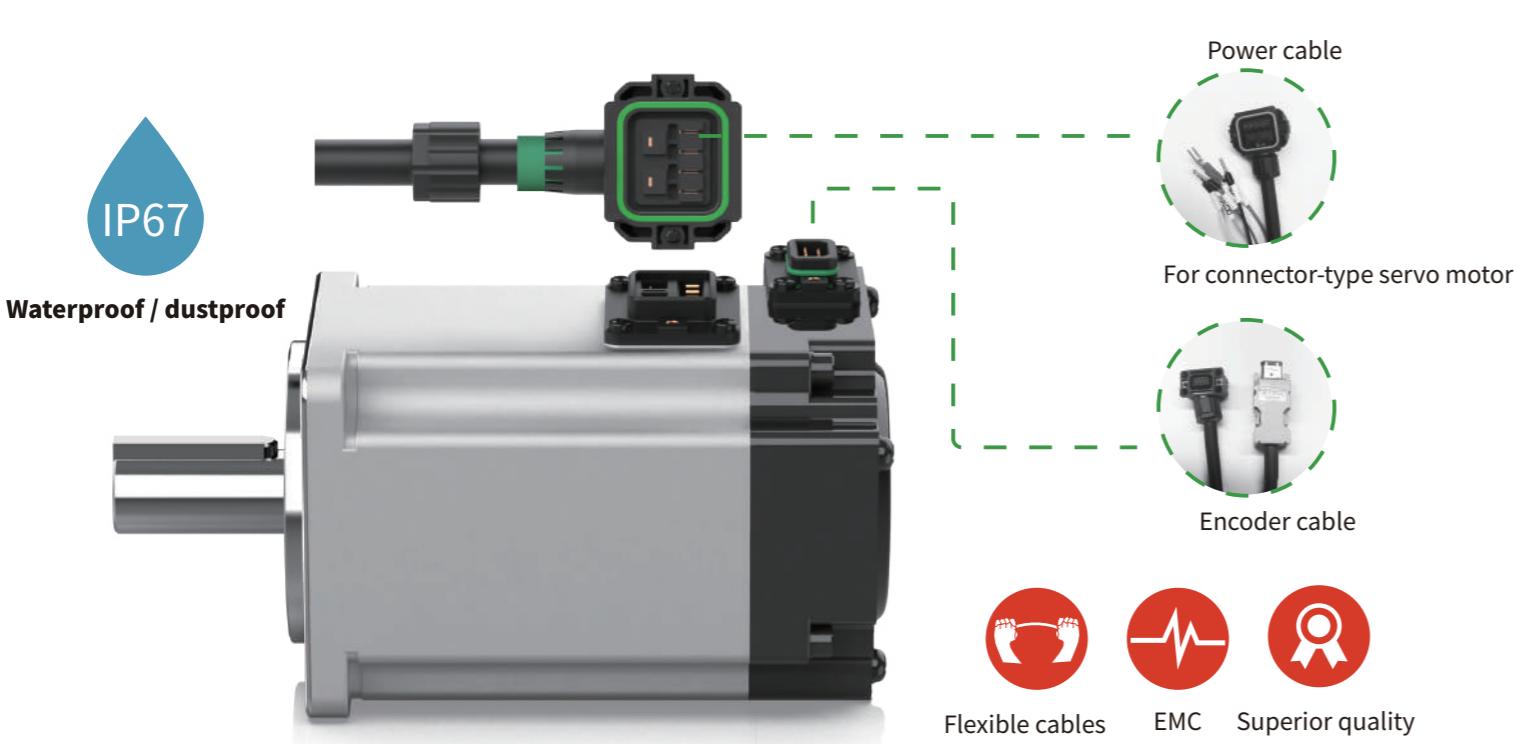
- ⑪ ENC-TE 1KW Encoder accessories (10-pin aviation connector + 1394 connector)
- ⑫ PWR-CON 1KW 4-core power aviation connector, for flange 100&130
- ⑬ PWR-CON 1KW-9P 9-pin brake power aviation connector, for flange 100&130
- ⑭ PWB-CON- 1KW 2-core brake power connector \*1
- ⑮ PWR-CON 7.5KW 4-core power aviation connector, for flange 180
- ⑯ For flange 130 models, only X2MA100A/150A/200A/X2MG230A and 180 flange models require PWB-CON- 1KW

▼ Accessories specifications for lead-wire type servo motor of flange 40 to 80

- ⑲ ENC-TE 750W 2 packs of encoder accessories (6-hole plastic connector + 1394 connector)
- ⑳ PWR-CON 750W 4-hole power plastic connector
- ㉑ PWB-CON 750W 6-hole power brake plastic connector

▼ Other accessories specifications





### Advantages

- The motor cables connected directly to the servo drive, reducing the connection and greatly improving the reliability.
- The protection level of the motor connector upgraded to IP67, vibration-resistance, dustproof and waterproof.
- Encoder cables are treated with metal shielding layer, which has strong anti-interference ability!
- Various specifications of cables can be customized based on the different application occasions. HCFA designated high-quality raw material suppliers for centralized procurement. (See Naming rule 7 for cables)

From the 2nd quarter of 2021, our company started releasing connector-type servo motor with 40~80 flanges as the regular model.  
Lead-wire servo motors will be discontinued from December 2021, if still needed, the customized application process is required.

For details, refer to page 67 or consult our sales staff.

## SVCAB-ENC 075 CA - ABS-010L-05

1      2      3      4      5      6      7

1 Product type	
ENC	Encoder cable
PWR	4-core power cable
PWB	6-core power cable with brake

2 Motor power	
010	50W~150W
075	200W~1KW

3 Connector-type	
C	Flange 40 to 80

4 Outlet direction	
A	Forward-The leading direction at the front end
B	Reverse-The leading direction at the back end



5 Encoder type	
ABS	Absolute
N/A	Incremental

6 Length specifications (unit 0.1m)	
L	Length identification *1

7 Cable flexibility	
01	Fixed
05 (regular)	5 million times
10	10 million times
20	20 million times
A0	For swinging

\*The regular length specifications in our stock is 0.5M/1M/2M/3M/5M/8M/10M.

### Accessories Specifications for Connector-type Servo Motor

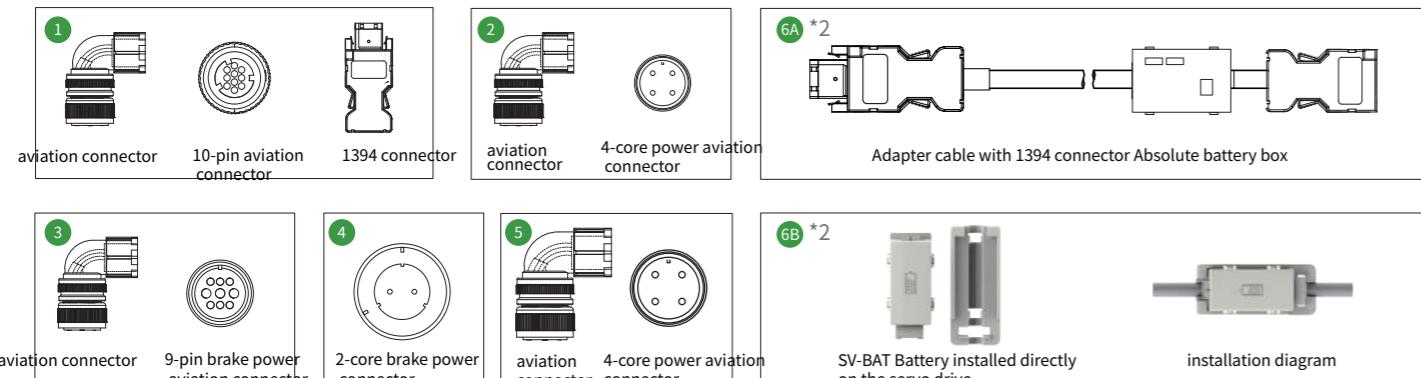
Cables	Model name	Diagram
Absolute encoder cable	SVCAB-ENC075CA-ABS-***L-05	
Incremental encoder cable	SVCAB-ENC075CA-***L-05	
50W~150W UVW power cable	SVCAB-PWR010CA-***L-05	
50W~150W UVW power cable with brake	SVCAB-PWB010CA-***L-05	
200W~1000W UVW power cable	SVCAB-PWR075CA-***L-05	
200W~1000W UVW power cable with brake	SVCAB-PWB075CA-***L-05	

## // Aviation connectors for servo motor of flange 100&130&180

Accessories	Model name	Diagram
Encoder accessories (10-pin aviation connector + 1394 connector)	ENC-TE 1KW	1
4-core power aviation connector, for flange 100&130	PWR-CON 1KW	2
9-pin brake power aviation connector, for flange 100&130	PWR-CON 1KW-9P	3
2-core brake power connector *1	PWB-CON- 1KW	4
4-core power aviation connector, for flange 180	PWR-CON 7.5KW	5

Accessories	Model name	Diagram
Adapter cable with 1394 connector Absolute battery box	SVBOX-ENCABS	6A

\*Flange 130 are only required for X2MA100A/150A/200A/X2MG230A



## // Other accessory specifications

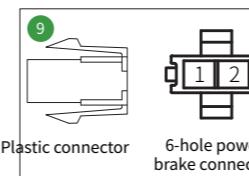
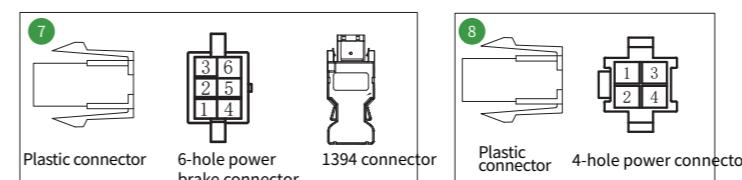
Accessories	Model name	Applicable servo drive	Description
Battery installed directly on the servo drive	SV-BAT	SV-X6 All series SV-X5E All series	Encoder cable external battery, installed on the side of the servo drive
Multifunctional absolute battery panel	SV-ENC-BAT	SV-X6 All series SV-X5E All series	Encoder cable external battery
CAN bus connection cable	SV-CAB-0.3M	SV-X6EN type full power SV-X6FN type full power	CANopen bus-type CN4、CN5 interface
CAN terminal resistance	SV-TR-120	SV-X6EN type full power SV-X6FN type full power	CANopen bus-type CN4、CN5 interface
EtherCAT/profinet bus cable	SV-ECAT-0.35M	SV-X6EB type full power SV-X6ER type full power SV-X6FB type full power SV-X6FR type full power SV-X5EB type full power	X6 EtherCAT and profinet bus-type CN4、CN5 interface X5E EtherCAT bus-type CN4、CN5 interface
RS485cable 0.2m	SV-RS485-0.2M	SV-X6FA full power SV-X6FB full power SV-X6FN full power SV-X6FR full power	All-function models CN1 For 485 communication and analogue AO output port
STO cable 2m	SV-STO-2M	SV-X6FA full power SV-X6FB full power SV-X6FN full power SV-X6FR full power SV-X5E 1KW or less STO models	X6 all-function models CN2 interface STO External safety switch X5E models CN2 interface STO External safety switch
Second Encoder cable 2m	SV-MIII-2M	SV-X6FA full power SV-X6FB full power	All-function models CN8 interface
Gantry synchronisation signal Cable 0.4m	SV-GS-0.4M	SV-X6FA full power	Gantry synchronisation models CN8 interface
750W or less brake resistors	SV-BRAKE-75A	SV-X6 All series, models of 750W or less SV-X5E All series, models of 750W or less	X6series brake resistor P、BR interface X5series brake resistor P、BR interface
1KW~1.5KW brake resistors	SV-BRAKE-100A	SV-X6 All series models of 1KW to 1.5KW SV-X5E All series models of 1KW to 1.5KW	X6series brake resistor P、BR interface X5series brake resistor P、BR interface
2KW~2.5KW brake resistors	SV-BRAKE-200A	SV-X6 All series 220V series, models of 2KW to 2.5KW SV-X5E All series, models of 2KW to 2.5KW	X6series brake resistor P、BR interface X5series brake resistor P、BR interface
Anti-interference magnetic ring	Magnetic ring	All series	Installed on the power cable and encoder cable, with anti-interference

## // Other accessory specifications

Waterproof connector/compact accessories	Specifications
ENC-TE 750W-F	6-core waterproof encoder connector + 1394 connector encoder accessory pack
PWR-CON 750W-F	4-core waterproof power connector, for flange 40 to 80
PWB-CON 750W-F	6-core waterproof power connector with brake, for flange 40 to 80
PWR-CON 1KW-F	6-core waterproof power connector, for flange 130

## // For servo motor of flange 40 to 80

Accessories	Model name	Diagram
2 packs of encoder accessories ((6-hole plastic connector + 1394 connector)	ENC-TE 1KW	7
4-hole power connector accessories	PWR-CON 750W	8
6-hole power brake connector accessories	PWB-CON 750W	9



## // Cable for Lead-wire Type Servo Motor(customized products)

Encoder cable	Specifications
SVCAB-ENC75A-3M	Absolute encoder cable, for lead-wire type servo motor flange 40 to 80, 3 meters
CAB-ENC100A-3M	Incremental encoder cable, for lead-wire type servo motor flange 100&130&180, 3 meters
CAB-ENC100A-ABS-3M	Absolute encoder cable with battery box, for lead-wire type servo motor flange 100&130&180, 3 meters
Power cable	Specifications
CAB-PWR75A-3M	4-core power cable, for lead-wire type servo motor flange 40 to 80, 3 meters
CAB-PWR100A-3M	4-core power cable, for lead-wire type servo motor flange 100&130, 3 meters
CAB-PWR400C-3M	4-core power cable, for lead-wire type servo motor of 2KW to 5KW, flange 180, 3 meters
CAB-PWR750C-5M	CAB-PWR750C-5M 4-core power cable, for lead-wire type servo motor of 5.5KW to 7.5KW, flange 180, 5 meters
Power brake cable	Specifications
CAB-PWB75A-3M	9-core power cable, for lead-wire type servo motor flange 130, 3 meters
CAB-PWB100A-3M	6-core power brake cable, for lead-wire type servo motor flange 40 to 80, 3 meters
CAB-PWD100A-3M	2-core power cable, for lead-wire type servo motor flange 100&130, 3 meters
Waterproof-connector cable	Specifications
SVCAB-ENC75A-3M-F	6-core waterproof absolute encoder cable, for lead-wire type servo motor flange 40 to 130, 3 meters
CAB-PWR75A-3M-F	4-core waterproof power cable, for lead-wire type servo motor flange 40 to 80, 3 meters
CAB-PWB75A-3M-F	6-core waterproof power brake cable, for lead-wire type servo motor flange 40 to 80, 3 meters
CAB-PWB100A-3M-F	9-core waterproof power brake cable, for lead-wire type servo motor flange 130, 3 meters

## HCFA Q-Series Standard PACs



**Focus on 9 major industries of industrial automation and create overall solutions!**

Standard IEC61131-3 specification 6  
programming languages

Based on standard PLC OPEN standard motion control  
- Linear/circular/spiral interpolation / electronic cam / flying shear / rotary shear



EtherCAT®  
Technology Group

EtherNet/IP™

CODESYS

Modbus

CANopen

## HCFA Y7-Series High-end Servo Products

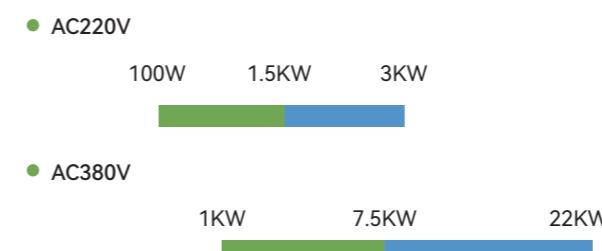
The new-generation Y7-series advanced servo system adopts the brand-new control algorithm platform to meet the diverse control needs of customers in different industries with excellent driving performance, rich buses and extended functions. At the same time, it's equipped with 7 core performances such as higher dynamic response, accurate positioning and reliability, faster speed and easy-to-use, which comprehensively helps customers in industrial upgrading and enhances the efficiency of machine tools.

**Let's cooperate to redefine the performance of your equipment**



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2021-09-02, welcome to consult!