


3.4.2 Wiring of main circuit terminals

Main circuit terminals:


Symbol	Terminal name	Description
R/L1、S/L2、T/L3	3phase Power input	To 3-phase 220v/380V AC power supply. Note①

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	terminal	
R/L1、T/L3	Inverter output terminal	To 1-phase 220v AC power supply. Note①
U、V、W	Inverter output terminal	3-phase AC output terminal
DC+、DC-	DC bus terminal	Connect a braking unit, common DC bus or external rectifying unit. Note②
DB	Braking output terminal	Braking resistor is connected between DC+ and DB
	EMC Grounding terminal	Connect PE terminal when needed
PE	Grounding terminal	Connect the inverter case to earth.

Note①: When connect the power input line, please make sure the input power is in accordance with nameplate.

Note②: Contact us for the usage of the common DC bus main circuit terminals arrangement.

R/L1	S/L2	T/L3	U	V	W
PE		DC+	DC-	DB	

SB150-0.4~1.5 main circuit terminal bolt is M3.5, the fastening torque is, 1.2~1.5 (N·m), wire stripping length is 10mm.

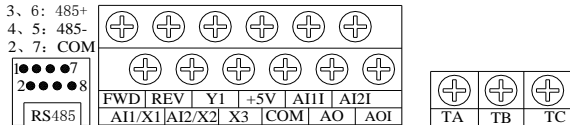
The air switch, the main circuit wiring copper coil insulated conductor cross-section and its stripping length are recommended as follows:

Inverter model	Air switch (A)	Contactor (A)	Main circuit wiring (mm ²)		Grounding terminal PE wiring (mm ²)
			Input wiring	Output wiring	
SB150-0.4S2	16	10	2.5	2.5	2.5
SB150-0.75S2	25	16	2.5	2.5	2.5
SB150-1.1S2	32	25	4	2.5	2.5
SB150-0.4T2	10	10	2.5	2.5	2.5
SB150-0.75T2	16	10	2.5	2.5	2.5
SB150-1.5T2	25	16	2.5	2.5	2.5

SB150-0.4T4	10	10	2.5	2.5	2.5
SB150-0.75T4	10	10	2.5	2.5	2.5
SB150-1.5T4	16	10	2.5	2.5	2.5

3.4.3 Control board terminals and wirings

Control board terminals arrangement: (1mm² copper wires recommended as the terminals wirings, 5mm stripping length is recommended)



Functions of control board terminals:

Symbol	Name	Function and description	Specification
485+	485 differential signal (positive)	RS485 communication port	Connect 1~32 RS485 station(s) Input impedance: >10kΩ
485-	485 differential signal (negative)		
COM	Ground	—	—
+5V	+5V reference power supply	+5V power supply offered to user	+5V Max. output current is 10mA with the voltage accuracy better than 2%
Y1	digital output	digital output Refer to F5	Open collector output 24V DC/50mA Conducting voltage < 0.5V
REV	REV digital input terminal	Refer to F4 digital input terminal: debounce time: 10ms	Input impedance ≥ 3kΩ Input voltage range: < 30V Sampling period: 1ms Debounce time: 10ms
FWD	FWD digital input terminal	Refer to F4	

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Symbol	Name	Function and description	Specification
X3	X3 digital input		High level > 10V Low level < 4V Equivalent to "high level" if not connected
AI1I	Analog Channel1 Current Input	Analog input, refer F6-00 ~ F6-09 Note①	As analog input: Input impedance: 300kΩ for voltage input or 125Ω for current input
AI1/X1	Analog Channel1 Voltage Input		
AI2I	Analog Channel2 Current Input		Input voltage range: 0 ~ +10V Input current range: 0 ~ +20mA Digital input: high level > 4V low level < 2V Equivalent to "low level" if not connected
AI2/X2	Analog Channel2 Voltage Input		
AO	Analog Voltage Output	Multi-function analog output, refer to F6-10 ~ F6-13 Note②	Current type: 0 ~ 20mA, load ≤ 500Ω Voltage type: 0 ~ 10V, output ≤ 10mA
AOI	Analog current output		
TA	Relay output terminal	Refer to F5	TA-TB: normally open TB-TC: normally closed Contacts: 250V AC/3A 24V DC/5A
TB			
TC			

Note①: SB150 inverter configure with two analog input channels, each channel can input current signal or voltage signal, in the function sheet, the two analog input channel is indicated by AI1 and AI2 separately.

Note②: SB150 inverter configure with one analog input channel, can be use as voltage output or current output, it is indicated by AO.

1) Wiring of analog input terminals

When analog signals are used for remote control, the control wires between the controller and inverter should be less than 30 meters in length. And since the analog signal is vulnerable to interference, the