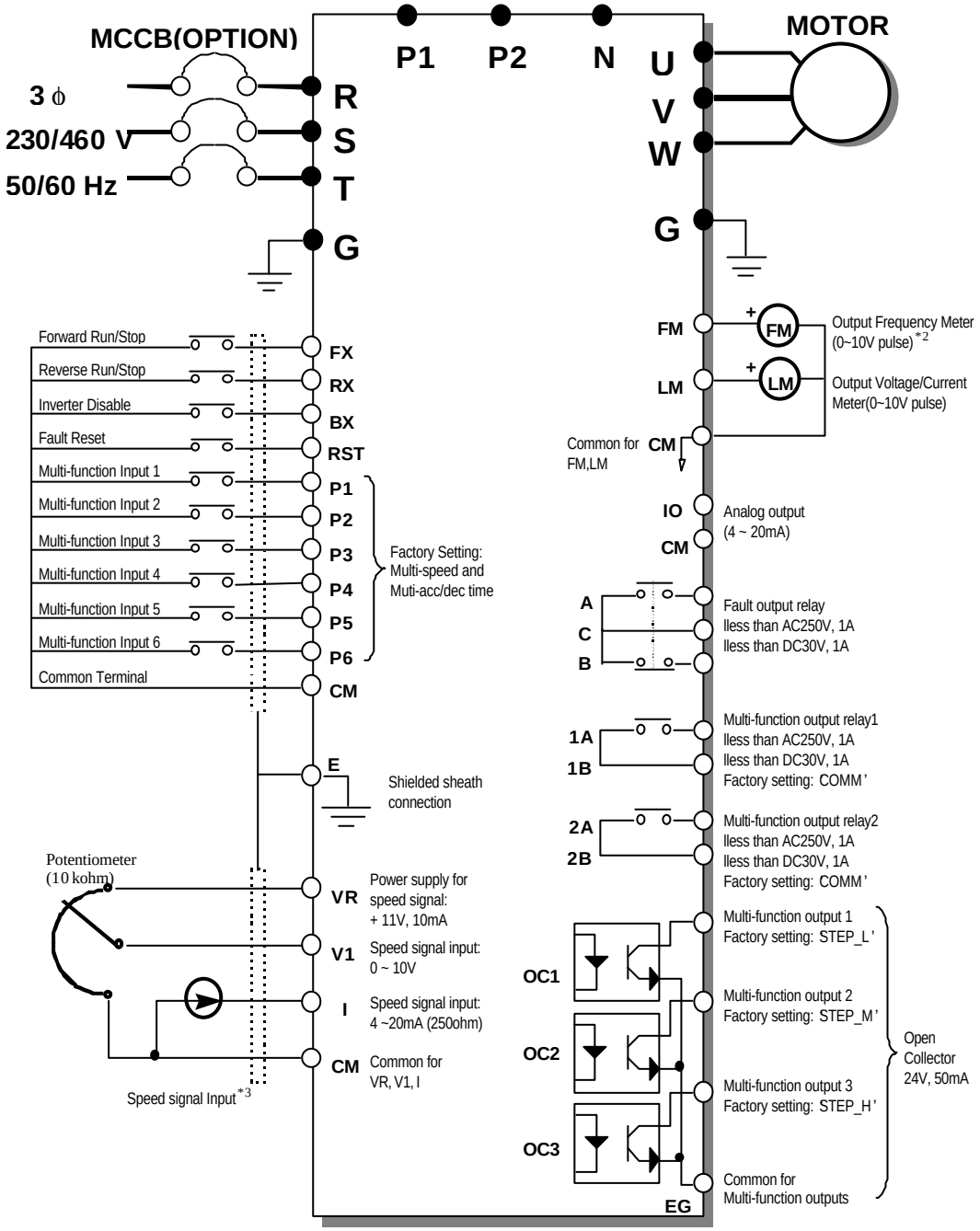
8.1 Multi-Step Speed (Pre-set Speed) Operation

■ **Wiring**



■ Description of Multi-Step Speed

Up to 7 different frequency references can be used.

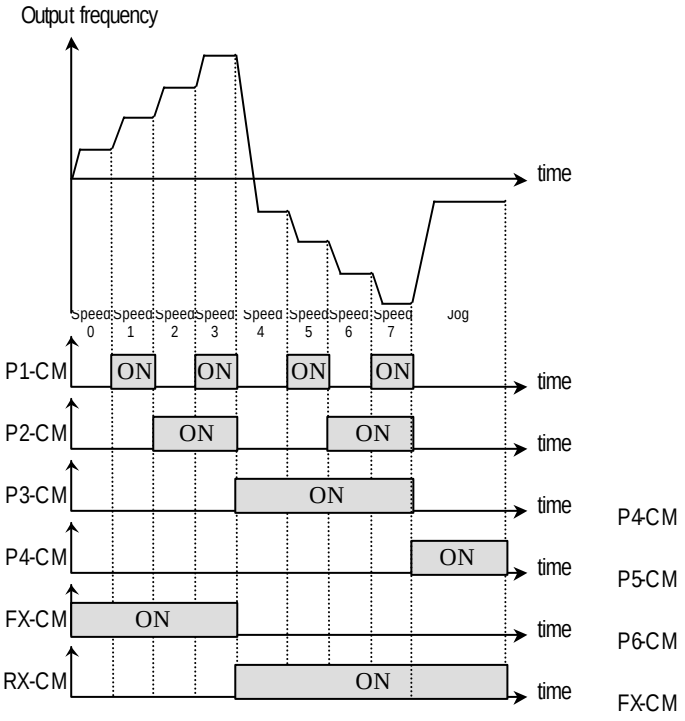
After wiring the inverter as in the figure left:

1. Select the Frequency Reference Source to ‘ Key’ or ‘ Terminal’ in FUN 01 [Freq. set]. This frequency reference is used for ‘ step 0’ .
2. Select the Run/Stop Control Source to ‘ Terminal-1’ in FUN 02 [Run / Stop set].
3. Configure terminals in I/O 01 – 06 [P1-P6 Input] as table below.
4. If FUN 01 is set to ‘ Key’ , set the reference frequency of ‘ step 0’ in DRV 00. If FUN 01 is set to ‘ Terminal’ , set the reference with potentiometer.
5. Set the reference frequency of each step in I/O 13 – 19 [Step freq-1 – 7].
6. Set the JOG frequency in I/O 12 [Jog freq.].
7. To run the motor, introduce multi-function input terminals along with the FX, RX or FWD, REV key.

Multi-step Speed selection table

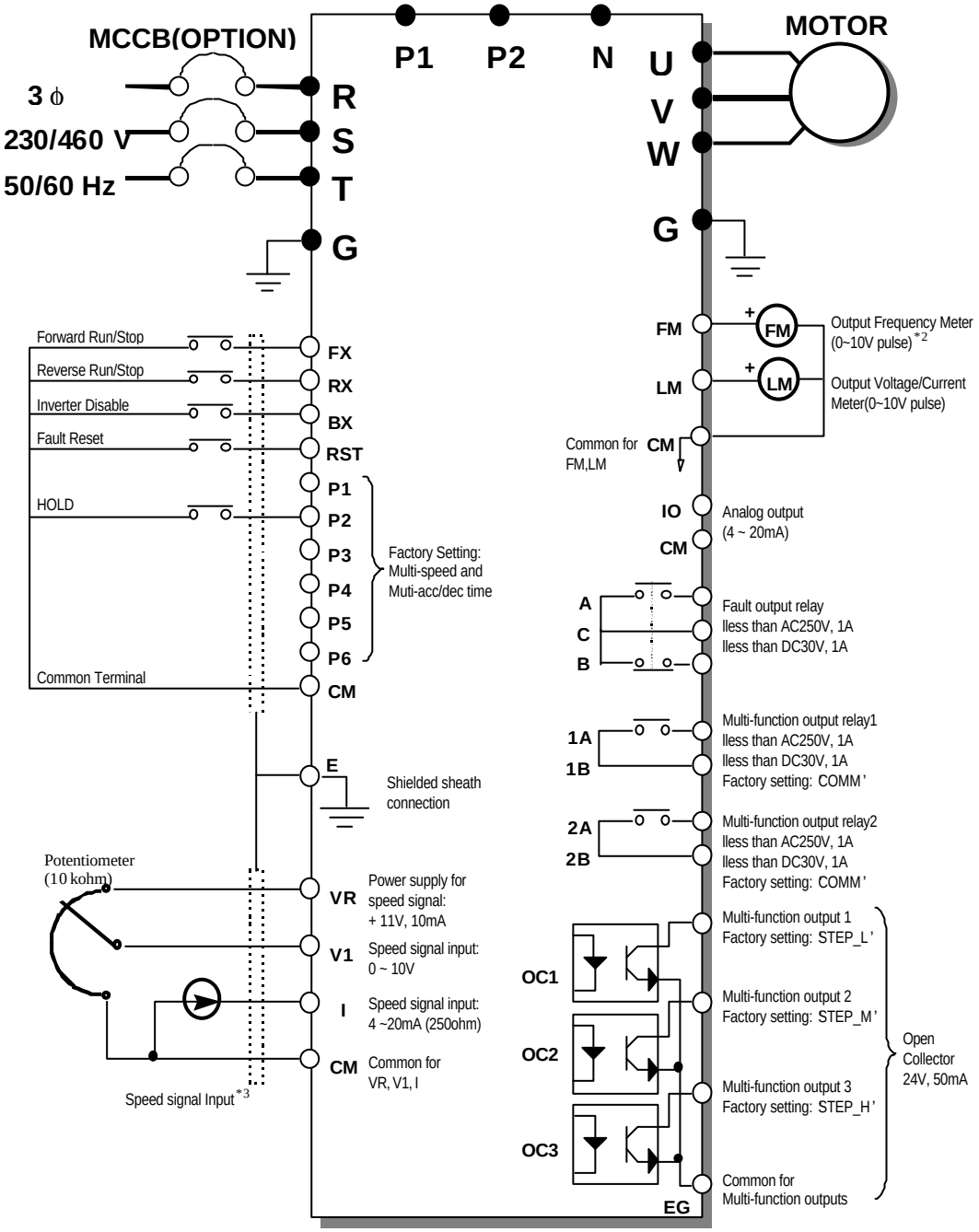
Input Terminal	Configured	Speed 0	Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7
P1	SPD_L	0	1	0	1	0	1	0	1
P2	SPD_M	0	0	1	1	0	0	1	1
P3	SPD_H	0	0	0	0	1	1	1	1

0: inactive (off), 1: active (on)



8.2 3-Wire Operation

■ **Wiring**



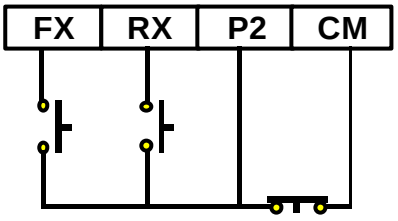
■ Description of 3-Wire Operation

The ‘ HOLD’ function is used to hold the momentary run command using a push button switch.

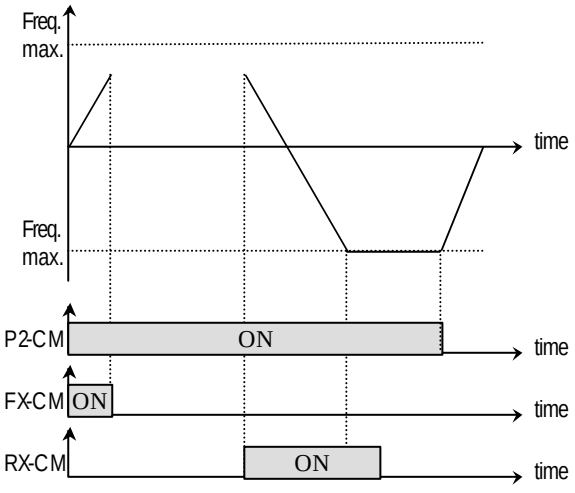
After wiring the inverter as in the figure left:

1. Select the Frequency Reference Source to ‘ Key’ or ‘ Terminal’ in FUN 01 [Freq. set].
2. Select the Run/Stop Control Source to ‘ Terminal-1’ in FUN 02 [Run / Stop set].
3. Configure P2 terminal in I/O 02 [P2 Input] as ‘ HOLD’ .

Once the FX or RX terminal is closed to CM momentarily, the inverter maintains its output. See below figure.



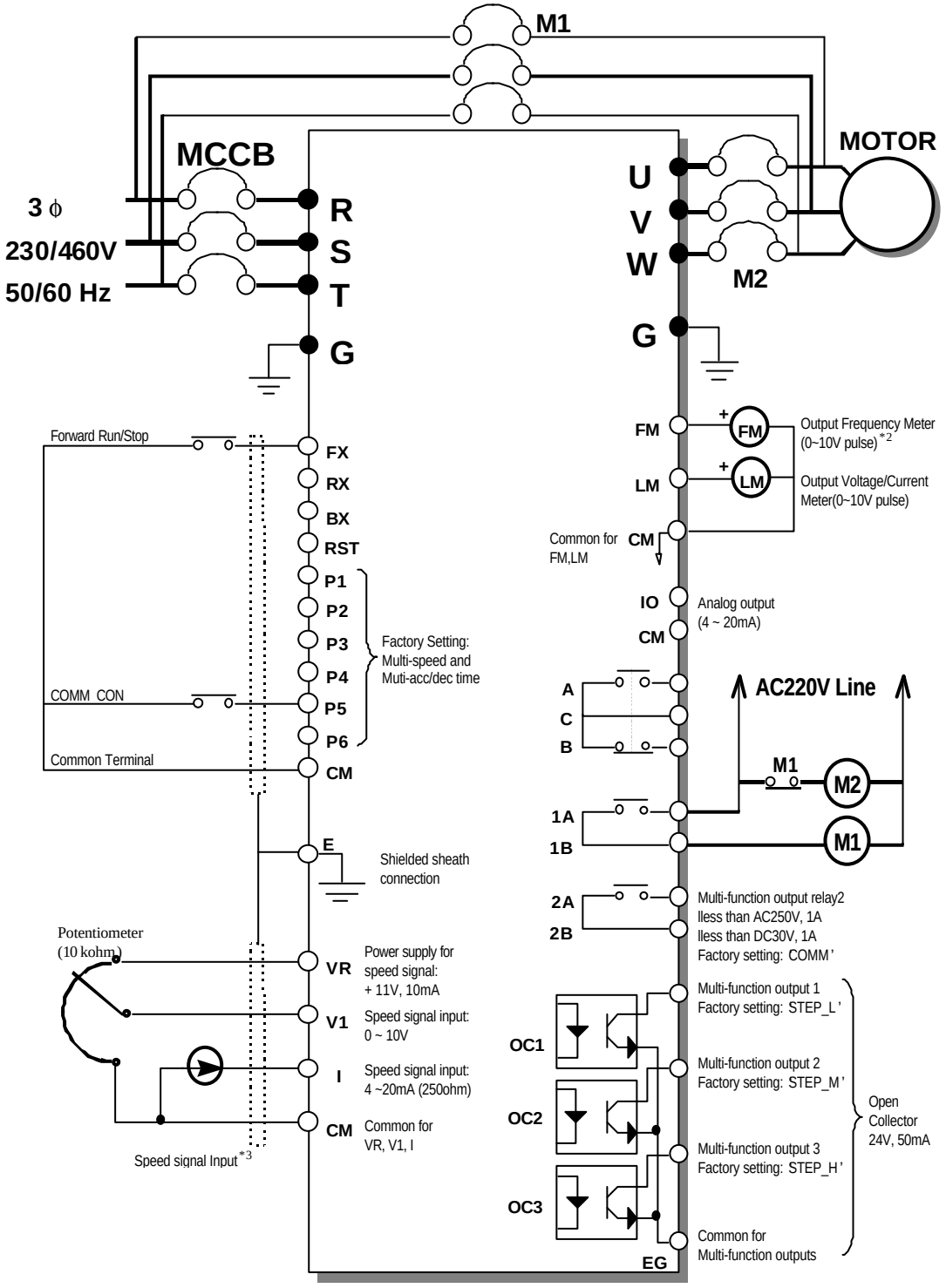
[Wiring for ‘ HOLD ’ drive]



[‘ HOLD ’ drive]

8.3 Exchange Inverter to Commercial Line Operation

■ **Wiring**



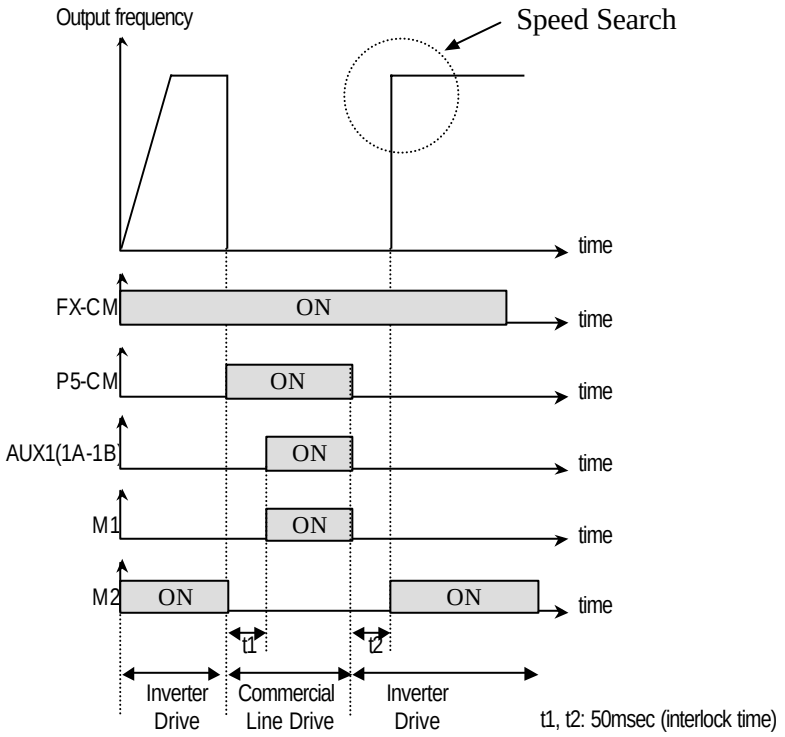
■ Description of Exchange Inverter to Commercial Line Operation

The input of the motor can be exchanged between the Inverter and Commercial Line using the 'COMM_CON' and 'COMM' functions.

After wiring the inverter a in the figure left.

1. Select the Frequency Reference Source to 'Key' or 'Terminal' in FUN 01 [Freq. set].
2. Select the Run/Stop Control Source to 'Terminal-1' in FUN 02 [Run / Stop set].
3. Configure P5 terminal in I/O 05 [P2 Input] as 'COMM_CON'.
4. Configure AUX1 Relay Output as 'COMM' in I/O 10 [AUX1 output].
5. To exchange the motor input from inverter to commercial line, close the P5 terminal to CM.

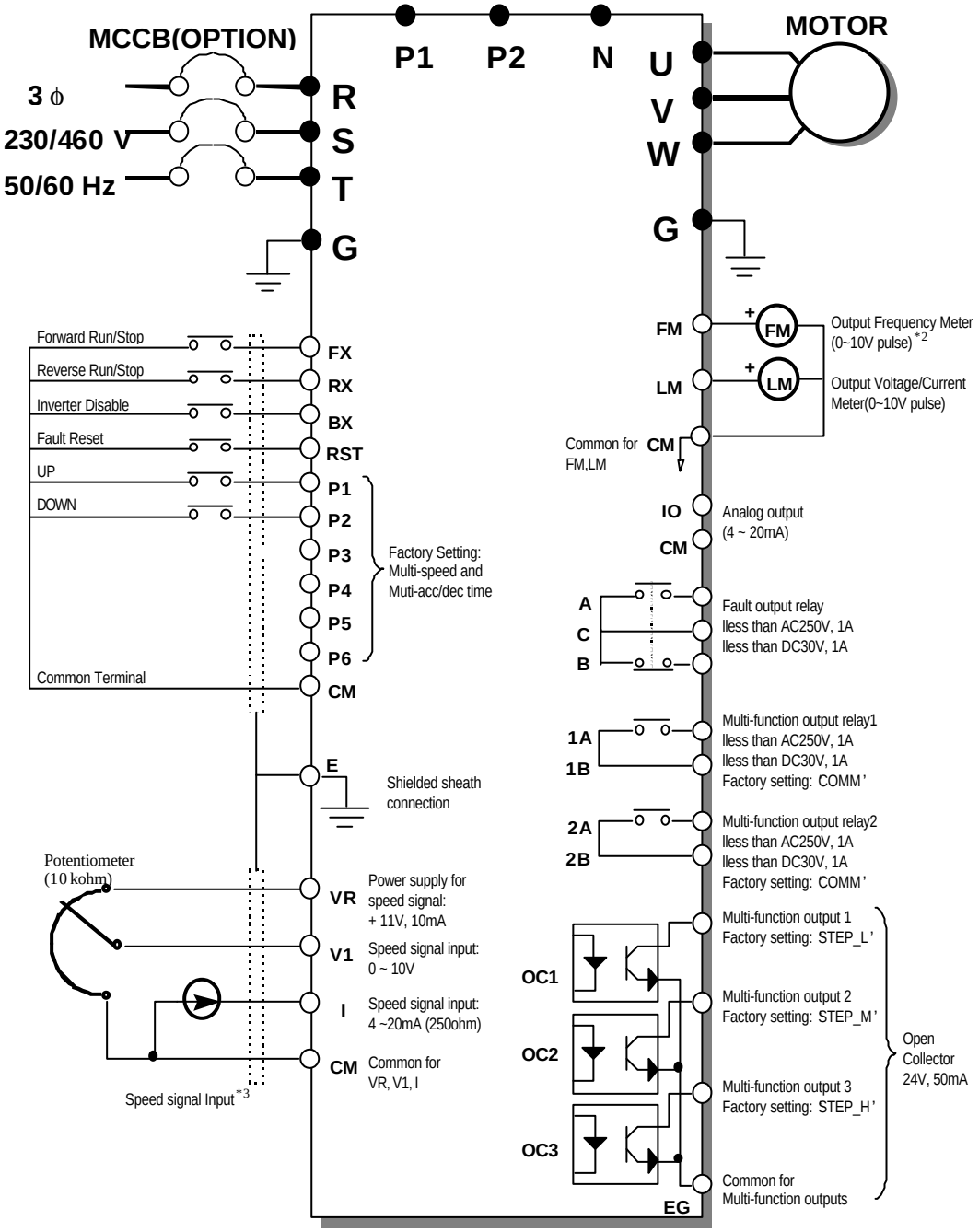
Note: Motor drive direction must be set up correctly.



[Commercial Line Exchange]

8.4 Up and Down Operation

■ **Wiring**

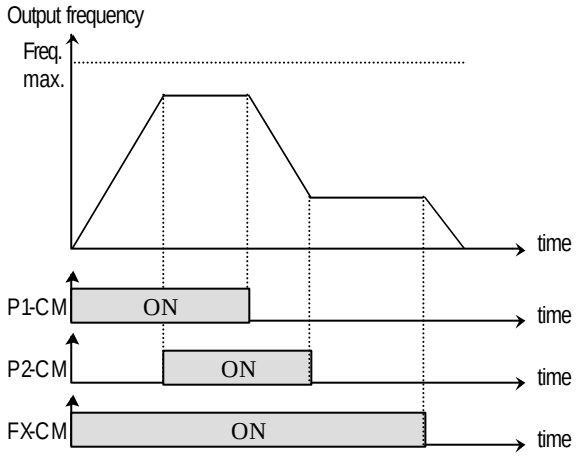


■ Description of Up and Down Operation

The output frequency can be increased and decreased using Up and Down functions.

After wiring the inverter as in the figure lesft:
1. Select the Frequency Reference Source to ' Key' or ' Terminal' in FUN 01 [Freq. set].
2. Select the Run/Stop Control Source to ' Terminal-1' in FUN 02 [Run / Stop set].
3. Configure P1 terminal in I/O 01 [P1 Input] as ' UP' .
4. Configure P2 terminal in I/O 02 [P2 Input] as ' DOWN' .

See below sequence diagram.



[Up/Down drive]