

SHIHLIN ELECTRIC & ENGINEERING

Transmission & Distribution, Electrical Products, Power Control, Switches & Breaker, Factory Automation, Automotive Electrical Components

AUTOMATION FOR
SMART MANUFACTURING

SHIHLIN SERVO SYSTEM SDC/SDE/SDP/SME



Distributor

B250513E.SERVO-BO3



automation.seec.com.tw



contents

Contents

Model Definition	P.01
Products	P.02
Features	P.03
Servo Drive	
Specifications	P.05
Connection with Peripheral Equipment	P.09
Dimensions	P.16
Selection Table	P.18
Accessories	P.19
Servo Motor	
Selection Table	P.20
Regenerative Resistor Selection Table	P.21
Dimensions	P.22
Key Dimensions	P.23
Torque Characteristic Curves	P.24

Model Definition

Servo Drive

SD

-

-

①

②

③

④

⑤

⑥

⑦

⑧

①

②

③

④

⑤

⑥

⑦

⑧

Product		Series		Capacity		Communication		Input Voltage		Model Code		Standard		Design Code	
SD	Servo Drive	C	Basic	010	100W	A	Modbus	2	AC220V	Null	Standard	Null	CE	Null	General
	E	Standard	020	200W	C	CANopen	4	AC440V	U	U		UL/CE (Optional)	P	Advanced Pulse	
	P	Advanced	040	400W	E	EtherCAT			C	Closed Loop			M	Advanced Analog	
			075	750W									xyz	Customized or Localized	
			100	1kW											
			150	1.5kW											
			200	2kW											
			300	3kW											
		500	5kW												
		700	7kW												

Servo Motor

SM

□

-

□

□

□

□

□

□

□

□

-

□

①

②

③

④

⑤

⑥

⑦

⑧

⑨

⑩

⑪

①

②

③

④

⑤

⑥

Product

SM Servo Motor

Series

E

P

Inertia

L Low

M Medium

H High

Capacity

005 50W

010 100W

020 200W

040 400W

075 750W

085 850W

100 1kW

130 1.3kW

150 1.5kW

Capacity

180 1.8kW

200 2kW

290 2.9kW

300 3kW

440 4.4kW

500 5kW

550 5.5kW

700 7kW

750 7.5kW

Rated Rotation

15 1500rpm

20 2000rpm

30 3000rpm

Encoder

E Hollow Optical Absolute

S Optical Incremental

T Magnetic Incremental

M Optical Absolute

N Magnetic Absolute

Z Customized

⑦

⑧

⑨

⑩

⑪

Brake & Oil Seal

A W/O Brake & Oil Seal

B W/ Brake, W/O Oil Seal

C W/O Brake, W/ Oil Seal

D W/ Brake & Oil Seal

Z Customized

Key & Cable

A W/O Key, Load Side Lead

B W/ Key, Load Side Lead

C W/O Key, Opposite Side Lead

D W/ Key, Opposite Side Lead

Z Customized

Input Voltage

Null AC220V

4 AC440V

Standard

Null CE

U UL/CE (Optional)

Design Code

Null General

xyz Customized or Localized

Note

1. The code here is just to let the user understand the model definition better but don't mean that every combination is available. Please contact our sales team for available models.

2. If a magnetic absolute or optical absolute type motor is purchased, an extra absolute type encoder battery set (SDH-BAT-SET) is needed.

3. This catalog just lists out the details of standard servo motor. Some specific motors such as hollow shaft motor, motor with special diameter of shaft, etc., aren't listed in this catalog. Please feel free to contact us for more information.

Products

SDC Series Drive



Pulse Type: SDC-A
Advanced Analog Type: SDC-A(M)
EtherCAT Type: SDC-E
Speed Response: 2kHz
Rated Capacity: 100W~1kW
Input Voltage: 1ø220V(SDC-A)
1ø/3ø220V(SDC-E)

SDE Series Drive

Advanced Pulse Type: SDE-P
Speed Response: 2kHz
Rated Capacity: 100W~3kW
Input Voltage: 1ø/3ø220V(2kW and below)
3ø220V(3kW)



SDP Series Drive



Advanced Pulse Type: SDP-A
EtherCAT Type: SDP-E
Speed Response: 2.5kHz(SDP-E)/3.2kHz(SDP-A)
Rated Capacity: 100W~7kW
Input Voltage: 1ø/3ø220V(2kW and below)
3ø220V(3kW~7kW)
3ø380V(2kW~7kW)

SME Series Motor

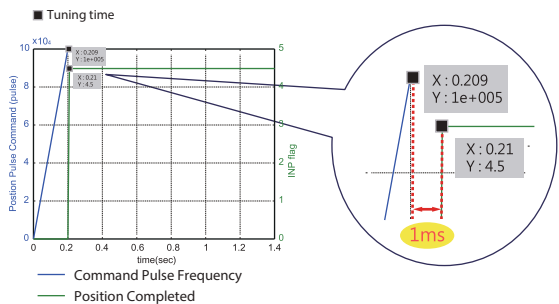
Low Inertia : For high-speed motion applications
Capacity : 50W~3kW (220V)
Medium Inertia : For high-stability applications
Capacity : 1kW~7kW (220V)
High Inertia : For high-accuracy positioning applications
Capacity : 200W~1.8kW (220V)
1.8kW~7.5kW (440V/SMP Series)



Features

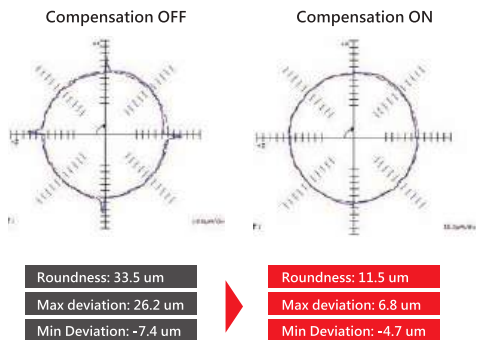
Outstanding Speed Response Performance

Accurate and fast automatic load inertia measurement greatly shortens the tuning time.



Disturbance Compensation and Backlash Compensation

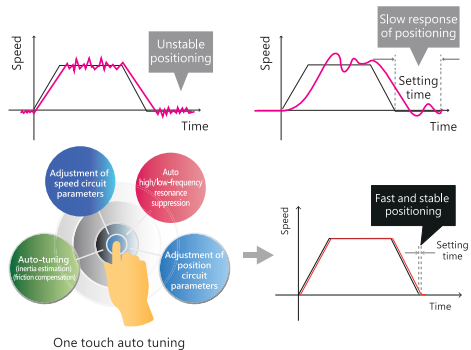
Improve the error due to non-linear disturbance effectively and increase the circularity.



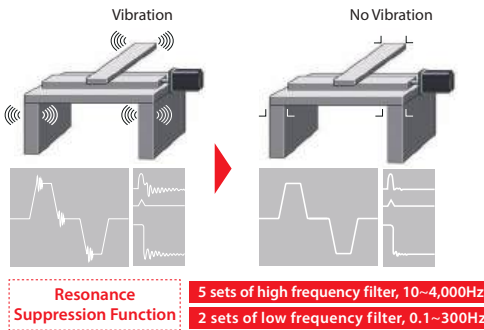
One Touch Tuning

SDC/SDE-P/SDP Series

Effectively reduces tuning time and maximizes drive performance

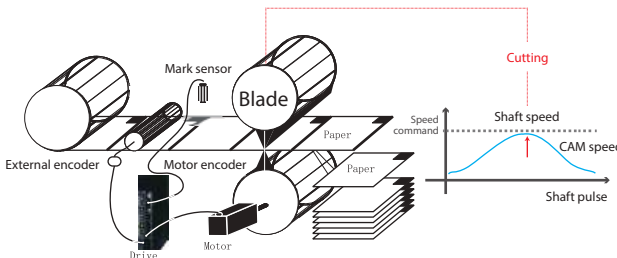


Reduce Resonance & Vibration



Electronic CAM SDP Series

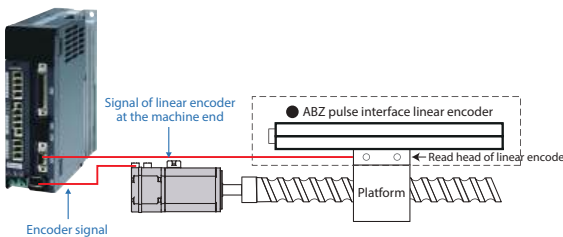
The E-CAM profile can support up to 720 points. It can be applied in CAM control of various machines such as printing machine, labeling machine, packing machine, flying shears and etc.



Full-closed loop control SDP Series

It can be connected to external linear encoder and motor encoder, then control the position accurately through the signal of terminal position feedback.

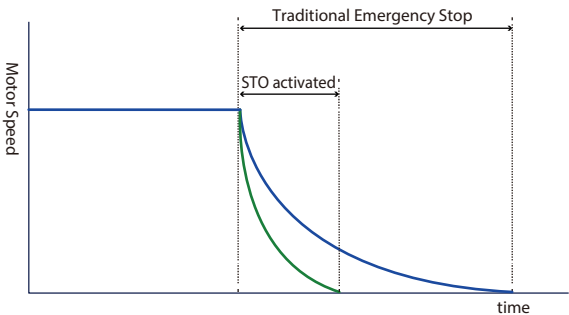
Support incremental-type and absolute-type Endat2.2



Features

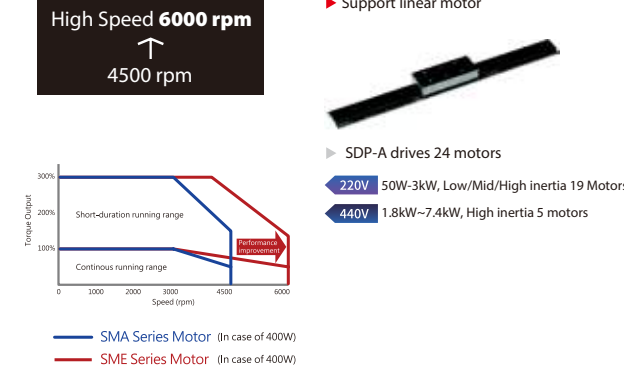
Safe Torque OFF(STO) function SDP Series

Support STO function to enhance the integration of mechanical and factory safety



Motor diversification and performance enhancement

Speed increasing and better torque output help to enhance the performance (productivity). Support linear motor and DD motor on the market.



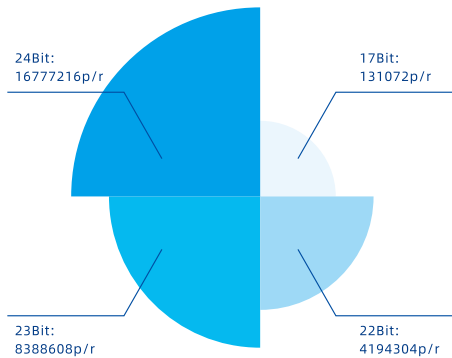
Flexible configuration to meet customer needs

Low-inertia servomotor, medium-inertia servomotor and high-inertia servomotor are optional.
All series included key slot, oil seal and optional motor with brake.



Encoder Resolution

17-bit magnetic encoder and 22/23/24 optical encoder.
Optical encoder offers excellent performance in high-precision position control and high stability in low-speed running.
Magnetic encoder has excellent oil resistance and vibration resistance.



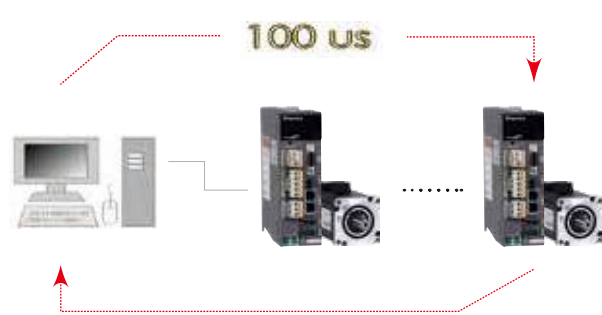
ETG certification SDP-E Series

Passed international certification. Both efficiency and functionality are proven.



The fastest communication cycle time in the industry SDP-E Series

Support maximum cycle time of 100us to achieve high-speed and high-precision motion control.



Specifications

SDC-A/SDC-A(M) Drive

Dimensions & Weight	Model	010	020	040	075	100
	Capacity	100W	200W	400W	750W	1kW
	Length (mm)	162	162	162	162	162
	Width (mm)	51	51	51	51	51
	Height (mm)	164	164	164	164	164
	Weight (kg)	1.4	1.4	1.4	1.7	1.7
Main Circuit Power	Input Voltage 50/60Hz	1φ AC200~240V				
	Input Permissible Voltage Variation 50/60Hz	1φ AC170~264V				
	Input Permissible Frequency Variation	±5%				
	Output Voltage	0~240VAC				
	Output Current	1.0A	1.8A	3.2A	5.8A	6.4A
Control Circuit	Output Frequency	0~250Hz				
	Voltage 50/60Hz	N/A				
	Permissible Voltage Variation 50/60Hz	N/A				
	Permissible Frequency Variation	N/A				
	Power Consumption (W)	N/A				
Environment	Control Method	IGBT-PWM control (SVPWM drives)				
	Encoder Resolution	Magnetic encoder 17bit (131072 Pulse), Optical encoder 22bit (4194304 Pulse)				
	Communication Interface	USB, RS485				
	Brake Unit	All series built-in				
	Regenerative Resistor	N/A				
Position Control Mode	Control Signal Input DI	SDC-A/9/SDC-A(M):6				
	Control Signal Output DO	SDC-A/5/SDC-A(M):3				
	Analog Signal Input	SDC-A:N/A / SDC-A(M):2				
	Analog Signal Output	SDC-A:N/A / SDC-A(M):1				
	Protective Function	Overcurrent protection, undervoltage protection, overvoltage protection, overheat protection, overload protection (electronic heat accumulation), abnormal pulse command protection, encoder error protection, regenerative error protection, overspeed protection, excessive error protection, serial-communication error, serial communication time out, motor matching error, motor impact error, short circuit protection of terminal U,V,W, control circuit error				
Speed Control Mode	Temperature	0°C~55°C (If operating temperature is above 45°C, force cooling will be required), storage temperature: -20~65°C(Non-freezing)				
	Humidity	Maximum 90% RH(Non-condensing), Storage: Below 90% RH (Non-condensing)				
	Installation Site	Indoors (avoid direct sunlight), no corrosive gas, avoid flammable gas,oil mist or dust				
	Altitude	Below 1000m				
	Vibration	Maximum 5.9m / S ²				
Torque Control Mode	Cooling method	Natural cooling, open				
	Input Pulse Frequency	Transmitted by differential: 500 Kpps (low speed)/4 Mpps (high-speed), Transmitted by open-collector: 200 Kpps				
	Command Pulse Type	CCW pulse + CW pulse, Pulse + direction, A phase + B phase pulse				
	Command Type	External pulse control / Set by parameters				
	Command Smoothing Strategy	Low-pass filter / Linear smoothing / S-curve smoothing				
Input and Output Signal	E-gear Ratio	Electronic gear A/B multiple A:1~4194304 B:1~4194304 (1/50 < A/B < 64000)				
	Error Excessive	±3 rotations				
	Torque limit	Set by parameters				
	Feedforward Compensation	Set by parameters (0~200%)				
	Speed Control Range	Internal speed command 1:5000				
Torque Control Mode	Command Type	Set by parameters				
	Command Smoothing Strategy	Low-pass filter / Linear smoothing / S-curve smoothing				
	Analog Speed Command Input	N/A				
	Speed Fluctuation Rate	Maximum ±0.01% at 0 to 100% load fluctuation, Maximum 0.01% at ±10% power fluctuation				
	Torque Limit	Set by parameters				
Torque Control Mode	Bandwidth	Maximum 2.0 kHz				
	Command Type	Set by parameters				
	Command Smoothing Strategy	Low-pass filter				
	Analog Torque Command Input	N/A				
	Speed Limit	Set by parameters				
Input and Output Signal	Digital Input	Servo on, forward/reverse rotation limit prohibition, pulse error clear, torque direction selection, speed command selection, position command selection, forward/reverse rotation direction startup, proportion control switching, torque limit switch, fault reset, emergency stop, control mode switching, electronic gear ratio selection, gain switch, position command trigger, motor stop, pulse input prohibition, events trigger command, origin point searching, homing				
	Digital Output	Torque limit reached, speed limit reached, reserved signal, zero speed reached, target position reached, target speed reached, servo alarm, servo warning, homing completed, overload level reached, internal position reached, position command overflow, software positive direction limit reached, software negative direction limit reached				
	Analog Input	N/A				
	Analog Output	N/A				

Servo Drive Specifications

SDP-E

Dimensions & Weight	Model	010	020	040	075	100	150	200	300	500	700
	Capacity	100W	200W	400W	750W	1kW	1.5kW	2kW	3kW	5kW	7kW
	Length (mm)	162	162	162	162	162	162	162	162	162	232
	Width (mm)	50	50	50	70	70	85	85	85	85	136
	Height (mm)	150	150	150	170	170	190	190	190	196	205
	Weight (kg)	1.4	1.4	1.4	1.4	1.7	1.7	2.6	2.6	5.9	5.9
Main Circuit Power	Input Voltage 50/60Hz	1φ or 3φ AC200~240V							3φ AC200~240V		
	Input Permissible Voltage Variation 50/60Hz	1φ or 3φ AC170~264V							3φ AC170~264V		
	Input Permissible Frequency Variation	±5%									
	Output Voltage	110V				140V				208V	
	Output Current	1.0A	1.8A	3.2A	5.4A	6.4A	9.4A	12.1A	17.6A	21.2A	30.2A
	Output Frequency	0-250Hz				0-167Hz					
Control Circuit	Voltage 50/60Hz	1φ AC200~240V									
	Permissible Voltage Variation 50/60Hz	1φ AC170~264V									
	Permissible Frequency Variation	±5%									
	Power Consumption (W)	30									
	Control Method	Three phase full-wave rectification, IGBT-PWM control (SVPWM drives)									
	Encoder Feedback	24bit(16777216 pulse)/50W-750W motor, 23bit(8388608 pulse)/ 1kW-7kW motor									
	Communication Interface	EtherCAT, USB									
	Brake Unit	All series built-in									
	Regenerative Resistor	Built-in									N/A
	Control Signal Input DI	7									
	Control Signal Output DO	4									
	Analog Signal Input	N/A									
	Analog Signal Output	N/A									
Protective Function	Overcurrent protection, undervoltage protection, overvoltage protection, overheat protection, overload protection (electronic heat accumulation), fan failure protection, abnormal pulse command protection, encoder error protection, regenerative error protection, overspeed protection, excessive error protection, serial communication error, serial communication time out, motor matching error, motor impact error, short circuit protection of terminal U,V,W, control circuit error etc.										
	Temperature	0°C~55°C (If operating temperature is above 45°C, force cooling will be required), storage temperature: -20~65°C(Non-freezing)									
	Humidity	Maximum 90% RH(Non-condensing), Storage: Below 90% RH (Non-condensing)									
	Installation Site	Indoors (avoid direct sunlight), no corrosive gas, avoid flammable gas,oil mist or dust									
	Altitude	Below 1000m									
	Vibration	Maximum 5.9m / S²									
Cooling method	Natural cooling, open			Fan cooling, open (IP20)							
Position Control Mode	Input Pulse Frequency	N/A									
	Command Pulse Type	N/A									
	Command Type	Controlled by EtherCAT									
	Command Smoothing Strategy	Low-pass filter / Linear smoothing / S-curve smoothing									
	E-gear Ratio	Electronic gear A/B multiple A:1~4194304 B:1~4194304 (1/50 < A/B < 64000)									
	Error Excessive	±3 rotations									
	Torque limit	Controlled by EtherCAT									
	Feedforward Compensation	Set by parameters or controlled by EtherCAT (0~200%)									
Speed Control Mode	Speed Control Range	1:5000									
	Command Type	Controlled by EtherCAT									
	Command Smoothing Strategy	Low-pass filter / Linear smoothing / S-curve smoothing									
	Analog Speed Command input	N/A									
	Speed Fluctuation Rate	Maximum ±0.01% at 0 to 100% load fluctuation, Maximum 0.01% at ±10% power fluctuation									
	Torque Limit	Controlled by EtherCAT									
Torque Control Mode	Bandwidth	Maximum 2.5kHz									
	Command Type	Controlled by EtherCAT									
	Command Smoothing Strategy	Low-pass filter									
	Analog Torque Command Input	N/A									
Input and Output Signal	Speed Limit	Controlled by EtherCAT									
	Digital Input	Servo on, forward/reverse rotation limit prohibition, pulse error clear, torque direction selection, speed command selection, position command selection, forward/reverse rotation direction startup, proportion control switching, fault reset, emergency stop, control mode switching, electronic gear ratio selection, gain switch, position command trigger, motor stop, pulse input prohibition, events trigger command, origin point searching, homing, E-CAM meshing									
	Digital Output	Torque limit reached, speed limit reached, reserved signal, zero speed reached, target position reached, target speed reached, alarm display, warning display,homing completed, overload level reached, internal position reached, position command overflow, software positive direction limit reached, software negative direction limit reached, Capture program completed, Master position of E-CAM									
	Analog Input	N/A									
	Analog Output	N/A									

Servo Drive Specifications

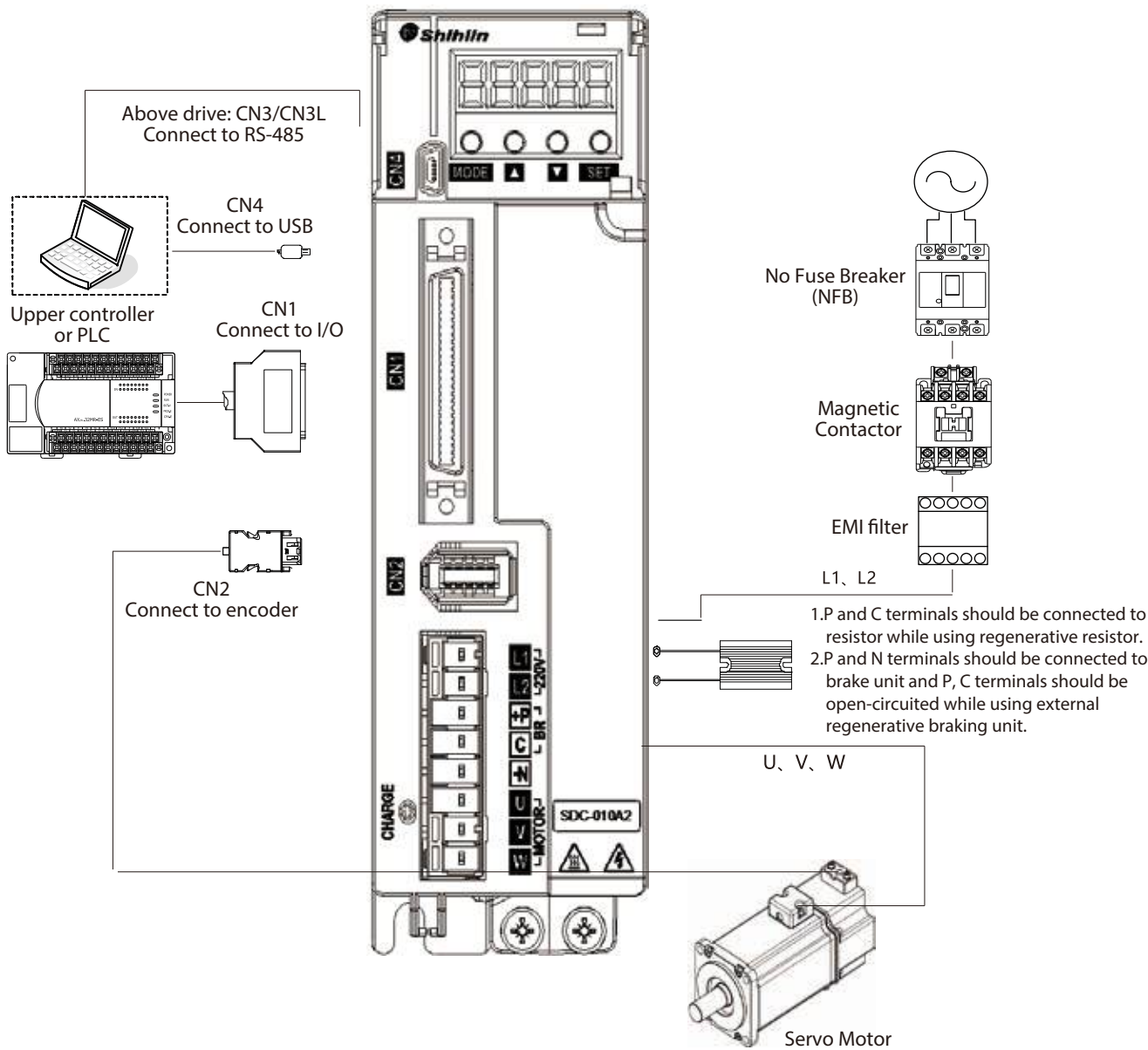
SDP-A

Dimensions & Weight	Model	010	020	040	075	100	150	200	300	200	300	500	700
	Capacity	100W	200W	400W	750W	1kW	1.5kW	2kW	3kW	2kW	3kW	5kW	7kW
	Length (mm)	162	162	162	162	162	162	162	162	245	245	245	245
	Width (mm)	50	50	50	70	70	85	85	85	123.5	123.5	123.5	123.5
	Height (mm)	150	150	150	170	170	190	190	190	205	205	205	205
	Weight (kg)	1.4	1.4	1.4	1.7	1.7	2.6	2.6	2.6	5.3	5.3	5.3	5.3
Main Circuit Power	Input Voltage 50/60Hz	1φ or 3φ AC200~240V							3φ AC200~240V		3φ AC380~480V		
	Input Permissible Voltage Variation 50/60Hz	1φ or 3φ AC170~264V							3φ AC170~264V		3φ AC323~528V		
	Input Permissible Frequency Variation	±5%											
	Output Voltage	AC 0~110V				AC 0~140V				AC 300V			
	Output Current	1.0A	1.8A	3.2A	5.4A	6.4A	9.4A	12.1A	17.6A	8.4A	11.9A	16.5A (with 4.4kW motor) 20.8A (with 5.5kW motor)	27.2A
	Output Frequency	0~250Hz				0~167Hz				0~125Hz			
Control Circuit	Voltage 50/60Hz	1φ AC200~240V							24VDC				
	Permissible Voltage Variation 50/60Hz	1φ AC170~264V							21.6~26.4VDC				
	Permissible Frequency Variation	±5%						Maximum ±5%					
	Power Consumption (W)	30						45					
	Control Method	Three phase full-wave rectification, IGBT-PWM control (SVPWM drives)											
	Encoder Feedback	24bit(16777216 pulse)/50W-750W motor, 23bit(838608 pulse)/ 850W-7.5kW motor											
	Communication Interface	USB, RS485											
	Brake Unit	All series built-in											
	Regenerative Resistor	Built-in								N/A			
	Control Signal Input DI	12											
	Control Signal Output DO	6											
	Analog Signal Input	2 groups (±10V)											
	Analog Signal Output	2 groups (±10V)											
	Protective Function	Overcurrent protection, regenerative overvoltage protection, overload protection (electronic heat accumulation), servo motor overheat protection, encoder error protection, regenerative error protection, fan failure protection, short circuit protection, undervoltage / instantaneous power failure protection, overspeed protection, excessive error protection, etc.											
Environment	Temperature	0°C~55°C(If operating temperature is above 45°C, force cooling will be required), storage temperature: -20~65°C(Non-freezing)											
	Humidity	Maximum 90% RH(Non-condensing), Storage: Below 90% RH (Non-condensing)											
	Installation Site	Indoors (avoid direct sunlight), no corrosive gas, avoid flammable gas,oil mist or dust											
	Altitude	Between sea level and 1000m											
	Vibration	Maximum 5.9m / S², 10~55 Hz (XYZ direction)											
	Cooling method	Natural cooling, open				Fan cooling, open (IP20)							
Position Control Mode	Input Pulse Frequency	Transmitted by differential: 500 Kpps (low speed)/4 Mpps (high-speed), Transmitted by open-collector: 200 Kpps											
	Command Pulse Type	CCW pulse + CW pulse, Pulse + direction, A phase + B phase pulse											
	Command Type	External pulse control / Set by parameters											
	Command Smoothing Strategy	Low-pass filter / Linear smoothing / S-curve smoothing											
	E-gear Ratio	Electronic gear A/B multiple A:1~4194304 B:1~4194304 (1/50 < A/B < 25600)											
	Error Excessive	±3 rotations											
	Torque limit	Set by parameters or external analog signal input (DC 0~+10V / maximum torque)											
	Feedforward Compensation	Set by parameters (0~200%)											
Speed Control Mode	Speed Control Range	analog speed command 1:2000, internal speed command1:5000											
	Command Type	External analog voltage input / Set by parameters											
	Command Smoothing Strategy	Low-pass filter / Linear smoothing / S-curve smoothing											
	Analog Speed Command input	Input DC0~±10V / Rated speed (Input Impedance 10~12kΩ)											
	Speed Fluctuation Rate	Maximum ±0.01% at 0 to 100% load fluctuation, Maximum 0.01% at ±10% power fluctuation											
	Torque Limit	Set by parameters or external analog input (DC 0~+10V / maximum torque)											
	Bandwidth	Above 3.2kHz											
Torque Control Mode	Command Type	External analog voltage input / Set by parameters											
	Command Smoothing Strategy	Low-pass filter											
	Analog Torque Command Input	Input DC0~±10V / Maximum torque (Input Impedance 10~12kΩ)											
	Speed Limit	Set by parameters or external analog input (DC 0~+10V / maximum speed)											
Input and Output Signal	Digital Input	Servo on, forward/reverse rotation limit prohibition, pulse error clear, torque direction selection, speed command selection, position command selection, forward/reverse rotation direction startup, proportion control switching, torque limit switching, fault reset, emergency stop, control mode switching, electronic gear ratio selection, gain switch, position command trigger, motor stop, pulse input prohibition, events trigger command, origin point searching, homing, E-CAM meshing											
	Digital Output	ABZ Line Driver output, Z open-collector output, torque limit reached, speed limit reached, reserved signal, zero speed reached, target position reached, target speed reached, alarm display, warning display, homing completed, overload level reached, internal position reached, position command overflow, software positive direction limit reached, software negative direction limit reached, Master position of E-CAM											
	Analog Input	Analog speed command / limit, analog torque command / limit											
	Analog Output	Command pulse frequency, pulse error, current command, DC bus voltage, servo motor speed, torque											

Connection with Peripheral Equipment

SDC Series

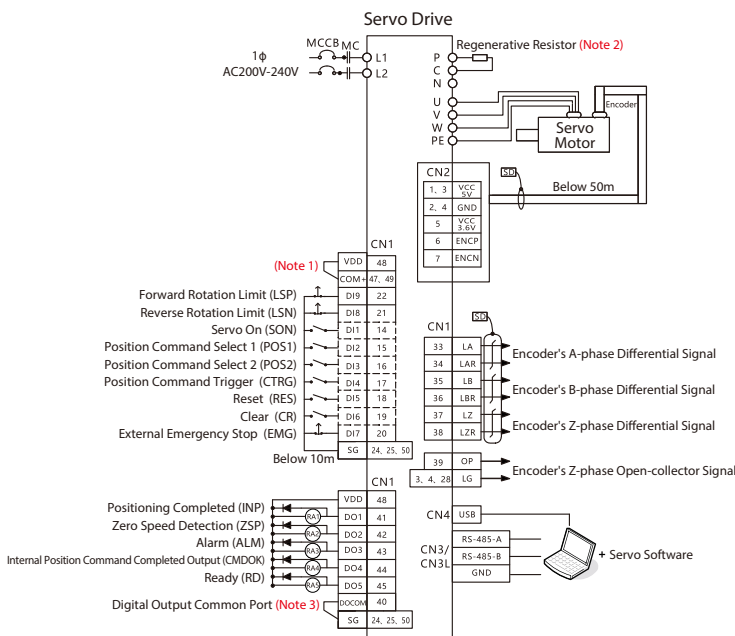
Wiring Diagram of Main Circuit Power and Peripherals



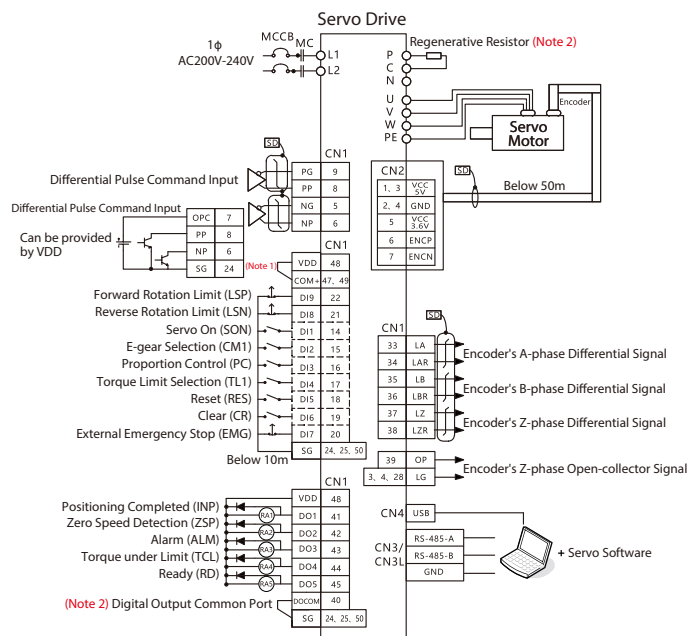
Connection with Peripheral Equipment

Wiring Diagram of Control Mode

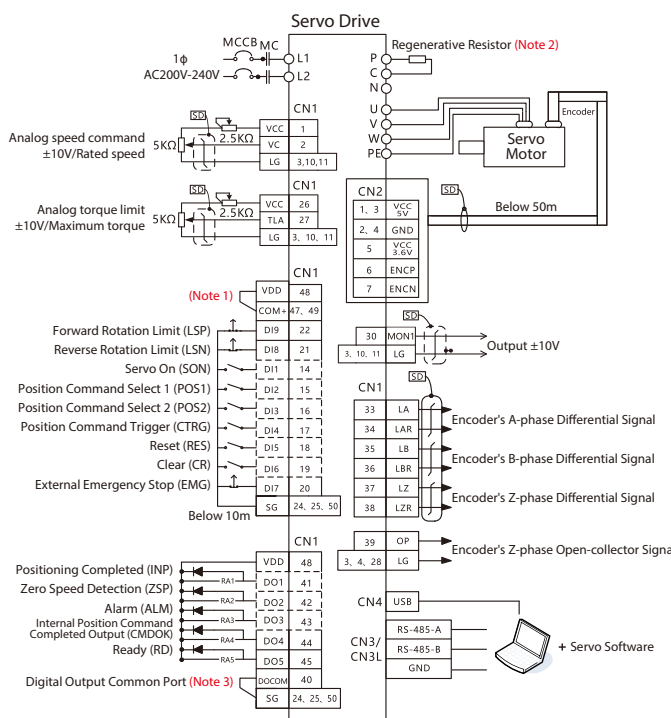
■ Pr Mode: Wiring Diagram of Procedure Control Mode



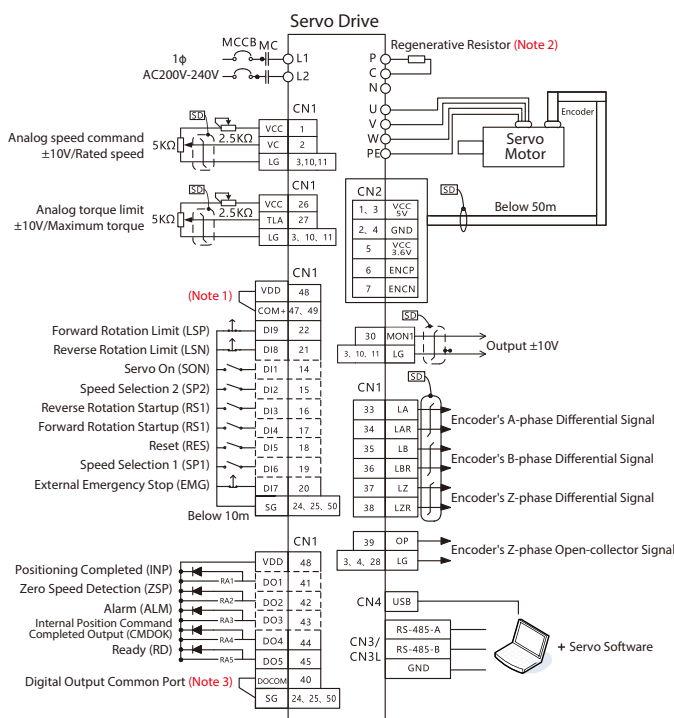
■ Pt Mode: Wiring Diagram of Position Control Mode



■ S Mode: Wiring Diagram of Speed Control Mode



■ T Mode: Wiring Diagram of Torque Control Mode



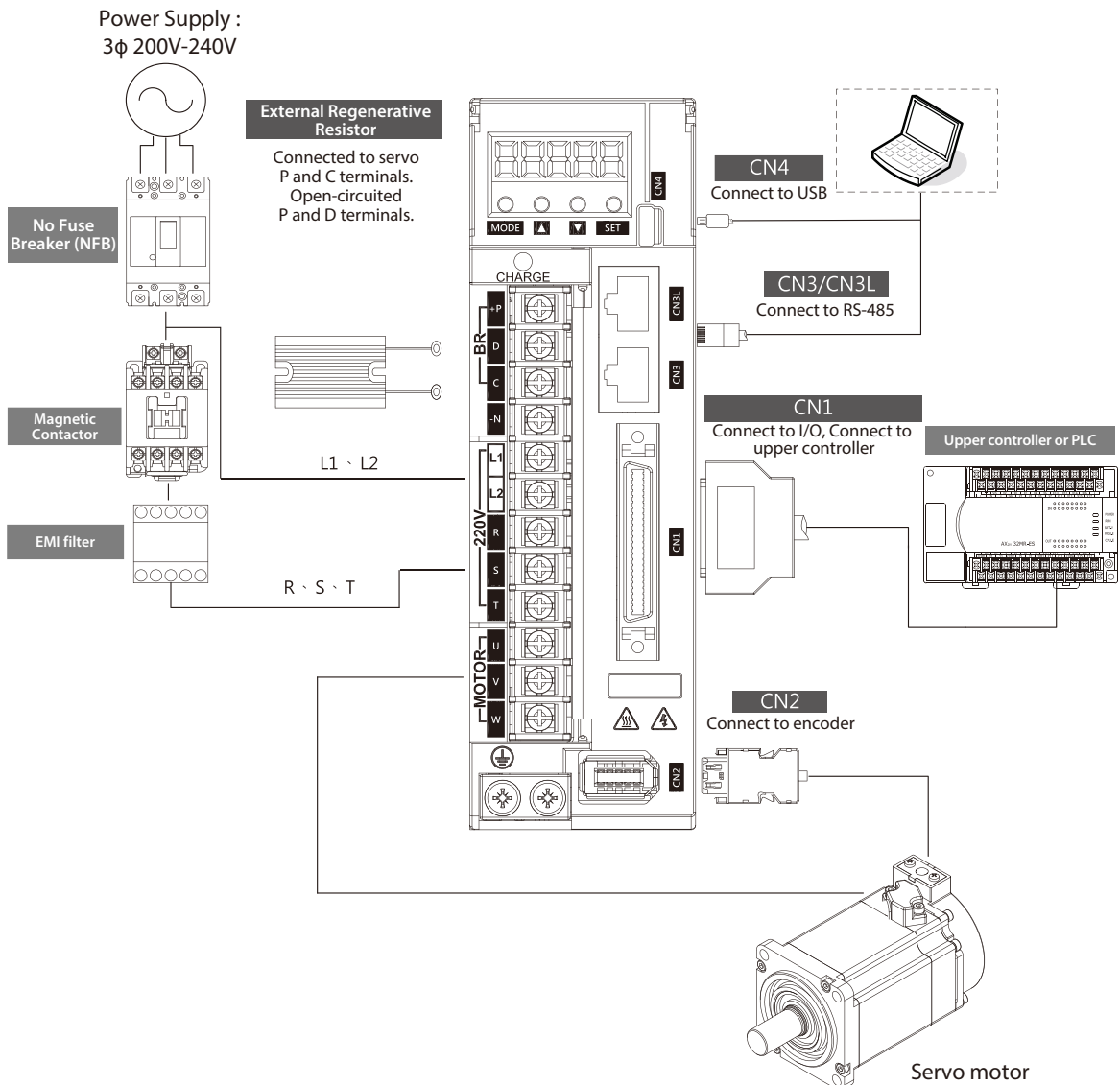
Note

1. While using external power supply, VDD and COM+ could not be connected.
2. Please refer to user manual for more details about regenerative resistor and brake unit.
3. Please refer to user manual for more details about digital DO output Sink Type or Source Type.
4. The dotted-line frame in the diagram above is for SDC-A(M) model. DI and DO can be self-defined.

Connection with Peripheral Equipment

SDE-P

Wiring Diagram of Main Circuit Power and Peripherals



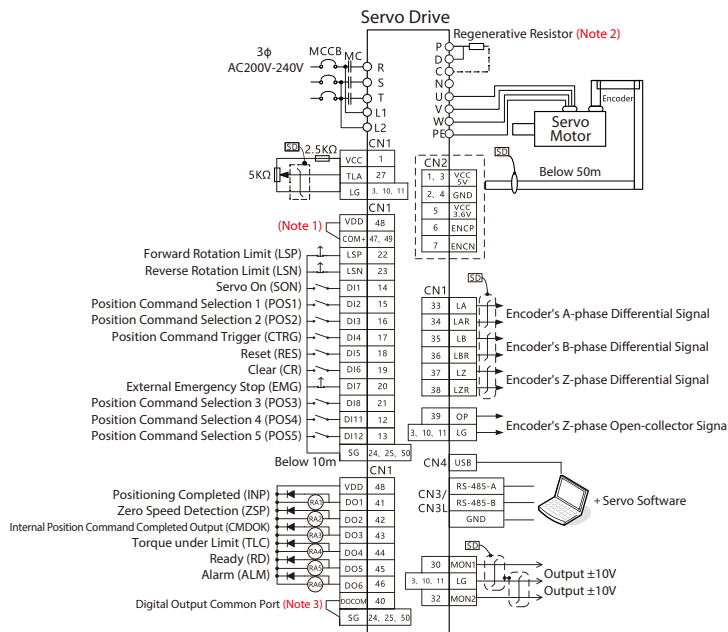
Note

1. While installing regenerative resistor, please remove the original P and D's short-circuit plate. Connect the external resistor to P and C contacts. Please refer to the user manual for each capacity resistance value and power.
2. While using a motor with brake, please use the specific power cable and DC24V should be connected. DO NOT use the VDD contact inside the drive. Please refer to user manual for more details.
3. While using absolute position, SDH-BAT-SET battery should be applied.

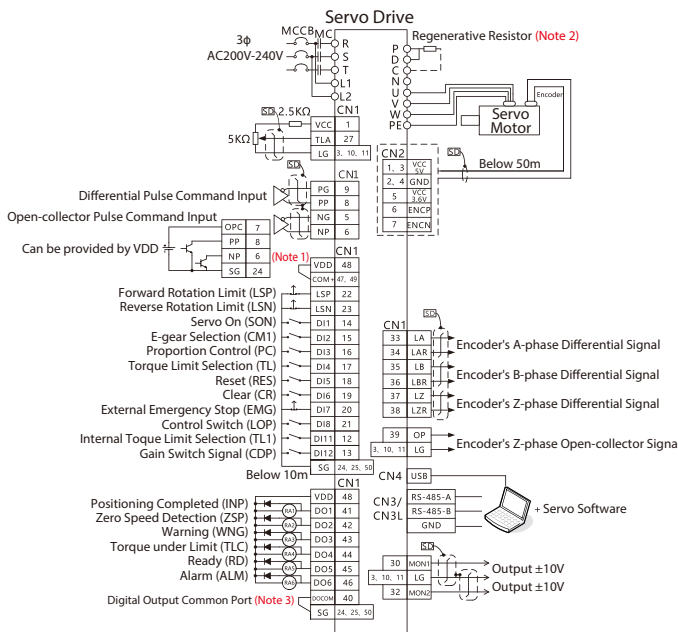
Connection with Peripheral Equipment

Wiring Diagram of Control Mode

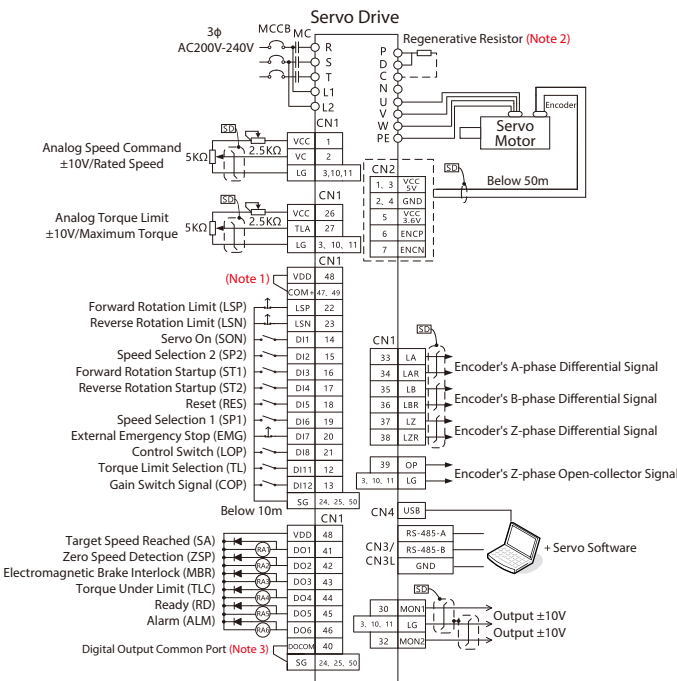
■ Pr Mode: Wiring Diagram of Procedure Control Mode



■ Pt Mode: Wiring Diagram of Position Control Mode



■ S Mode: Wiring Diagram of Speed Control Mode



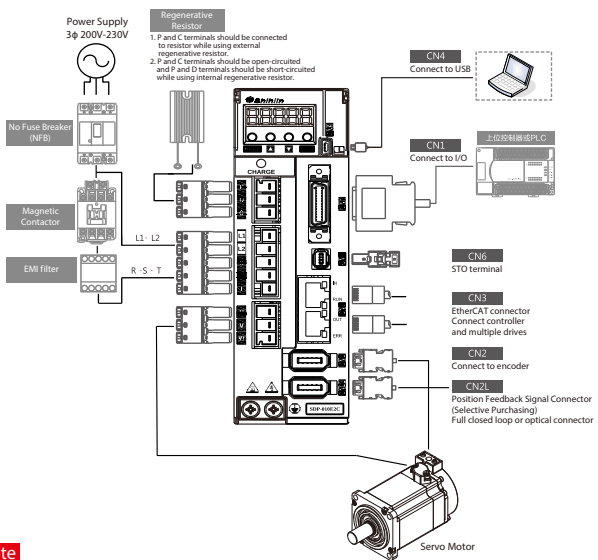
Note

1. While using external power supply, VDD and COM+ could not be connected.
2. Please refer to user manual for more details about regenerative resistor and brake unit.
3. Please refer to user manual for more details about digital DO output Sink Type or Source Type.

Connection with Peripheral Equipment

SDP-E

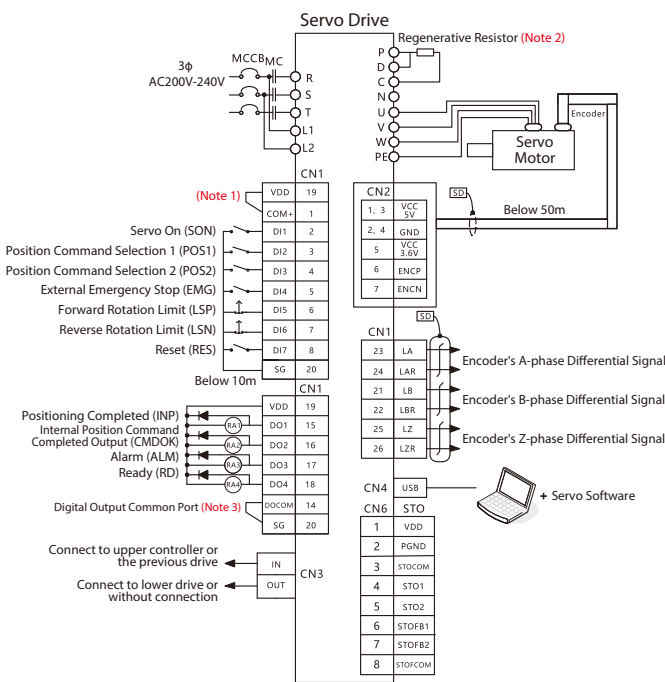
Wiring Diagram of Main Circuit Power and Peripherals



Note

1. While installing regenerative resistor, please remove the original P and D contact wires. Connect the external resistor to P and C contacts. Please refer to the user manual for each capacity resistance value and power.
2. While using a motor with brake, please use the specific power cable and DC24V should be connected. DO NOT use the VDD contact inside the drive. Please refer to user manual for more details.
3. While using absolute position, SDH-BAT-SET battery should be applied.

■ Pr Mode: Wiring Diagram of Procedure Control Mode

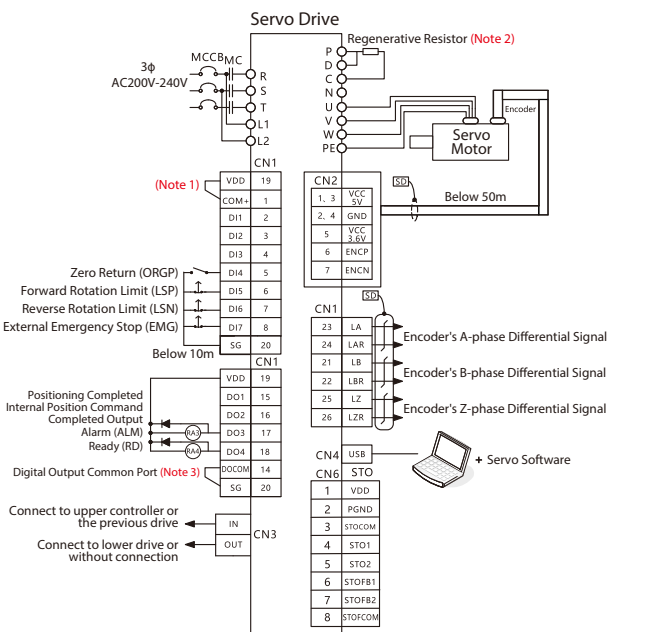


Note

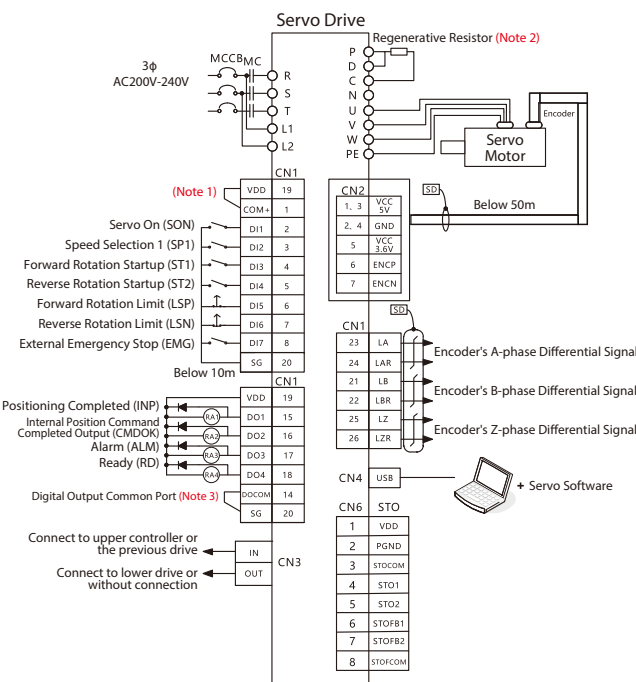
1. While using external power supply, VDD and COM+ could not be connected.
2. Please refer to user manual for more details about regenerative resistor and brake unit.
3. Please refer to user manual for more details about digital DO output Sink Type or Source Type.

Wiring Diagram of Control Mode

■ COE Mode: Wiring Diagram of EtherCAT Mode

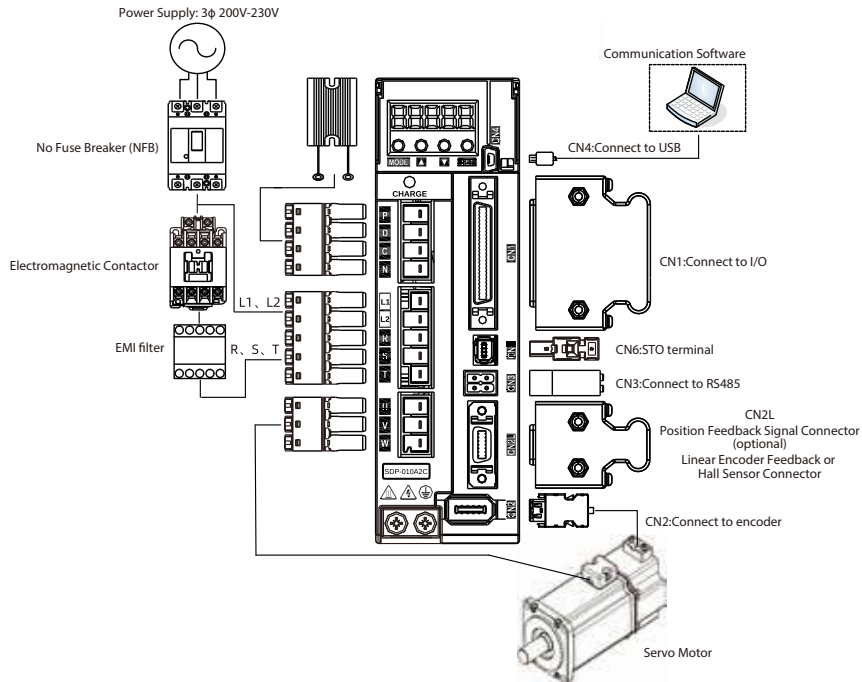


■ S Mode: Wiring Diagram of Speed Control Mode



Connection with Peripheral Equipment

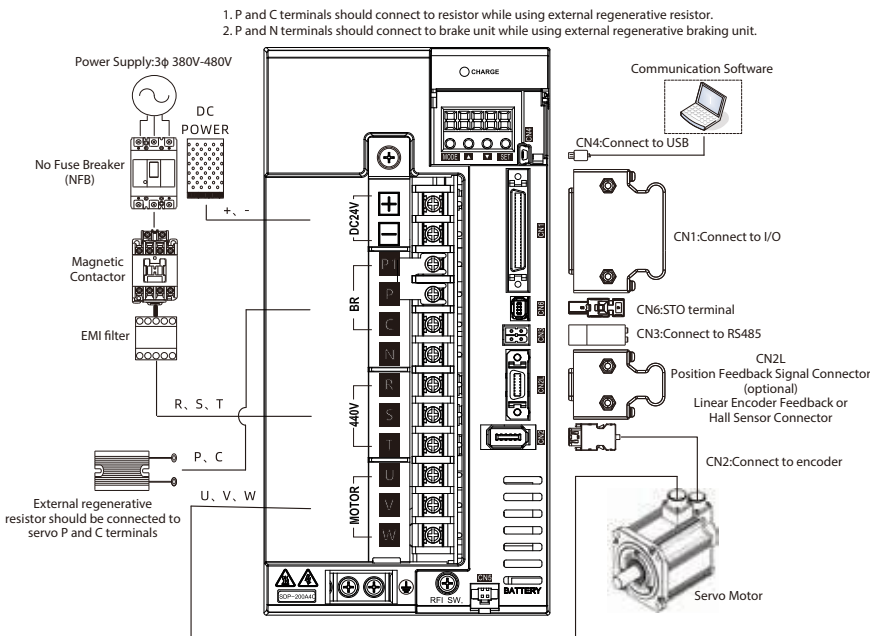
SDP-A Wiring Diagram of Main Circuit Power and Peripherals - 220V



Note

- 1.While installing regenerative resistor, please remove the original P and D contact wires. Connect the external resistor to P and C contacts. Please refer to the user manual for each capacity resistance value and power.
- 2.While using a motor with brake, please use the specific power cable and DC24V should be connected. DO NOT use the VDD contact inside the drive. Please refer to user manual for more details.
- 3.While using absolute position, SDH-BAT-SET battery should be applied.

Wiring Diagram of Main Circuit Power and Peripherals - 440V



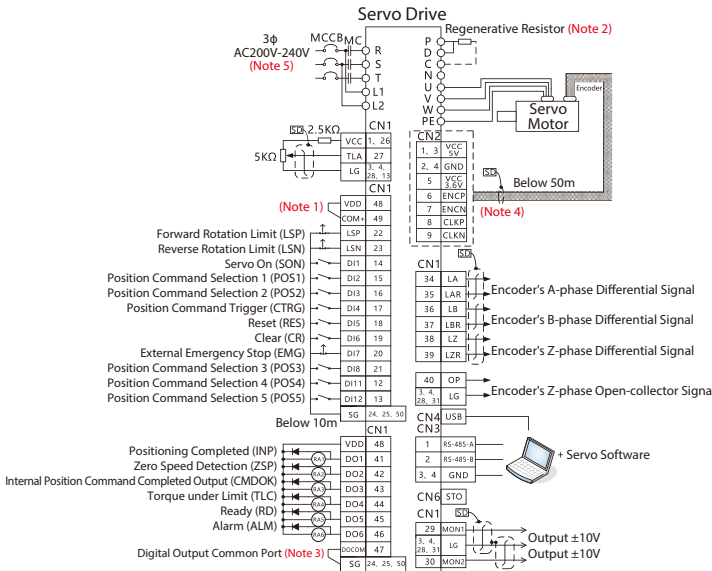
Note

- 1.While installing regenerative resistor, please connect it to P and C contacts. Please refer to the user manual for each capacity resistance value and power.
- 2.While using a motor with brake, please use the specific power cable and DC24V should be connected. DO NOT use the VDD contact inside the drive. Please refer to user manual for more details.
- 3.While using absolute position, SDH-BAT-SET battery should be applied.

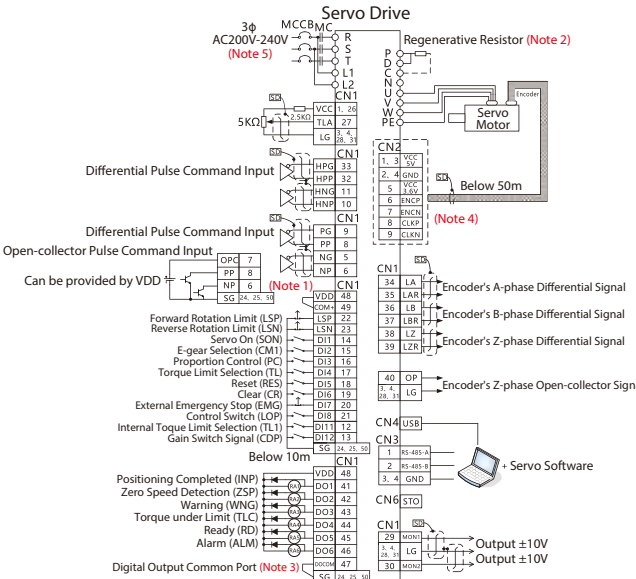
Wiring Diagram of Peripherals

Connection with Peripheral Equipment

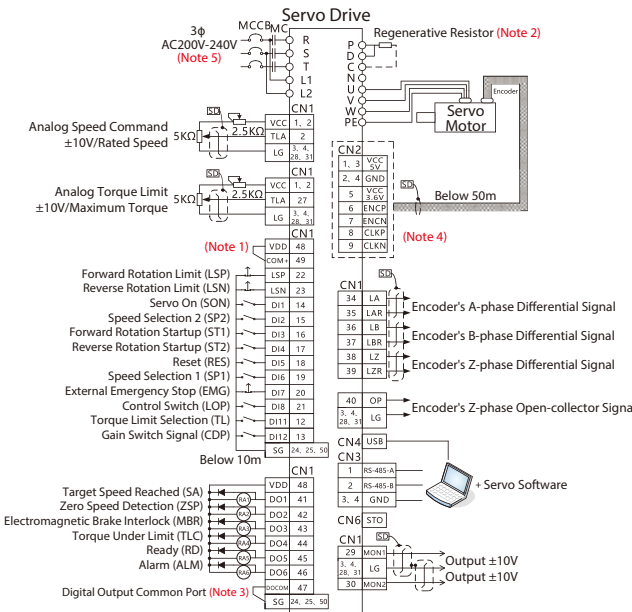
Pr Mode: Wiring Diagram of Procedure Control Mode



Pt Mode: Wiring Diagram of Position Control Mode



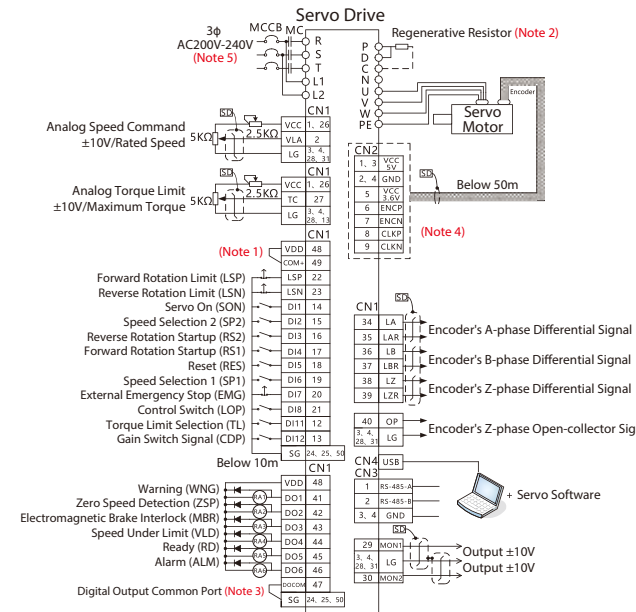
S Mode: Wiring Diagram of Speed Control Mode



Note

1. While using external power supply, VDD and COM+ could not be connected.
2. Please refer to user manual for more details about regenerative resistor and brake unit.
3. Please refer to user manual for more details about digital DO output Sink Type or Source Type.
4. CN2 and PIN6-9 should be connected only if Heidenhain absolute communication protocol (Endat 2.2) is needed.
5. There are no L1 and L2 for 440V system. Please connect to external DC 24V power supply on where the +/- symbol located on the front-panel.

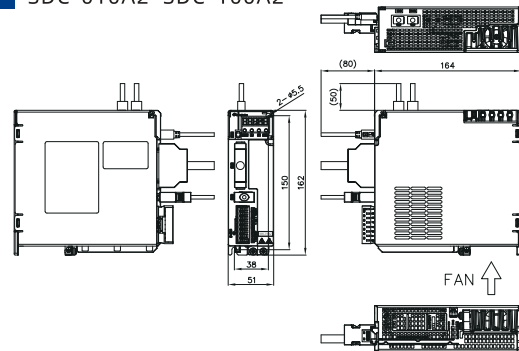
T Mode: Wiring Diagram of Torque Control Mode



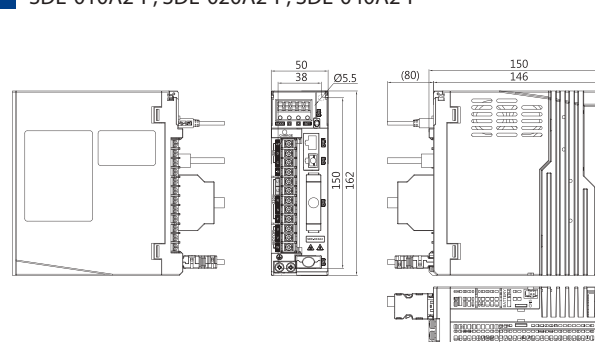
Drive Dimensions

Servo Drive Dimensions

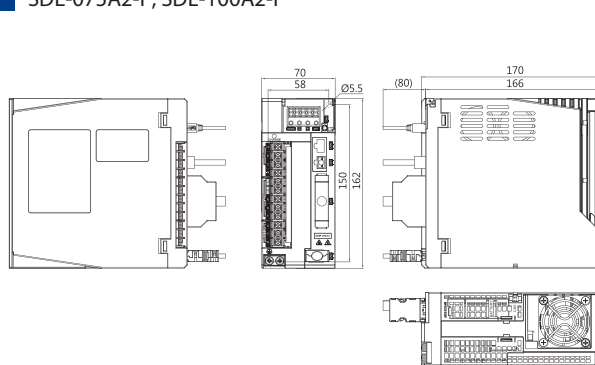
■ SDC-010A2~SDC-100A2



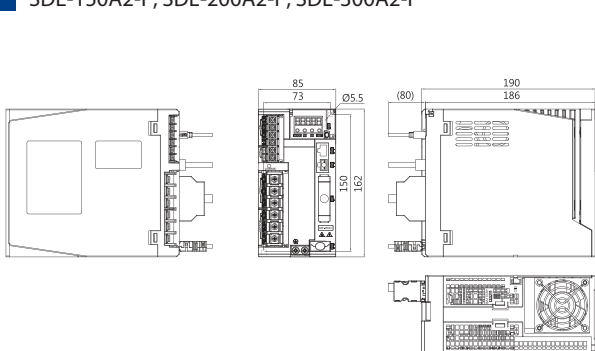
■ SDE-010A2-P, SDE-020A2-P, SDE-040A2-P



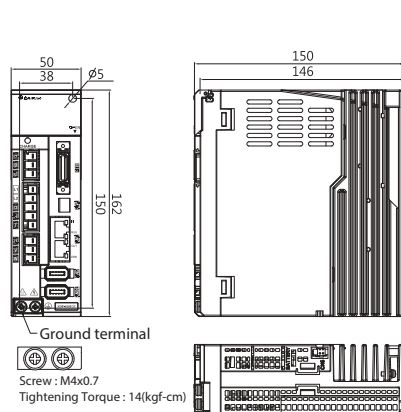
■ SDE-075A2-P, SDE-100A2-P



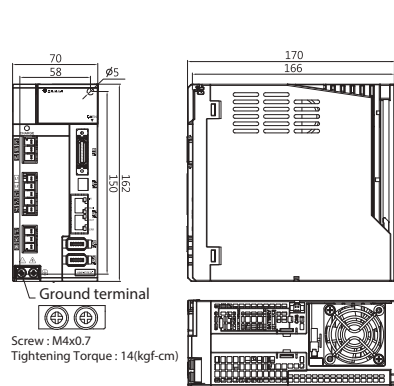
■ SDE-150A2-P, SDE-200A2-P, SDE-300A2-P



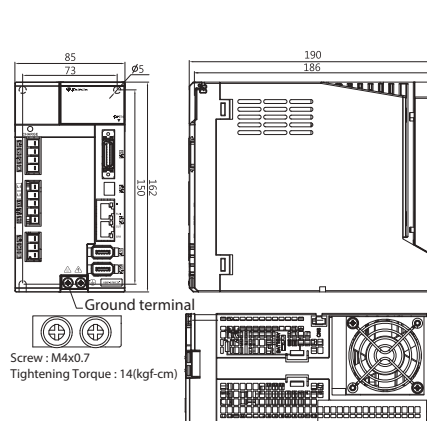
■ SDP-010E2C, SDP-020E2C
SDP-040E2C



■ SDP-075E2C, SDP-100E2C



■ SDP-150E2C, SDP-200E2C
SDP-300E2C

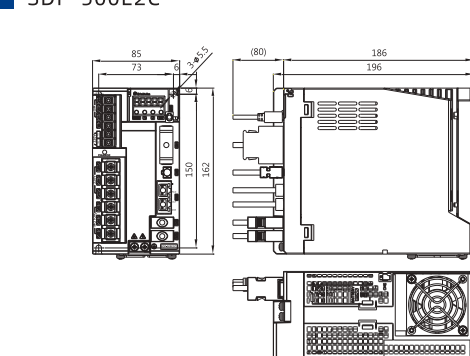


Note:
1. Please refer to the Shihlin official website for the latest drawings.
Dimensions may be revised without prior notice.
2. 3D drawings download link: <http://automation.seec.com.tw>

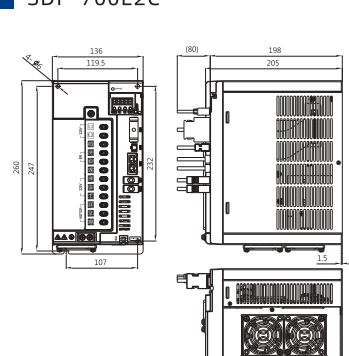
Dimensions

Servo Drive Dimensions

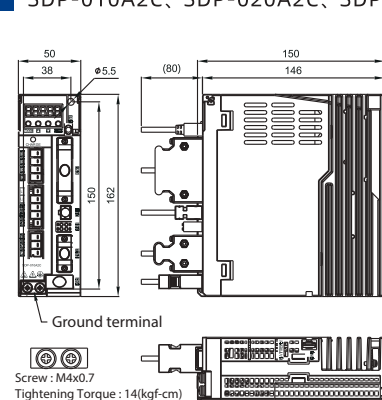
■ SDP-500E2C



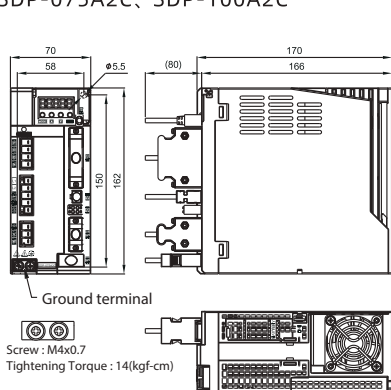
■ SDP-700E2C



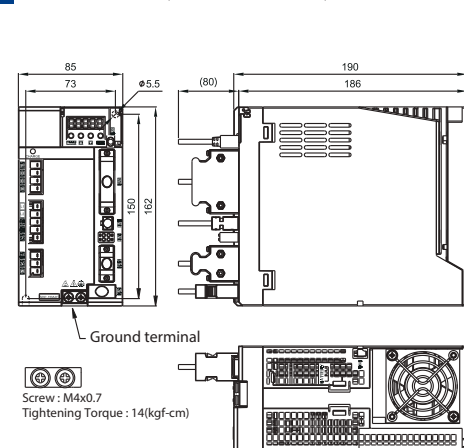
■ SDP-010A2C, SDP-020A2C, SDP-040A2C



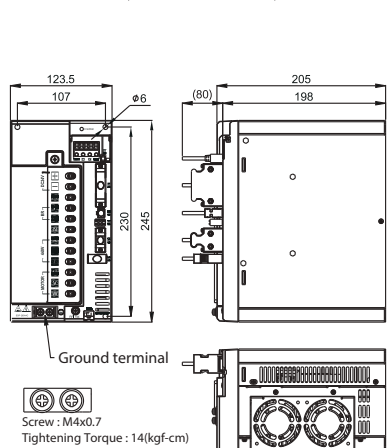
■ SDP-075A2C, SDP-100A2C



■ SDP-150A2C, SDP-200A2C, SDP-300A2C



■ SDP-200A4C, SDP-300A4C, SDP-500A4C, SDP-700A4C



Note:
1. Please refer to the Shihlin official website for the latest drawings.
Dimensions may be revised without prior notice.
2. 3D drawings download link: <http://automation.seec.com.tw>

Servo Drive Selection Table

Servo Drive Selection Table

Series	Control Method	Model	Power	Power Supply	Response Bandwidth kHz	EtherCAT Bus	CANopen Bus	RS 485 Communication	Total I/Os	Pulse Input Type					Z phase OP Output	Analog Output	Analog Input	Full-closed Loop	E-CAM	Gantry Control	Support Linear and DD Motor	Pr Mode (Internal Position)	Support Encoder Resolution
										Pulse Signal Mode			Wiring Type										
										Pulse + Direction	AB Phase	CW / CCW	Differential Transmission 3V	Open-collector									
SDC	A (Pulse Type) A(M) (Advanced Analog Type)	SDC-010A2	0.1	1φ AC 200~240V	2	×	×	√	9/5 (A(M): 6/3)	√	√	√	√	√	√	x A(M): 2	x A(M): 1	x	x	x	x	√	17bit/22bit
		SDC-020A2	0.2																				
		SDC-040A2	0.4																				
		SDC-075A2	0.75																				
		SDC-100A2	1																				
	E (EtherCAT Bus Type)	Coming soon					√	×	×	5/3	×	×	×	×	×	×	×	×	×	×	√	17bit/22bit	
SDE	P (Advanced Pulse Type)	SDE-010A2-P	0.1	1φ or 3φ AC 200~240V	2	×	×	√	12/6	√	√	√	√	√	√	2	2	×	×	×	×	√	22bit
		SDE-020A2-P	0.2																				
		SDE-040A2-P	0.4																				
		SDE-075A2-P	0.75																				
		SDE-100A2-P	1																				
		SDE-150A2-P	1.5																				
		SDE-200A2-P	2																				
		SDE-300A2-P	3	3φ AC 200~240V																			
SDP	E (EtherCAT Bus Type)	SDP-010E2C	0.1	1φ or 3φ AC 200~240V	2.5	√	×	×	7/4	×	×	×	×	×	×	×	×	√	√	√	×	√	24bit
		SDP-020E2C	0.2																				
		SDP-040E2C	0.4																				
		SDP-075E2C	0.75																				
		SDP-100E2C	1																				
		SDP-150E2C	1.5																				
		SDP-200E2C	2																				
		SDP-300E2C	3	3φ AC 200~240V																			
		SDP-500E2C	5																				
		SDP-700E2C	7																				
SDP	A (High-end Pulse Type)	SDP-010A2C	0.1	1φ or 3φ AC 200~240V	3.2	×	×	√	12/6	√	√	√	√	√	√	2	2	√	√	√	√	√	24bit
		SDP-020A2C	0.2																				
		SDP-040A2C	0.4																				
		SDP-075A2C	0.75																				
		SDP-100A2C	1																				
		SDP-150A2C	1.5																				
		SDP-200A2C	2																				
		SDP-300A2C	3	3φ AC 200~240V																			
		SDP-200A4C	2	3φ AC 400V																			
		SDP-300A4C	3																				
		SDP-500A4C	5																				
		SDP-700A4C	7																				

Accessories

Accessories

Item		Model	SME-L	SME-M	SME-H	SMP-H	
Motor power cable	Connector (without brake)	SDA-PWCNL1	50W~750W, 1kW (80 frame)	×	50W~750W	×	
	Cable (without brake) ^(Note 1)	SDE-PWCNL1-□M-L/H					
	Connector (with brake)	SDA-PWCNL2					
	Cable (with brake) ^(Note 1)	SDE-PWCNL2-□M-L/H					
	Connector	SDA-PWCNM1	1kW~3kW	1kW~1.5kW	850W~1.8kW	×	
	Cable (without brake)	SDE-PWCNM1-□M-L/H					
	Cable (with brake)	SDE-PWCN1B-□M-L/H					
	Connector	SDA-PWCNM2	×	2kW~3kW	×	×	
	Cable (without brake) ^(Note 1)	SDE-PWCNM2-□M-L/H					
	Cable (with brake) ^(Note 1)	SDE-PWCNM2B-□M-L/H					
	Connector	SDH-PWCNM4	×	5kW~7kW	×	×	
	Cable ^(Note 1)	SDH-PWCNM4-□M-L/H		5kW			
		SDH-PWCNM5-□M-L/H		7kW			
	Connector	SDP-PWCNH1	×	×	×	1.8kW	
	Cable	SDP-PWCNH1-□M-L/H					
	Connector	SDP-PWCNH2	×	×	×	2.9kW~4.4kW (model without brake)	
	Cable ^(Note 1)	SDP-PWCNH2-□M-L/H					
	Connector	SDP-PWCNH3	×	×	×	2.9kW~4.4kW (model with brake) 5.5kW~7.5kW	
	Cable ^(Note 1)	SDP-PWCNH3-□M-L/H					
	Brake connector	SDH-BKCNS1	×	5kW~7kW	×	×	
		SDP-BKCNS1	×	×	×	1.8kW~7.5kW	
		Brake cable ^(Note 1)	SDH-BKCNS1-□M-L/H	×	5kW~7kW	×	×
			SDP-BKCNS1-□M-L/H	×	×	×	1.8kW~7.5kW
Encoder cable CN2	Connector	SDH-ENL	50W~750W, 1kW (80 frame)	×	×	×	
	Cable ^(Note 1)	SDH-ENL-□M-L/H					
	Connector	SDH-ENM	1kW~3kW	1kW~3kW	850W~1.8kW	×	
	Cable ^(Note 1)	SDH-ENM-□M-L/H					
	Connector	SDP-ENM	×	×	×	1.8kW~7.5kW	
	Cable ^(Note 1)	SDP-ENM-□M-L/H					
		Linear motor encoder cable (Endat 2.2 protocol) ^(Note 1)	SDP-Endat (Connector)	For SDP-A			
		SDP-Endat-□M-L/H (Cable)					
For CN2L	Full closed loop Gantry control	SDH-CN2 (Connector)	For SDP-E				
		SDH-CN2L-0.5M (Cable)					
		SDP-CN2 (Connector)	For SDP-A				
		SDP-CN2L-□M					
For CN1	I/O connector	SDA-CN1	For SDC-A, SDE-P, SDP-A				
		SDP-CN1	For SDP-E				
	Terminal block and wire set	SDA-TB50	For SDC-A, SDE-P, SDP-A				
		SDA-TBL05M/1M/2M					
		SDP-TB26	For SDP-E				
		SDP-TBL05M/1M/2M					
For CN6	STO communication cable	SDP-CN6-□M	For SDP Series				
Battery set ^(Note 2)	Absolute encoder battery set	SDH-BAT-SET	√	√	√	√	
	Absolute encoder battery	SDH-BAT					
	Absolute encoder battery case	SDH-BAT-CASE					

Servo Motor Selection Table

Servo Motor Selection Table

Power (kW)	Model ^(Note 1)	Compatible Drive	Frame (mm)	Shaft diameter ^(Note 2) (mm)	Inertia Type	Rotor Inertia ^(Note 1) J*10 ⁻⁴ (kg.m2)	Encoder Resolution (bit)	Rated Speed (rpm)	Maximum Speed (rpm)	Rated Torque (Nm)	Maximum Torque (Nm)	Rated current (A)	Maximum current (A)	Weight ^(Note 3) C/U(kg)									
0.05	SME-L00530SCB (SME-L00530SDB) SME-L00530MCB (SME- L00530MDB)	SDE-010 SDP-010	40	8	Low	0.0295 (0.0299)	22(SDE-P) 24(SDP)	3000	6000	0.2	0.48	0.85	2.7	0.33 (0.55)									
0.1	SME-L01030TCB (SME-L01030TDB)	SDC-010	40	8	Low	0.0518 (0.0523)	17	3000	6000	0.3	0.96	0.85	2.7	0.49 (0.71)									
	SME -L01030NCB (SME-L01030NDB)																						
	SME-L01030SCB (SME-L01030SDB)	SDC-010 SDE-010 SDP-010				0.0518 (0.0523)	22(SDC-A, SDE-P) 24(SDP)							0.45 (0.67)									
	SME-L01030MCB (SME- L01030MDB)																						
0.2	SME-L02030TCB (SME-L02030TDB)	SDC-020	60	14	Low	0.161 (0.178)	17	3000	6000	0.6	1.92	1.7	5.2	0.89 (1.27)									
	SME-L02030NCB (SME-L02030NDB)																						
	SME-L02030SCB (SME-L02030SDB)	SDC-020 SDE-020 SDP-020		14	Low	0.161 (0.178)	22(SDC-A, SDE-P) 24(SDP)							0.85 (1.23)									
	SME-L02030MCB (SME-L02030MDB)																						
	SME-H02030SCB (SME-H02030SDB)			High	0.354 (0.371)	2.24					6		0.86 (1.23)										
	SME-H02030MCB (SME-H02030MDB)																						
0.4	SME-L04030TCB (SME-L04030TDB)	SDC-040	60	14	Low	0.277 (0.294)	17	3000	6000	1.3	3.81	2.8	9	1.28 (1.66)									
	SME-L04030NCB (SME-L04030NDB)																						
	SME-L04030SCB (SME-L04030SDB)	SDC-040 SDE-040 SDP-040		14	Low	0.277 (0.294)	22(SDC-A, SDE-P) 24(SDP)							1.23 (1.59)									
	SME-L04030MCB (SME- L04030MDB)																						
	SME-H04030SCB (SME-H04030SDB)			High	0.619 (0.636)	4.45					3		10.5	1.25 (1.63)									
	SME-H04030MCB (SME-H04030MDB)																						
0.75	SME-L07530TCB (SME-L07530TDB)	SDC-075	80	19	Low	1.07 (1.11)	17	3000	6000	2.4	7.2	5.8	18.5	2.28 (3.02)									
	SME-L07530NCB (SME-L07530NDB)																						
	SME-L07530SCB (SME-L07530SDB)	SDC-075 SDE-075 SDP-075		19	Low	1.07 (1.11)	22(SDC-A, SDE-P) 24(SDP)							2.24 (2.87)									
	SME-L07530MCB (SME-L07530MDB)																						
	SME-H07530SCB (SME-H07530SDB)			High	1.655 (1.713)	8.4					5.8		20.3	2.27 (3.10)									
	SME-H07530MCB (SME- H07530MDB)																						
0.85	SME-H08515SCB (SME-H08515SDB) SME-H08515MCB (SME-H08515MDB)	SDC-100 SDE-100 SDP-100	130	24 (22)	High	13.01 (14.91)	22(SDC-A, SDE-P) 23(SDP)	1500	3500	5.4	13.8	7.2	20.1	5.1 (6.9)									
1	SME-L10030TCB (SME-L10030TDB)	SDC-100	80	19	Low	1.89 (1.91)	17	3000	5000	3.2	9.5	5.5	18.2	3.55 (4.36)									
	SME-L10030NCB (SME-L10030NDB)																						
	SME-L10020SCB (SME-L10020SDB)	SDC-100 SDE-100 SDP-100				130	24 (22)							Medium	6.1 (8)	22(SDC-A, SDE-P) 23(SDP)	2000	3500	4.8	14.4	5.8	17.4	5.2/5.6 (7.0/7.4)
	SME-L10020MCB (SME-L10020MDB)																						
	SME-M10020SCB (SME-M10020SDB)																						
	SME-M10020MCB (SME-M10020MDB)																						
1.3	SME-H13015SCB (SME-H13015SDB) SME-H13015MCB (SME-H13015MDB)	SDE-300 SDP-300	130	24 (22)	High	19.82 (21.72)	22(SDE-P) 23(SDP)	1500	3500	8.3	23.2	13.2	40.3	6.6 (8.4)									
1.5	SME-L15020SCB (SME-L15020SDB)	SDE-150 SDP-150	130	24 (22)	Low	8.8 (10.7)	22(SDE-P) 23(SDP)	2000	3500	7.2	21.6	8.5	25.2	6.5/6.9 (8.3/8.7)									
	SME-L15020MCB (SME-L15020MDB)																						
	SME-M15020SCB (SME- M15020SDB)				Medium	15 (17)								6.9/7.2 (8.7/9.0)									
	SME-M15020MCB (SME-M15020MDB)																						
1.8	SME-H18015SCB (SME-H18015SDB) SME-H18015MCB (SME-H18015MDB)	SDE-300 SDP-300	130	24 (22)	High	26.42 (28.32)	22(SDE-P) 23(SDP)	1500	3500	12	28.7	17.6	48.3	7.8 (9.6)									

Regenerative Resistor Selection Table

Servo Motor Selection Table

Power (kW)	Model ^(Note 1)	Compatible Drive	Frame (mm)	Shaft diameter ^(Note 2) (mm)	Inertia Type	Rotor Inertia ^(Note 1) J*10 ⁻⁴ (kg.m2)	Encoder Resolution (bit)	Rated Speed (rpm)	Maximum Speed (rpm)	Rated Torque (Nm)	Maximum Torque (Nm)	Rated current (A)	Maximum current (A)	Weight ^(Note 3) C/U(kg)
2	SME-L20020SCB (SME-L20020SDB)	SDE-200 SDP-200	130	24 (22)	Low	11.5 (13.5)	22(SDE-P) 23(SDP)	2000	3500	9.6	28.5	11	33	7.7/8.1 (9.5/9.9)
	SME-L20020MCB (SME-L20020MDB)													
	SME-M20020SCB (SME-M20020SDB)		176	35	Medium	32.1 (42.4)							34.7	10.5/11 (15.8/16.3)
	SME-M20020MCB (SME-M20020MDB)													
3	SME-L30020SCB (SME-L30020SDB)	SDE-300 SDP-300	130	24 (22)	Low	16.7 (18.7)	22(SDE-P) 23(SDP)	2000	3500	14	43	16	48	10.2/10.6 (12.0/12.4)
	SME-L30020MCB (SME-L30020MDB)													
	SME-M30020SCB (SME-M30020SDB)		176	35	Medium	61.2 (71.6)								15.3/15.8 (20.6/21.1)
	SME-M30020MCB (SME-M30020MDB)													
5	SME-M50020SCB (SME-M50020SDB)	SDP-500	176	35	Medium	84.6 (95)	23	2000	2000	24	71.7	22	66	19.1 (24.4)
7	SME-M70020SCB (SME-M70020SDB)	SDP-700	176	35	Medium	121.6 (132)	23	2000	2000	33	100.2	30	90	24.5 (29.8)
	SME-M70020MCB (SME-M70020MDB)													
1.8	SMP- H18015MCB4 (SMP- H18015MDB4)	SDP-200A4	130	24	High	26.1 (28.1)	23	1500	3000	12	28.7	8.4	20	8.8 (10.76)
2.9	SMP- H29015MCB4 (SMP- H29015MDB4)	SDP-300A4	180	35	High	46 (54.5)	23	1500	3000	19	45.1	12	28	13 (19.5)
4.4	SMP-H44015MCB4 (SMP-H44015MDB4)	SDP-500A4	180	35	High	67.5 (75.4)	23	1500	3000	28	71.1	16.5	40.5	17.5 (24)
5.5	SMP-H55015MCB4 (SMP-H55015MDB4)		180	42		89 (97.5)		1500	3000	35	87.6	20.8	52	22 (27.8)
7.5	SMP-H75015MCB4 (SMP-H75015MDB4)	SDP-700A4	180	42	High	125 (134)	23	1500	3000	48	119	27	69	29.5 (35)

Note

- 1.The details inside () are the models and specifications for motors with brake.
2.The details inside () are special shaft diameters. Please contact Shihlin for more details.
1&3.Weight C/U C: Weight of model with CE certification; U: Weight of model with UL certification. Motors with special specifications are not listed in this table.
If there's any requirement, please contact Shihlin for more details.

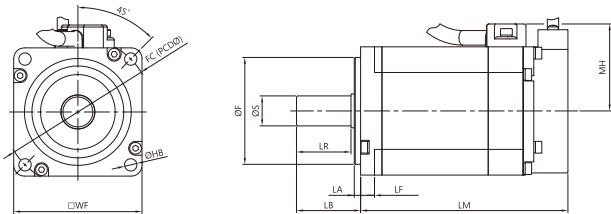
Regenerative Resistor Selection Table SDC/SDE/SDP Series

Drive Model	External regenerative resistor (recommended) specifications		Regenerative resistor parameter setting	
	Minimum allowance resistance(Ω)	Recommended capacity(W)	PA10 setting	PA11 setting
SD□-010A2□□□	100	300	100	300
SD□-020A2□□□	100	300	100	300
SD□-040A2□□□	100	300	100	300
SD□-075A2□□□	40	500	40	500
SD□-100A2□□□	40	500	40	500
SD□-150A2□□□	13	1000	13	1000
SD□-200A2□□□	13	1000	13	1000
SD□-300A2□□□	13	1000	13	1000
SD□-500A2□□□	13	1000	13	1000
SD□-700A2□□□	8	1000	8	1000
SD□-200A4□□	30	1000	30	1000
SD□-300A4□□	30	1000	30	1000
SD□-500A4□□	20	2000	20	2000
SD□-700A4□□	15	2000	15	2000

Motor Dimensions

220V (Optical Encoder) Motor Dimensions

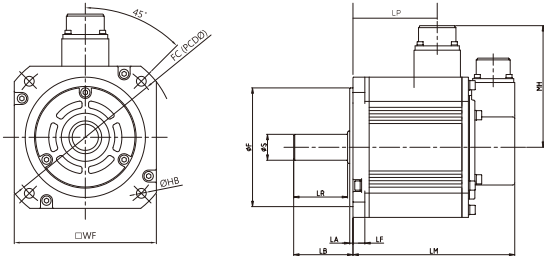
■ Small Capacity Low Inertia SME-L□□□30/
Low Capacity High Inertia SME-H□□□30



Model	Dimensions (mm)										
	WF	ØS	ØF	LA	LB	LF	LR	MH	LM*	FC	HB
SME-L005(B)	40	Ø8 ^{+0.009} _{-0.011}	Ø30 ⁰ _{-0.03}	2.5	25	5.5	21.5	32	64.5 (99.2)	46	2-Ø4.5
SME-L010(B)									80.0 (114.7)		
SME-L020(B)	60	Ø14 ^{+0.011} _{-0.013}	Ø50 ⁰ _{-0.03}	3	30	6.5	25	42	77.0 (112)	70	4-Ø5.8
SME-H020(B)									97.0 (132)		
SME-L040(B)									101.2 (140.2)		
SME-H040(B)									101.2 (145.5)		
SME-L075(B)	80	Ø19 ^{+0.013} _{-0.015}	Ø70 ⁰ _{-0.03}	3	40	7.5	35.5	52	101.2 (140.2)	90	4-Ø6.6
SME-H075(B)									101.2 (145.5)		

*LM() stands for the length of the servo motor with brake.

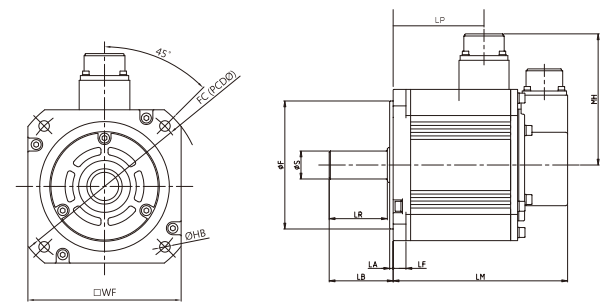
■ Medium Capacity Medium Inertia SME-M□□□20



Model	Dimensions (mm)											
	WF	ØS	ØF	LA	LB	LF	LR	LP	MH	LM*	FC	HB
SME-M100(B)	130	Ø24 ⁰ _{-0.013}	Ø110 ⁰ _{-0.015}	3	55	11	50	55.5	113	127 (161)	145	4-Ø9.0
SME-M150(B)								70		141.5 (175.5)		
SME-M200(B)	176	Ø35 ⁰ _{-0.016}	Ø114.3 ⁰ _{-0.03}	3	78	18.5	74	61.5	139	139 (189)	200	4-Ø13.5
SME-M300(B)								91.5		169 (219)		
SME-M500(B)								106.4		189 (239)		
SME-M700(B)								146.4		229 (239)		

*LM() stands for the length of the servo motor with brake.

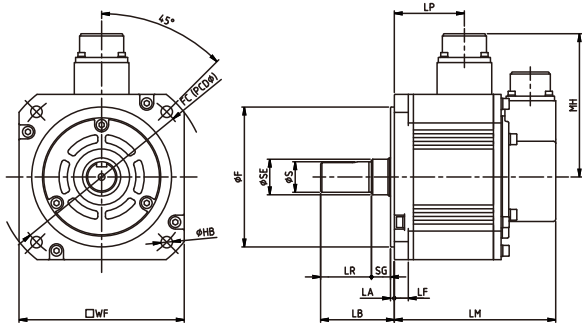
■ Medium Capacity Low Inertia SME-L□□□20



Model	Dimensions (mm)											
	WF	ØS	ØF	LA	LB	LF	LR	LP	MH	LM*	FC	HB
SME-L100(B)	130	Ø24 ⁰ _{-0.013}	Ø110 ⁰ _{-0.015}	3	55	11	50	55.5	113	127 (161)	145	4-Ø9.0
SME-L150(B)								70		141.5 (175.5)		
SME-L200(B)								84.5		156 (190)		
SME-L300(B)								113.5		185 (219)		

*LM() stands for the length of the servo motor with brake.

■ Medium Capacity High Inertia SME-H□□□15



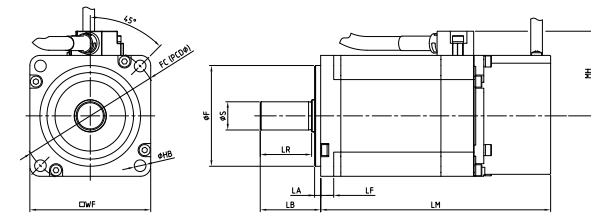
Model	Dimensions (mm)													
	WF	ØS	ØF	LA	LB	LF	LR	LP	MH	LM*	ØSE	SG	FC	HB
SME-H085(B)	130	Ø24 _{-0.013}	Ø110 _{-0.031}	3	58	11	40	55.5	113	127 (161)	Ø28	15	145	4-Ø9.0
SME-H130(B)								70		141.5 (175.5)				
SME-H180(B)								84.5		156 (190)				

*LM() stands for the length of the servo motor with brake.

Motor Dimensions

220V (Magnetic Encoder) Motor Dimensions

■ Small Capacity Low Inertia SME-L□□□30

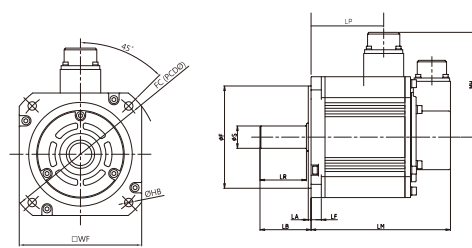


Model (Magnetic Encoder)	Dimensions (mm)										
	WF	ØS	ØF	LA	LB	LF	LR	MH	LM*	FC	HB
SME-L010(B)	40	Ø8 ^{+0.009} _{-0.011}	Ø30 ⁰ _{-0.03}	2.5	25	5.5	21.2	32	97.8 (132.5)	46	2-Ø4.5
SME-L020(B)	60	Ø14 ^{+0.011} _{-0.013}	Ø50 ⁰ _{-0.03}	3	30	6.5	25.5	42	94.2 (129.2)	70	4-Ø5.8
SME-L040(B)									114.2 (149.2)		
SME-L075(B)	80	Ø19 ^{+0.013} _{-0.015}	Ø70 ⁰ _{-0.03}	3	40	7.5	35.3	52	119.2 (158.2)	90	4-Ø6.6
SME-L100(B)									159.2 (203.5)		

*LM() stands for the length of the servo motor with brake.

440V (Optical Encoder) Motor Dimensions

■ Medium Capacity High Inertia SME-H□□□15



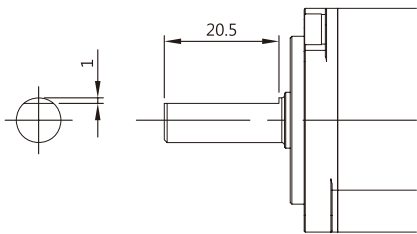
Model (Optical Encoder)	Dimensions (mm)													
	WF	ØS	ØF	LA	LB	LR	LM*	SE	SG	FC	ØHB	LP	MH	
SMP-H180(B)	130	Ø24 ⁰ _{-0.013}	Ø110 ⁰ _{-0.012}	6	58	40	184.9 (217.4)	Ø28	12	145	4-Ø9.0	128.5	104.5	
SMP-H290(B)	180	Ø35 ^{+0.01} ₀	Ø114.3 ⁰ _{-0.021}	3.2	79	-	173.3 (231)	-	-	200	4-Ø13.5	118.5	135.5	
SMP-H440(B)							197.3 (255)					142.5	135.5	
SMP-H550(B)							236.3 (278)					173.5	135.5	
SMP-H750(B)							282.3 (324)					219.5	135.5	

*LM() stands for the length of the servo motor with brake.

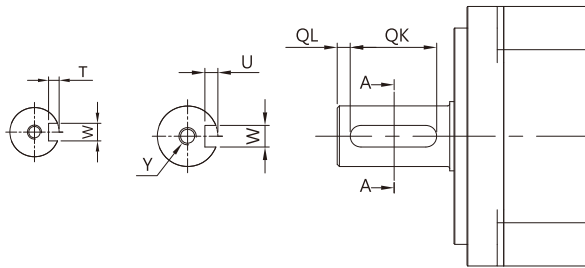
Motor Shaft and Key Dimensions

Dimensional Drawing of Motor Shaft Key Slot

■ D-cut Shaft: L005/L010



■ General Keyway

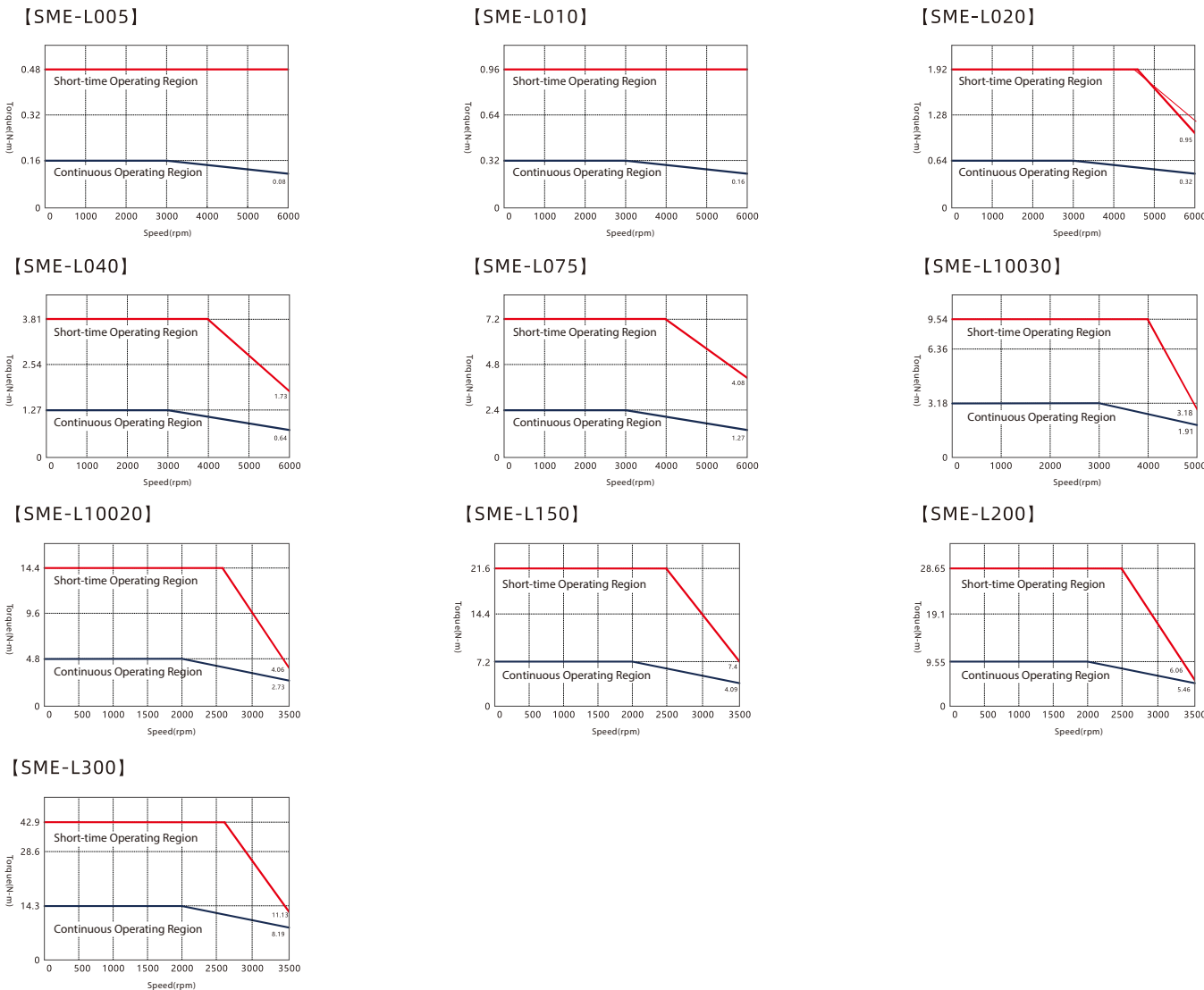


Motor	Dimensions (mm)					
	QL	QK	W	T	U	Y
L020 / L040 / H020 / H040	3	20	5	5	3	Screw: M4, Depth:15
L075 / H075 / L100 ^{Note}	5	25	6	6	3.5	Screw: M5, Depth:20
L100 / L150 / L200 / L300 / M100 / M150	5	35	8	7	4	Screw: M8, Depth:20
M220 / M300	5	55	10	8	5	Screw: M8, Depth:20
H085 / H130 / H180	-	25	8	7	4	Screw: M5, Depth:12
H180	-	29	8	-	4	Screw: M5, Depth:15
H290 / H440	-	65	10	-	5	Screw: M12, Depth:25
H550 / H750	-	96	12	-	5	Screw: M16, Depth:32

Note: The L100(B) here stands for 80 frame motor.

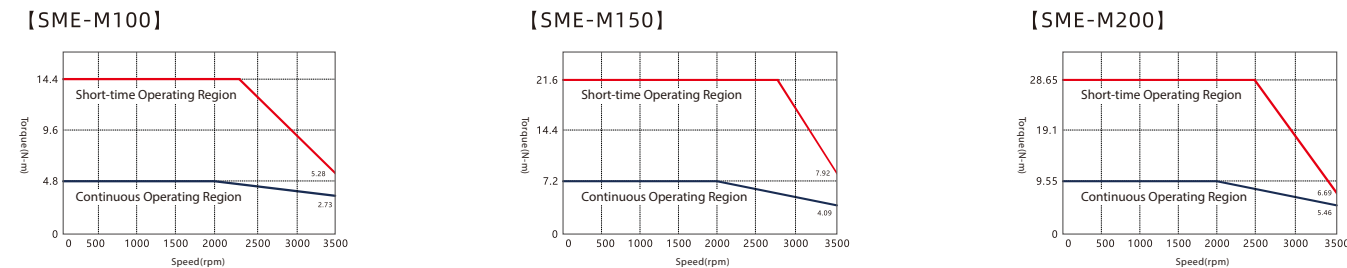
Torque Characteristic Curves

T/N Curve of SME Series Low Inertia Motor- 220V

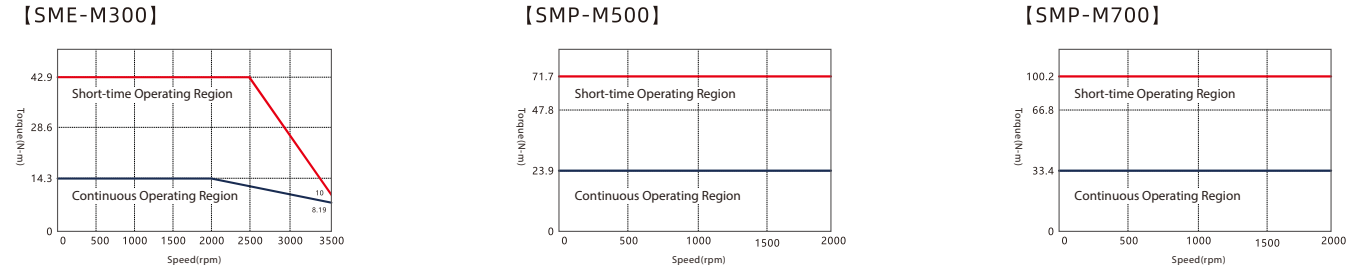


Motor characteristics of 220V power supply, torque characteristics will be reduced by low voltage.

T/N Curve of SME Series Medium Inertia Motor- 220V

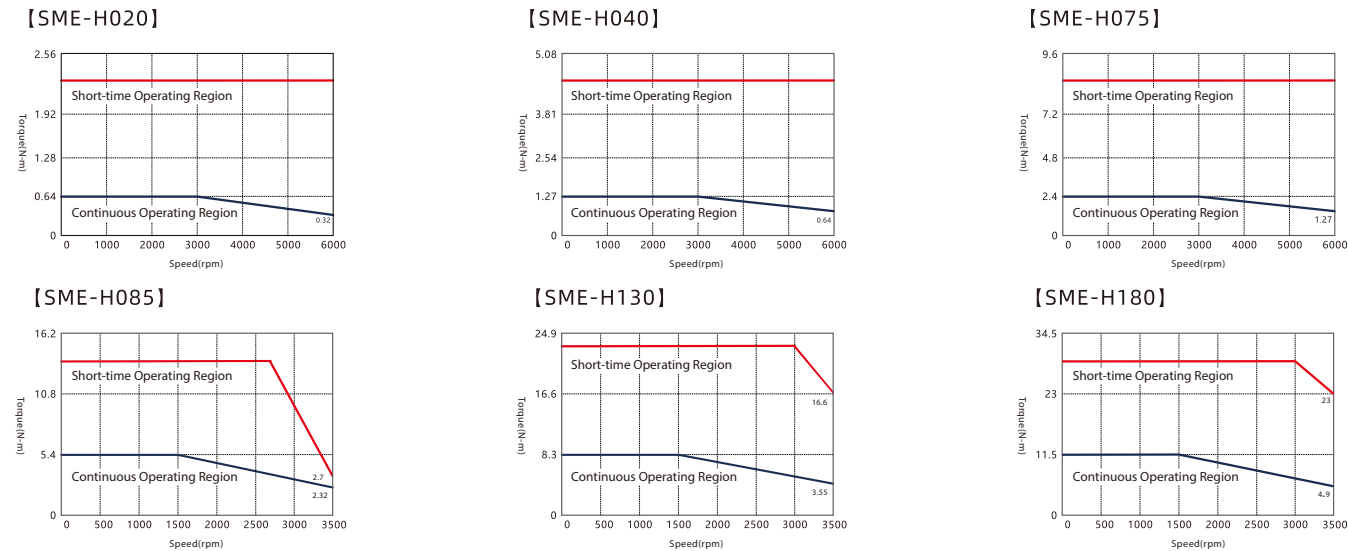


Torque Characteristic Curves



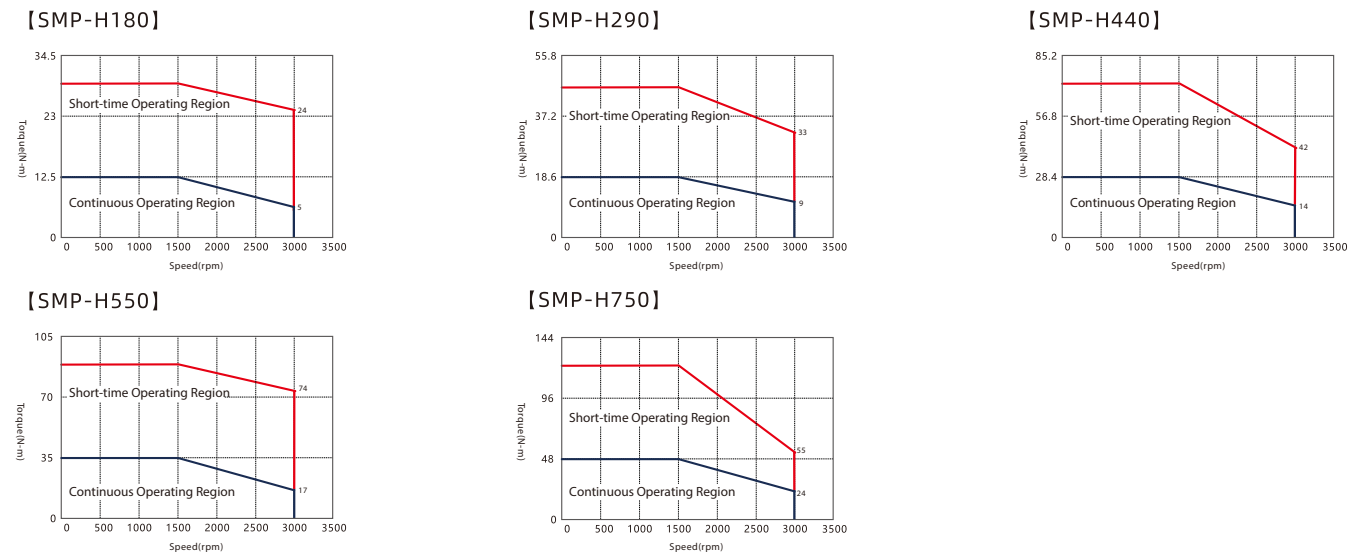
Motor characteristics of 220V power supply, torque characteristics will be reduced by low voltage.

T/N Curve of SME Series High Inertia Motor- 220V



Motor characteristics of 220V power supply, torque characteristics will be reduced by low voltage.

T/N Curve of SMP Series High Inertia Motor- 440V



Motor characteristics of 440V power supply, torque characteristics will be reduced by low voltage.