



PSD-A Series
High performance servo system

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Features

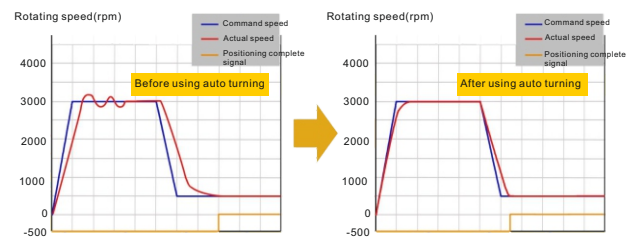
► **Adjustment-free function**

- With the adjustment-free function, one-key automatic tuning, to achieve fast and stable operation.
- No need to be proficient in servo debugging principle, debugging is easier.
- Even if the load changes during operation, the equipment can operate stably.



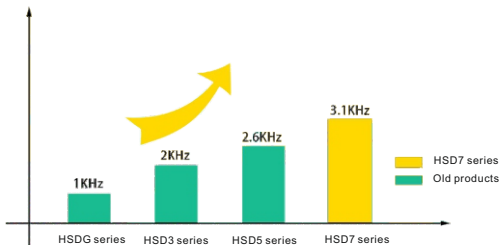
► **Self-tuning function**

- Based on the algorithm of servo auto-tuning, real-time automatic identification of load inertia changes, automatic adjustment of gain parameters, automatic setting of vibration suppression and notch frequency.
- Through automatic parameter adjustment, the debugging cycle is greatly shortened, system response performance is improved, and equipment production efficiency is improved.



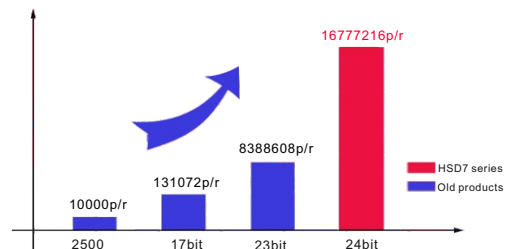
► **Speed response is greatly improved**

- Optimization based on higher hardware performance and control algorithm
- The speed response frequency of PSDA series products is increased to 3.1KHz
- Significantly improve product response performance.



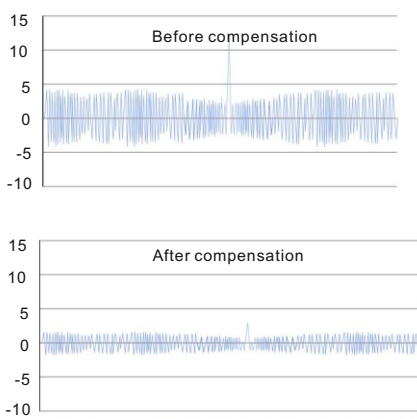
► **Support multiple encoder types**

- Support multiple types of encoders.
- PSDA series products support up to 24bit high-resolution encoders.
- The single-turn resolution of the encoder is 16777216 p/r.
- The encoder has higher resolution, accuracy and more precise positioning.
- Low speed performance is more stable



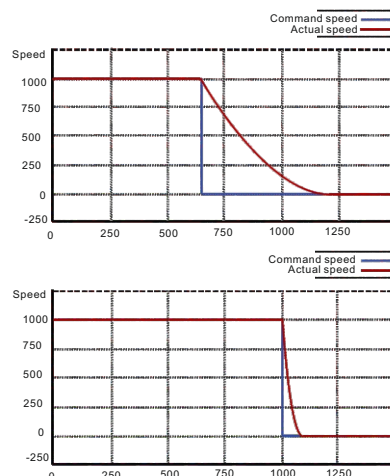
► **Friction&backlash compensation**

- Turn on the compensation function
- Effectively reduce commutation deviation and improve machining accuracy.
- Improve the stability when running at low speeds



► **Dynamic braking function**

- Dynamic braking is to short-circuit the three-phase electrodes in an emergency, and stop at the fastest speed, thereby protecting the safety of people and equipment.

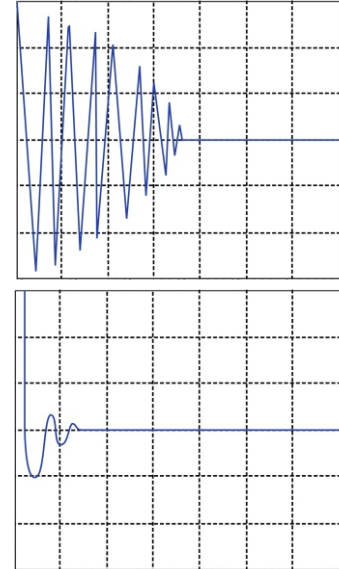
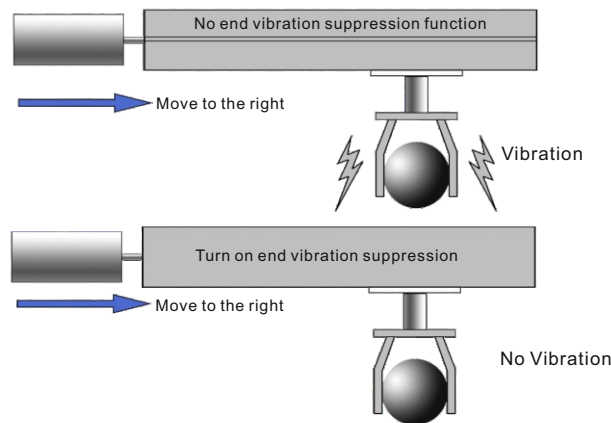
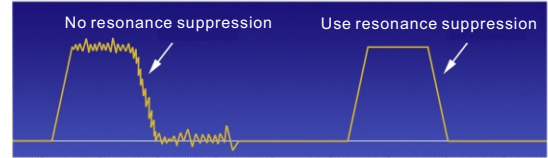


High performance servo system

Features

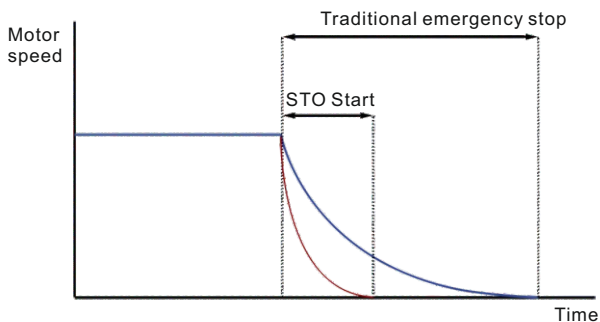
► Vibration suppression function

- Built-in 5 notch filters, Effectively suppress mechanical resonance.
- Suppress high frequency vibration above 500Hz.
- Strengthen the end vibration suppression function, effectively suppress the machine end vibration.
- Suppress low frequency vibration of 0.5-300Hz.



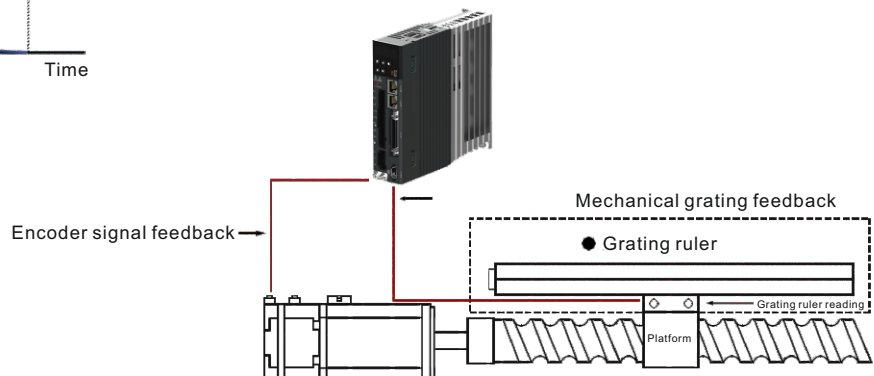
► Safe stop function (STO)

- Support STO (Safe Torque Off) function. It is ensured that after starting the STO function, the servo system will stop quickly under the condition of uninterrupted power supply to ensure the safety of people and equipment.



► High performance full closed loop control

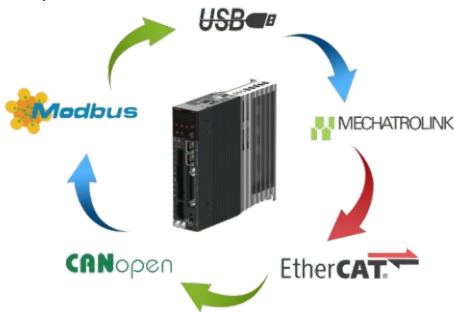
- Full closed-loop control can be connected to an external grating ruler or encoder, and realize high-precision position control by reading the position feedback signal of the terminal.



Features

► **Support multiple communication interfaces to realize high-speed and high-precision control**

- Supported communication interface:
- Mini-USB interface, the host computer debugging is convenient and quick.
- RS 485 bus, using Modbus standard communication protocol.
- CANopen bus, the data transmission rate is up to 1Mbps.



- MECHATROLINK-II bus, the data transmission rate is up to 10Mbps.
- MECHATROLINK-III bus, the data transmission rate is up to 100Mbps.
- EtherCAT bus, the data transmission rate is up to 100Mbps.

Based on the EtherCAT communication method, HSD7 series products have the fastest synchronization cycle of 125us, which is 8 times shorter than the previous generation products, and meets the requirements of high-speed and high-precision control.

► **Efficient and convenient debugging software**

- Through the iWatch+ PC software, you can realize: parameter management, status monitoring, sampling tracking, auxiliary debugging and other practical functions.
- Friendly user interface, easy to get started quickly.

Edit Parameters

No.	Name	Unit	Min. Value	Max. Value
0000	Motor Encoder Selection 0		0000	0000
Head 0	Position Direction Selection		0 Use CCW as the forward direction.	
Head 1	Reserved parameter (Do not change)		0 Reserved parameter (Do not change)	
Head 2	Reserved parameter (Do not change)		0 Reserved parameter (Do not change)	
Head 3	Reserved parameter (Do not change)		0 When an encoder is not connected, set as SERVOPACK for Rotary Servomotor	
0001	Application Function Selection 1		0000	0000
Head 0	Motor Stoppage Method for Servo OFF		0 Stop the motor by applying the dynamic brake.	
Head 1	Overcurrent Stoppage Method		0 Stop the dynamic brake or coast the motor to a stop. Use the stopping method set in Pr020.	
Head 2	Motor Control Power Supply AC/CC Type		0 Supply AC power as the main control power supply (Pr 1.1, 1.2, 1.3). Change to 101 as 100V.	
Head 3	Reserved parameter (Do not change)		0 Reserved parameter (Do not change)	
0002	Application Function Selection 2		0000	0000
Head 0	MECHATROLINK Command Position 4		1 Use TLM as the torque limit.	
Head 1	Torque Control Choice		1 Use the speed limit for torque control (TLM) as the speed limit.	
Head 2	Divide Torque		0 Use the encoder according to encoder specifications.	
Head 3	Do not use an external encoder		0 Do not use an external encoder.	
0003	Application Function Selection 3		0000	0000
Head 0	Low Battery Voltage Alarm Warning 0		1 Output warning at 90% for low battery voltage.	
Head 1	Function Selection for Under-voltage		0 Do not detect under-voltage.	
Head 2	Warning Selection		0 Output warning.	
Head 3	Reserved parameter (Do not change)		0 Reserved parameter (Do not change)	
0004	Application Function Selection 4		0000	0000
Head 0	Stoppage Method for Group 2-4		0 Stop the dynamic brake or coast the motor to a stop using the torque set in Pr020 as the warning brake. Use the stopping method for Group 2-4.	
Head 1	Stoppage Method for Group 2-4		0 Stop the dynamic brake or coast the motor to a stop using the stopping method set in Pr020.	
Head 2	Reserved parameter (Do not change)		0 Reserved parameter (Do not change)	
Head 3	Reserved parameter (Do not change)		0 Reserved parameter (Do not change)	
0005	Application Function Selection 5		0000	0000
Head 0	Application Function Selection 5		0000	0000

Custom Tuning

Tuning mode: Start servo gain for positioning application

Mechanism selection: Ball screw mechanism or linear motor

Position compensation: Static

Gain value: Static

Tuning level: Set the tuning level

Feedback: Feedback

Auto setting: Auto setting

Watch Filter: 1 step 2 step 3 step

Auto-reset: Inactive Active

Address: Address C1 A8 Address C2 A8

Data Sampling

Trigger conditions: Data ID

Trigger condition: Trigger 1, Trigger 2, Trigger 3, Trigger 4, Trigger 5, Trigger 6, Trigger 7, Trigger 8

Trigger 1: 4000/Feedback Speed

Trigger 2: No Trigger

Trigger Level: 10

Trigger Type: Rising Edge

Status Monitor

Name	Value
Main Circuit	1
Effective Gain	1
Encoder Ready	1
Motor Power Request	0
Dynamic Brake (DB)	1
Rotation Direction	0
Mode Switch	0
Speed Reference (V-Ref)	0
Torque Reference (T-Ref)	0
Position Reference (P-Ref)	0
Position Reference Direction	0
Clear Signal	0
AC Power ON	1
Surge Current Limit Register Short Ref.	1
Regenerative Transistor	0
Regenerative Error Detection	0
Motor Power ON	0
Overcurrent	0
Origin not Passed	0
Identified Moment of Inertia	0
Polarity being detected	0
Polarity identification completed	1
Regen being conducted	0
JS-ON	0

High Performance Servopack

PSD7-A Series servo drive Model Designation

PSD-A

PSDA Series Servopack

ES

Axis Number

10

Continuous Output Current

A

Power Supply Voltage

00

Interface Type

Axis Number

S Single Axis

Continuous Output Current

03 3 A

06 6.1 A

08 8.5 A

W Double Axis

10 10 A

12 12 A

16 16 A

25 25 A

Power Supply Voltage

A 220VAC

InterfaceType

00 Pulse train reference
Pulse/Analog with standard resolution(12bits)
01 CANopen Communications
Pulse/Analog with high resolution(16bits)
05 Analog voltage
10 MECHATROLINK-ÜA Communications
20 MECHATROLINK-ÜB Communications
30 EtherCAT Communications

*The maximum continuous output current specification of the double-axis drive is 10A

PSD-A

PSDA Series Servopack

ES

Axis Number

15

Continuous Output Current

D

Power Supply Voltage

00

Interface Type

Axis Number

S Single Axis

Continuous Output Current

15 15 A

18 18 A

24 24 A

35 35 A

Power Supply Voltage

D 380VAC

InterfaceType

00 Pulse/Analog with standard resolution(12bits)
01 CANopen Communications
05 Analog voltage
Pulse/Analog with high resolution(16bits)
10 MECHATROLINK-ÜA Communications
20 MECHATROLINK-ÜB Communications
30 EtherCAT Communications

Ratings

Three-phase, 220VAC

PSD-A-ES/EW-□□A□□

Model			03A□□	06A□	08A□□	10A□	12A□□	16A□	25A□□
Continuous Output Current			3	6.1	8.5	10	12	16	25
Instantaneous Max. Output Current			10.6	14.1	21.2	24.8	29.7	49.5	63.6
Main Circuit	Power Supply		AC220 V, -15% to +10%, 50 Hz / 60 Hz						
	Input Current		1.9(5.1)	1.7(4.2)	5.4(14.3)	6.3(16.8)	7.6	10.1	15.7
Control Power Supply			AC220 V, -15% to +10%, 50 Hz / 60 Hz						
Power Supply Capacity*			0.9(2.1)	1.7(4.2)	2.4(5.8)	2.8(6.8)	3.4	4.0	5.9
Regenerative Resistor	Built-In Regenerative Resistor	Resistance	—	40	20	20	20	12	20
		Capacity	—	80	80	80	80	150	120
	Minimum Allowable External Resistance		40	20	15	15	15	15	10
Overvoltage Category			III						

Three-phase, 380VAC

PSD-A-ES/EW-□□D□□

Model			15D□□	18D□□	24D□□	35D□□
Continuous Output Current			15	18	24	35
Instantaneous Max. Output Current			35.4	49.5	63.6	99
Main Circuit	Power Supply		AC 380 V, -15% to +10%, 50 Hz / 60 Hz			
	Input Current		8.6	14.5	21.7	31.8
Control Power Supply			DC24V, -10% to +10% 50W			
Power Supply Capacity*			7.1	11.7	14.4	21.9
Regenerative Resistor	Built-In Regenerative Resistor	Resistance	32	32	—	—
		Capacity	150	150	—	—
	Minimum Allowable External Resistance		32	32	23	16
Overvoltage Category			III			

Specifications

Items		Specifications
Control Method		IGBT-based PWM control, sine wave current drive
Feedback		23bits or 24bits absolute encoder, for HSD7-E series 2500ppr incremental encoder, for HSD7-B series
Operating Conditions	Surrounding Air Temperature	0 50°C
	Storage Temperature	20 85°C
	Surrounding Air Humidity	95% relative humidity max. (With no freezing or condensation)
	Storage Humidity	95% relative humidity max. (With no freezing or condensation)
	Vibration Resistance	4.9 m/s ²
	Shock Resistance	19.6 m/s ²
	Protection Class	IP20
	Pollution Degree	Must be no corrosive or flammable gases. Must be no exposure to water, oil, or chemicals. Must be no dust, salts, or iron dust.
	Altitude	1000 m or less
	Others	Do not use SERVOPACKs in the following locations Locations subject to static electricity noise, strong electromagnetic / magnetic fields, radioactivity
Applicable Standards		EN 50178, EN 61800-5-1, EN55011 group 1 class A, EN 61000-6-2, EN 61000-6-4, EN 61800-3, IEC 61508-1 to 4, IEC 61800-5-2, IEC 62061 and IEC 61326-3-1
Mousing		Standard: Base-mounted
Performance	Speed Control Range	1:5000 (The lower limit of the speed control range must be lower than the point at which the rated torque does not cause the servomotor to stop.) ±0.01% of rated speed max. (for a load fluctuation of 0% to 100%)
	Coefficient of Speed Fluctuation	0% of rated speed max. (for a voltage fluctuation of ±10%)
		±0.1% of rated speed max. (for a temperature fluctuation of 25°C±25°C)
	Torque Control Tolerance (Repeatability)	1%
	Soft Start Time Setting	0 to 10 s (can be set individually for acceleration and deceleration.)
Displays / Indicators		CHARGE indicator and five-digit seven-segment display
Panel Operator		Five push switches

General Servopack

Specifications

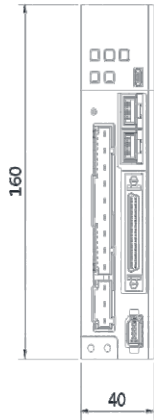
Items		Specifications	
I/O Signal	Encoder Output Pulses	Phase A, phase B, phase C. line driver output Number of divided output pulses: Any setting is allowed	
	Sequence Input	Input Signals That Can Be Allocated Allowable voltage range: 24 VDC ±20% Number of input points: 8 Input method: Sink inputs or source inputs Input Signals: Servo ON Proportional control Forward drive prohibit and reverse drive prohibit Alarm reset Forward external torque limit and reverse external torque limit Internal Settings Speed Switch Zero clamping Position deviation clearance Gain Selection A signal can be allocated and the positive and negative logic can be changed.	
I/O Signal	Sequence Output	Output Signals That Can Be Allocated Allowable voltage range: 5 VDC to 30 VDC Number of output points: 6 Output Signals: Positioning completion Speed limit detection Speed coincidence detection Brake Rotation detection Servo ready Torque limit detection Servo alarm A signal can be allocated and the positive and negative logic can be changed.	
Communications	RS-485 Communications	Communications Standard	MODBUS
		1:N Communications	Up to N = 50 stations possible for RS-485 port
		Axis Address Setting	Set with parameters

Specifications

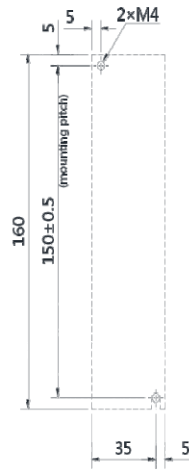
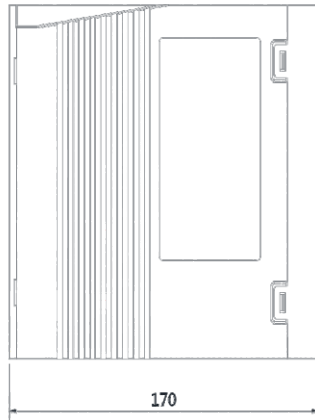
Items			Specifications		
Control	Speed Control	Soft Start Time Setting		0 to 10 s (can be set individually for acceleration and deceleration.)	
		Input Signals	Reference Voltage	Max. input voltage ± 10 V (forward speed reference with positive reference) 150(r/min)/V (default setting) Input gain setting can be changed.	
			Input Impedance	Approx. 20 KOhm	
			Circuit Time Constant	47 Micro Sec	
		Internal Set Speed Control	Rotation Direction Selection	With Proportional Control signal	
			Speed Selection	With forward/reverse external torque limit signal (speed 1 to 3 selection). Servomotor stops or another control method is used when both are OFF.	
	Position Control	Feedforward Compensation		0 to 100%	
		Positioning Completed Width Setting		0 to 1,073,741,824 reference units	
		Input Signals	Reference pulses	Reference Pulse Form	One of the following is selected: Sign + pulse train CW + CCW pulse train or two-phase pulse train with 90° phase differential
				Input Form	Line driver or open collector
				Maximum Input Frequency	Sign + pulse train or CW + CCW pulse train 500kpps Two-phase pulse train with 90° phase differential 500kpps Sign + pulse train or CW + CCW pulse train 200kpps Two-phase pulse train with 90° phase differential 200kpps
	Clear Signal		Position deviation clear Line driver or open collector		
	Torque Control	Input Signals	Reference Voltage	Maximum input voltage: ± 10 V (forward torque output for positive reference). 3.3 VDC at rated torque (default setting); Input gain setting can be changed.	
			Input Impedance	Approx. 20 KOhm	
			Circuit Time Constant	47 Micro Sec	
Regenerative Processing			Built-in or external regenerative resistors (options)		
Overtravelling (OT) Prevention			Dynamic brake stop at P-OT or N-OT, deceleration to a stop, or free run to a stop		
Protective Functions			Overcurrent, Overvoltage, low voltage, overload, regeneration error , etc.		
Utility Functions			Gain adjustment, alarm history, JOG operation, etc.		

General Servopack

External Dimensions

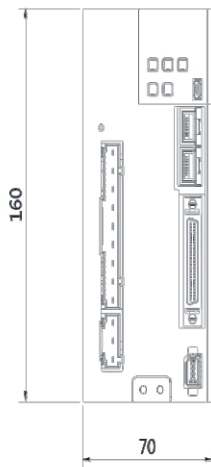


Unit : mm

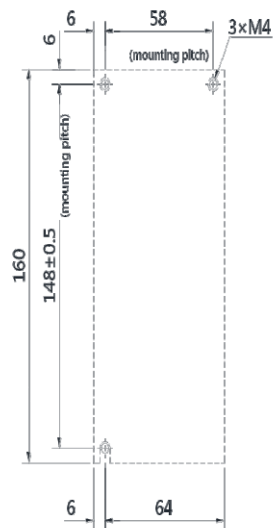
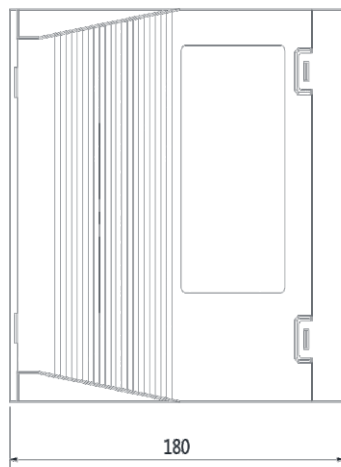


Mounting Hole Diagram

PSD-A-ES-03A□□



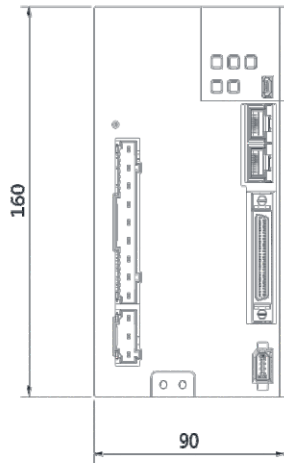
Unit : mm



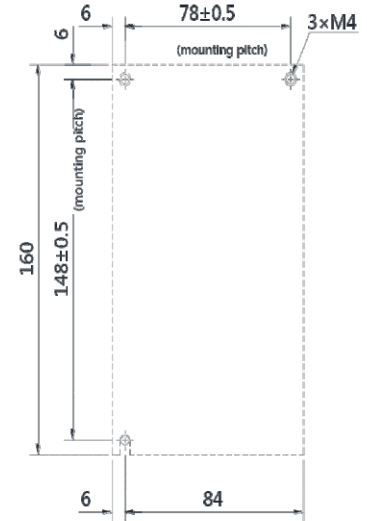
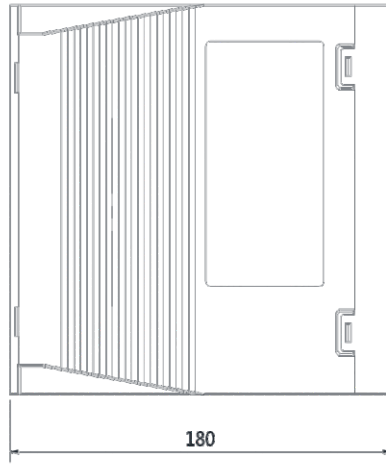
Mounting Hole Diagram

PSD-A-ES-06A□□

External Dimensions

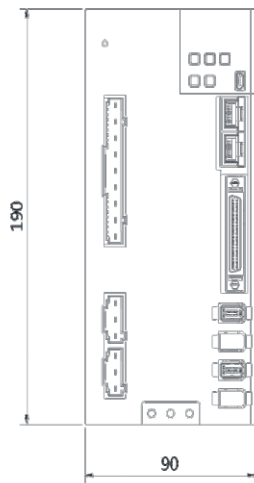


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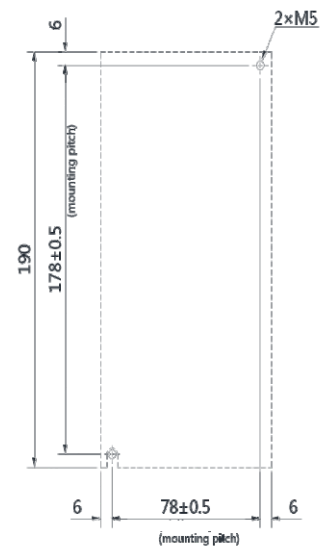
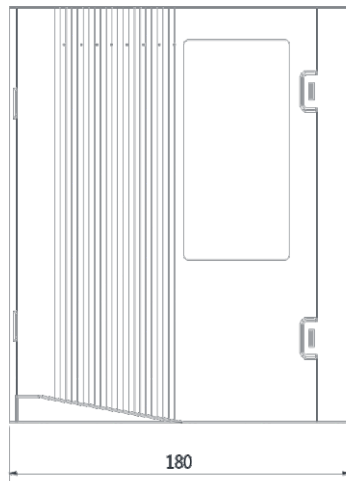


Mounting Hole Diagram

PSD-A-ES-08/10/12A□□



Unit : mm

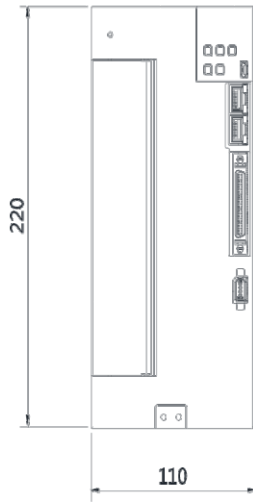


Mounting Hole Diagram

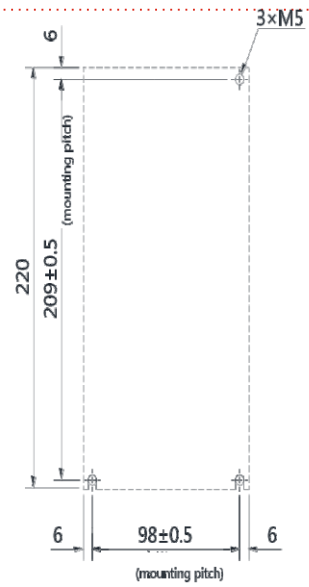
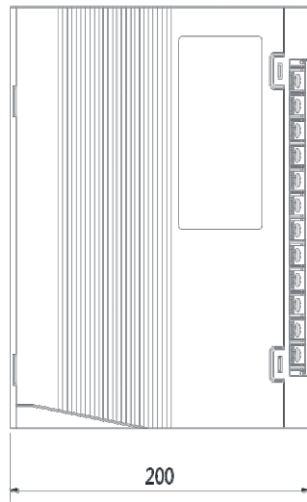
PSD-A-EW-03/06/08/10A□□

General Servopack

External Dimensions

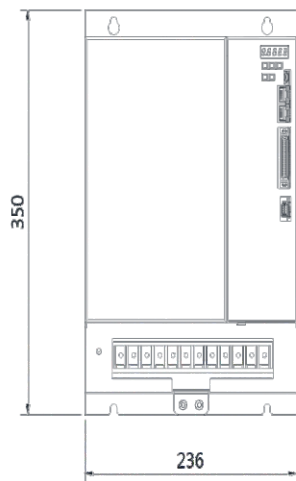


Unit : mm

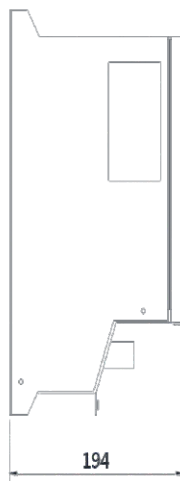


Mounting Hole Diagram

PSD-A-ES-16/25A□□ **PSD-A-ES-15/18D**□□



Unit : mm



Mounting Hole Diagram

PSD-A-ES-24/35D□□

Model Designation

PSM-A 130 - 2 - 054 M 15 30 B - A

PSM-A Series Servo motor Flange Dim. Power Voltage Rated Torque Rated Speed Maximum Speed Brake Encoder type

Flange Dim.	Rated Torque	Rated /Max. Speed	Power Voltage	Brake	Encoder Type
40 40mm	003 0.32 N.m	15 1500 rpm	2 AC220V	B With brake	A 23-bit absolute
60 60mm	006 0.64 N.m	20 2000 rpm	4 AC380V		
80 80mm	013 1.27 N.m	30 3000 rpm			
110 110mm	024 2.40 N.m	50 5000 rpm			
130 130mm	032 3.18 N.m	60 6000 rpm			
180 180mm	042 4.2 N.m				
	054 5.4 N.m				
	064 6.4 N.m				
	084 8.4 N.m				
	096 9.6 N.m				
	115 11.5 N.m				
	146 14.6 N.m				
	018 18.6 N.m				
	028 28.4 N.m				
	035 35 N.m				
	048 48 N.m				

Note:
 AC220 and AC380 motors have different definitions of rated torque.
 For example: AC220V motor, 146 represents 14.6N.m; AC380V motor, 018 represents 18.6N.m.
 The last four torques 018, 028, 035, 048 correspond to AC380V motors.

High Performance Servo motors

Model List

Model	Rated Torque	Rated Speed	Max Speed	Rated Current	Rated Power	Driver Type
PSM-A40-2-003M3060-A	0.32 Nm	3000 rpm	6000 rpm	1.1 A	100 W	PSD-A-ES-03A
PSM-A60-2-006M3060-A	0.64 Nm	3000 rpm	6000 rpm	1.6 A	200 W	
PSM-A60-2-013M3060-A	1.27 Nm	3000 rpm	6000 rpm	2.9 A	400 W	
PSM-A80-2-024M3050-A	2.40 Nm	3000 rpm	5000 rpm	4.6 A	750 W	PSD-A-ES-06A
PSM-A80-2-032M3050-A	3.18 Nm	3000 rpm	5000 rpm	6.1 A	1.0 Kw	
PSM-A110-2-042M2030-A	4.2 Nm	2000 rpm	3000 rpm	4.5 A	0.88 KW	
PSM-A110-2-054M2030-A	5.4 Nm	2000 rpm	3000 rpm	5.5 A	1.1 KW	PSD-A-ES-08A
PSM-A130-2-054M1530-A	5.4 Nm	1500 rpm	3000 rpm	6.5 A	0.85 KW	
PSM-A130-2-064M1530-A	6.4 Nm	1500 rpm	3000 rpm	8.0 A	1.0 KW	
PSM-A130-2-084M1530-A	8.4 Nm	1500 rpm	3000 rpm	9.5 A	1.3 KW	PSD-A-ES-10A
PSM-A130-2-096M1530-A	9.6 Nm	1500 rpm	3000 rpm	10.0 A	1.5 KW	
PSM-A130-2-115M1520-A	11.5 Nm	1500 rpm	2000 rpm	9.0 A	1.8 KW	
PSM-A130-2-146M1520-A	14.6 Nm	1500 rpm	2000 rpm	11.0 A	2.3 KW	PSD-A-ES-12A
PSM-A130-2-115M1530-A	11.5 Nm	1500 rpm	3000 rpm	14.0 A	1.8 KW	PSD-A-ES-16A
PSM-A130-2-146M1530-A	14.6 Nm	1500 rpm	3000 rpm	16.0A	2.3 KW	
PSM-A180-4-018M1530-A	18.6 Nm	1500 rpm	3000 rpm	11.9 A	2.9 KW	PSD-A-ES-15D
PSM-A180-4-028M1530-A	28.4 Nm	1500 rpm	3000 rpm	16.5 A	4.4 KW	PSD-A-ES-18D
PSM-A180-4-035M1530-A	35 Nm	1500 rpm	3000 rpm	20.8 A	5.5 KW	PSD-A-ES-24D
PSM-A180-4-048M1530-A	48 Nm	1500 rpm	3000 rpm	25.7 A	7.5 KW	PSD-A-ES-35D

High Performance Servo motors

Parameter and Dimensions

110 frame

Model	PSM-A110-2-042M2030-	PSM-A110-2-054M2030-A
Rated Power	0.88 KW	1.1 KW
Rated Torque	4.2 Nm	5.4 Nm
Rated Speed	2000 rpm	2000 rpm
Maximum Speed	3000 rpm	3000 rpm
Rated Current	4.5 A	5.5 A
Rotor Inertia	7.87 Kg $m^2 \times 10^{-4}$ £ 8.51 Kg $m^2 \times 10^{-4}$ £ ©	9.16 Kg $m^2 \times 10^{-4}$ £ 9.80 Kg $m^2 \times 10^{-4}$ £ ©
Maximum Current	14.0A	17.5A
Maximum Torque	12.6 Nm	16.2 Nm

130frame

Model	PSM-A130-2-054M1530-A	PSM-A130-2-064M1530-	PSM-A130-2-084M1530-	PSM-A130-2-096M1530-
Rated Power	0.85 KW	1.0 KW	1.3 KW	1.5 KW
Rated Torque	5.4 Nm	6.4 Nm	8.4 Nm	9.6 Nm
Rated Speed	1500 rpm	1500 rpm	1500 rpm	1500 rpm
Maximum Speed	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Rated Current	6.5 A	8.0 A	9.5 A	10.0A
Rotor Inertia	13.88Kg $m^2 \times 10^{-4}$ 15.55Kg $m^2 \times 10^{-4}$	16.04 Kg $m^2 \times 10^{-4}$ 17.71Kg $m^2 \times 10^{-4}$	20.59Kg $m^2 \times 10^{-4}$ 22.26Kg $m^2 \times 10^{-4}$	23.69 Kg $m^2 \times 10^{-4}$ 25.36Kg $m^2 \times 10^{-4}$
Maximum Current	20.5A	25.2 A	30.0A	31.5 A
Maximum Torque	16.2 Nm	19.2 Nm	25.2 Nm	28.8 Nm

Model	PSM-A130-2-115M1520-	PSM-A130-2-115M1530-	PSM-A130-2-146M1520-	PSM-A130-2-146M1530-
Rated Power	1.8 KW		2.3 KW	
Rated Torque	11.5 Nm		14.6 Nm	
Rated Speed	1500 rpm		1500 rpm	
Maximum Speed	2000 rpm	3000 rpm	2000 rpm	3000 rpm
Rated Current	9.0 A	14.0 A	11.0 A	16.0A
Rotor Inertia	30.15Kg $m^2 \times 10^{-4}$ 31.82Kg $m^2 \times 10^{-4}$		40.70 Kg $m^2 \times 10^{-4}$ 42.37Kg $m^2 \times 10^{-4}$	
Maximum Current	28.4 A	44.1A	34.7 A	50.4A
Maximum Torque	34.5 Nm		43.8 Nm	

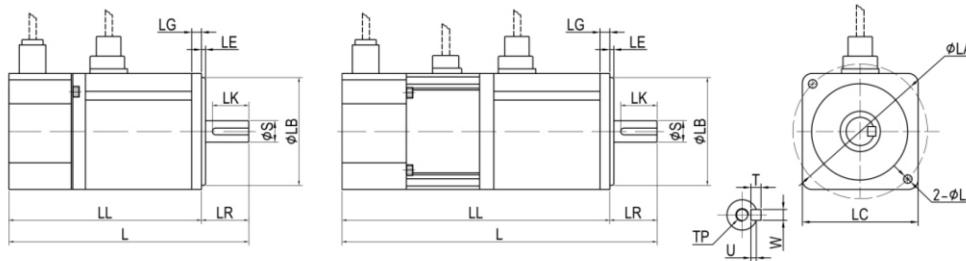
Note: The inertia of the rotor with brake type is in the brackets.

Parameter and Dimensions

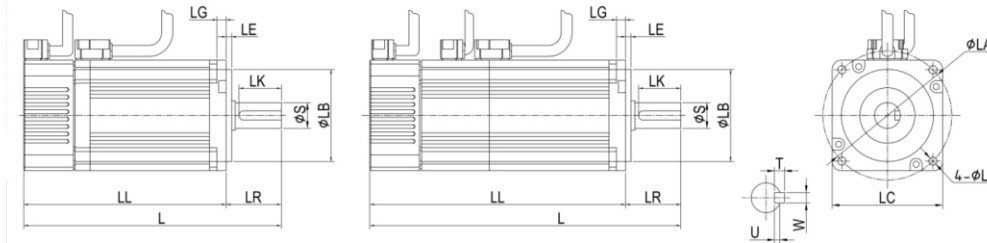
Model	PSM-A40-2-003M3060-	PSM-A60-2-006M3060-	PSM-A60-2-013M3060-	PSM-A80-2-024M3060-	PSM-A80-2-032M3050-
Rated Power	100 W	200 W	400 W	750 W	1.0 KW
Rated Torque	0.32 Nm	0.64 Nm	1.27 Nm	2.4 Nm	3.18 Nm
Rated Speed	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Maximum Speed	6000 rpm	6000 rpm	6000 rpm	5000 rpm	5000 rpm
Rated Current	1.1 A	1.6 A	2.9 A	4.8 A	6.1 A
Rotor Inertia	0.036Kgm ² ×10 ⁻⁴ (0.037Kgm ² ×10 ⁻⁴)	0.24 Kgm ² ×10 ⁻⁴ (0.25 Kgm ² ×10 ⁻⁴)	0.315 Kgm ² ×10 ⁻⁴ (0.325 Kgm ² ×10 ⁻⁴)	0.932 Kgm ² ×10 ⁻⁴ (0.998 Kgm ² ×10 ⁻⁴)	1.122 Kgm ² ×10 ⁻⁴ (1.188 Kgm ² ×10 ⁻⁴)
Maximum Current	3.3 A	4.9 A	8.8 A	15 A	19.2 A
Maximum Torque	0.96 Nm	2.24 Nm	3.9 Nm	7.2 Nm	9.54 Nm

Note: The inertia of the rotor with brake type is in the brackets.

40 frame motor installation size



60/80 frame motor installation size



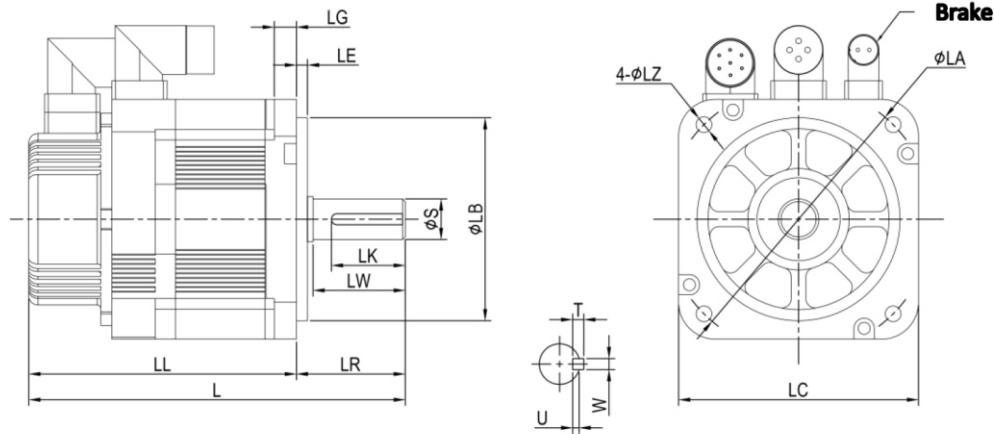
Model	L	LL	LR	LE	LG	LC	LA	LZ	S	LB	T	U	W	LK	TP
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PSM-A40-2-003M3060-A	111.5 (145)	86 (119.5)	25.5	3	5	40	46	4.5	8 ⁰ _{-0.013}	30 ⁰ _{-0.03}	3	1.8	3	14	M3*6
PSM-A60-2-006M3060-A	122 (151)	92 (121)	30	3	9	60	70	5.5	14 ⁰ _{-0.013}	50 ⁰ _{-0.03}	5	3	5	25	-
PSM-A60-2-013M3060-A	140 (169)	110 (139)	30	3	9	60	70	5.5	14 ⁰ _{-0.013}	50 ⁰ _{-0.03}	5	3	5	25	-
PSM-A80-2-024M3050-A	165 (205)	125 (165)	40	3	9.5	80	90	6.5	19 ⁰ _{-0.013}	70 ⁰ _{-0.03}	6	3.5	6	25	-
PSM-A80-2-032M3050-A	180 (220)	140 (180)	40	3	9.5	80	90	6.5	19 ⁰ _{-0.013}	70 ⁰ _{-0.03}	6	3.5	6	25	-

Note: The values in brackets is the length of the motor with brake.

Parameter and Dimensions

Motor installation dimension drawing



Model	L	LL	LR	LE	LG	LC	LA	LZ	S	LB	T	U	W	LK	TP
PSM-A110-2-042M2030-A	209 (245)	153 (189)	56	5	12	110	130	9	19 ⁰ _{-0.013}	95 ⁰ _{-0.04}	6	3.5	6	40	48
PSM-A110-2-054M2030-A	219 (255)	163 (199)	56	5	12	110	130	9	19 ⁰ _{-0.013}	95 ⁰ _{-0.04}	6	3.5	6	40	48

Note: The value in brackets is the length of the motor with brake.

Model	L	LL	LR	LE	LG	LC	LA	LZ	S	LB	T	U	W	LK	TP
PSM-A130-2-054M1530-A	204 (231)	145 (172)	59	6	12	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	50
PSM-A130-2-064M1530-A	211 (238)	152 (178)	59	6	12	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	50
PSM-A130-2-084M1530-A	224 (251)	165 (192)	59	6	12	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	50
PSM-A130-2-096M1530-A	232 (259)	173 (200)	59	6	12	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	50
PSM-A130-2-115M1520-A	251 (278)	192 (219)	59	6	12	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	50
PSM-A130-2-115M1530-A															
PSM-A130-2-146M1520-A	283 (310)	224 (251)	59	6	12	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	50
PSM-A130-2-146M1530-A															

Note: The value in brackets is the length of the motor with brake.

High Performance Servo motors

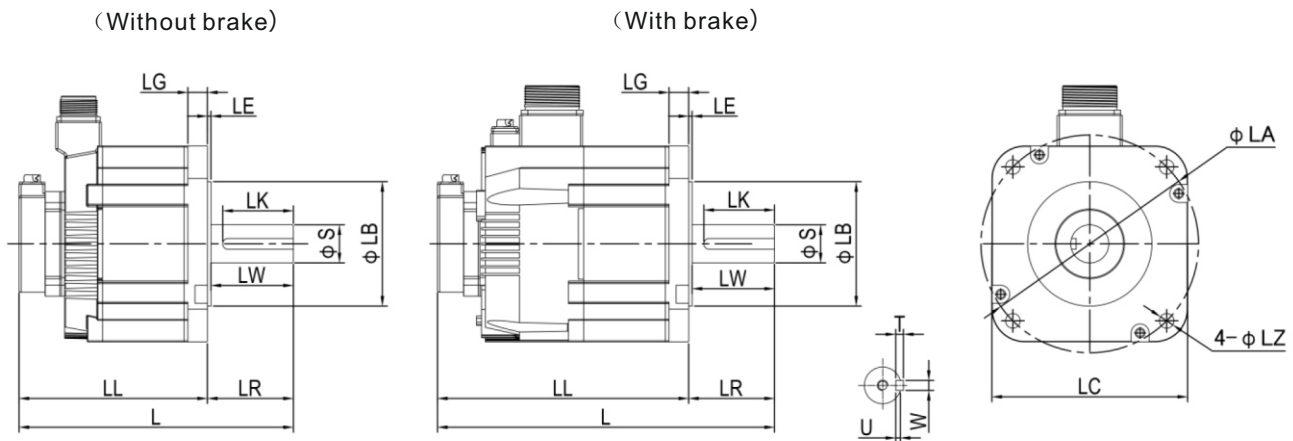
Parameter and Dimensions

180 frame

Model	PSM-A180-4-018M1530-	PSM-A180-4-028M1530-	PSM-A180-4-035M1530-	PSM-A180-4-048M1530-
Rated Power	2.9 KW	4.4 KW	5.5 KW	7.5 KW
Rated Torque	18.6 N.m	28.4 N.m	35 N.m	48 N.m
Rated Speed	1500 rpm	1500 rpm	1500 rpm	1500 rpm
Maximum Speed	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Rated Current	10.6A	16.5A	20.8 A	25.7 A
Rotor Inertia	46 Kg $m^2 \times 10^{-4}$ 54.5 Kg $m^2 \times 10^{-4}$	67.5 Kg $m^2 \times 10^{-4}$ 75.4 Kg $m^2 \times 10^{-4}$	89 Kg $m^2 \times 10^{-4}$ 97.5 Kg $m^2 \times 10^{-4}$	125 Kg $m^2 \times 10^{-4}$ 134Kg $m^2 \times 10^{-4}$
Maximum Current	28 A	40.5 A	52 A	65 A
Maximum Torque	45.1 N.m	71.1 N.m	87.6N.m	119 N.m

Note: The inertia of the rotor with brake type is in the brackets.

Motor installation dimension drawing



Model	L	LL	LR	LE	LG	LC	LA	LZ	S	LB	T	U	W	LK	TP
PSM-A180-4-018M1530-A	252.3 (310)	173.3 (231)	79	3.2	18	180	200	13.5	35 ^{+0.01} ₀	114.3 ⁰ _{-0.025}	8	5	10	65	75.8
PSM-A180-4-028M1530-A	276.3 (334)	197.3 (255)	79	3.2	18	180	200	13.5	35 ^{+0.01} ₀	114.3 ⁰ _{-0.025}	8	5	10	65	75.8
PSM-A180-4-035M1530-A	349.3 (391)	236.3 (278)	113	3.2	18	180	200	13.5	42 ⁰ _{-0.016}	114.3 ⁰ _{-0.025}	8	5	12	96	109.8
PSM-A180-4-048M1530-A	395.3 (437)	282.3 (324)	113	3.2	18	180	200	13.5	42 ⁰ _{-0.016}	114.3 ⁰ _{-0.025}	8	5	12	96	109.8

Note: The value in brackets is the length of the motor with brake.

Model Designation

PSM-A 130 - 2 - 048 M 20 30 B
 PSM-A Series Servo motor Flange Dim. Power Voltage Rated Torque Rated Speed Maximum Speed Brake

Flange Dim.	Rated Torque	Rated /Max. Speed	Power Voltage	Encoder Type	Brake
40 40mm	003 0.32 N.m	20 2000 rpm	A AC220V	2500p/r Wire-saving	B With brake
60 60mm	006 0.64 N.m	30 3000 rpm			
80 80mm	013 1.27 N.m	50 5000 rpm			
130 130mm	024 2.40 N.m	60 6000 rpm			
	032 3.18 N.m				
	048 4.8 N.m				
	072 7.2 N.m				
	096 9.6 N.m				

Model List

Model	Rated Torque	Rated Speed	Max Speed	Rated Current	Rated Power	Driver Type
PSM-A40-2-003M3060	0.32 Nm	3000 rpm	6000 rpm	1.1 A	100 W	PSD-A-BS-03A
PSM-A60-2-006M3060	0.64 Nm	3000 rpm	6000 rpm	1.6 A	200 W	
PSM-A60-2-013M3060	1.27 Nm	3000 rpm	6000 rpm	2.5 A	400 W	
PSM-A80-2-024M3050	2.40 Nm	3000 rpm	5000 rpm	4.0 A	750 W	PSD-A-BS-06A
PSM-A80-2-032M3050	3.18 Nm	3000 rpm	5000 rpm	6.0 A	1.0 Kw	
PSM-A130-2-048M2030	4.8 Nm	2000 rpm	3000 rpm	4.6 A	1.0 Kw	
PSM-A130-2-072M2030	7.2Nm	2000 rpm	3000 rpm	7.5 A	1.5 Kw	PSD-A-BS-08A
PSM-A130-2-096M2030	9.6 Nm	2000 rpm	3000 rpm	9.0 A	2.0 Kw	PSD-A-BS-10A

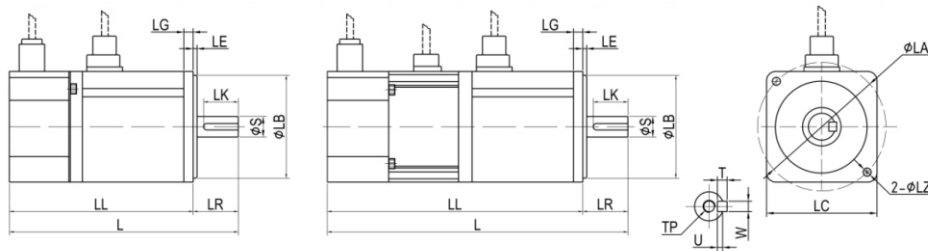
General Servo motors

Parameter and Dimensions

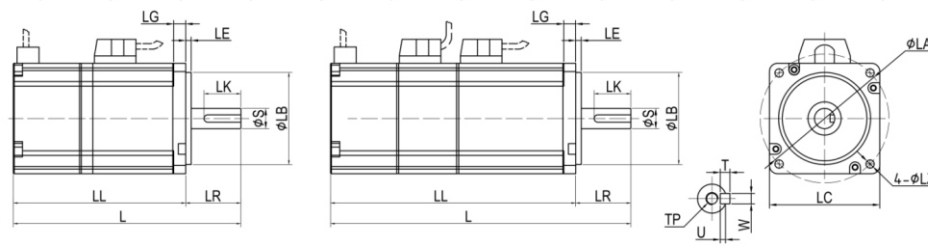
Model	PSM-A40-2-003M3060	PSM-A60-2-006M3060	PSM-A60-2-013M3060	PSM-A80-2-024M3050	PSM-A80-2-032M3050
Rated Power	100 W	200 W	400 W	750 W	1.0 KW
Rated Torque	0.32 Nm	0.64 Nm	1.27 Nm	2.40 Nm	3.18 Nm
Rated Speed	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Maximum Speed	6000 rpm	6000 rpm	6000 rpm	5000 rpm	5000 rpm
Rated Current	1.1 A	1.6 A	2.5 A	4 A	6A
Rotor Inertia	0.036Kgm ² ×10 ⁻⁴ (0.037Kgm ² ×10 ⁻⁴)	0.29Kgm ² ×10 ⁻⁴ (0.31Kgm ² ×10 ⁻⁴)	0.56Kgm ² ×10 ⁻⁴ (0.58Kgm ² ×10 ⁻⁴)	1.56Kgm ² ×10 ⁻⁴ (1.66Kgm ² ×10 ⁻⁴)	2.03Kgm ² ×10 ⁻⁴ (2.13Kgm ² ×10 ⁻⁴)
Maximum Current	3.3 A	4.8 A	7.5 A	12 A	18A
Maximum Torque	0.96 Nm	1.92 Nm	3.81 Nm	7.2 Nm	9.54 Nm

Note: The inertia of the rotor with brake type is in the brackets.

40 frame motor installation size



60/80 frame motor installation size



Model	L	LL	LR	LE	LG	LC	LA	LZ	S	LB	T	U	W	LK	TP
PSM-A40-2-003M3060	126 (159)	100.5 (133.5)	25.5	3	5	40	46	4.5	8 ⁰ _{-0.013}	30 ⁰ _{-0.03}	3	1.8	3	14	M3*6
PSM-A60-2-006M3060	123.7 (150.2)	93.7 (120.2)	30	3	6.5	60	70	5.5	14 ⁰ _{-0.013}	50 ⁰ _{-0.03}	5	3	5	20	M5*12
PSM-A60-2-013M3060	140.7 (167.2)	110.7 (137.2)	30	3	6.5	60	70	5.5	14 ⁰ _{-0.013}	50 ⁰ _{-0.03}	5	3	5	20	M5*12
PSM-A80-2-024M3050	157.4 (185.6)	122.4 (150.6)	35	3	9	80	90	6.3	19 ⁰ _{-0.013}	70 ⁰ _{-0.03}	6	3.5	6	25	M5*12
PSM-A80-2-032M3050	171.4 (199.6)	136.4 (164.6)	35	3	9	80	90	6.3	19 ⁰ _{-0.013}	70 ⁰ _{-0.03}	6	3.5	6	25	M5*12

Note: The value in brackets is the length of the motor with brake.

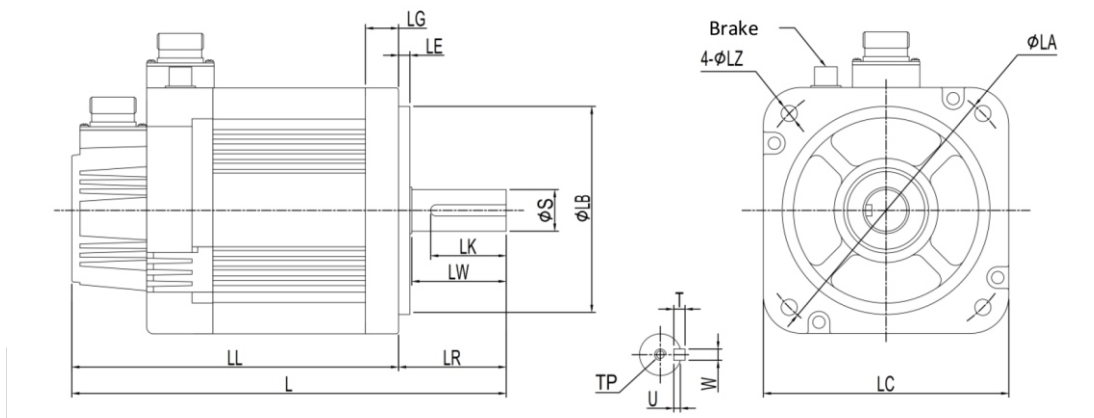
Parameter and Dimensions

130 frame

Model	PSM-A130-2-048M2030	PSM-A130-2-072M2030	PSM-A130-2-096M2030
Rated Power	1.0 KW	1.5 KW	2.0 KW
Rated Torque	4.8 Nm	7.2 Nm	9.6 Nm
Rated Speed	2000 rpm	2000 rpm	2000 rpm
Maximum Speed	3000 rpm	3000 rpm	3000 rpm
Rated Current	4.6 A	7.5 A	9.0 A
Rotor Inertia	13.88 Kg $m^2 \times 10^{-4}$ 15.55 Kg $m^2 \times 10^{-4}$	18.57 Kg $m^2 \times 10^{-4}$ 20.24 Kg $m^2 \times 10^{-4}$	23.69Kg $m^2 \times 10^{-4}$ 25.36Kg $m^2 \times 10^{-4}$
Maximum Current	13.8A	22.5A	27.0A
Maximum Torque	14.4 Nm	21.6 Nm	28.8 Nm

Note: The inertia of the rotor with brake type is in the brackets.

130 frame motor installation size



Model	L	LL	LR	LE	LG	LC	LA	LZ	S	LB	T	U	W	LK	LW	TP
PSM-A130-2-048M2030	207 (230)	150 (173)	57	6	17.5	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	2.5	M6*20
PSM-A130-2-072M2030	221 (244)	164 (187)	57	6	17.5	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	2.5	M6*20
PSM-A130-2-096M2030	235 (258)	178 (201)	57	6	17.5	130	145	8.5	22 ⁰ _{-0.013}	110 ⁰ _{-0.04}	6	3.5	6	40	2.5	M6*20

Note: The value in brackets is the length of the motor with brake.

