

BD3E EB & P3 AC SERVO SYSTEM SELECTION MANUAL



- BD3E EBSERIES SERVO DRIVE (CE)
- P3 SERIES SERVO MOTOR (CE)

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BD3E+P3 SERVO SYSTEM SELECTION LIST

Frame (mm)	Power (kW)	P3 Series Servo Motor								BD3E Drive	
		17bit multi-turn magnetic encoder		23bit multi-turn optical encoder		Rated torque [N · m]	Rated current [Arms]	Rated speed [rpm]	Max speed [rpm]		Standard Version
		Model w/o Brake	Model w/ Brake	Model w/o Brake	Model w/ Brake						
40	0.05	P3E- LA5A204NJ	P3E- LA5A204BJ	P3S- LA5A204NT	P3S- LA5A204BT	0.16	0.58A	3000	6000		BD3E-1D62AEB
40	0.1	P3E- L01A204NJ	P3E- L01A204BJ	P3S- L01A204NT	P3S- L01A204BT	0.32	0.98A	3000	6000		BD3E-1D62AEB
60	0.2	P3E- M02A206SJ	P3E- M02A206EJ	P3S- M02A206ST	P3S- M02A206ET	0.64	1.3A	3000	6000		BD3E-1D62AEB
60	0.4	P3E- M04A206SJ	P3E- M04A206EJ	P3S- M04A206ST	P3S- M04A206ET	1.27	2.6A	3000	6000		BD3E-2D82AEB
80	0.75	P3E- M08A208SJ	P3E- M08A208EJ	P3S- M08A208ST	P3S- M08A208ET	2.39	4.6A	3000	6000		BD3E-5D52AEB
80	1	P3E- M10A208SJ	P3E- M10A208EJ	P3S- M10A208ST	P3S- M10A208ET	3.18	6.3A	3000	6000		BD3E-7D62AEB
100	1	P3E- L10A210SJ	P3E- L10A210EJ	P3S- L10A210ST	P3S- L10A210ET	3.18	6.25A	3000	6000		BD3E-7D62AEB
100	1	P3E- L10B210SJ	P3E- L10B210EJ	P3S- L10B210ST	P3S- L10B210ET	3.18	3.44A	3000	6000		BD3E-3D54DEB
100	1.5	P3E- L15A210SJ	P3E- L15A210EJ	P3S- L15A210ST	P3S- L15A210ET	4.78	8.42A	3000	6000		BD3E-0122AEB
100	1.5	P3E- L15B210SJ	P3E- L15B210EJ	P3S- L15B210ST	P3S- L15B210ET	4.78	4.86A	3000	6000		BD3E-5D44DEB
100	2	P3E- L20A210SJ	P3E- L20A210EJ	P3S- L20A210ST	P3S- L20A210ET	6.37	11.19A	3000	6000		BD3E-0122AEB
100	2	P3E- L20B210SJ	P3E- L20B210EJ	P3S- L20B210ST	P3S- L20B210ET	6.37	7.05A	3000	6000		BD3E-8D44DEB
100	2.5	P3E- L25B210SJ	P3E- L25B210EJ	P3S- L25B210ST	P3S- L25B210ET	7.96	8.74A	3000	6000		BD3E-0124DEB
130	0.85	P3E- G09A213SJ	P3E- G09A213EJ	P3S- G09A213ST	P3S- G09A213ET	5.39	5.72A	1500	3000		BD3E-7D62AEB
130	0.85	P3E- G09B213SJ	P3E- G09B213EJ	P3S- G09B213ST	P3S- G09B213ET	5.39	3.16A	1500	3000		BD3E-3D54DEB
130	1.3	P3E- G13A213SJ	P3E- G13A213EJ	P3S- G13A213ST	P3S- G13A213ET	8.34	8.61A	1500	3000		BD3E-0122AEB
130	1.3	P3E- G13B213SJ	P3E- G13B213EJ	P3S- G13B213ST	P3S- G13B213ET	8.34	4.97A	1500	3000		BD3E-5D44DEB
130	1.8	P3E- G18A213SJ	P3E- G18A213EJ	P3S- G18A213ST	P3S- G18A213ET	11.5	12.43A	1500	3000		BD3E-0122AEB
130	1.8	P3E- G18B213SJ	P3E- G18B213EJ	P3S- G18B213ST	P3S- G18B213ET	11.5	7.03A	1500	3000		BD3E-8D44DEB
130	1	P3E- C10A213SJ	P3E- C10A213EJ	P3S- C10A213ST	P3S- C10A213ET	4.78	5.06A	2000	3000		BD3E-5D52AEB
130	1	P3E- C10B213SJ	P3E- C10B213EJ	P3S- C10B213ST	P3S- C10B213ET	4.78	2.96A	2000	3000		BD3E-3D54DEB
130	1.5	P3E- C15A213SJ	P3E- C15A213EJ	P3S- C15A213ST	P3S- C15A213ET	7.16	7.56A	2000	3000		BD3E-7D62AEB
130	1.5	P3E- C15B213SJ	P3E- C15B213EJ	P3S- C15B213ST	P3S- C15B213ET	7.16	4.52A	2000	3000		BD3E-5D44DEB
130	2	P3E- C20A213SJ	P3E- C20A213EJ	P3S- C20A213ST	P3S- C20A213ET	9.55	10.19A	2000	3000		BD3E-0122AEB
130	2	P3E- C20B213SJ	P3E- C20B213EJ	P3S- C20B213ST	P3S- C20B213ET	9.55	5.83A	2000	3000		BD3E-8D44DEB
130	3	P3E- L30B213SJ	P3E- L30B213EJ	P3S- L30B213ST	P3S- L30B213ET	9.8	10.13A	3000	6000		BD3E-0124DEB
180	2.9	P3E- G29B218SJ	P3E- G29B218EJ	P3S- G29B218ST	P3S- G29B218ET	18.6	10.26A	1500	3000		BD3E-0124DEB

BD3E&PH3 AC SERVO SYSTEM



Exquisite Design

Concealed Battery Compartment

Simple wiring, stable connections

Easy Code Scanning

One code for one machine, enabling quick product information verification

HV & LV Separation

Significantly improved immunity from interference

Ethernet Debugging Interface

Stable and convenient debugging, easier remote parameter downloading and firmware maintenance

Simple Debugging + Plug and Play

MTP Electronic Nameplate

Plug and play

One-click Auto Setting

Debugging time reduced by 90%

Control Panel

Six buttons designed for parameter setting, system setting, fault diagnosis and alarm clearing on one panel

Absolute Encoder

Limits and home not required

Graphical Debugging Guide

Simplified and intuitive debugging

Assured Quality

High-quality Materials

Strict process control to enhance quality, making equipment operation more stable and reliable, and improving production efficiency

CE-Certified

CE certification by TUV passed, meeting the safety application requirements of overseas customers

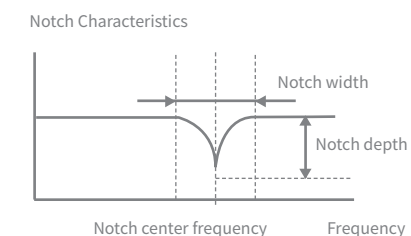
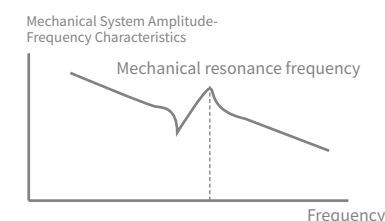
Active Cooling + Three-proof Coating

Good adaptability to severe environments including high temperature, high humidity, and heavy dust

Test against IEC 61800

Favorable tolerance to complex electrical environments

Advanced Algorithms for Flexible but Robust Operation



Ultra-fast Setting

MTP electronic nameplate + self-tuning

Vibration Suppression

Vibration suppression across frequency domains (low frequency + medium frequency + high frequency), allowing for rigid and flexible vibration suppression under load

Impact Detection

Open-loop pressure control, enabling simpler system structure and less sensor costs

HDM Algorithm

Frequency domain design based on mechanical model, with optimal servo control gain and filtering parameters designed

Simple Mode - Auto Setting

High Reliability

Model-based parameter setting, with high reliability

Small Target Movement

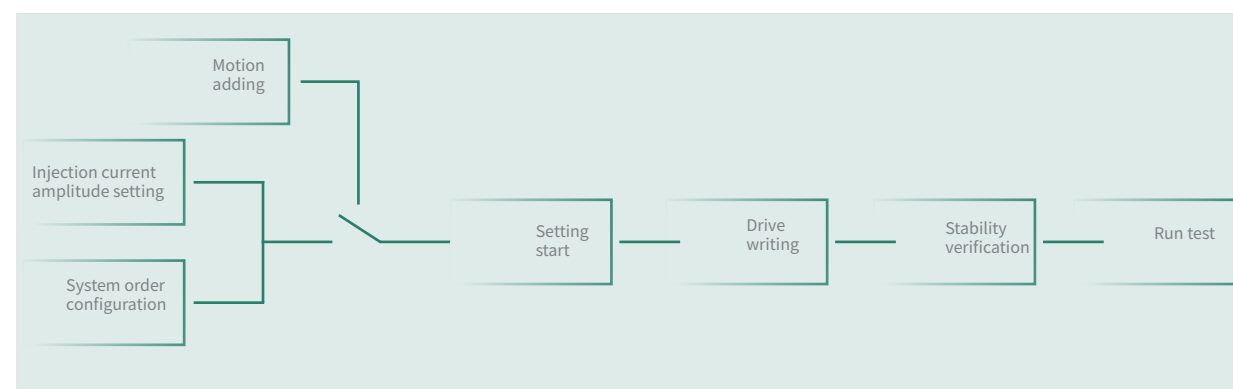
Parameter setting based on frequency analysis, with small target movement distance during the setting process

No Vibrations

No severe vibrations that could damage the machine during parameter setting

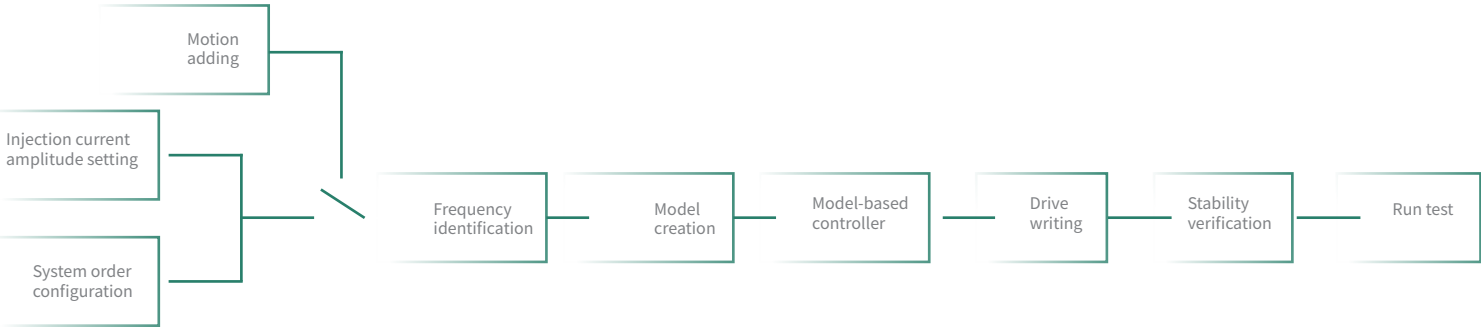
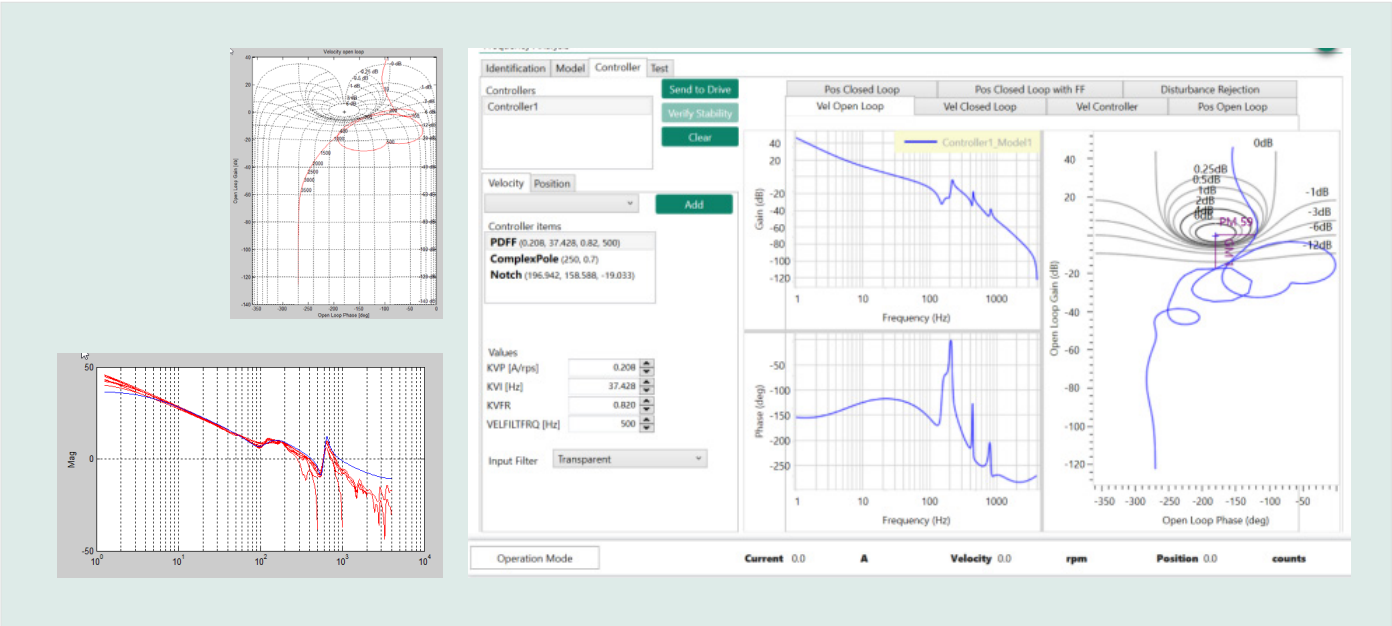
Fast Parameter Setting

Fast parameter setting, with setting algorithms implemented on PC

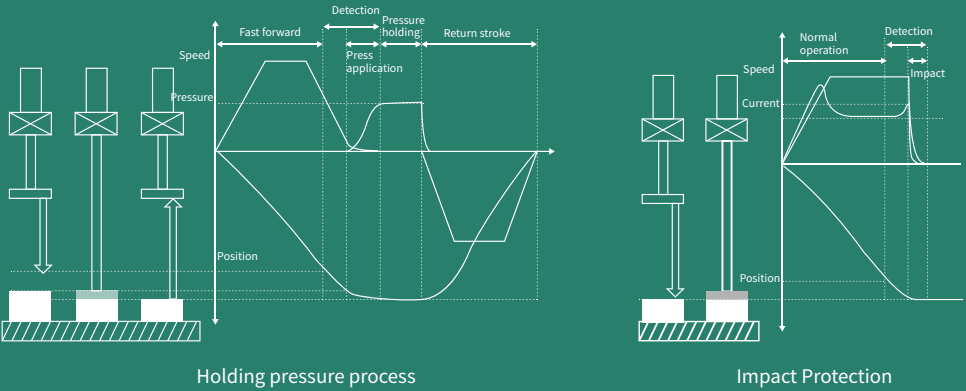


Expert Mode - HDM Algorithm Based on Model Frequency Domain Analysis

System identification and automatic parameter design available to improve control performance



Open-loop Pressure Control



Sensorless pressure control with high control precision; pressure holding and impact protection available for selection, with 5 position and pressure setting segments designed to ensure precise impact protection and avoid false alarms

Safe and Reliable Operation

Impact Detection

Homing or shutdown after impact (depending on your setting)

STO (SAFE TORQUE OFF)

Simplified overall safety design

Dynamic Braking

Shorter free-gear stopping distance after a power failure

Different Widths

Built-in regenerative resistors designed for custom models of 400W, saving cabinet space, shortening deceleration time, and improving braking capability



For other domestic manufacturers, external regenerative resistors are required for products of 400W

BD3E SERIES NAMING RULES

BD3 E - 2D8 2A EB - □□

1

2

3

4

5

E

1 Drive type

Code	Specification
E	ECONOMICAL
S	Standard

2D8

2 Ratings

Code	Specification
220V	
1D6	1.6Arms (continuous)/5.8Arms (max)
2D8	2.8Arms (continuous)/9.8Arms (max)
5D5	5.5Arms (continuous)/16.9Arms (max)
7D6	7.6Arms (continuous)/23Arms (max)
012	11.6Arms (continuous)/32Arms (max)
380V	
3D5	3.5Arms (continuous)/11Arms (max)
5D4	5.4Arms (continuous)/14Arms (max)
8D4	8.4Arms (continuous)/20Arms (max)
12	11.9Arms (continuous)/29.75Arms (max)

2A

3 Rated input voltage

Code	Specification
2A	220V
4D	380V

EB

4 Communication interface

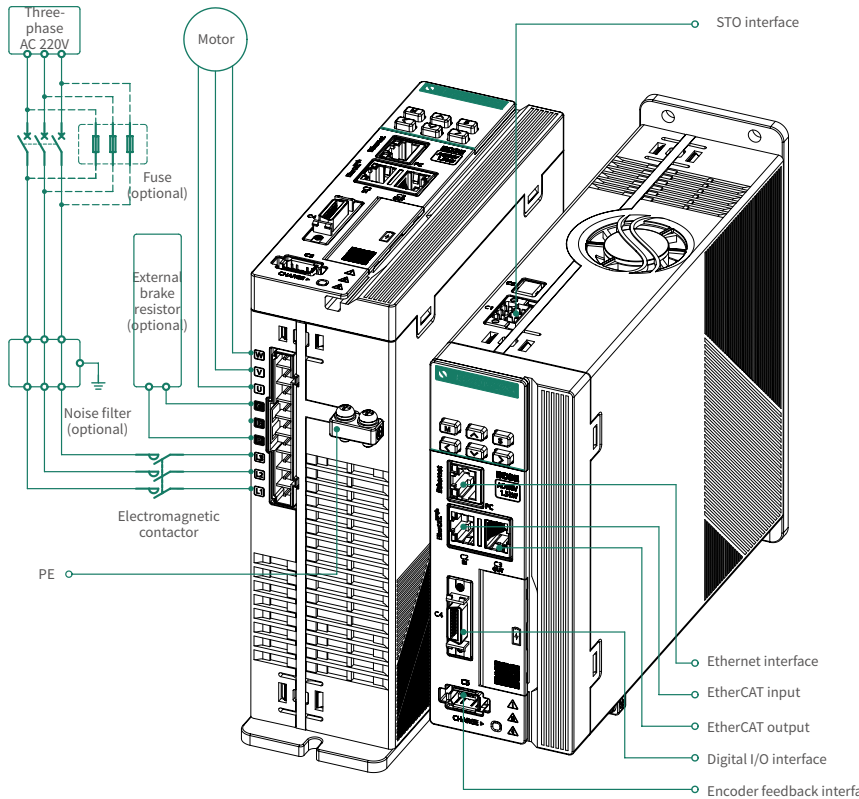
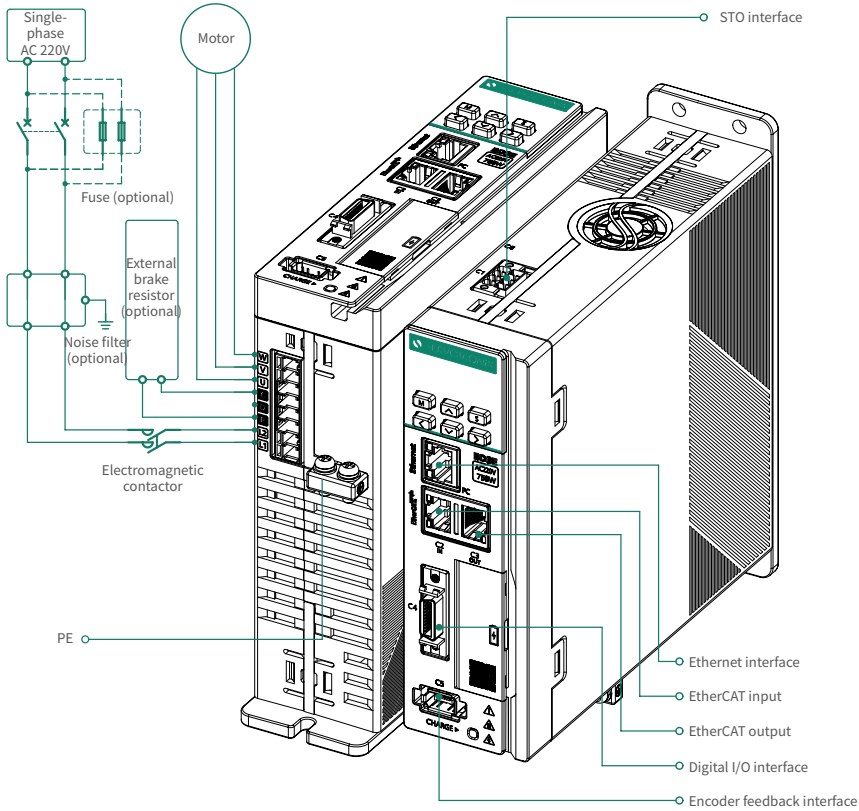
Code	Specification
EB	EtherCAT

□□

5 Servo drive series

Code	Specification
[Blank]	Standard
ST	STO
BS	Built-in resistor + STO

WIRING DIAGRAM



BD3E SPECIFICATION

Feature item			BD3E specification
Motor	Motor	P3	
	Encoder	Absolute encoder of 23bit or below supported	
	Number of phases	Auto configuration of motor phases and encoder direction	
Operating mode	Control mode	Current (torque) control, speed control, and position control, with control mode switching supported	
Current	Control method	DQ, PI, feedforward	
(Torque) control	Reference command	EtherCAT、VarCom	
	Parameter setting method	Auto setting of current control loop parameters	
Speed control	Performance	3.2kHz	
	Filter	First-order low-pass filter, notch filter, load disturbance observer, speed observer	
	Reference command	EtherCAT, VarCom,	
Position control	Performance	Update rate 125 μs (8 kHz)	
	Control method	P+ feedforward	
	Reference command	EtherCAT, VarCom	
Brake	Method	Dynamic braking, regenerative braking.	
User interaction	Control panel	6 buttons + LED	
GUI	User interface	Windows-based ServoStudio	
	Function	Connection setting, drive information, power supply information, motor, feedback, I/O selection/configuration, motion setting/tuning, fault history/display, setup wizard, expert view, etc.	
Electronic gear ratio	Range	1:1000 ~ 8000:1	
Safety control*	STO	STO (SAFE TORQUE OFF) optional	
Motion units	Position	Count (user's unit)	
	Speed	rpm	
	Acceleration/deceleration	rpm/s	
Control features	Motor	Field weakening control algorithm	
	Notch filter	5-channel notch filter	
	Feedforward	Available (speed/torque)	
	Load variation suppression control	Available (position/torque)	
	Friction torque compensation	Available (position/torque)	
	Torque saturation protection	Available (position/torque)	
	Torque limit switching	Available (position/torque)	
	Gain switching	Available (position/torque)	
	Torque filter	Improved HF vibration suppression effect	
High-speed digital input	Number of channels	2	
	Signal format	Optical isolation available for configuration	
	Voltage level	24V (IEC 61131)	
	Max input current	12.5 mA	
	Transmission delay	1 μs	

Feature item		BD3E specification
Standard digital input	Number of channels	5 channels
	Signal format	Optical isolation available for configuration
	Voltage level	24V (IEC 61131)
	Max input current	6 mA
	Transmission delay	1 ms
	Max frequency	1 kHz
Standard digital output	Number of channels	3
	Signal format	Optical isolation available for configuration
	Voltage level	24V (IEC 61131)
	Max output current	50mA per output (total 200mA)
	Short-circuit protection	No
	Transmission delay	1 ms
Communication specifications	Application layer protocol	EtherCAT
	Supported services	CoE (PDO、SDO)
	Synchronization method	DC - distributed clock
	Physical layer	100BASE-TX
	Baud rate	100Mbit/s (100BASE-TX)
	Duplex mode	Full duplex
	Topology	Linear
	Transmission medium	Shielded cable of CAT5E or above
	Transmission distance	<150M between two nodes (in good environment, with good cables used)
	Number of slaves	65535 ports supported by protocol, and more than 200 slaves connectable in actual use
	EtherCAT frame length	44 bytes ~ 1498 bytes
	Process data	Max 1486 bytes per Ethernet frame
	Refresh time	About 30us for 1000 digital I/Os, and about 100us for two servo axes; with different refresh time defined for different interfaces.
	Communication bit error rate	10-10 Ethernet
	LED indicator light	No
Configuration unit	FMMU	8
	Storage sync management unit	8
	Process data RAM	8KB
	DC	64-bit
	EEPROM capacity	32Kbit, with initialization data written by EtherCAT master
Control mode		Position control: profile position control (pp), cyclic position control (csp)
		Speed control: profile speed control (pv), cyclic speed control (csv)
		Torque control: profile torque control (tq), cyclic torque control (cst)
		Homing mode (hm)
		The control modes described above are switched via EtherCAT communication commands
Environmental Specifications	Protection functions	Including but not limited to: dynamic brake (hardware), undervoltage/overvoltage protection, overcurrent protection, and drive and motor overheating protection
	Compliance	CE Directives: EN61800-3, EN61800-5-1
	Environment	Operating temperature: 0-45° C, without power derating; 45-55° C, with power derating
		Storage temperature: -20 ~ 65°
		Humidity: 10 - 90% (no condensation)
		Altitude: <1,000m, as per the spacing requirements specified in IEC 61800-5-1.
		Vibration: 5.88m/s², 10Hz-60Hz
	Operating conditions	IP20
		Pollution degree: IEC 60664-1, Level 2
		Do not use the product in an environment with corrosive or flammable gases, water, oil or chemicals, dust (including iron powder), and salt

MECHANICAL AND ELECTRICAL SPECIFICATIONS (220V)

Model		Standard Version	BD3E-1D62AEB	BD3E-2D82AEB		BD3E-5D52AEB	BD3E-7D62AEB	BD3E-0122AEB
		Safety Version	BD3E-1D62AEB-ST	BD3E-2D82AEB-ST	BD3E-2D82AEB-BS	BD3E-5D52AEB-ST	BD3E-7D62AEB-ST	BD3E-0122AEB-ST
Max available motor capacity (W)			200	400		750	1000	2000
Continuous output current [Arms]			1.6	2.8	2.8	5.5	7.6	11.6
Instantaneous max output current [Arms]			5.8	9.8	9.8	16.9	23	32
Main circuit	Power supply		1ph AC 200V-240V +10% ~ -10%, 50/60Hz				1/3ph AC 200V-240V +10% ~ -10%, 50/60Hz	
	Input current [Arms]		2.3	4	4	7.9	9.6 (single-phase) 5.1 (three-phase)	12.8 (single-phase) 8.0 (three-phase)
Control power supply			Power supply via bus, with shared rectifier					
Regenerative resistor	Resistance of built-in resistor [Ω]		No	No	40	40	25	25
	Power of built-in resistor [W]		No	No	50	50	80	80
	Max braking energy absorption capacity of capacitor [J]		13.15	26.29	26.29	22.41	44.7	72.1
	Min allowable resistance of external resistor [Ω]		50	45	40	40	25	15
Case			A		B		C	D
Overall dimensions	W(mm)		45		50		60	80
	H(mm)		160		160		160	160
	D(mm)		173		173		200	200
Fan			No	No	Yes	Yes	Yes	Yes

MECHANICAL AND ELECTRICAL SPECIFICATIONS (380V)

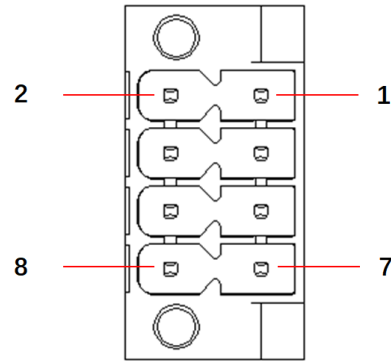
Model		Standard Version	BD3E-3D54DEB	BD3E-5D44DEB	BD3E-8D44DEB	BD3E-0124DEB
		Safety Version	BD3E-3D54DEB-ST	BD3E-5D44DEB-ST	BD3E-8D44DEB-ST	BD3E-0124DEB-ST
Max available motor capacity (W)			1000	1500	2000	3000
Continuous output current [Arms]			3.5	5.4	8.4	11.9
Instantaneous max output current [Arms]			11	14	20	29.7
Main circuit	Power supply	3ph AC 380V-440V +10% ~ -10%, 50/60Hz				
	Input current [Arms]		2.4	3.6	5.6	8
Control power supply			Power supply via bus, with shared rectifier			
Regenerative resistor	Resistance of built-in resistor [Ω]		100		50	
	Power of built-in resistor [W]		60		75	
	Max braking energy absorption capacity of capacitor [J]		34.28	34.28	50.41	50.41
	Min allowable resistance of external resistor [Ω]		80	60	45	40
Case			C		D	
Overall dimensions	W(mm)		60		75	
	H(mm)		160		160	
	D(mm)		196		200	
Fan			Yes	Yes	Yes	Yes

SERVO TERMINAL DEFINITION

Servotronix Tmall
Flagship Store



Scan to Buy
Terminal Cables



Signals of Terminal C1

Terminal signal definition

The STO blocks the PWM signal output to the drive power layer through external redundant hardware terminals STO1 and STO2, thereby preventing motor from movement.

Pin	Function	Pin	Function
1	24V power supply	2	24V COM
3	STO1	4	STO COM
5	STO2	6	STO COM
7	NC	8	NC

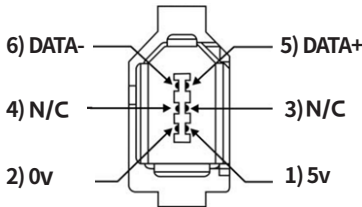
(Note) The STO 24V power supply is only for the STO circuit, and cannot be used for other purposes.

Signals of Terminal PC/C2/C3

Terminal signal definition

Pin	Description	Function
1	TX+	Data transmission +
2	TX-	Data transmission -
3	RX+	Data reception +
4	NC	Not connected
5	NC	Not connected
6	RX-	Data reception -
7	NC	Not connected
8	NC	Not connected
Enclosure	FG	Shielded wire

PC is the computer communication interface, which is used for the EtherNET communication of ServoStudio2 (a debugging software) on the computer.
C2 and C3 are the upper computer communication interfaces, which are used for EtherCAT communication of the EB servo drive.

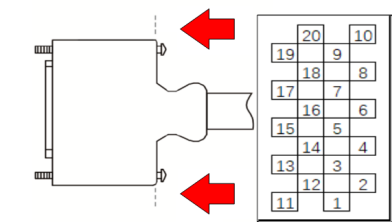


Signals of Terminal C5

See motor interface description for details about signals of terminal C5

Signals of Terminal C4

Terminal signal definition

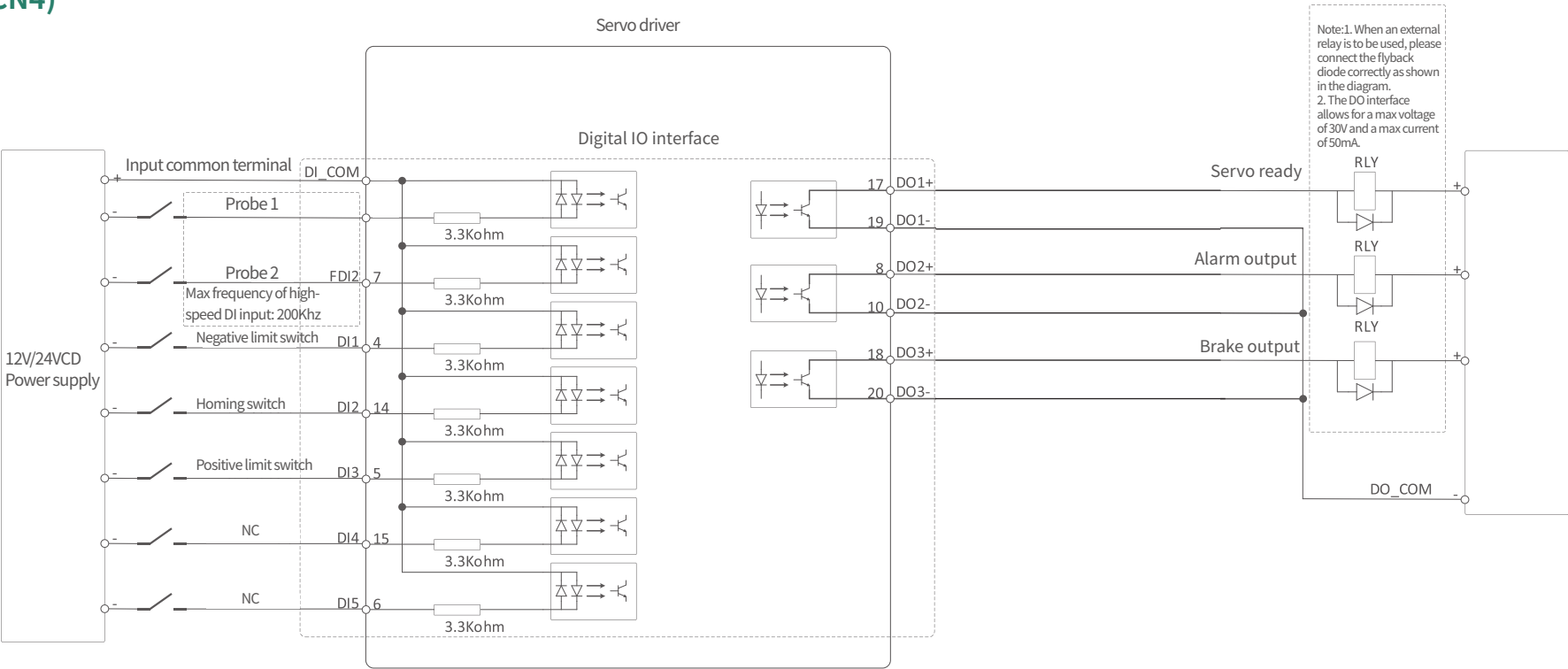


Pin	Function	Description	Pin	Function	Description
1	Internal 24V power supply positive terminal	Internal 24V power supply positive terminal	11	Internal 24V power supply negative terminal	Internal 24V power supply negative terminal
2	N/C		12	N/C	
3	N/C		13	N/C	
4	DI1	Optically isolated programmable digital input drain-source	14	DI2	Optically isolated programmable digital input drain-source
5	DI3	Optically isolated programmable digital input drain-source	15	DI4	Optically isolated programmable digital input drain-source
6	DI5	Optically isolated programmable digital input drain-source	16	High-speed DI1	Optically isolated programmable digital input drain-source
7	High-speed DI 2	Optically isolated programmable digital input drain-source	17	DO1+	Optically isolated programmable digital output
8	DO2+	Optically isolated programmable digital output	18	DO3+	Optically isolated programmable digital output
9	DI COM	24V or 0V (drain or source)	19	DO1-	Optically isolated programmable digital output
10	DO2-	Optically isolated programmable digital output	20	DO3-	Optically isolated programmable digital output

Description	Model	P/N	Remarks
C4 connector	MDR-20P20-BKAu-1.27	11201707000413	To be selected as demanded

- (Note)
- Do not use a N/C terminal.
 - Connect the shielding layer of the I/O cable to the connector shell. Implement frame grounding (FG) through the connector on the servo drive side.
 - Assign signals to all I/O pins through parameter settings.

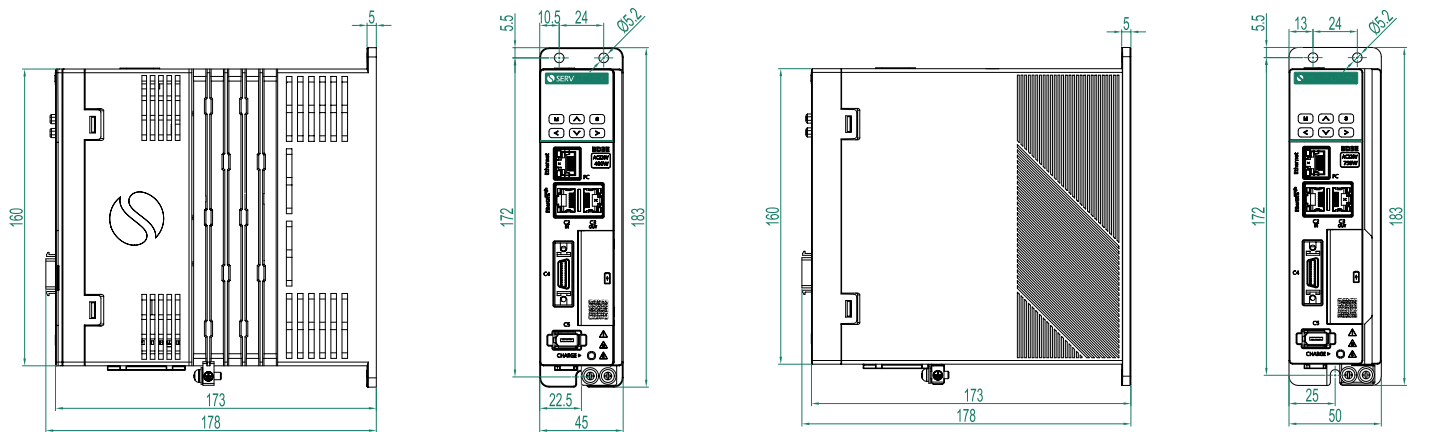
I/O Interface (CN4)



- (Note)
- The brake coil is non-polarized.
 - The power supply for the brake is to be provided by the customer. Additionally, the brake shall not share the same power supply with the control signal (VDC).
 - Do not apply a voltage above 24V or a current above 50mA to the control signal output terminal.
 - When the relays are to be driven by the output control signals directly, install the relays in parallel and install a diode as shown; if the diode is not installed or is installed reversely, the drive may be damaged.
 - It is recommended to use relay MY2N-D2_GSDC24V/MY2N-D2-DSDC12V or other relays with built-in flyback diodes, or connect FR102/FR103 or other fast recovery diodes with a withstand voltage of 70V and a current capacity greater than 1A in parallel across the relay coil.

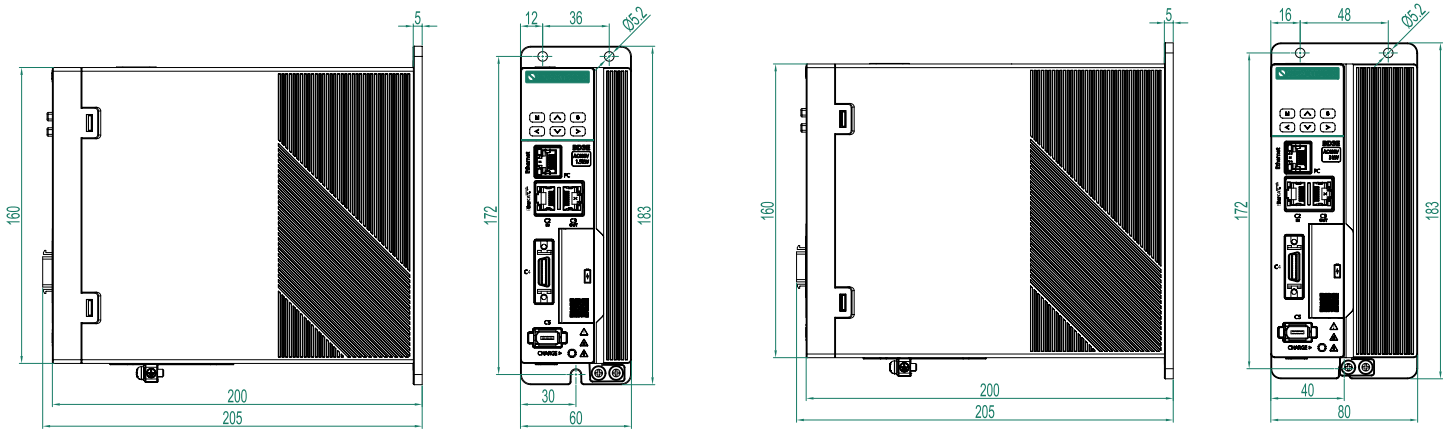
MOUNTING DIMENSION

Installation diagram: To ensure a low air resistance and an effective heat dissipation of the cooling fan, please follow the recommended installation spacing for one or multiple AC servo drives.



Case A:
BD3E-1D62AEB
BD3E-1D62AEB-ST
BD3E-2D82AEB
BD3E-2D82AEB-ST

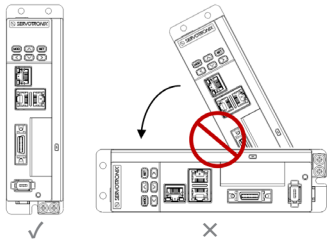
Case B:
BD3E-2D82AEB-BS
BD3E-5D52AEB
BD3E-5D52AEB-ST



Case C:
BD3E-7D62AEB
BD3E-7D62AEB-ST
BD3E-3D54DEB
BD3E-3D54DEB-ST
BD3E-5D44DEB
BD3E-5D44DEB-ST

Case D:
BD3E-0122AEB
BD3E-0122AEB-ST
BD3E-8D44DEB
BD3E-8D44DEB-ST
BD3E-0124DEB
BD3E-0124DEB-ST

Notes:
The installation must be done in the specified direction; otherwise, it may cause malfunctions.
To ensure a good cooling circulation, when installing the AC servo drive, always keep it at a sufficient distance from the adjacent objects and baffles at its top, bottom, left and right sides; otherwise, it may cause malfunctions.
During installation, prevent the air intake and exhaust ports of the AC servo drive from being blocked, and do not place the servo drive on its side; otherwise, it may cause malfunctions.



P3 SERIES NAMING RULES

P **3** **S** **-** **M** **04** **A** **1** **06** **S** **T** **-** *******
1 2 3 4 5 6 7 8 9 10 11 12 13

P 1 Series

Mark	Specification
P	Product code of Servotronics servo motor

3 2 Generation

Mark	Specification
3	3rd generation

S 3 Product Category

Mark	Specification
E	Low-power general-purpose rotary servo motor (w/ magnetic encoder)
S	Low-power general-purpose rotary servo motor (w/ optical encoder)

M 5 Motor Type

Mark	Specification
L	Low inertia & high speed (rating 3,000 rpm)
M	Medium inertia & high speed (rating 3,000 rpm)
C	Medium inertia & medium speed (rating 2,000 rpm)
G	Medium inertia & high torque (rating 1,500 rpm)

04 6 Rated power

Mark	Specification	Mark	Specification	Mark	Specification
A5	0.05kW	09	0.85kW	29	2.9kW
01	0.1kW	10	1.0kW	30	3.0kW
02	0.2kW	13	1.3kW		
04	0.4kW	15	1.5kW		
E5	0.55kW	18	1.8kW		
06	0.6kW	20	2.0kW		
08	0.75kW	25	2.5kW		

4, 12: Connector, with no special meaning

A 7 Rated power supply

Mark	Specification
A	220VAC 3Ph-Y
B	380VAC 3Ph-Y

1 8 Design sequence number

A character within A~Z, representing different electromagnetic solutions.

06 9 Frame size

Mark	Specification
04	40mm
06	60mm
08	80mm
10	100mm
13	130mm
18	180mm

S 10 Brake/oil seal/shaft configuration

Mark	Specification
S	W/ oil seal, w/o brake, standard keyed shaft (Seal)
E	W/ oil seal, w/ brake, standard keyed shaft (Either)
N	W/O oil seal, w/o brake, standard keyed shaft (None)
B	W/O oil seal, w/ brake, standard keyed shaft (Brake)

T 11 Encoder configuration

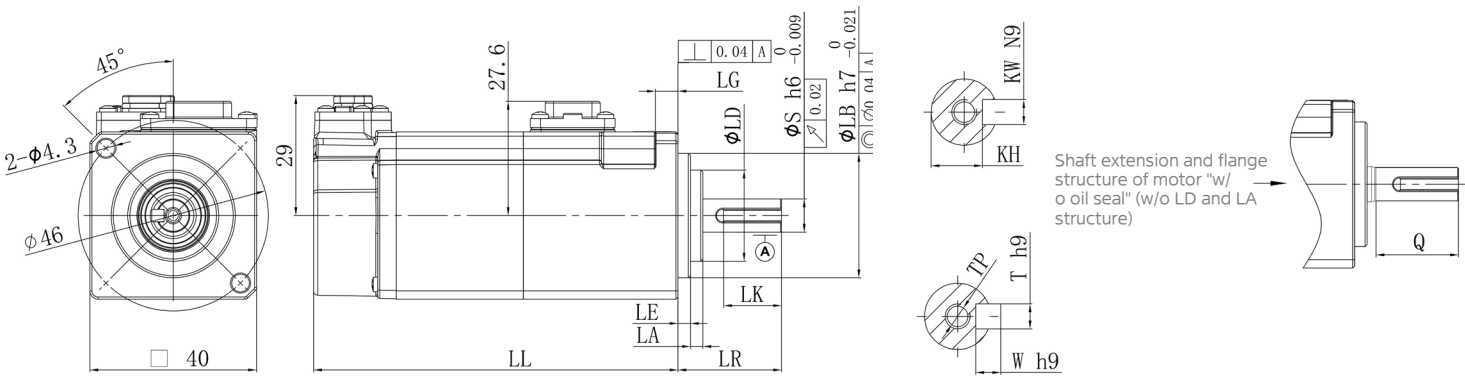
Mark	Specification
T	Tamagawa protocol, 23bit multi-turn absolute optical encoder, for P3S series only
J	Tamagawa protocol, 17bit multi-turn absolute magnetic encoder, for P3E series only

****** Custom code

Mark	Specification
Null	Standard product (standard structure, standard key, standard shaft)
Others	For custom codes of non-electromagnetic solutions, see Specifications for details

P3 SERIES AC SERVO MOTOR SELECTION

Servo Motor Features (40 mm Flange)



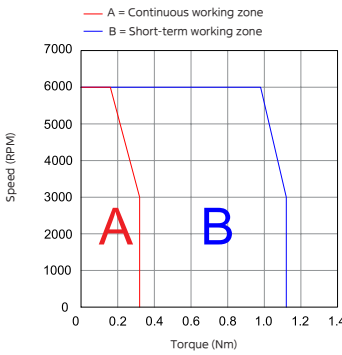
Motor model	LL	LR	LG	LE	LA	LD	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -LA5A204	62.4 (88.1)	25	5.5	3	3	22	19.9	8	30	M3, depth 6	14	6.2	3	3	3	0.28 (0.47)
P3 □ -L01A204	74.4 (100.1)	25	5.5	3	3	22	19.9	8	30	M3, depth 6	14	6.2	3	3	3	0.36 (0.55)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia [x10 ⁻⁴ kg·m ²]	Line-to-line counter electromotive force [V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -LA5A204	50	220	0.16	0.56	0.58	2.2	3000	6000	0.018 (0.021)	16.5	25.397	25.8	18.4	0.276	0.87
P3 □ -L01A204	100	220	0.32	1.12	0.98	3.9	3000	6000	0.031 (0.034)	20.1	13.4	15.62	10.78	0.327	1.01

Note: Parameters in parentheses are for motors with a brake

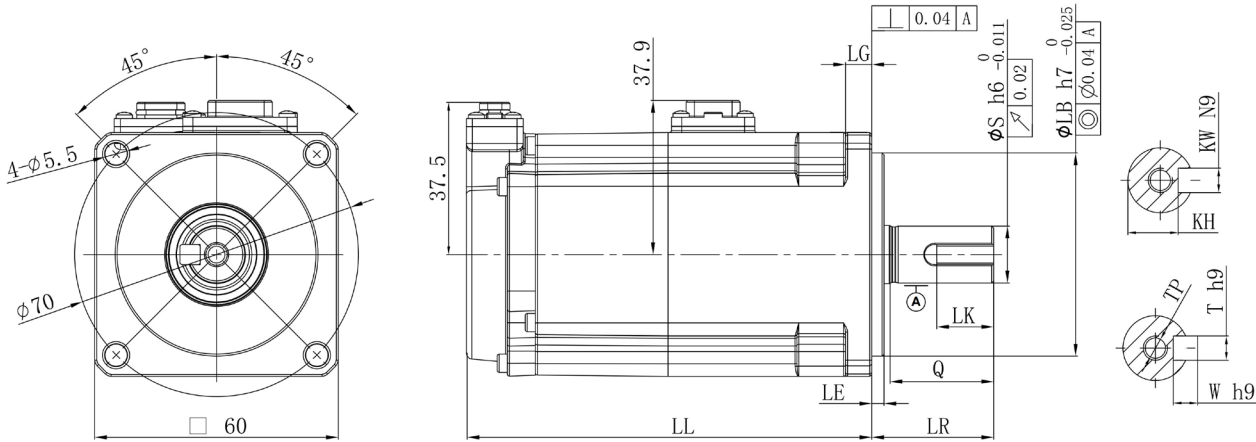


P3S-LA5A204



P3S-L01A204

Servo Motor Features (60 mm Flange)



Motor model	LL	LR	LG	LE	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -M02A206	70.5(99.7)	30	6.5	3	25.5	14	50	M5, depth 10	14	11	5	5	5	0.8 (1.17)
P3 □ -M04A206	88 (117.2)	30	6.5	3	25.5	14	50	M5, depth 10	14	11	5	5	5	1.14 (1.51)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia [x10 ⁻⁴ kg·m ²]	Line-to-line counter electromotive force [V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -M02A206	200	220	0.64	2.23	1.3	4.4	3000	6000	0.34 (0.35)	32	8.075	18.7	15.6	0.492	2.07
P3 □ -M04A206	400	220	1.27	4.45	2.6	8.6	3000	6000	0.59 (0.60)	33.9	3.5	10.18	8.26	0.488	2.77

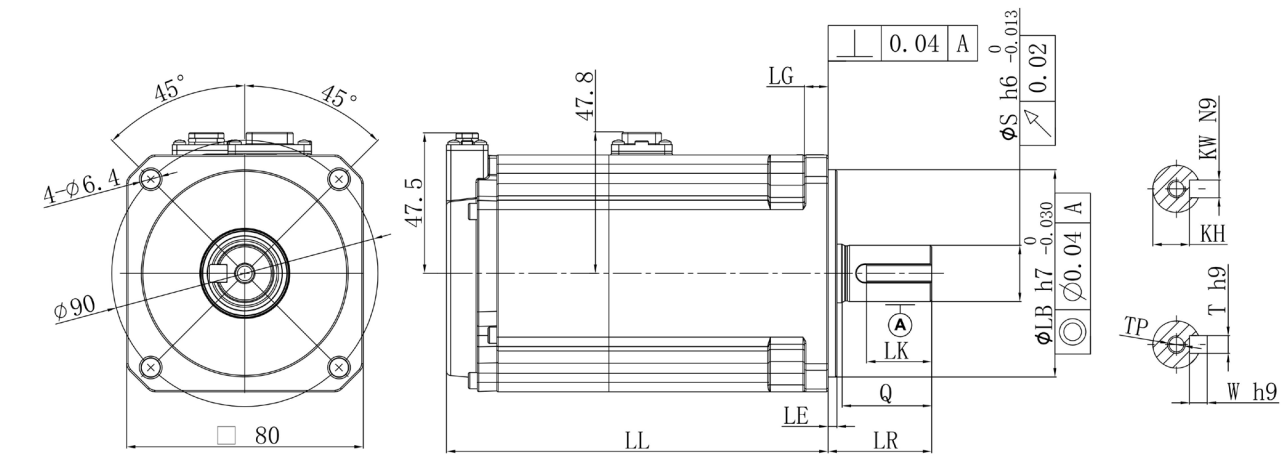


P3S-M02A206



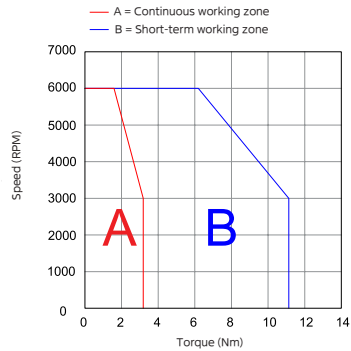
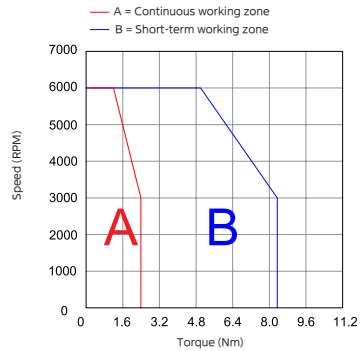
P3S-M04A206

Servo Motor Features (80 mm Flange)

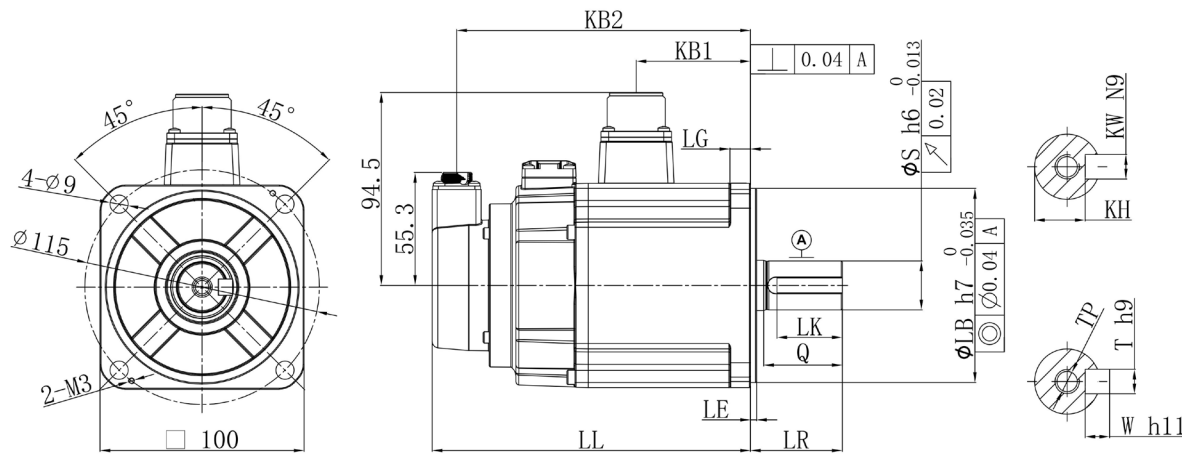


Motor model	LL	LR	LG	LE	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -M08A208	94.6(128.8)	35	8	3	30.2	19	70	M6, depth 12	22	15.5	6	6	6	2.15 (2.83)
P3 □ -M10A208	107.9 (142.1)	35	8	3	30.2	19	70	M6, depth 12	22	15.5	6	6	6	2.59 (3.27)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia[x10 ⁻⁴ kg·m ²]	Line-to-line counter electromotive force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -M08A208	750	220	2.39	8.36	4.6	16.3	3000	6000	1.72 (1.77)	34.4	0.945	5.6	4.5	0.52	5.4
P3 □ -M10A208	1000	220	3.18	11.13	6.3	20.9	3000	6000	2.23 (2.28)	33.9	0.702	4.08	3.35	0.505	5.292

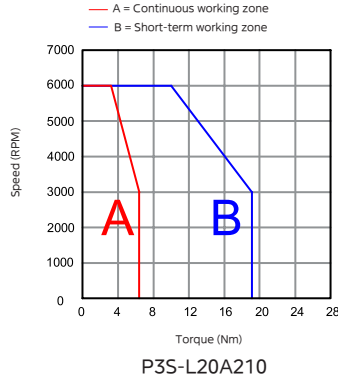
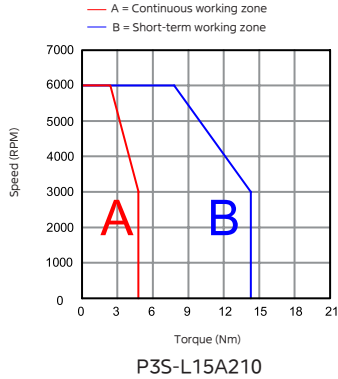
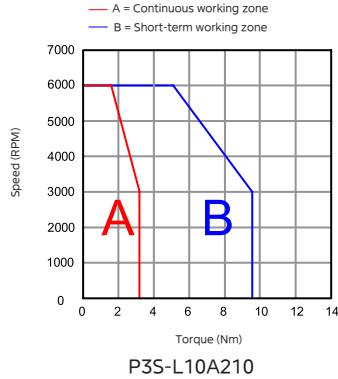


Servo Motor Features (100 mm Flange)

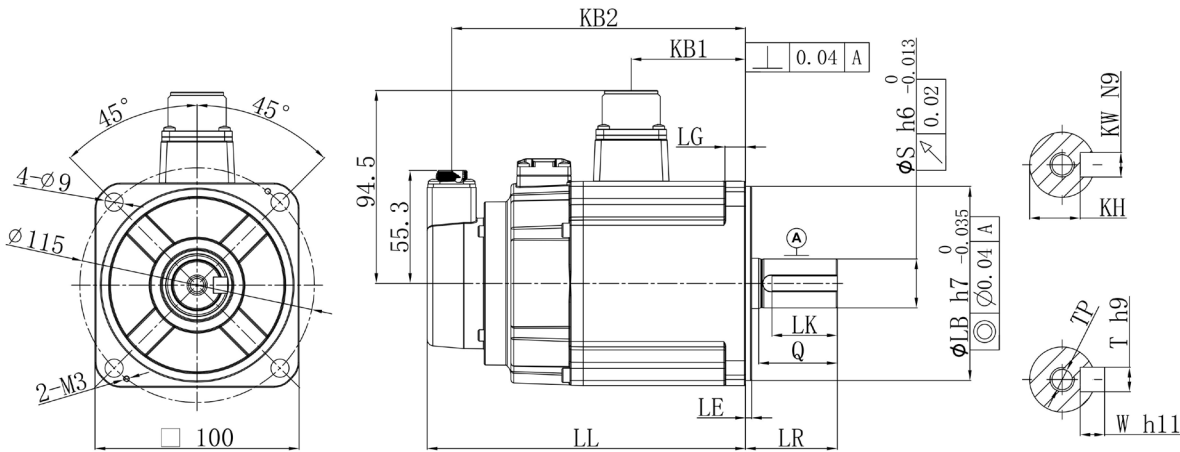


Motor model	LL	LR	KB1	KB2	LG	LE	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -L10A210	127.4(156)	45	56	115.5(144)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	3.3 (4.1)
P3 □ -L15A210	147.4(176)	45	76	135.5(164)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	4.3 (5.1)
P3 □ -L20A210	167.4(196)	45	96	155.5(184)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	5.3 (6.1)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia[x10 ⁻⁴ kg·m ²]	Line-to-line counter electromotive force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -L10A210	1000	220	3.18	9.55	6.25	19.58	3000	6000	1.84 (2.59)	34.4	0.511	6.25	5.15	0.509	11.155
P3 □ -L15A210	1500	220	4.78	14.3	8.42	25.2	3000	6000	2.75 (3.5)	38.27	0.355	4.64	3.86	0.568	13.239
P3 □ -L20A210	2000	220	6.37	19.1	11.19	31.5	3000	6000	3.65(4.4)	39.76	0.285	3.87	3.14	0.569	12.298

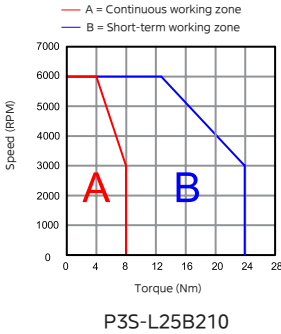
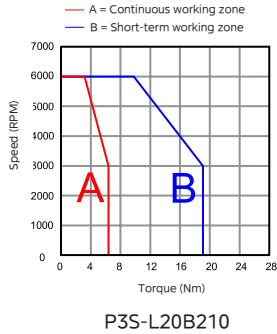
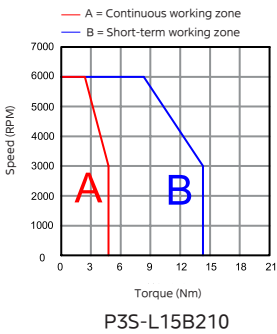
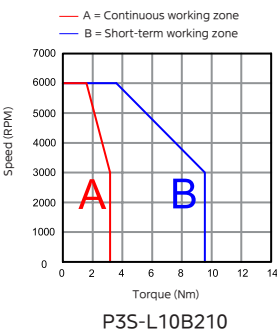


Servo Motor Features (100 mm Flange)

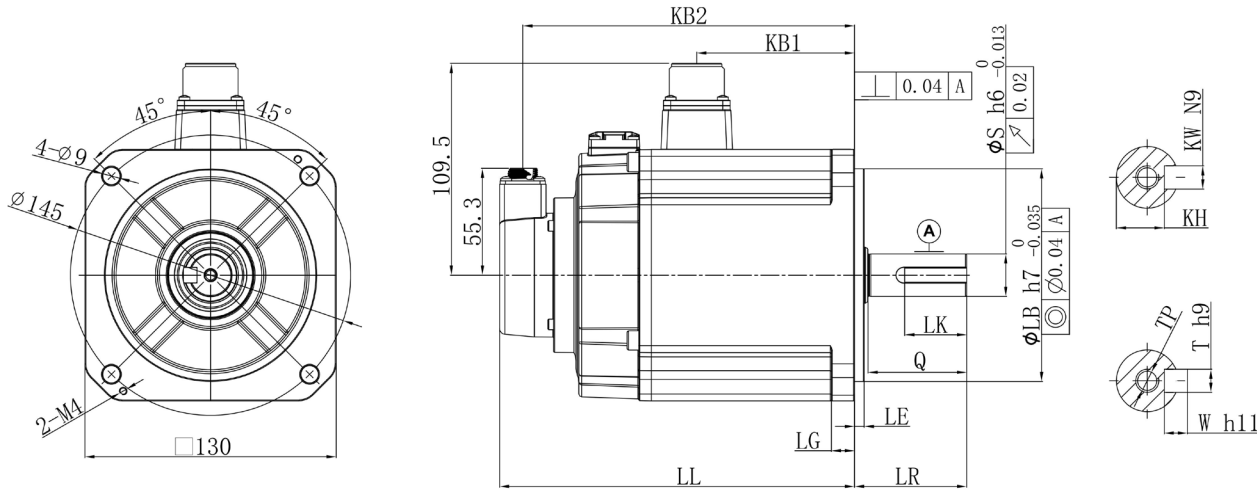


Motor model	LL	LR	KB1	KB2	LG	LE	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -L10B210	127.4(156)	45	56	115.5(144)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	3.3 (4.1)
P3 □ -L15B210	147.4(176)	45	76	135.5(164)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	4.3 (5.1)
P3 □ -L20B210	167.4(196)	45	96	155.5(184)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	5.3 (6.1)
P3 □ -L25B210	184.4(213)	45	113	172.5(201)	10.1	3	38.5	24	95	M8, depth 16	32	20	8	8	7	6.3(7.1)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia(x10 ⁻⁴ kg·m ²)	Line-to-line counter electromotive force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -L10B210	1000	380	3.18	9.55	3.44	10.82	3000	6000	1.84 (2.59)	63.29	2.112	21	17.37	0.924	9.084
P3 □ -L15B210	1500	380	4.78	14.3	4.86	14.59	3000	6000	2.75 (3.5)	65.28	1.033	13.6	11.13	0.984	11.97
P3 □ -L20B210	2000	380	6.37	19.1	7.05	19.78	3000	6000	3.65(4.4)	63.36	0.72	0.72	7.8	0.904	12.007
P3 □ -L25B210	2500	380	7.96	23.9	8.74	25.07	3000	6000	4.36(5.11)	62.25	0.529	0.529	6.32	0.911	13.147

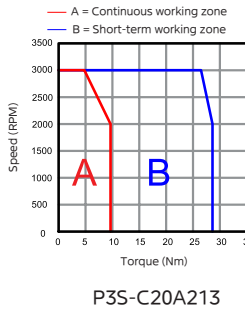
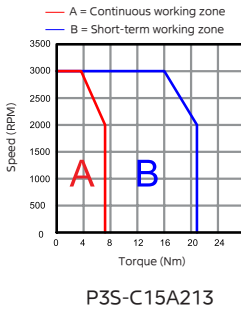
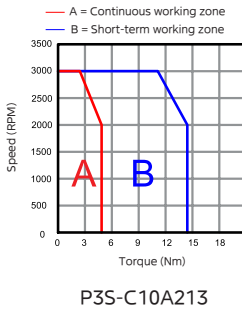
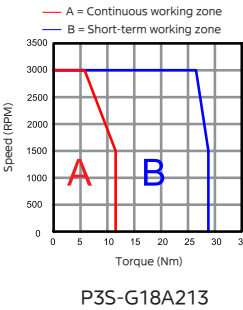
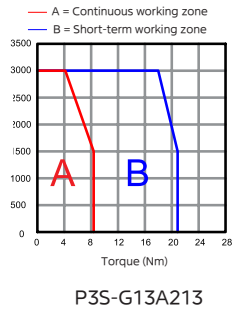
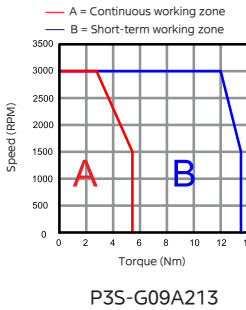


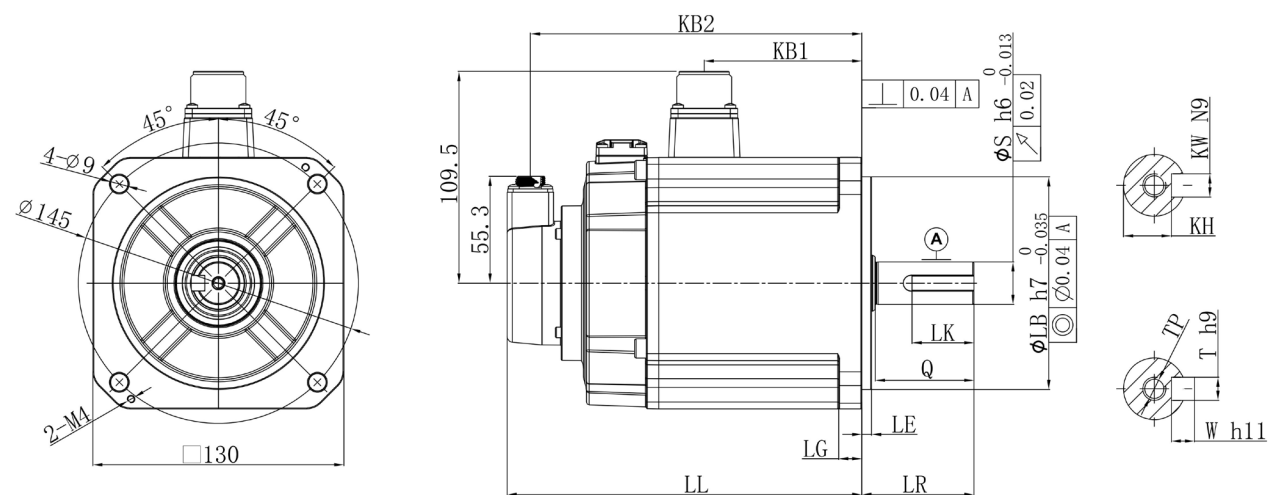
Servo Motor Features (130 mm Flange)



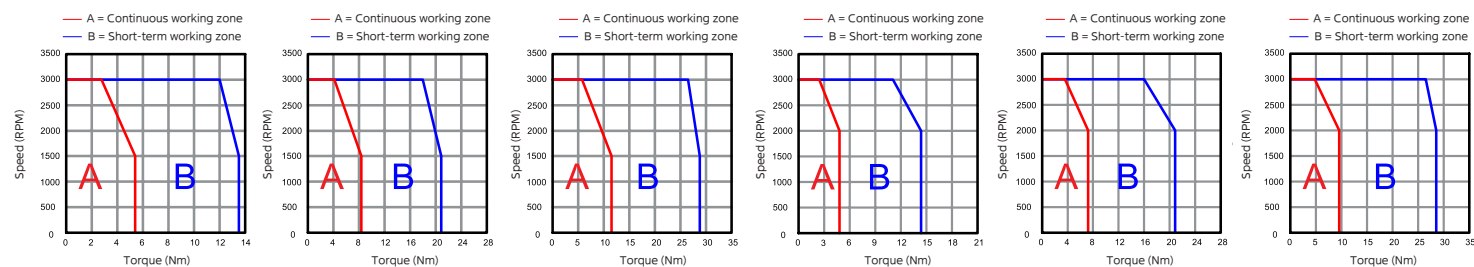
Motor model	LL	LR	KB1	KB2	LG	LE	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -G09A213	136.6(167.6)	58	65.6	124.6(154.6)	12	3	51	22	110	M6, depth 12	32	18	8	8	7	5.9(7.6)
P3 □ -G13A213	152.6(183.6)	58	81.6	140.6(171.6)	12	3	51	22	110	M6, depth 12	32	18	8	8	7	7.4(9.1)
P3 □ -G18A213	168.6(199.6)	58	97.6	156.6(187.6)	12	3	51	22	110	M6, depth 12	32	18	8	8	7	8.7(10.4)
P3 □ -C10A213	136.6(167.6)	58	65.6	124.6(154.6)	12	3	51	22	110	M6, depth 12	32	18	8	8	7	5.9(7.6)
P3 □ -C15A213	152.6(183.6)	58	81.6	140.6(171.6)	12	3	51	22	110	M6, depth 12	32	18	8	8	7	7.4(9.1)
P3 □ -C20A213	168.6(199.6)	58	97.6	156.6(187.6)	12	3	51	22	110	M6, depth 12	32	18	8	8	7	8.7(10.4)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia(x10 ⁻⁴ kg·m ²)	Line-to-line counter electromotive force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -G09A213	850	220	5.39	13.5	5.72	13.89	1500	3000	13.62(14.56)	62.73	1.192	8.77	7.16	0.941	6.682
P3 □ -G13A213	1300	220	8.34	20.85	8.61	21.1	1500	3000	19.6(20.54)	63.21	0.736	5.91	4.73	0.969	7.228
P3 □ -G18A213	1800	220	11.5	28.75	12.43	29.02	1500	3000	24.78(25.72)	63.35	0.476	4.32	3.47	0.925	8.183
P3 □ -C10A213	1000	220	4.78	14.3	5.06	14.79	2000	3000	13.62(14.56)	62.73	1.192	8.77	7.16	0.945	6.682
P3 □ -C15A213	1500	220	7.16	21.5	7.56	22.1	2000	3000	19.6(20.54)	63.21	0.736	5.91	4.73	0.947	7.228
P3 □ -C20A213	2000	220	9.55	28.65	10.19	28.87	2000	3000	24.78(25.72)	63.36	0.476	4.32	3.47	0.925	8.183



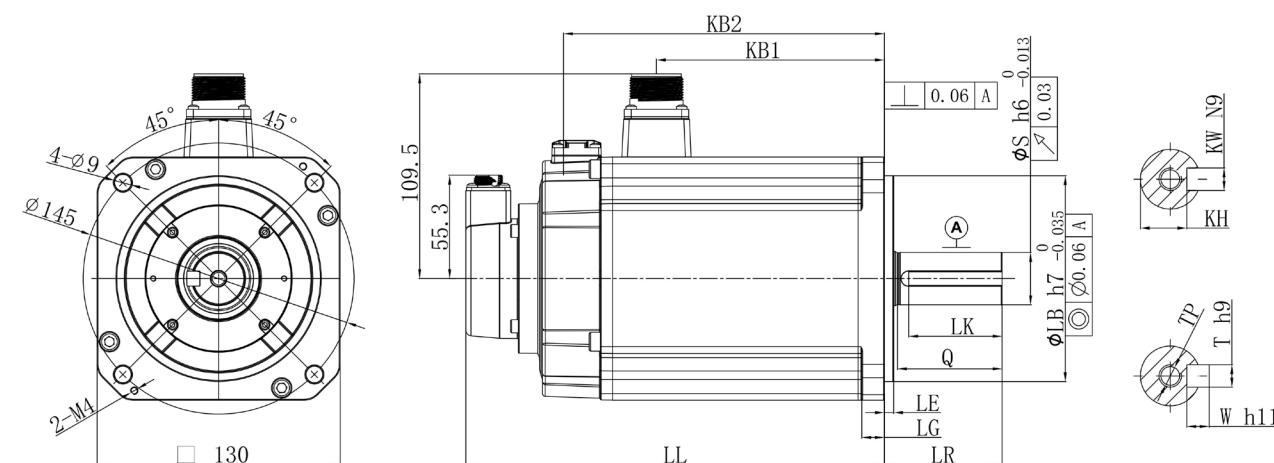


Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia[x10 ⁴ kg·m ²]	Line-to-line counter electromagnetic force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -G09B213	850	380	5.39	13.5	3.16	7.99	1500	3000	13.62(14.56)	108.1	3.143	26.1	21.4	1.706	7.556
P3 □ -G13B213	1300	380	8.34	20.85	4.97	12.05	1500	3000	19.6(20.54)	110.2	1.933	17.9	14.1	1.678	8.277
P3 □ -G18B213	1800	380	11.5	28.75	7.03	17.01	1500	3000	24.78(25.72)	110.11	1.361	13	10.4	1.636	8.597
P3 □ -C10B213	1000	380	4.78	14.3	2.96	8.6	2000	3000	13.62(14.56)	108.1	3.143	26.1	21.4	1.615	7.556
P3 □ -C15B213	1500	380	7.16	21.5	4.52	13.22	2000	3000	19.6(20.54)	110.2	1.933	17.9	14.1	1.584	8.277
P3 □ -C20B213	2000	380	9.55	28.65	5.83	16.71	2000	3000	24.78(25.72)	110.11	1.361	13	10.4	1.638	8.597

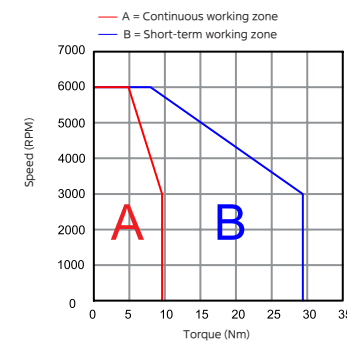


P3S-G09B213 P3S-G13B213 P3S-G18B213 P3S-C10B213 P3S-C15B213 P3S-C20B213

Servo Motor Features (130 mm Flange)



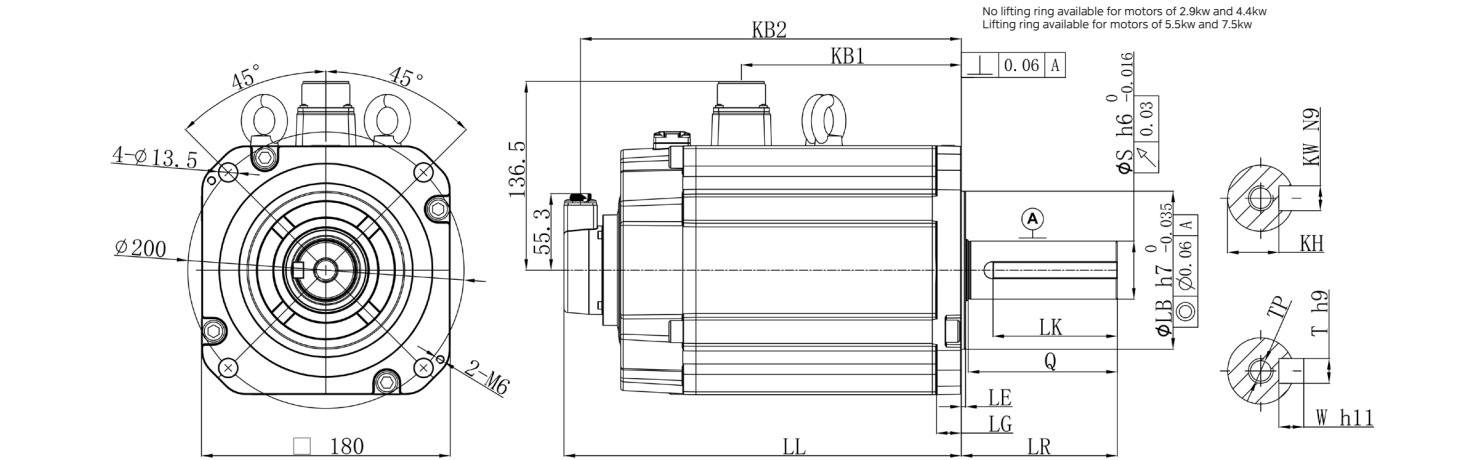
Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N · m]	Max torque [N · m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia[x10 ⁻⁴ kg · m ²]	Line-to-line counter electromotive force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N · m/Arms]	Electrical time constant [ms]
P3 □ -L30B213	3000	380	9.8	29.4	10.13	29.59	3000	6000	7.28(8.22)	69.11	0.434	6.9	6.64	0.967	15.599



P3S-L30B213

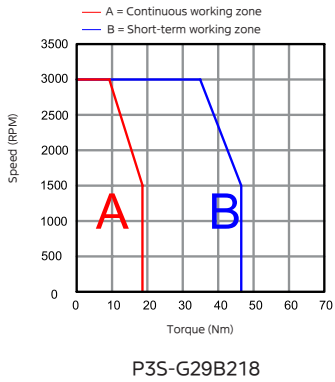
Servo Motor Features (180 mm Flange)

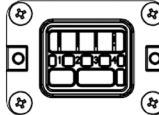
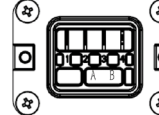
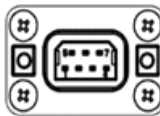
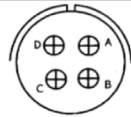
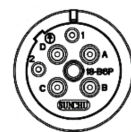
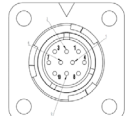
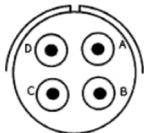
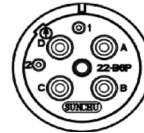
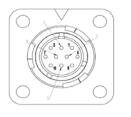
MOTOR TERMINAL DESCRIPTION



Motor model	LL	LR	KB1	KB2	LG	LE	Q	S	LB	TP	LK	KH	KW	W	T	Weight (kg)
P3 □ -G29B218	172.5(217.5)	79	89.1	160.5(205.5)	18	3.2	74	35	114.3	M12, depth 25	60	30	10	10	8	14.3(17.9)

Motor model	Rated power [W]	Rated voltage [V]	Rated torque [N·m]	Max torque [N·m]	Rated current [Arms]	Max current [Arms]	Rated speed [rpm]	Max speed [rpm]	Rotational inertia(x10 ⁻⁴ kg·m ²)	Line-to-line counter electromotive force[V/Krpm]	Line-to-line resistance [Ω]	Line-to-line inductance (Q-axis)	Line-to-line inductance (D-axis) [mH]	Torque coefficient [N·m/Arms]	Electrical time constant [ms]
P3 □ -G29B218	2900	380	18.6	46.5	10.26	25.81	1500	3000	46.19(51.94)	118.69	0.601	10.78	8.43	1.813	15.982



Motor flange (mm)	Category	Wiring definition	Wiring definition (brake)	Description	Cable-side terminal model	Brand	Quantity per cable																								
40/60/80	Power terminal	 <table border="1" data-bbox="1890 513 2041 625"><tr><td>1</td><td>V</td></tr><tr><td>2</td><td>U</td></tr><tr><td>3</td><td>W</td></tr><tr><td>4</td><td>PE</td></tr></table>	1	V	2	U	3	W	4	PE	 <table border="1" data-bbox="2180 513 2358 625"><tr><td>1</td><td>V</td><td rowspan="2">A</td><td>Brake terminal</td></tr><tr><td>2</td><td>U</td></tr><tr><td>3</td><td>W</td><td rowspan="2">B</td><td>Brake terminal</td></tr><tr><td>4</td><td>PE</td></tr></table>	1	V	A	Brake terminal	2	U	3	W	B	Brake terminal	4	PE	Power cable terminal	SC-MC6S-AP20-00	SUNCHU	1 PCS				
		1	V																												
	2	U																													
	3	W																													
4	PE																														
1	V	A	Brake terminal																												
2	U																														
3	W	B	Brake terminal																												
4	PE																														
Encoder terminal	 <table border="1" data-bbox="1877 774 2098 876"><tr><td>1</td><td>DATA+</td><td>5</td><td>+5V</td></tr><tr><td>2</td><td>DATA-</td><td>6</td><td>0V</td></tr><tr><td>3</td><td>BAT+</td><td>7</td><td>FG</td></tr><tr><td>4</td><td>BAT-</td><td></td><td></td></tr></table>	1	DATA+	5	+5V	2	DATA-	6	0V	3	BAT+	7	FG	4	BAT-			Same as Standard Version	Encoder cable terminal	SC-MC7S-A620-10	SUNCHU	1 PCS									
		1	DATA+	5	+5V																										
2	DATA-	6	0V																												
3	BAT+	7	FG																												
4	BAT-																														
PIN	S-FMCK6012220	SUNCHU	4 (6) PCS																												
100/130	Power terminal	 <table border="1" data-bbox="1899 1050 2035 1174"><tr><td>A</td><td>V</td></tr><tr><td>B</td><td>U</td></tr><tr><td>C</td><td>W</td></tr><tr><td>D</td><td>PE</td></tr></table>	A	V	B	U	C	W	D	PE	 <table border="1" data-bbox="2186 1033 2358 1191"><tr><td>A</td><td>V</td></tr><tr><td>B</td><td>U</td></tr><tr><td>C</td><td>W</td></tr><tr><td>D</td><td>PE</td></tr><tr><td>1</td><td colspan="3">Brake terminal</td></tr><tr><td>2</td><td colspan="3">Brake terminal</td></tr></table>	A	V	B	U	C	W	D	PE	1	Brake terminal			2	Brake terminal			Military power plug	CMS3108A18-10SI	SUNCHU	1 PCS
		A	V																												
	B	U																													
	C	W																													
D	PE																														
A	V																														
B	U																														
C	W																														
D	PE																														
1	Brake terminal																														
2	Brake terminal																														
Encoder terminal	 <table border="1" data-bbox="1986 1222 2125 1396"><tr><td>1</td><td>DATA+</td></tr><tr><td>2</td><td>DATA-</td></tr><tr><td>6</td><td>BAT+</td></tr><tr><td>5</td><td>BAT-</td></tr><tr><td>4</td><td>+5V</td></tr><tr><td>9</td><td>0V</td></tr><tr><td>10</td><td>FG</td></tr></table>	1	DATA+	2	DATA-	6	BAT+	5	BAT-	4	+5V	9	0V	10	FG	Same as Standard Version	Military power plug (brake)	CMS08A18-B6SBI003	SUNCHU	1 PCS											
		1	DATA+																												
2	DATA-																														
6	BAT+																														
5	BAT-																														
4	+5V																														
9	0V																														
10	FG																														
Military encoder plug	SC-CMV1-SP10CBT	SUNCHU	1 PCS																												
180	Power terminal	 <table border="1" data-bbox="1920 1568 2056 1680"><tr><td>A</td><td>V</td></tr><tr><td>B</td><td>U</td></tr><tr><td>C</td><td>W</td></tr><tr><td>D</td><td>PE</td></tr></table>	A	V	B	U	C	W	D	PE	 <table border="1" data-bbox="2165 1568 2385 1680"><tr><td>A</td><td>U</td><td>1</td><td>Brake terminal</td></tr><tr><td>B</td><td>V</td><td>2</td><td>Brake terminal</td></tr><tr><td>C</td><td>W</td><td></td><td></td></tr><tr><td>D</td><td>PE</td><td></td><td></td></tr></table>	A	U	1	Brake terminal	B	V	2	Brake terminal	C	W			D	PE			Military power plug	CMS3108A22-22SI	SUNCHU	1 PCS
		A	V																												
	B	U																													
	C	W																													
D	PE																														
A	U	1	Brake terminal																												
B	V	2	Brake terminal																												
C	W																														
D	PE																														
Encoder terminal	 <table border="1" data-bbox="1980 1694 2116 1877"><tr><td>1</td><td>DATA+</td></tr><tr><td>2</td><td>DATA-</td></tr><tr><td>6</td><td>BAT+</td></tr><tr><td>5</td><td>BAT-</td></tr><tr><td>4</td><td>+5V</td></tr><tr><td>9</td><td>0V</td></tr><tr><td>10</td><td>FG</td></tr></table>	1	DATA+	2	DATA-	6	BAT+	5	BAT-	4	+5V	9	0V	10	FG	Same as Standard Version	Military power plug (brake)	CMS08A22-B6SBI006	SUNCHU	1 PCS											
		1	DATA+																												
2	DATA-																														
6	BAT+																														
5	BAT-																														
4	+5V																														
9	0V																														
10	FG																														
Military encoder plug	SC-CMV1-SP10CBT	SUNCHU	1 PCS																												

CABLE AND KIT SELECTION

Power Cable or Accessory Kit (BD3 + P3)



Specification of P3 series motor	Drive type	Length (m)	W/O brake			W/ brake		
			Front outlet	Rear outlet	Connector kit	Front outlet	Rear outlet	Connector kit
LA5/L01/M02/M04	BD3 series	3	SPC-A65031-0303-F	SPC-A67031-0303-F	Front outlet: CAP-A6-03-A Rear outlet: CAP-A6-03-B	SPC-A66041-0403-F	SPC-A68041-0403-F	Front outlet: CAP-A6-04-A Rear outlet: CAP-A6-04-B
		5	SPC-A65031-0305-F	SPC-A67031-0305-F		SPC-A66041-0405-F	SPC-A68041-0405-F	
		10	SPC-A65031-0310-F	SPC-A67031-0310-F		SPC-A66041-0410-F	SPC-A68041-0410-F	
		15	SPC-A65031-0315-F	SPC-A67031-0315-F		SPC-A66041-0415-F	SPC-A68041-0415-F	
		20	SPC-A65031-0320-F	SPC-A67031-0320-F		SPC-A66041-0420-F	SPC-A68041-0420-F	
M08/M10	BD3 series	3	SPC-A65031-0503-F	SPC-A67031-0503-F	Front outlet: CAP-A6-03-A Rear outlet: CAP-A6-03-B	SPC-A66041-0603-F	SPC-A68041-0603-F	Front outlet: CAP-A6-04-A Rear outlet: CAP-A6-04-B
		5	SPC-A65031-0505-F	SPC-A67031-0505-F		SPC-A66041-0605-F	SPC-A68041-0605-F	
		10	SPC-A65031-0510-F	SPC-A67031-0510-F		SPC-A66041-0610-F	SPC-A68041-0610-F	
		15	SPC-A65031-0515-F	SPC-A67031-0515-F		SPC-A66041-0615-F	SPC-A68041-0615-F	
		20	SPC-A65031-0520-F	SPC-A67031-0520-F		SPC-A66041-0620-F	SPC-A68041-0620-F	
G09/G13、L10/L15、C10/C15	BD3 series	3	SPC-AC1051-0903-F		CAP-AC-05-1	SPC-AD1061-1003-F		CAP-AD-06-1
		5	SPC-AC1051-0905-F			SPC-AD1061-1005-F		
		10	SPC-AC1051-0910-F			SPC-AD1061-1010-F		
		15	SPC-AC1051-0915-F			SPC-AD1061-1015-F		
		20	SPC-AC1051-0920-F			SPC-AD1061-1020-F		
G18、L20、C20	BD3 series	3	SPC-AC2071-1503-F		CAP-AC-07-1	SPC-AD2081-1603-F		CAP-AD-08-1
		5	SPC-AC2071-1505-F			SPC-AD2081-1605-F		
		10	SPC-AC2071-1510-F			SPC-AD2081-1610-F		
		15	SPC-AC2071-1515-F			SPC-AD2081-1615-F		
		20	SPC-AC2071-1520-F			SPC-AD2081-1620-F		
L25/L30	BD3 series	3	SPC-AC3091-1703-F		CAP-AC-09-1	SPC-AD3101-1803-F		CAP-AD-10-1
		5	SPC-AC3091-1705-F			SPC-AD3101-1805-F		
		10	SPC-AC3091-1710-F			SPC-AD3101-1810-F		
		15	SPC-AC3091-1715-F			SPC-AD3101-1815-F		
		20	SPC-AC3091-1720-F			SPC-AD3101-1820-F		
G29	BD3 series	3	SPC-AE1071-1503-F		CAP-AE-07-1	SPC-AF1081-1603-F		CAP-AF-08-1
		5	SPC-AE1071-1505-F			SPC-AF1081-1605-F		
		10	SPC-AE1071-1510-F			SPC-AF1081-1610-F		
		15	SPC-AE1071-1515-F			SPC-AF1081-1615-F		
		20	SPC-AE1071-1520-F			SPC-AF1081-1620-F		

Encoder Cable or Accessory Kit (BD3 + P3)

Specification of P3 series motor	Drive type	Length (m)	Single-turn absolute encoder (w/o battery)			Multi-turn absolute encoder (w/ battery)		
			Front outlet	Rear outlet	Connector kit	Front outlet	Rear outlet	Connector kit
LA5/L01	BD3 series	3	SFC-A81A41-0103-F	SFC-A83A41-0103-F	CAP-A8-A4-1	SFC-A82A43-0103-F	SFC-A84A43-0103-F	CAP-A8-A4-3
		5	SFC-A81A41-0105-F	SFC-A83A41-0105-F		SFC-A82A43-0105-F	SFC-A84A43-0105-F	
		10	SFC-A81A41-0110-F	SFC-A83A41-0110-F		SFC-A82A43-0110-F	SFC-A84A43-0110-F	
		15	SFC-A81A41-0115-F	SFC-A83A41-0115-F		SFC-A82A43-0115-F	SFC-A84A43-0115-F	
		20	SFC-A81A41-0120-F	SFC-A83A41-0120-F		SFC-A82A43-0120-F	SFC-A84A43-0120-F	
M02/M04/M08/M10	BD3 series	3	SFC-A91A41-0103-F	SFC-A93A41-0103-F	CAP-A9-A4-1	SFC-A92A43-0103-F	SFC-A94A43-0103-F	CAP-A9-A4-3
		5	SFC-A91A41-0105-F	SFC-A93A41-0105-F		SFC-A92A43-0105-F	SFC-A94A43-0105-F	
		10	SFC-A91A41-0110-F	SFC-A93A41-0110-F		SFC-A92A43-0110-F	SFC-A94A43-0110-F	
		15	SFC-A91A41-0115-F	SFC-A93A41-0115-F		SFC-A92A43-0115-F	SFC-A94A43-0115-F	
		20	SFC-A91A41-0120-F	SFC-A93A41-0120-F		SFC-A92A43-0120-F	SFC-A94A43-0120-F	
L10/L15/L20/L25/L30 G09/G13/G18/G29/C10/ C15/C20	BD3 series	3	SFC-AA1A41-0103-F		CAP-AA-A4-1	SFC-AA2A43-0103-F		CAP-AA-A4-3
		5	SFC-AA1A41-0105-F			SFC-AA2A43-0105-F		
		10	SFC-AA1A41-0110-F			SFC-AA2A43-0110-F		
		15	SFC-AA1A41-0115-F			SFC-AA2A43-0115-F		
		20	SFC-AA1A41-0120-F			SFC-AA2A43-0120-F		



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