

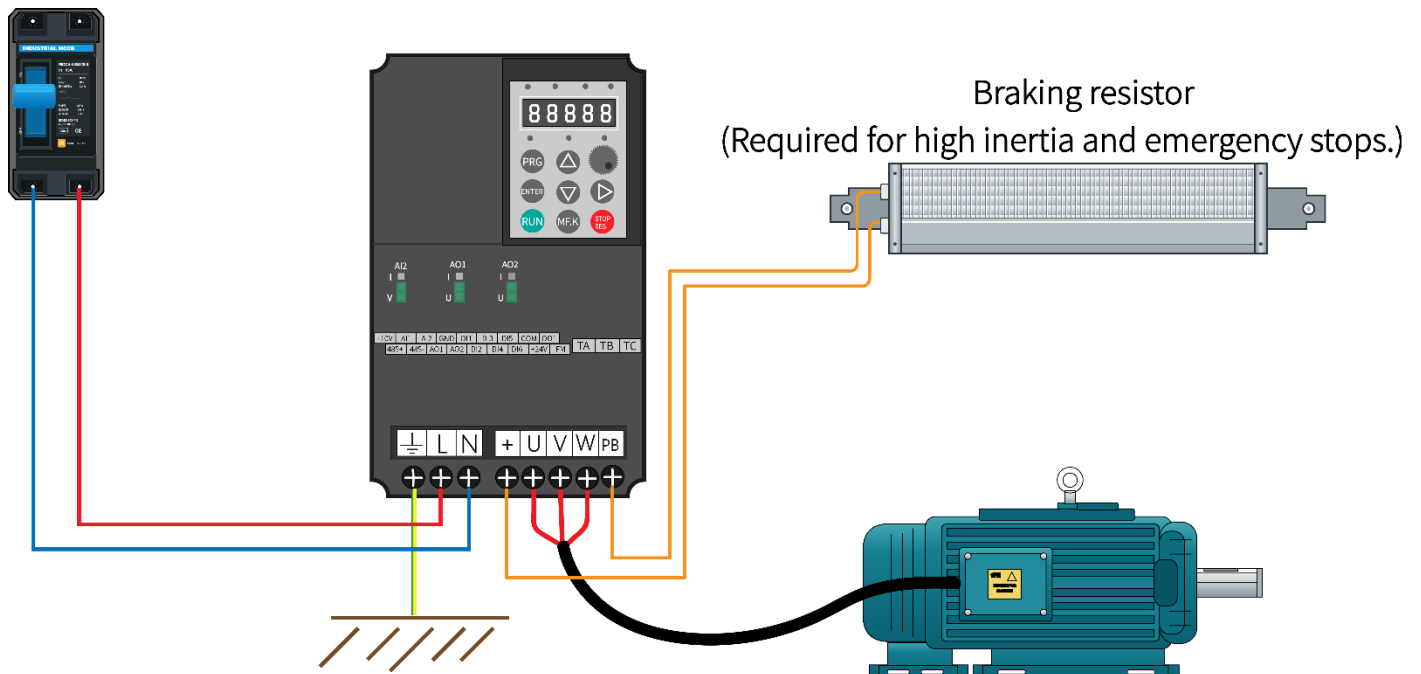
Panel Control Example

Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=0 (Keypad command control channel)
- P0-03=4 (Keypad potentiometer frequency reference)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

Group P1: Motor Parameters

- P1-00=0 (Standard asynchronous motor)
- P1-01=0.8 (Motor power in kW)
- P1-02=380 (Motor voltage in V)
- P1-03=2.1 (Motor rated current in A)
- P1-04=50 (Motor rated frequency in Hz)
- P1-05=1460 (Motor rated speed in rpm)



Terminal Control

3-Wire Control Mode 1

Group P0: Basic Operation Parameters

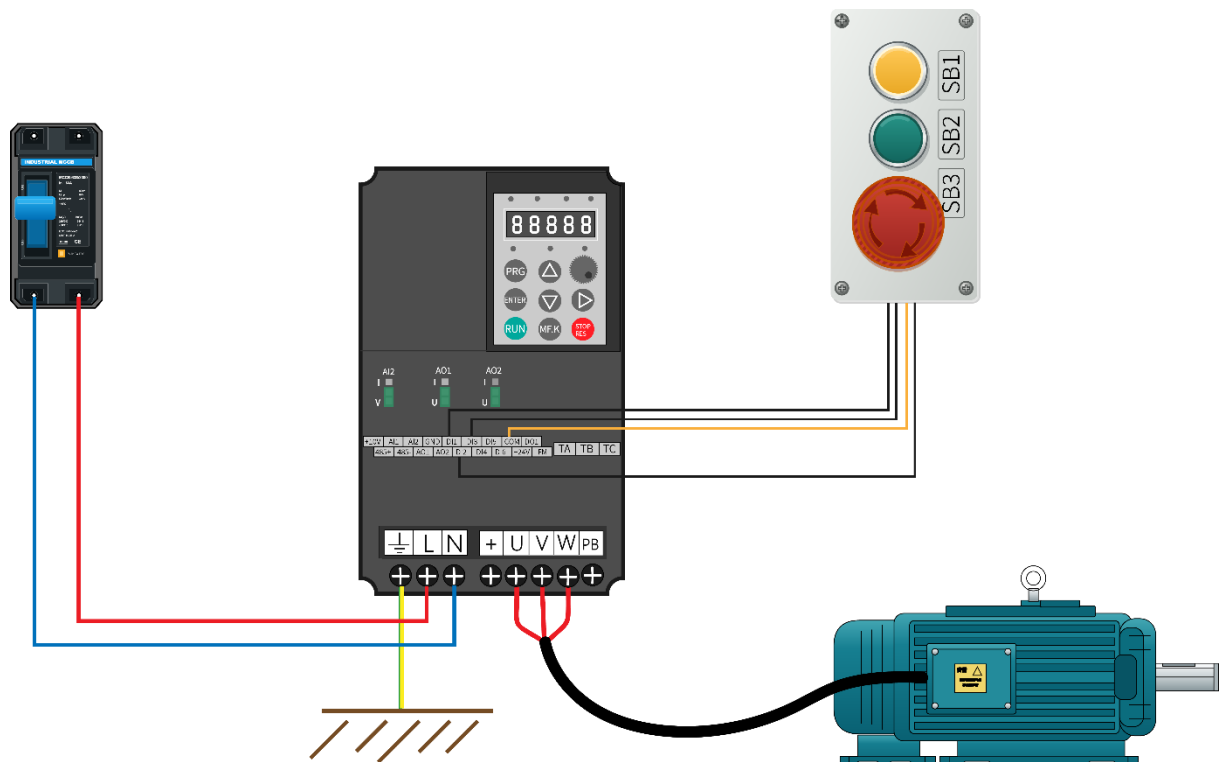
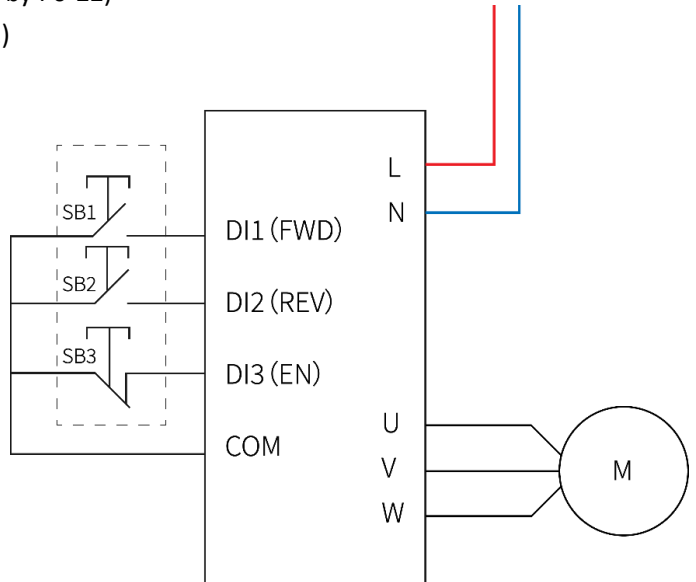
- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=4 (Keypad potentiometer frequency reference)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

Group P1: Motor Parameters

- P1-00=0 (Standard asynchronous motor)
- P1-01=0.8 (Motor power in kW)
- P1-02=380 (Motor voltage in V)
- P1-03=2.1 (Motor rated current in A)
- P1-04=50 (Motor rated frequency in Hz)
- P1-05=1460 (Motor rated speed in rpm)

Group P4: Input Terminal Parameters

- P4-11=2 (3-wire control mode 1)
- P4-00=1 (DI1 = Forward run, self-reset button)
- P4-01=2 (DI2 = Reverse run, self-reset button)
- P4-02=3 (DI3 = 3-wire control mode, enable terminal)



3-Wire Control Mode 2

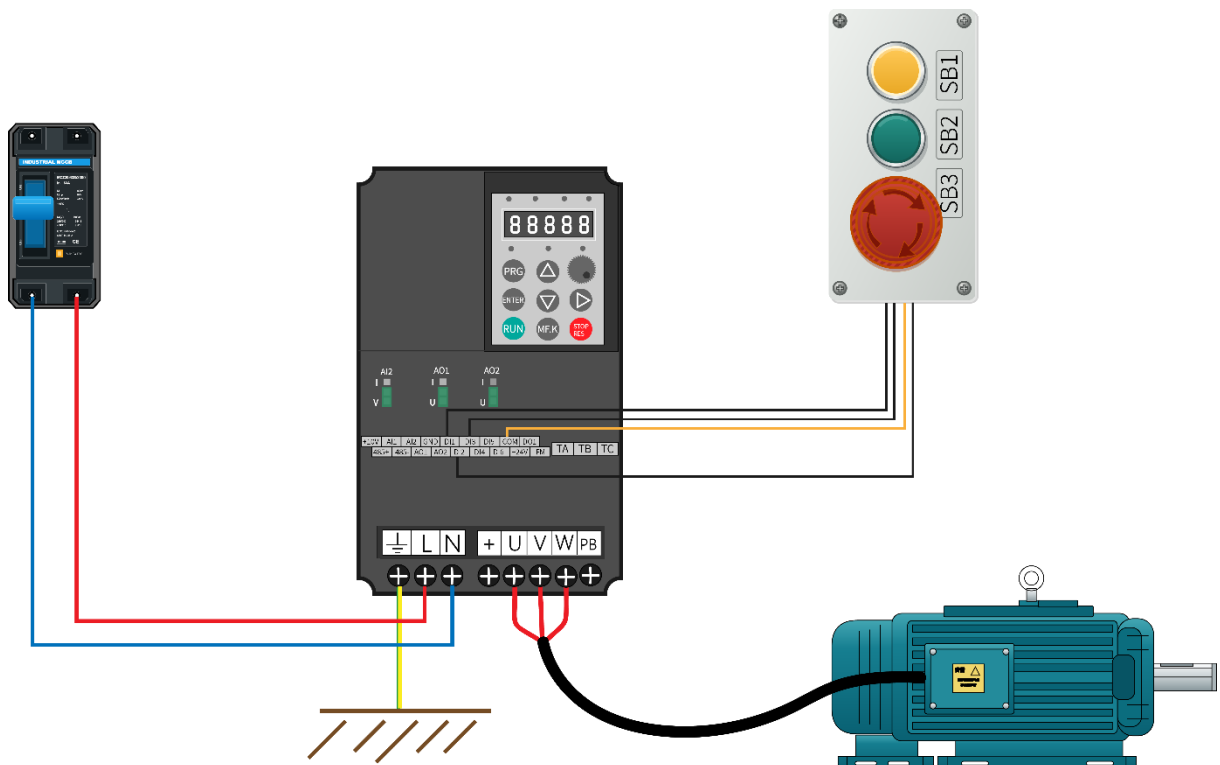
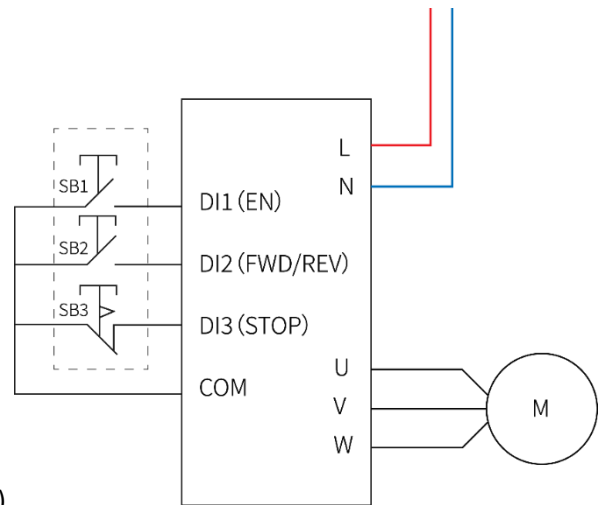
Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=4 (Keypad potentiometer frequency reference)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

** Ensure Group P1 Motor Parameters are set (refer to Chapter 1)*

Group P4: Input Terminal Parameters

- P4-11=3 (3-wire control mode 2)
- P4-00=1 (DI1 = Enable, self-reset button, single press to trigger)
- P4-01=2 (DI2 = Forward/Reverse)
- P4-02=3 (DI3 = Stop button; press Enable again to restart after pressing Stop)



2-Wire Control Mode 1

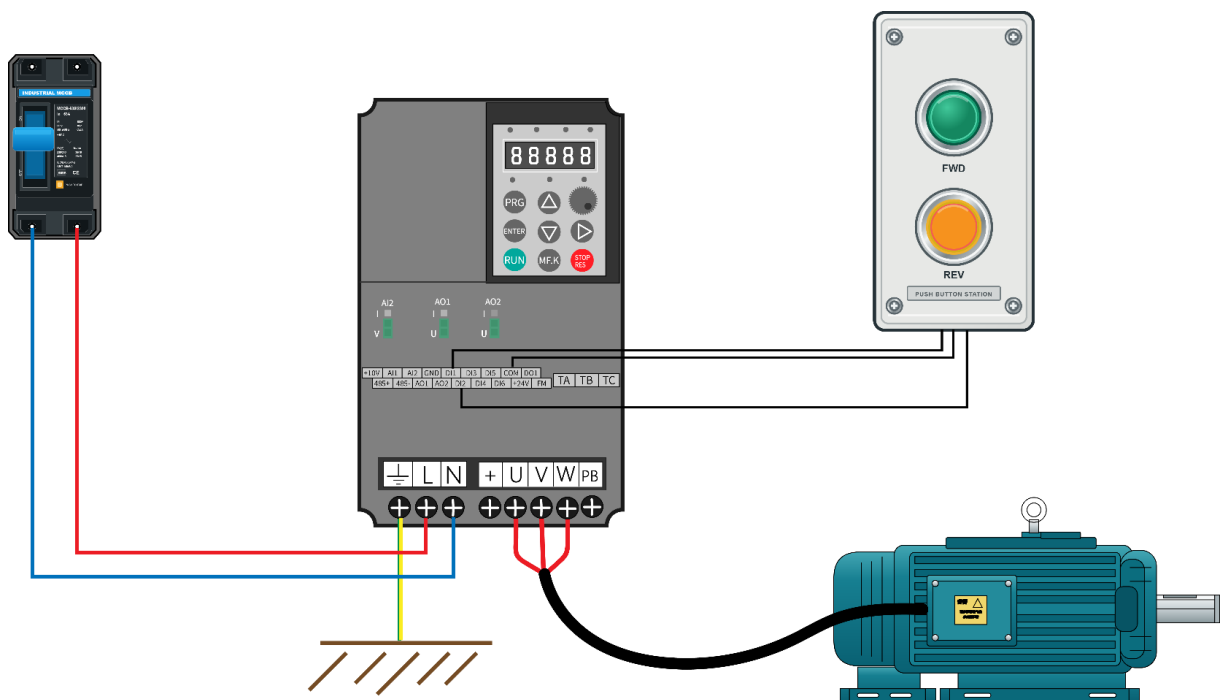
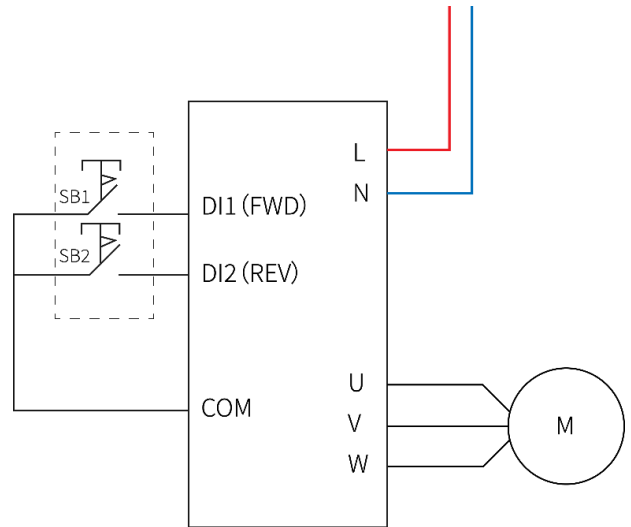
Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=4 (Keypad potentiometer frequency reference)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

** Ensure Group P1 Motor Parameters are set (refer to Chapter 1)*

Group P4: Input Terminal Parameters

- P4-11=0 (2-wire control mode 1)
- P4-00=1 (DI1 = Forward run, requires continuous press, self-locking button)
- P4-01=2 (DI2 = Reverse run, requires continuous press, self-locking button)



2-Wire Control Mode 2

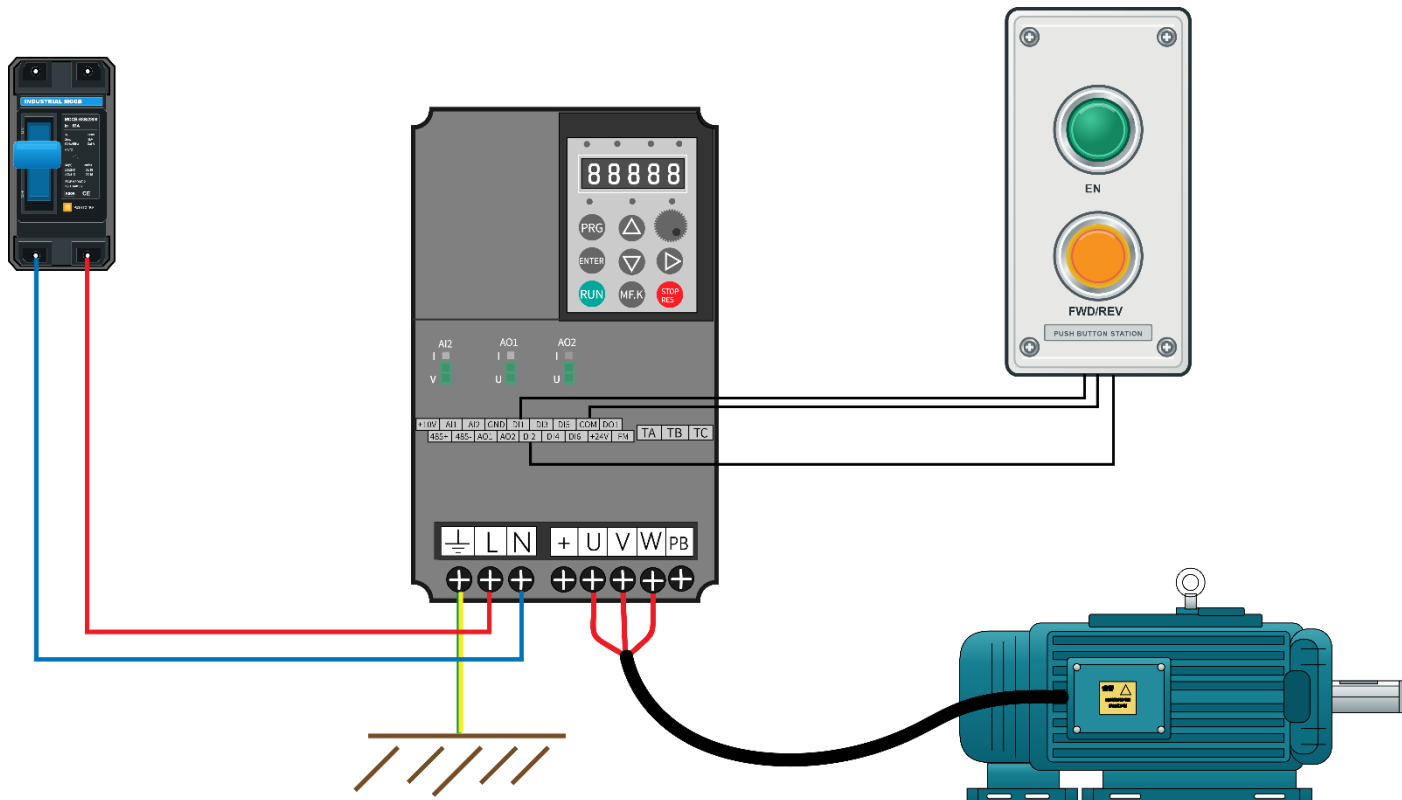
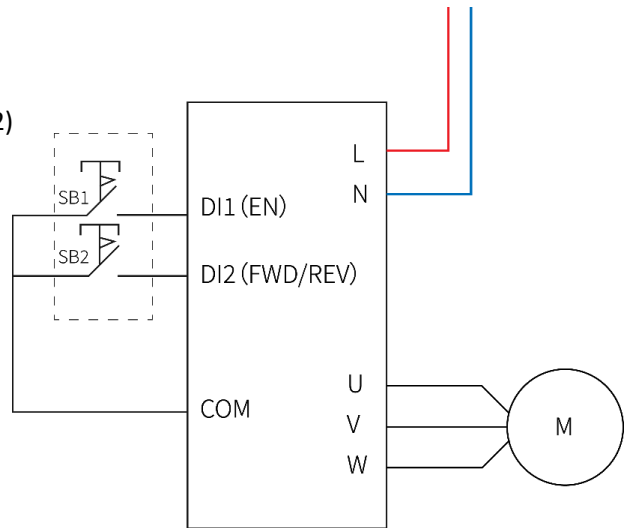
Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=4 (Keypad potentiometer frequency reference)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

** Ensure Group P1 Motor Parameters are set (refer to Chapter 1)*

Group P4: Input Terminal Parameters

- P4-11=1 (2-wire control mode 2)
- P4-00=1 (DI1 = Enable)
- P4-01=2 (DI2 = Forward/Reverse: disconnected = Forward, connected = Reverse)



External Potentiometer Speed Control + 3-Wire Control Mode 1

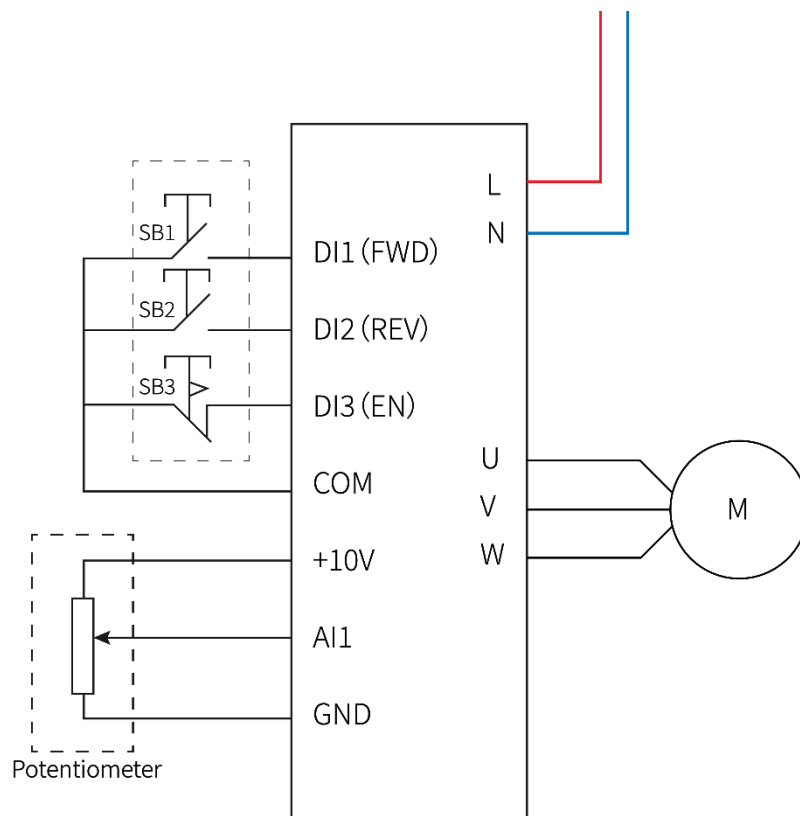
Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=2 (External potentiometer frequency reference, AI1 terminal)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

** Ensure Group P1 Motor Parameters are set (refer to Chapter 1)*

Group P4: Input Terminal Parameters

- P4-11=2 (3-wire control mode 1)
- P4-00=1 (DI1 = Forward run, self-reset button)
- P4-01=2 (DI2 = Reverse run, self-reset button)
- P4-02=3 (DI3 = 3-wire control mode, enable terminal)



AI1 Terminal External 0–10V Speed Control + 3-Wire Control Mode 1

Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=2 (External voltage frequency reference, AI1 terminal; this terminal supports voltage signals only)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

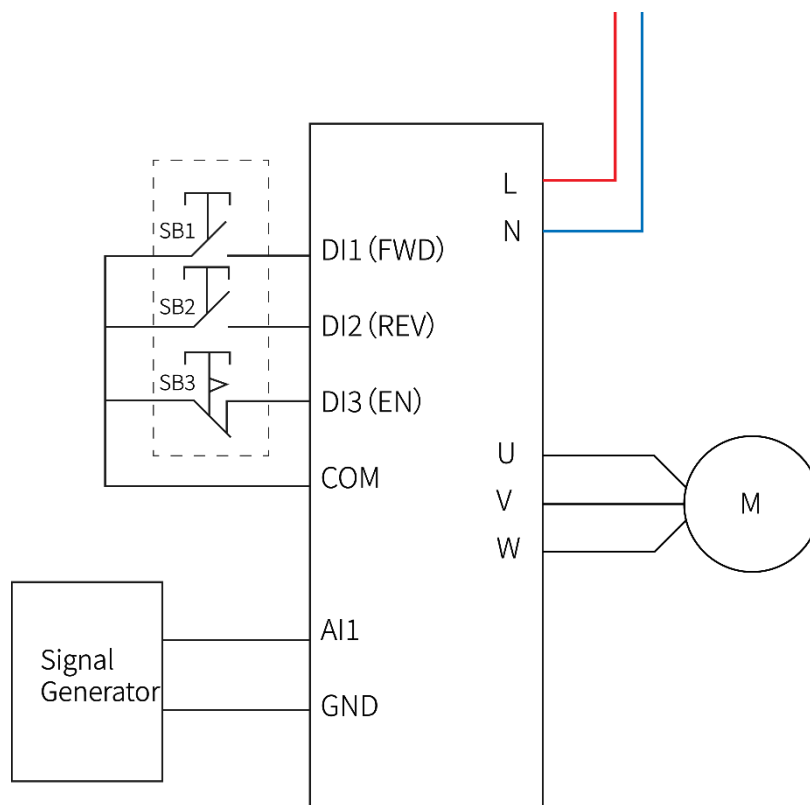
** Ensure Group P1 Motor Parameters are set (refer to Chapter 1)*

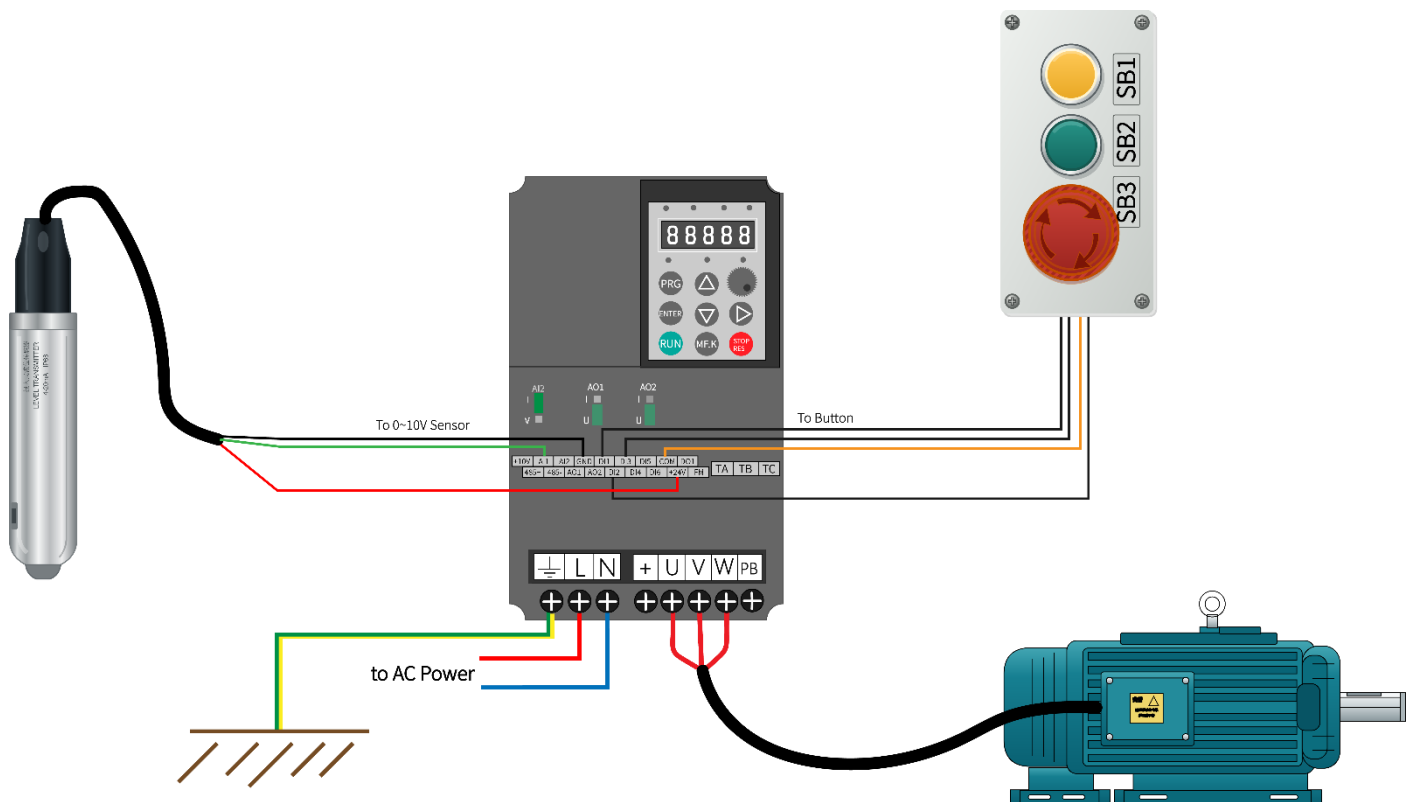
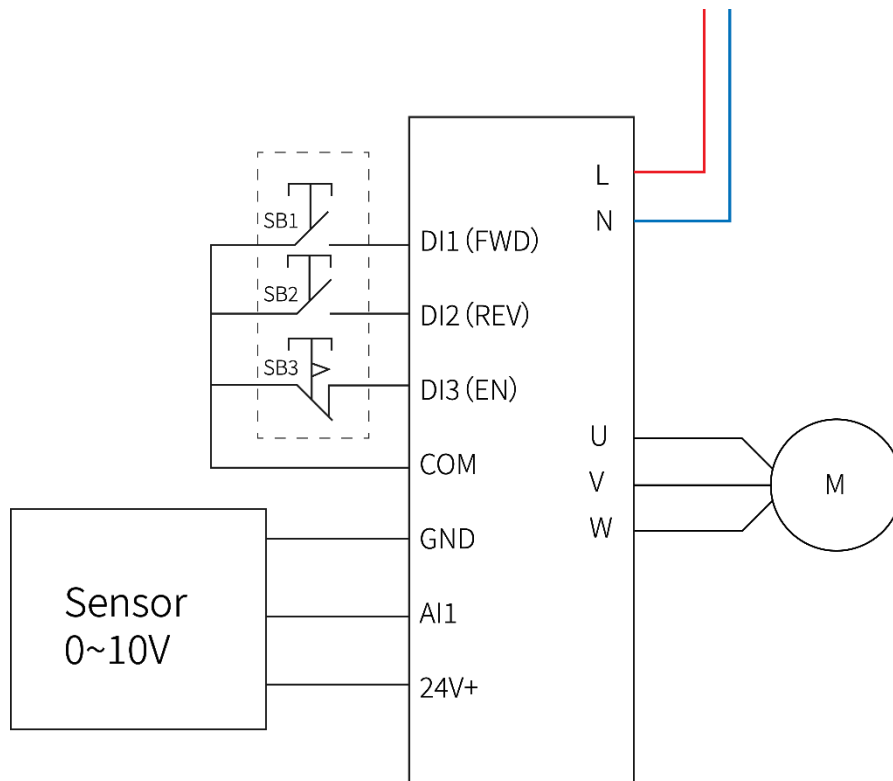
Group P4: Input Terminal Parameters

- P4-11=2 (3-wire control mode 1)
- P4-00=1 (DI1 = Forward run, self-reset button)
- P4-01=2 (DI2 = Reverse run, self-reset button)
- P4-02=3 (DI3 = 3-wire control mode, enable terminal)
- P4-13=0.6 (Minimum input voltage 0.6V, adjustable based on actual on-site commissioning needs)
- P4-14=0.00 (Corresponding frequency percentage for minimum voltage)
- P4-15=10.0 (Maximum input voltage 10.0V, adjustable based on actual on-site commissioning needs)
- P4-16=100.00 (Corresponding frequency percentage for maximum voltage)

Note: Minor deviations between the actual input voltage and the set values are normal. For example, reaching 100% frequency at 9.6V (before reaching 10V) is a expected condition.

Signal Generator wiring





AI2 Terminal External 0–10V Speed Control + 3-Wire Control Mode 1

Group P0: Basic Operation Parameters

- P0-01=2 (V/F control)
- P0-02=1 (Terminal command control channel)
- P0-03=3 (External voltage frequency reference, AI2 terminal)
- P0-08=50 (Preset frequency in Hz, determined by P0-10)
- P0-09=0 (Running direction)
- P0-10=50 (Maximum frequency in Hz, resolution set by P0-22)
- P0-11=0 (Upper limit frequency source, set by P0-12)
- P0-12=50 (Upper limit frequency in Hz)
- P0-14=0 (Lower limit frequency in Hz)
- P0-17=5 (Acceleration time in s)
- P0-18=5 (Deceleration time in s)

** Ensure Group P1 Motor Parameters are set (refer to Chapter 1)*

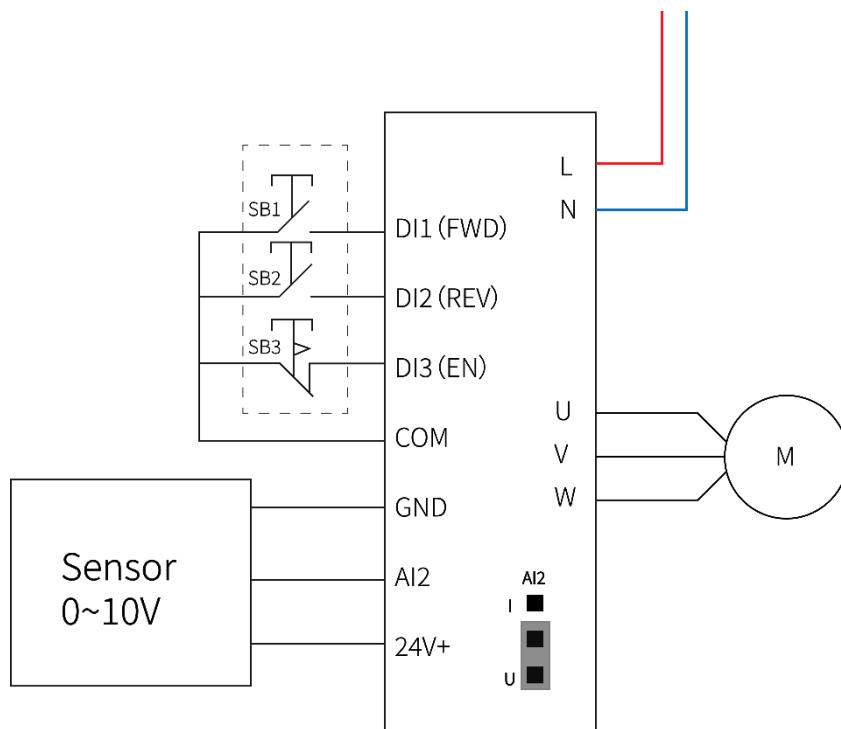
Group P4: Input Terminal Parameters

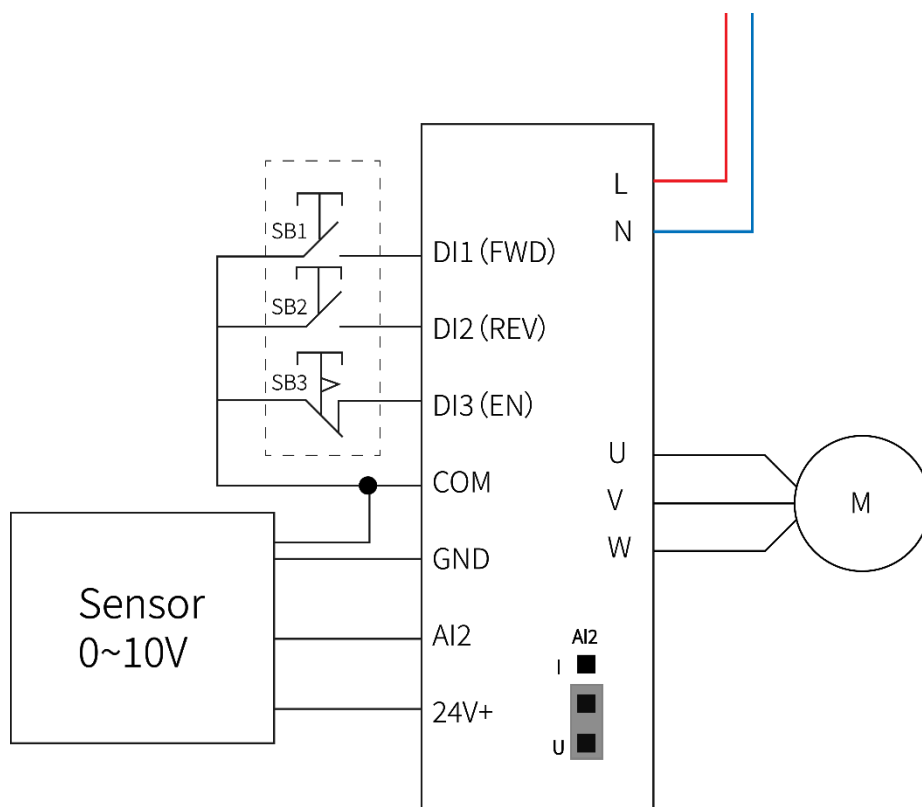
- P4-11=2 (3-wire control mode 1)
- P4-00=1 (DI1 = Forward run, self-reset button)
- P4-01=2 (DI2 = Reverse run, self-reset button)
- P4-02=3 (DI3 = 3-wire control mode, enable terminal)
- P4-18=0.6 (Minimum input voltage 0.6V, adjustable based on actual on-site commissioning needs)
- P4-19=0.00 (Corresponding frequency percentage for minimum voltage)
- P4-20=10.0 (Maximum input voltage 10.0V, adjustable based on actual on-site commissioning needs)
- P4-21=100.00 (Corresponding frequency percentage for maximum voltage)

Note: Minor deviations between the actual input voltage and the set values are normal. For example, reaching 100% frequency at 9.6V (before reaching 10V) is an expected condition.

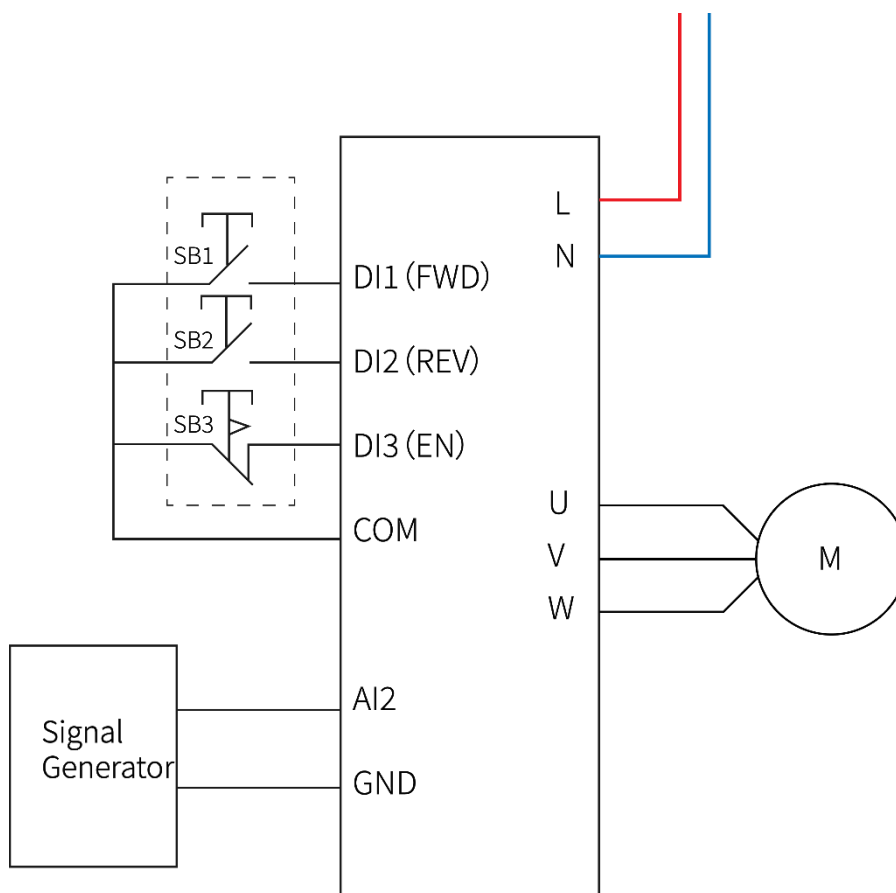
AI2 jumper set to the U side.

0–10V Sensor wiring (3-wire)





Signal generator wiring



AI2 Port, External 0–20mA Speed Control + 3-Wire Control Mode 1

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 1** (Terminal command control channel)
- **P0-03 = 3** (External set frequency, AI2 interface)
- **P0-08 = 50** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 50** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 50** (Upper limit frequency in Hz)
- **P0-14 = 0** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

**Ensure Group P1 Motor Parameter Settings are completed (refer to Chapter 1).*

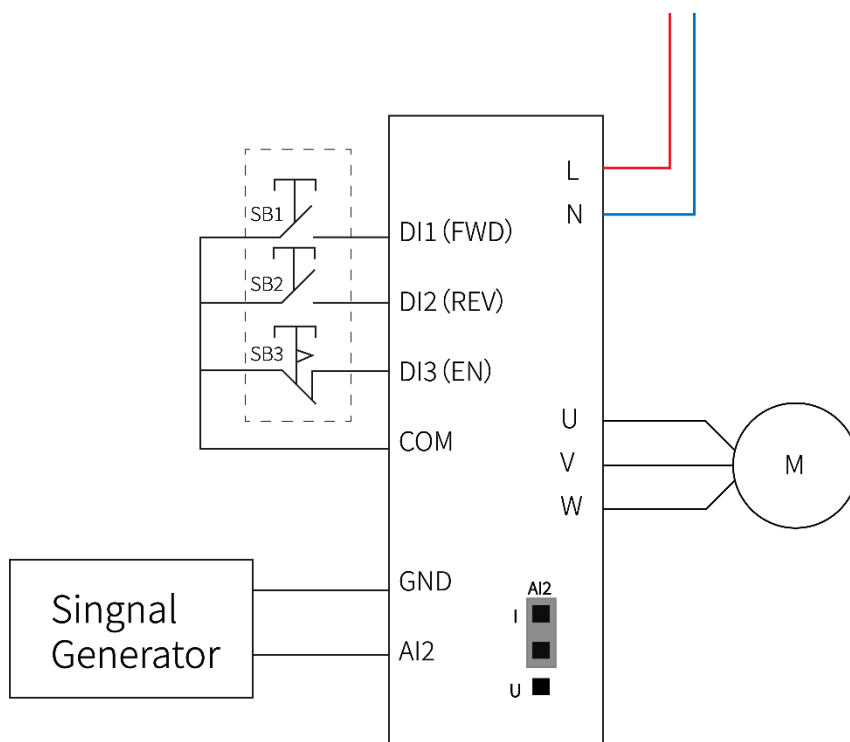
Group P4: Input Terminal Parameters

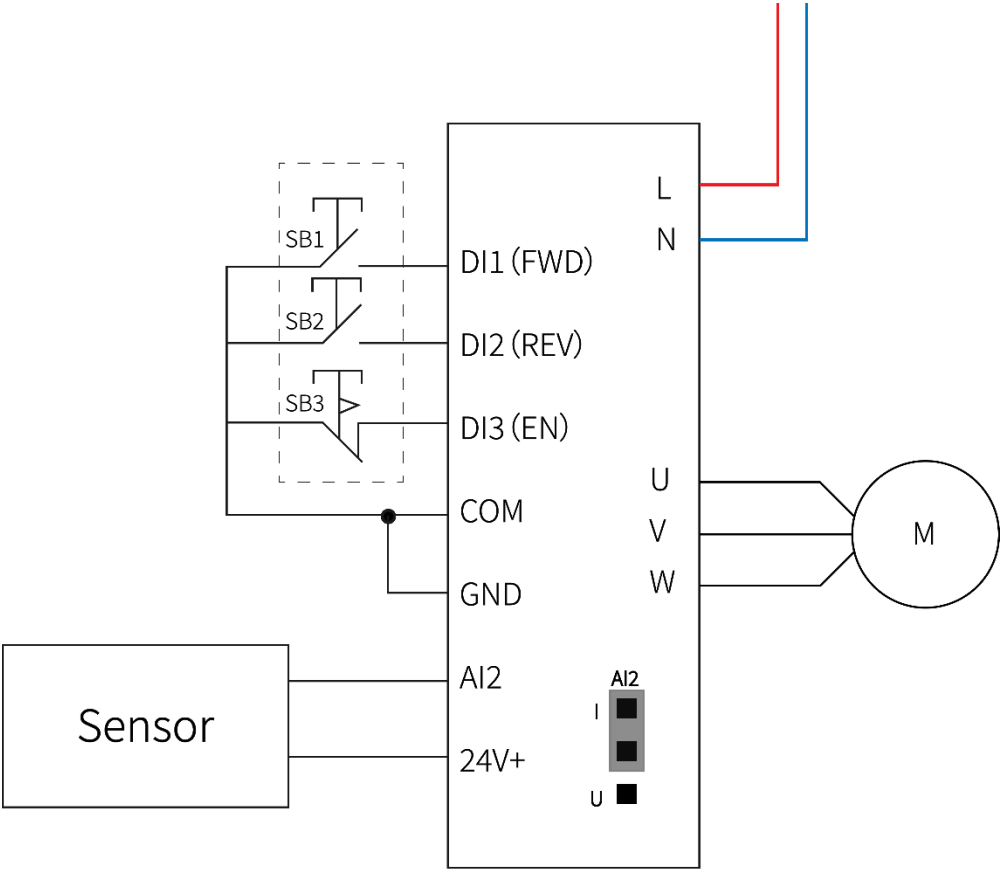
- **P4-11 = 2** (3-wire control mode 1)
- **P4-00 = 1** (DI1 = Forward run, self-resetting button)
- **P4-01 = 2** (DI2 = Reverse run, self-resetting button)
- **P4-02 = 3** (DI3 = 3-wire control mode, enable interface)
- **P4-18 = 0.6** (Minimum input voltage 0.6V; can be set according to actual on-site commissioning requirements)
- **P4-19 = 0.00** (Percentage of frequency corresponding to minimum voltage)
- **P4-20 = 10.0** (Maximum input voltage 10.0V; can be set according to actual on-site commissioning requirements)
- **P4-21 = 100.00** (Percentage of frequency corresponding to maximum voltage)

Note:

1. When the input signal is a current signal, a 1mA current is equivalent to 0.5V voltage.
2. Deviations may exist between the input minimum/maximum voltages and the actual set values. For example, reaching 100% frequency at 9.6V (before reaching 10V) is normal.

AI2 Jumper: Set to the "I" side.





Multi-step Speed Control

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 1** (Terminal command control channel)
- **P0-03 = 6** (External terminal multi-step speed command)
- **P0-08 = 50** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 50** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 50** (Upper limit frequency in Hz)
- **P0-14 = 0** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

**Ensure Group P1 Motor Parameter Settings are completed (refer to Chapter 1).*

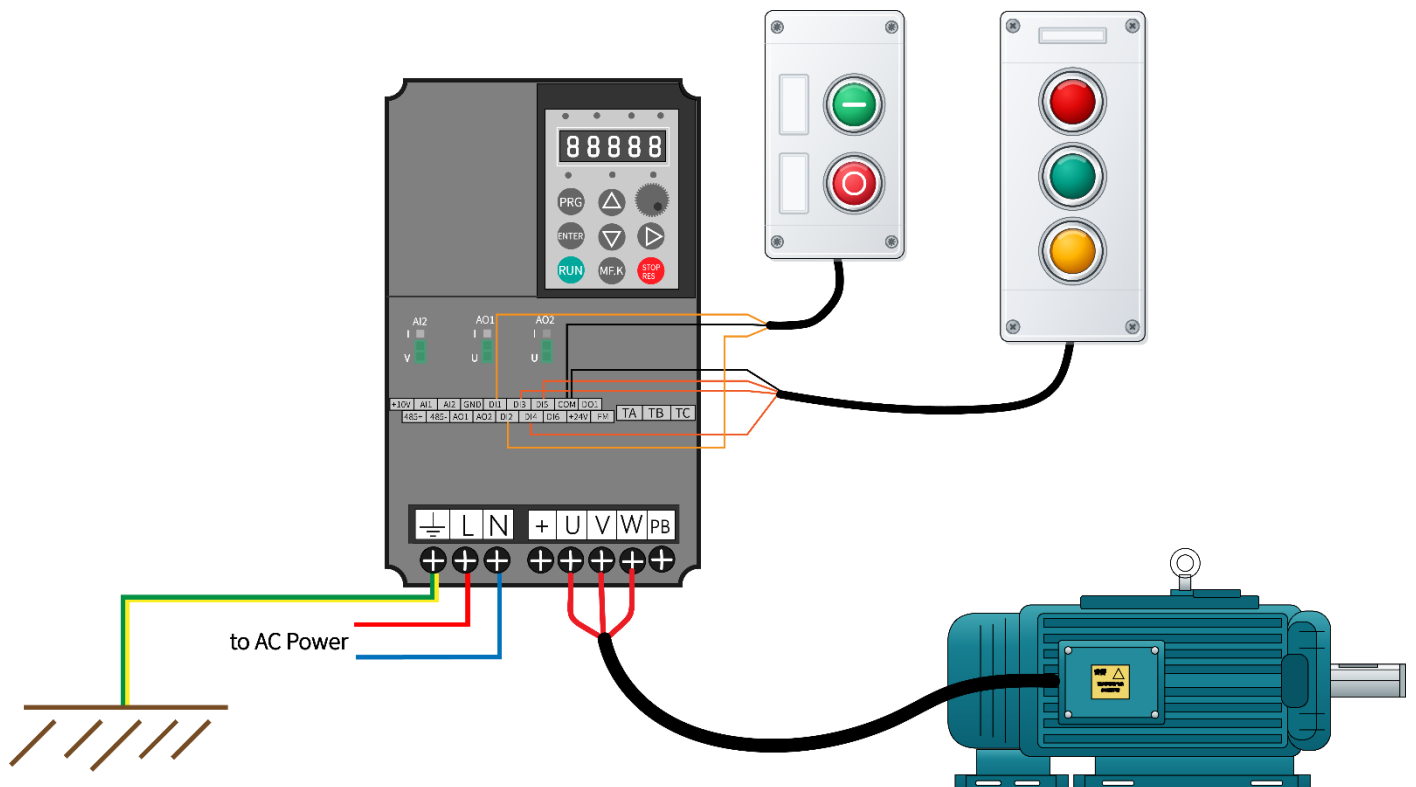
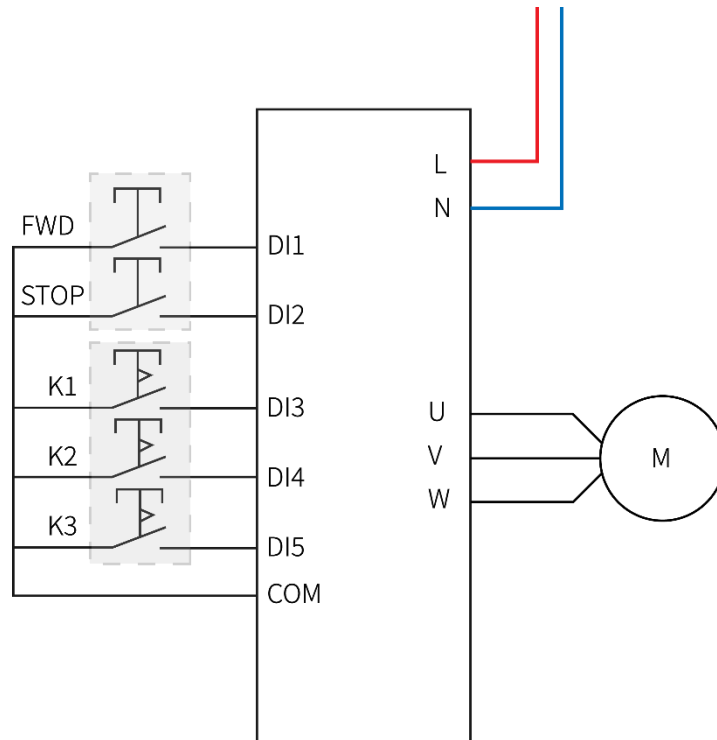
Group P4: Input Terminal Parameters

- **P4-00 = 1** (FWD, DI1 rotation direction)
- **P4-01 = 8** (STOP, DI2 coast to stop)
- **P4-02 = 12** (K1, DI3 terminal corresponds to Multi-step speed command 1)
- **P4-03 = 13** (K2, DI4 terminal corresponds to Multi-step speed command 2)
- **P4-04 = 14** (K3, DI5 terminal corresponds to Multi-step speed command 3)

Group PC: Multi-step Commands

- **PC-00 = 0** (Corresponding output percentage of maximum frequency)
- **PC-01 = 10** (Corresponding output percentage of maximum frequency: 10%)
- **PC-02 = 20** (Corresponding output percentage of maximum frequency: 20%)
- **PC-03 = 40** (Corresponding output percentage of maximum frequency: 40%)
- **PC-04 = 50** (Corresponding output percentage of maximum frequency: 50%)
- **PC-05 = 70** (Corresponding output percentage of maximum frequency: 70%)
- **PC-06 = 80** (Corresponding output percentage of maximum frequency: 80%)
- **PC-07 = 100** (Corresponding output percentage of maximum frequency: 100%)

K3	K2	K1	Code	Corresponding %
OFF	OFF	OFF	PC-00	0
OFF	OFF	ON	PC-01	10
OFF	ON	OFF	PC-02	20
OFF	ON	ON	PC-03	40
ON	OFF	OFF	PC-04	50
ON	OFF	ON	PC-05	70
ON	ON	OFF	PC-06	80
ON	ON	ON	PC-07	100



RS485 Serial Port Modbus RTU Communication — Method 1

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 2** (Communication command channel)
- **P0-03 = 2** (Digital setting, power-down memory)
- **P0-08 = 50** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 60** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 60** (Upper limit frequency in Hz)
- **P0-14 = 0** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

**Ensure Group P1 Motor Parameter Settings are completed (refer to Chapter 1).*

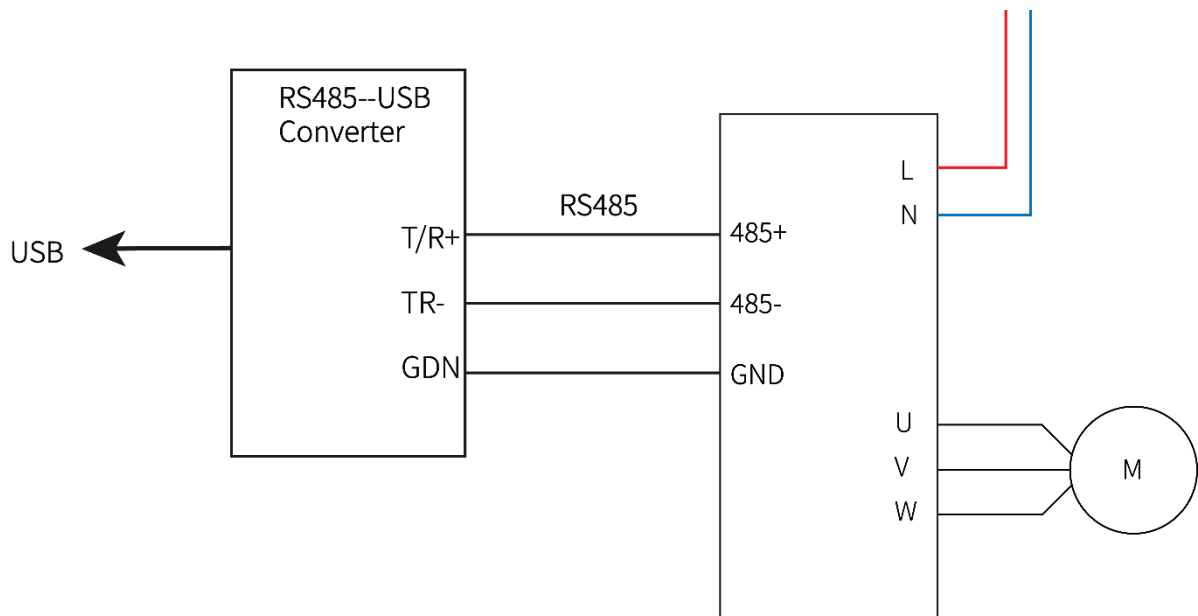
Group Pd: Communication Parameters

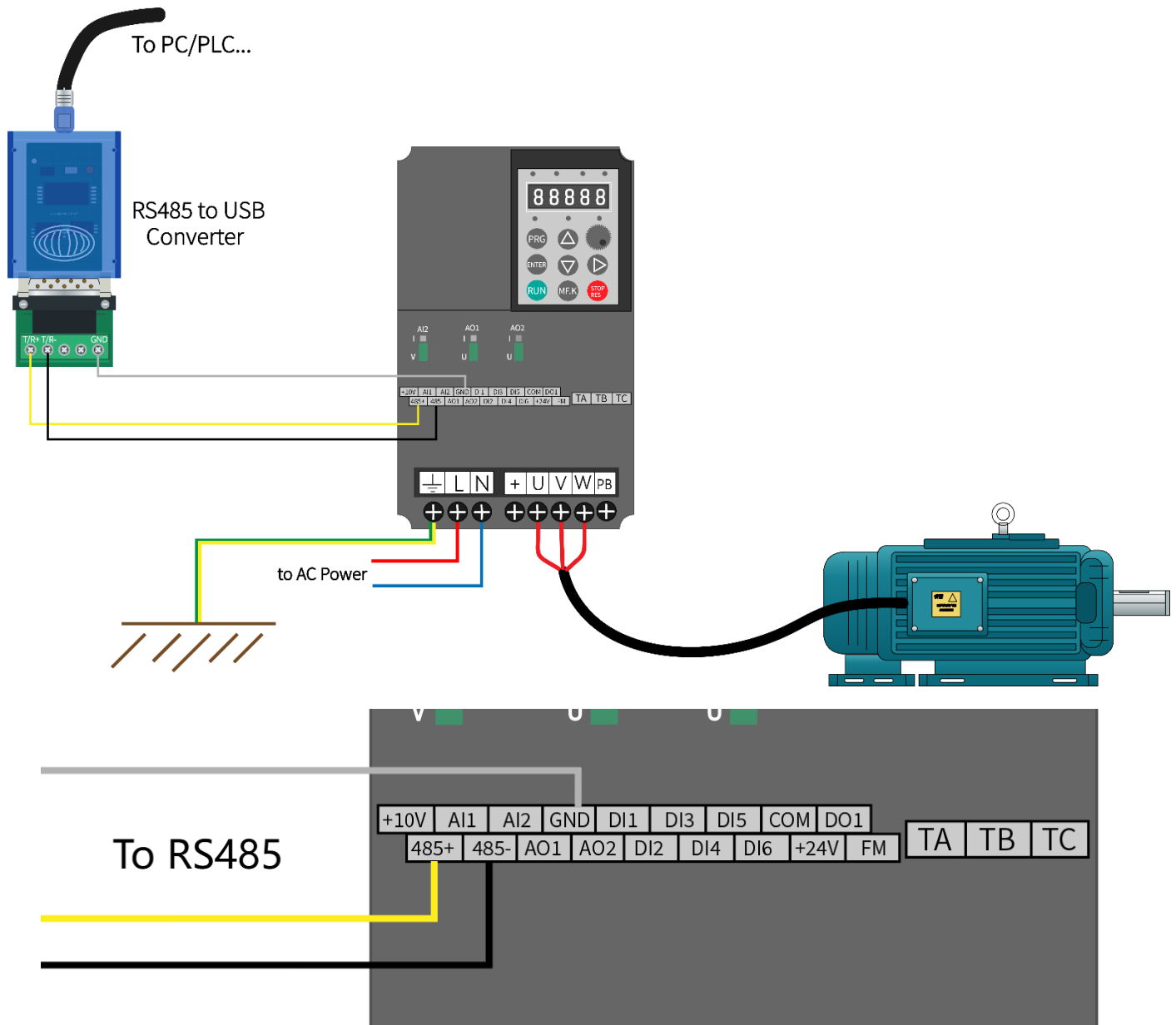
- **Pd-00 = 5005** (9600 BPS)
- **Pd-01 = 0** (No parity, 8-N-2)
- **Pd-02 = 1** (Local slave address 1)
- **Pd-05 = 30** (Non-standard Modbus protocol)

Direct Data Read/Write Operations for Group P0 Parameters: For example, the address of preset frequency P0-08 is F0 08.

Example: Writing 60.00Hz to the inverter and running:

- **Command String:** 01 06 F0 08 17 70 35 1C
- Hexadecimal 17 70 = Decimal 6000 (60.00Hz)
- F0 08 is the corresponding register address for P0-08.





Function Code	Access Address Hex	Address for Modifying Function Code in RAM
P0~PE Group	F000~FEFF	0000~0EFF
A0~AC Group	A000~ACFF	4000~4CFF
U0 Group	7000~70FF	/

Function Code	Access Address Hex	Description
P0-08	F0 08	Modify running frequency

Control Command Address (Writable, Hex)	Command Function
20 00	00 01: Forward run
	00 02: Reverse run
	00 03: Forward jog
	00 04: Reverse jog
	00 05: Coast to stop (external braking resistor recommended for high inertia applications)
	00 06: Decelerate to stop
	00 07: Fault reset

Direct data read/write operations can be performed on Group P0 parameters.

Example: Write 60.00Hz to the inverter and run the motor.

Modbus Write Command: 01 06 F0 08 17 70 -- -- (CRC check code, optional/can be omitted)

- Hexadecimal 17 70 = Decimal 6000 (60.00Hz)
- F0 08 is the corresponding address for P0-08 (running frequency)

Run the motor: 01 06 20 00 00 01 -- -- (CRC check code, optional/can be omitted)

Decelerate to stop: 01 06 20 00 00 06 -- -- (CRC check code, optional/can be omitted)

Modbus Read Command: Read current set frequency of F0 08: 01 03 F0 08 00 01 -- -- (CRC check code, optional/can be omitted)

Response Code: 01 03 00 02 17 70 E9 5C

- Hexadecimal 17 70 = Decimal 6000 (60.00Hz)

Commix 1.4

Port: COM3 BaudRate: 9600 Apply ☐ DTR ☐ RTS Close Port

DataBits: 8 Parity: None StopBits: 2 ☒ ModbusRTU Pause

Input HEX Show HEX Input ASC Show ASC ☒ Ignore Space ☒ New Line ☒ Show Interval Clear

01 03 F0 08 00 01 (s) Send ☒ by Enter

```

01 06 F0 08 17 70 35 1C
(47 ms)
01 06 F0 08 17 70 35 1C
01 06 20 00 00 01 43 CA
(31 ms)
01 06 20 00 00 01 43 CA
01 06 20 00 00 06 02 08
(31 ms)
01 06 20 00 00 06 02 08
01 03 F0 08 00 01 36 C8
(31 ms)
01 03 00 02 17 70 EA 1E
  
```

RS485 Serial Port Modbus RTU Communication — Method 2

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 2** (Communication command channel)
- **P0-03 = 9** (Communication-given main frequency)
- **P0-08 = 50** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 60** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 60** (Upper limit frequency in Hz)
- **P0-14 = 0** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

**Ensure Group P1 Motor Parameter Settings are completed (refer to Chapter 1).*

Group Pd: Communication Parameters

- **Pd-00 = 5005** (9600 BPS)
- **Pd-01 = 0** (No parity, 8-N-2)
- **Pd-02 = 1** (Local slave address 1)
- **Pd-05 = 30** (Non-standard Modbus protocol)

Wiring method is identical to "Method 1".

Parameter Address	Parameter Description	Parameter Address	Parameter Description
1000H	* Communication set value (Decimal) -10000 ~ 10000	1010H	PID setpoint
1001H	Running frequency	1011H	PID feedback
1002H	Bus voltage	1012H	PLC step
1003H	Output voltage	1013H	HDI input pulse frequency (Unit: 0.01kHz)
1004H	Output current	1014H	Feedback speed (Unit: 0.1Hz)
1005H	Output power	1015H	Remaining run time
1006H	Output torque	1016H	AI1 pre-calibration voltage
1007H	Running speed	1017H	AI2 pre-calibration voltage
1008H	X input flag	1018H	AI3 pre-calibration voltage
1009H	Y output flag	1019H	Linear speed
100AH	AI1 voltage	101AH	Current power-on time
100BH	AI2 voltage	101BH	Current run time
100CH	AI3 voltage	101CH	HDI input pulse frequency (Unit: 1Hz)
100DH	Count value input	101DH	Communication set value
100EH	Length value input	101EH	Actual feedback speed
100FH	Load speed	101FH	Main frequency X display
—	—	1020H	Auxiliary frequency Y display

Control Command Address (Writable, Hexadecimal)	Command Function
20 00	00 01: Forward run
	00 02: Reverse run
	00 03: Forward jog
	00 04: Reverse jog
	00 05: Coast to stop (external braking resistor recommended for high inertia applications)
	00 06: Decelerate to stop
	00 07: Fault reset

Example: Writing 60.00Hz to the inverter and running the motor.

Modbus Write Command: 01 06 10 00 27 10 -- -- (CRC check code, optional/can be omitted)

- Hexadecimal 27 10 = Decimal 10000 (100.00%, executing at 100% of maximum running frequency)
- 10 00 Hex is the corresponding register address for the running frequency percentage.

Run the motor: 01 06 20 00 00 01 -- -- (CRC check code, optional/can be omitted)

Decelerate to stop: 01 06 20 00 00 06 -- -- (CRC check code, optional/can be omitted)

Modbus Read Command: Read current set frequency percentage from address 10 00 Hex: 01 03 10 00 00 01 -- -- (CRC check code, optional/can be omitted)

Response Code: 01 03 00 02 27 10 FE 36

- 27 10 Hex = 100.00% running frequency

Commix 1.4

Port: COM3 BaudRate: 9600 Apply ☐ DTR ☐ RTS Close Port

DataBits: 8 Parity: None StopBits: 2 ☒ ModbusRTU Pause

Input HEX Show HEX Input ASC Show ASC ☒ Ignore Space ☒ New Line ☒ Show Interval ... Clear

01 03 10 00 00 01 (s) Send ☒ by Enter

```

01 06 10 00 27 10 97 36
(31 ms)
01 06 10 00 27 10 97 36
01 06 20 00 00 01 43 CA
(15 ms)
01 06 20 00 00 01 43 CA
01 06 20 00 00 06 02 08
(47 ms)
01 06 20 00 00 06 02 08
01 03 10 00 00 01 80 CA
(31 ms)
01 03 00 02 27 10 FE 36
  
```

Relay Output 3-Wire Control Mode 1

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 1** (Terminal command control channel)
- **P0-03 = 4** (Keypad potentiometer set frequency)
- **P0-08 = 50** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 50** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 50** (Upper limit frequency in Hz)
- **P0-14 = 0** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

**Group P1 Motor Parameter Settings completed (refer to Chapter 1).*

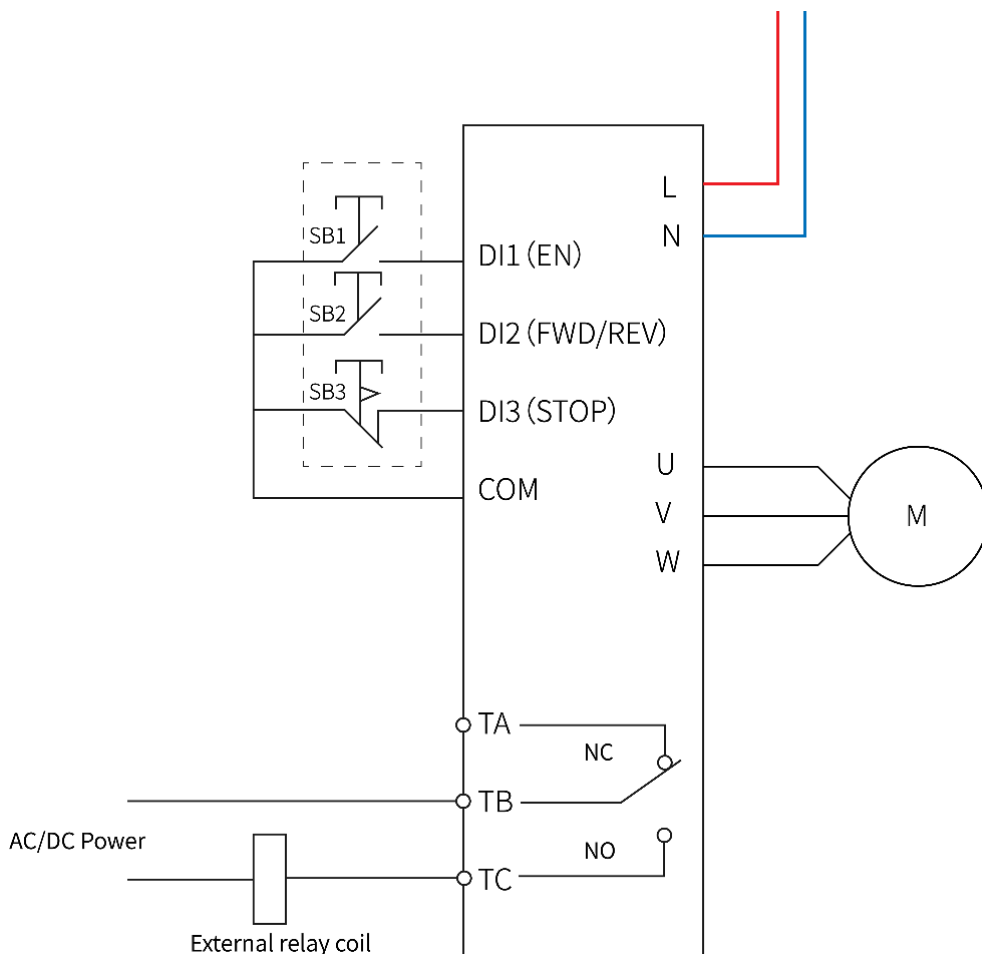
Group P4: Input Terminal Parameters

- **P4-11 = 2** (3-wire control mode 1)
- **P4-00 = 1** (DI1 = Forward run, self-resetting button)
- **P4-01 = 2** (DI2 = Reverse run, self-resetting button)
- **P4-02 = 3** (DI3 = 3-wire control mode, enable interface)

Group P5: Output Terminal Parameters

- **P5-02 = 1** (Inverter running output relay signal; refer to the detailed manual for other functions)

That is: When the inverter starts and drives the motor, the relay activates.



AO1 Analog Output 0–10V & 0–20mA 3-Wire Control Mode 1

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 1** (Terminal command control channel)
- **P0-03 = 4** (Keypad potentiometer set frequency)
- **P0-08 = 50** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 50** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 50** (Upper limit frequency in Hz)
- **P0-14 = 0** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

**Group P1 Motor Parameter Settings completed (refer to Chapter 1).*

Group P4: Input Terminal Parameters

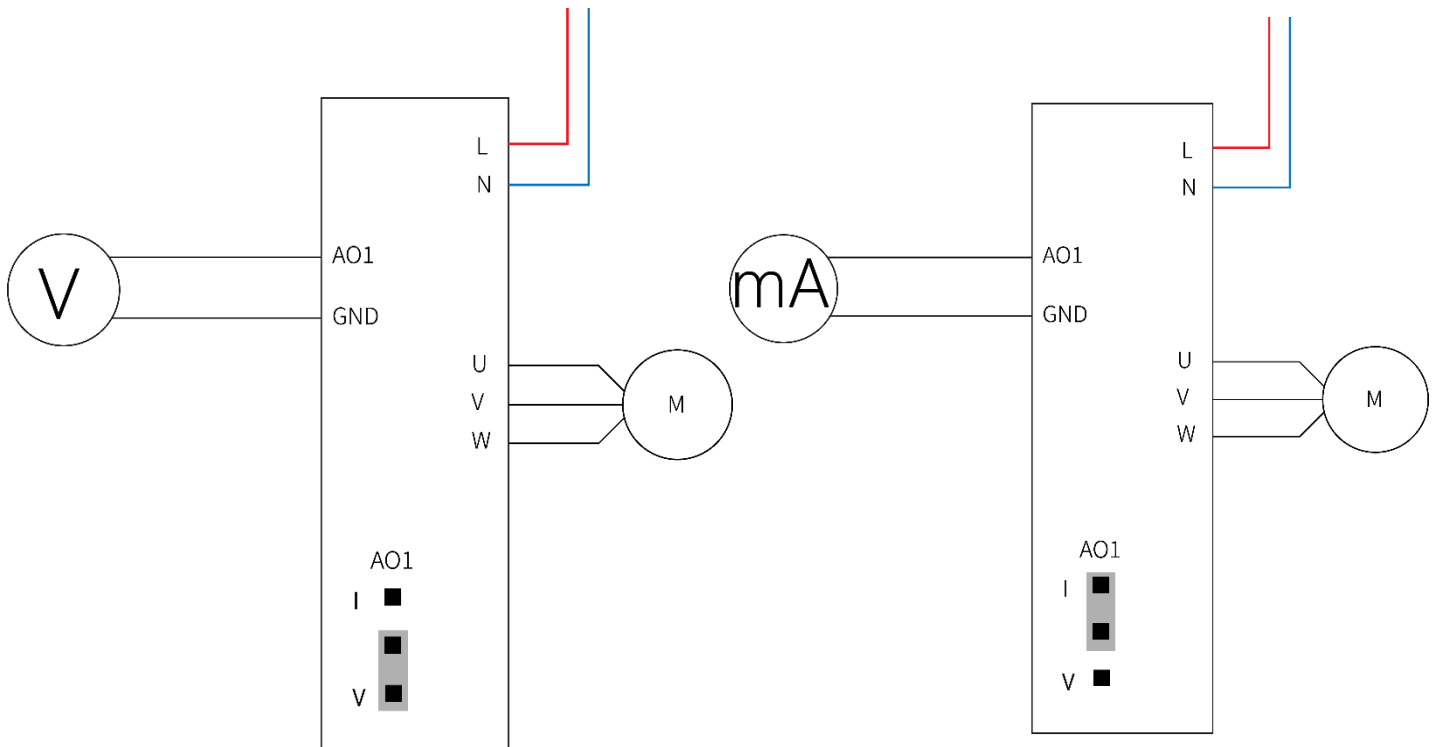
- **P4-11 = 2** (3-wire control mode 1)
- **P4-00 = 1** (DI1 = Forward run, self-resetting button)
- **P4-01 = 2** (DI2 = Reverse run, self-resetting button)
- **P4-02 = 3** (DI3 = 3-wire control mode, enable interface)

Group P5: Output Terminal Parameters

- **P5-07 = 0** (Running frequency corresponds to output voltage or current)

AO1 Jumper:

- Set to the **V** terminal for **0–10V voltage output**.
- Set to the **I** terminal for **0–20mA current output**.



Constant Pressure Water Supply Example (0–20mA Sensor)

Group P0: Basic Operation Parameters

- **P0-01 = 2** (V/F control)
- **P0-02 = 1** (Terminal command control channel)
- **P0-03 = 8** (Enable PID control)
- **P0-08 = 50.00** (Preset frequency in Hz, determined by P0-10)
- **P0-09 = 0** (Running direction)
- **P0-10 = 50.00** (Maximum frequency in Hz, resolution set by P0-22)
- **P0-11 = 0** (Upper limit frequency source, set by P0-12)
- **P0-12 = 50.00** (Upper limit frequency in Hz)
- **P0-14 = 0.00** (Lower limit frequency in Hz)
- **P0-17 = 5** (Acceleration time in s)
- **P0-18 = 5** (Deceleration time in s)

Group P1: Motor Parameters

- **P1-00 = 0** (Standard asynchronous motor)
- **P1-01 = 0.8** (Motor rated power in kW)
- **P1-02 = 380** (Motor rated voltage in V)
- **P1-03 = 2.1** (Motor rated current in A)
- **P1-04 = 50** (Motor rated frequency in Hz)
- **P1-05 = 1460** (Motor rated speed in rpm)

Group P3: Torque Boost Parameters

- **P3-01 = 0** (Torque boost 0.0%)

Group P8: Auxiliary Parameters

- **P8-49 = 40.00Hz** (Frequency ramps up to 40Hz via PID calculation upon pipe pressure loss)
- **P8-50 = 2.0** (Starts 2 seconds after wake-up conditions are met)
- **P8-51 = 20.00Hz** (Prepares to enter sleep mode when frequency stays below 20Hz)
- **P8-52 = 10.00** (Decelerates to stop after 10s)

Group PA: PID Parameters

- **PA-01 = 50.00** (Target pressure setting at 50%; if full scale range is 10 bar, target is set to 5 bar)
- **PA-02 = 1** (Select AI2 terminal as the pressure sensor feedback source)
- **PA-03 = 0** (Forward action; higher feedback decreases frequency)
- **PA-08 = 0** (PID reverse cutoff frequency: 0.0Hz)
- **PA-21 = 60.0** (PID initial value at 60%; starts running at 60% of rated frequency)
- **PA-22 = 3.0** (PID initial value holds for 3s before starting automatic PID calculation)
- **PA-28 = 1** (PID continues calculation during shutdown/stop)

AI2 Jumper Cap: Must be set to the **I** position (Current input mode).

