B01-SPD32.22B1-03

32B1&22B1 Series Driver

Basic Installation Instructions V.1.6

1. Applicable Drivers

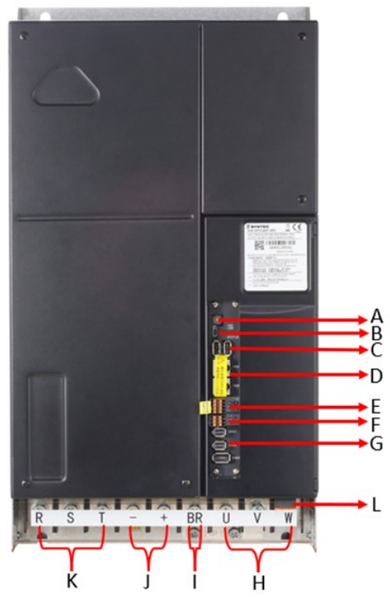
	Type	Product Name
1	S08-SPD22B1-185	18.5kW Generation II Driver
2	S08-SPD32B1-300	30kW Generation II Driver
3	S08-SPD32B1-450	45kW Generation II Driver
4	S08-SPD32B1-550	55kW Generation II Driver

2. Driver Interface Specifications

(Top View)

● (18.5KW/30KW)

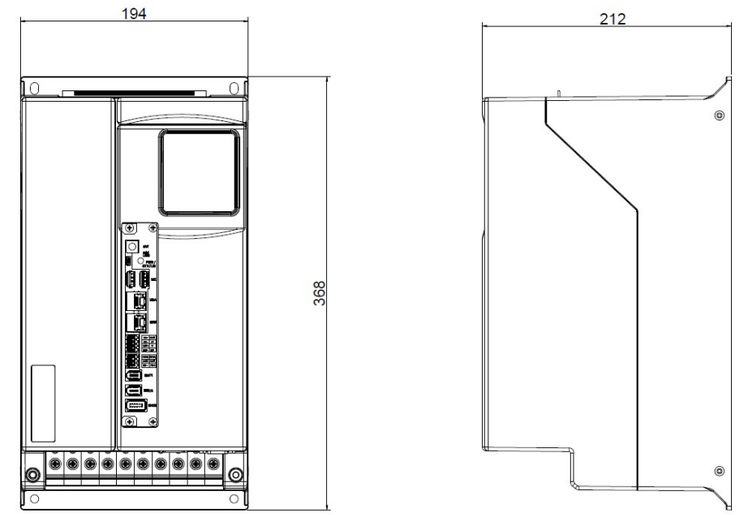
● (45KW/55KW)



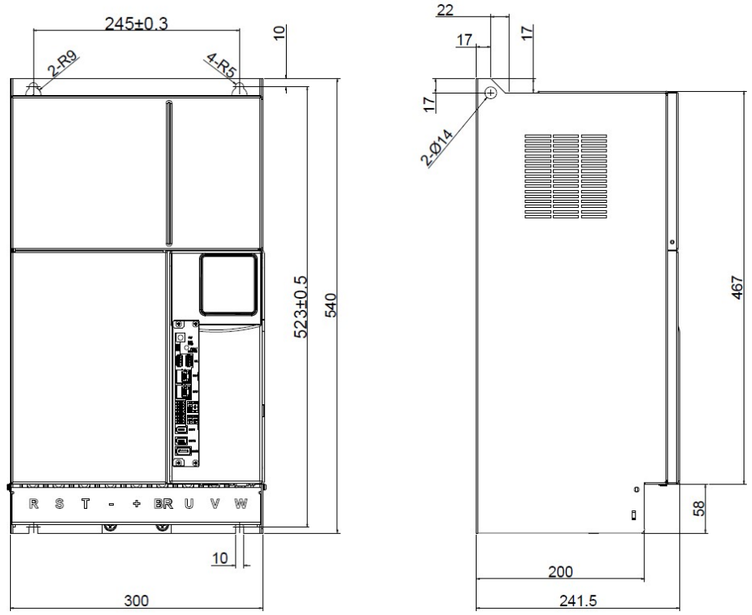
A	Station Number Settings	Set the station number of the driver communication port
B	Mini USB Port	Connect to a personal computer
C	M2 Host Controller Serial Communication Port	Connect to the host controller Serial Communication 10Mbps (Either M2 or M3)
D	M3 Host Controller Serial Communication Port	Connect to the host controller Serial Communication 100Mbps (Either M2 or M3)
E	I/O Signal Port External Battery Port	Connect to I/O equipment (emergency stop, warning lights, etc.) Connect to the battery of absolute encoder
F	STO Signal Port	STO interface; two sets of safety input and one set of safety function feedback.
G	Encoder Feedback	Connect to the motor encoder.
H	Motor Power Source	Connect to the power supply of motor. (U/V/W)
I	Braking resistor	18.5/30KW B1 and B2 braking resistor. To connect to 45/55KW, BR connects to one end of a braking resistor, and the other end of the braking resistor connects to the + terminal of regenerative unit. (Choose either regenerative unit function or braking resistor)
J	Regenerative Unit	Connect to external regenerate unit. (-/+)
K	External Power Supply	Connect to three-phase AC power. (R/S/T)
L	Reserved Pin	No Function

3. Driver External Specifications (Unit: mm)

● (18.5KW/30KW)



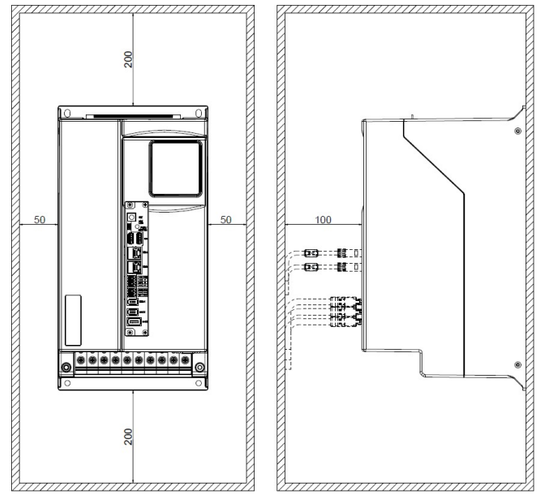
● (45KW/55kW)



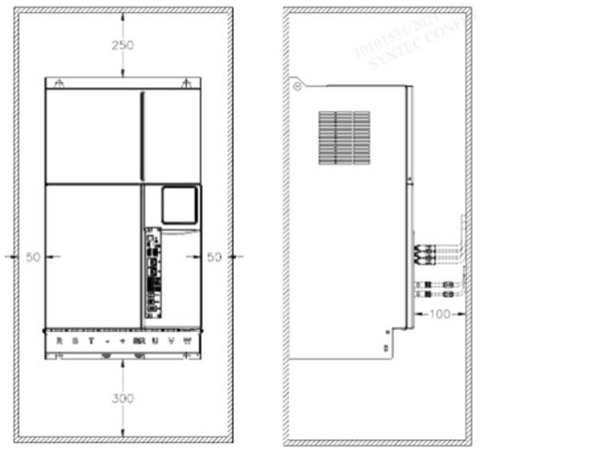
4. Installation Specifications (Unit: mm)

● (18.5KW/30KW)

(Front View) (Side View)

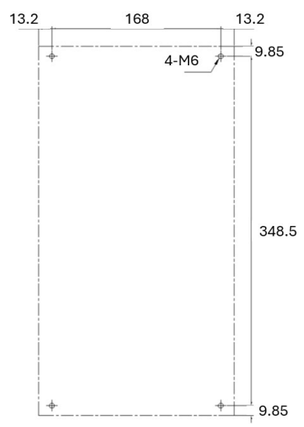


● (45KW/55KW)

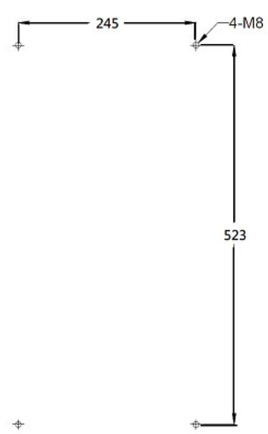


5. Mounting Hole Specifications (Unit: mm)

● (18.5KW/30KW)



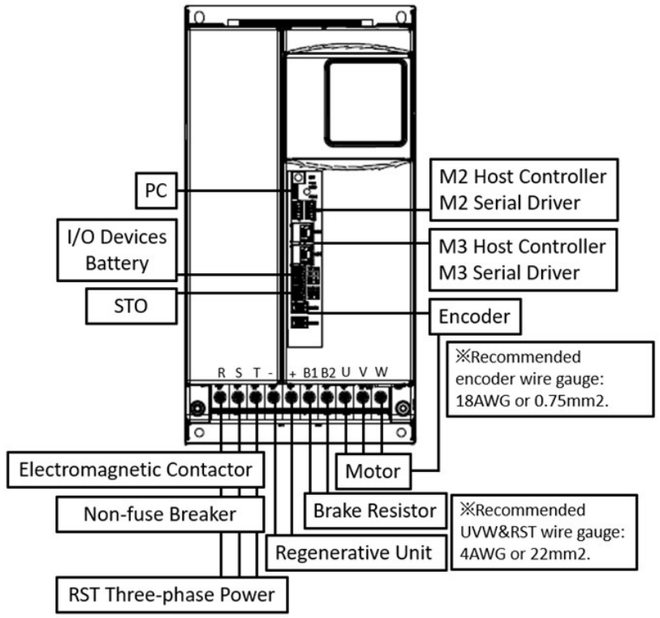
● (45KW/55KW)



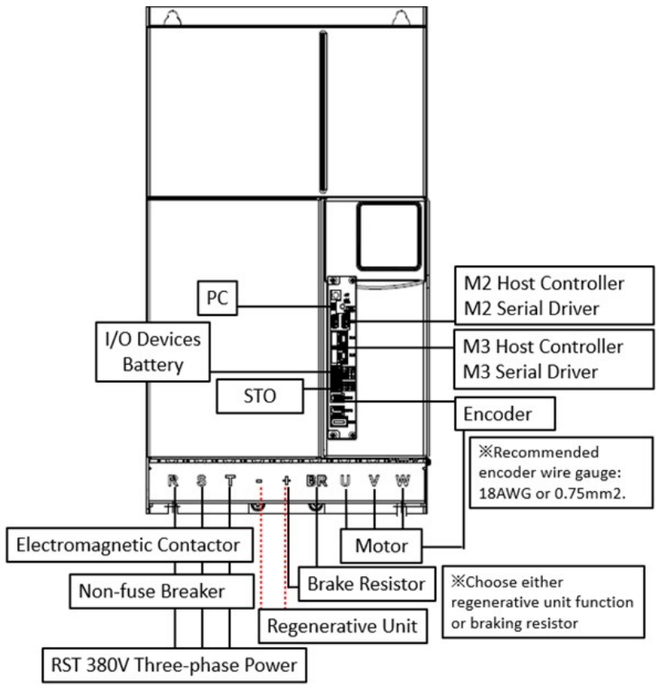
6. Basic Wiring Diagram

- Please make sure that the wiring of the U, V, W terminals to the motor is correct; otherwise, it may cause reversal or abnormality, and the encoder must be adjusted again.
- Either a general servo signal or a serial servo signal can be installed for wiring the host controller.

● (18.5KW/30KW)



● (45KW/55KW)



7. Interface Configurations

Please note the value and the polarities of voltages.

● Mini USB Port Arrangement

Mini USB	PIN	SIGNAL
1 5	1	5V
	2	DM
	3	DP
	4	GND
	5	GND

● M2 Serial Communication Port Arrangement

M2	PIN	SIGNAL
1 2 3 4	1	GND
	2	D-
	3	D+
	4	5V

● Station Number Settings

Station No. Setting	PIN	SIGNAL	PIN	SIGNAL
0 1 2 3 4 5 6 7 8 9 A B C D E F	0	N/A	8	Station No.8
	1	Station No.1	9	Station No.9
	2	Station No.2	A	Station No.10
	3	Station No.3	B	Station No.11
	4	Station No.4	C	Station No.12
	5	Station No.5	D	Station No.13
	6	Station No.6	E	Station No.14
	7	Station No.7	F	Station No.15

● Encoder Feedback Arrangement

1st &2nd Encoder Feedback	PIN	SIGNAL
1 2 3 4 5 6	1	5V
	2	GND
	3	BAT+
	4	BAT-
	5	D+
	6	D-

● Encoder Feedback Arrangement

3rd Encoder Feedback	PIN	SIGNAL	PIN	SIGNAL
1 2 9 10	1	VDD	6	B-
	2	GND	7	Z+
	3	A+	8	Z-
	4	A-	9	BAT+
	5	B+	10	BAT-

● M3 Serial Communication Port

M3	PIN	SIGNAL
8 1	1	TX+
	2	TX-
	3	RX+
	4	NC
	5	NC
	6	RX-
	7	NC
	8	NC

● I/O Port Arrangement

I/O Port Signal	PIN	SIGNAL	PIN	SIGNAL
2 4 6 8 1 3 5 7	2	O0+	1	COM
	4	O0-	3	I0
	6	BAT+	5	I1
	8	BAT-	7	NC

● STO Port Arrangement

STO	PIN	SIGNAL	PIN	SIGNAL
1 3 5 2 4 6	1	STO-A	2	STO-B
	3	STO-COM	4	STO-COM
	5	STO-FB+	6	STO-FB-

8. Driver Specifications

Driver ID	S08-SPD22B 1-185	S08-SPD32B 1-300	S08-SPD32B 1-450	S08-SPD32B 1-550
Driver Name	18.5kW Generation II Driver	30kW Generation II Driver	45kW Generation II Driver	55kW Generation II Driver
Specification	380V_SPD-2 2B1-185	380V_SPD-3 2B1-300	380V_SPD-3 2B1-450	380V_SPD-3 2B1-550
Driver Power Output	18.5KW x 1	30KW x 1	45KW x 1	55KW x 1

Power	Rated Voltage	Three-phase 200~230V 50/60Hz	Three-phase 380~440V 50/60Hz	Three-phase 380~440V 50/60Hz	Three-phase 380~440V 50/60Hz
	Acceptable Voltage Ranges	-10 ~ +10%	-15 ~ +10%		
	Voltage Frequency Variation	±5%			
Output	Rated Output Current (Arms @ 4kHzPWM)	60A	60A	91A	112A
	Over-current Capability	120% 30s 150% 5s			
Control Method		Three-phase full wave rectifier is applied to input; while SVPWM - VVVF are to output.			
Regenerate Unit		External devices.			
Braking Resistor		External devices			
Encoder Feedback		Support Serial Encoder Interface: Tamagawa, SYNNET, NIKON, FeeDAT, WIHIN, Panasonic, Sankyo, Mitsubishi, Mitutoyo, HCFA, AB, ABZ, SSI, BiSS, EnDAT. Max. current of each port of encoders: 5V-250mA Other supported interface: Syntec Accelerometer Encoder expansion module and expansion card are unsupported. 6pin-port does not support square/sine wave input. 10pin-port supports: Tamagawa, SYNNET, NIKON, ABZ, Serial, SSI, BiSS.			
PC Communication Interface		MINI-USB			
Controller Serial Communication Interface		Supported interface: MECHATROLINK-Ⅱ MECHATROLINK-Ⅲ			
I/O Signal	Digital Input	2-point, programmable (Current: 10mA/point)。			
	Digital Output	1-point, programmable (Current: 200mA/point)。			
	STO	Port of dual-channel STO (2-point Input、1-point Output Current: 200mA)			
	Analog Input	One set (expansion interface for KTY84)			
Cooling Mode		Forced convection cooling with fan.			
Quantity of fans		1			2
Environment	Ambient Temperature	Operating: 0 to 55°C (Without condensation. With de-rating above 40°C.) Storage/Transport: -20 to 65°C			
	Ambient Humidity	Operation: Below 90% RH (without condensation) Storage / Transport: Below 90%RH (without condensation)			
	Surrounding Area	Indoor (Avoid direct sunlight); Avoid corrosive or flammable gas			
	Altitude	Max.: 1,000 meters			
	Vibration	Max.: 5.9 m/s2			
Weight		8.5Kg			35Kg