Huanyang HY Series VFD Variable Frequency Drive User Guide

Huanyang HY Series VFD Variable Frequency Drive User Guide

Simple Manual for HY Series VFD

This manual gives a brief introduction of HY inverter's terminal functions, keypad, operation, frequently used functions' parameters, etc.

Contents

1 Terminal Configuration

1.1 Main Circuit Terminals

Applicable product model：1.5KW~2.2KW

R	S	T	P	Pr	U	V	W	E ⏚

Applicable product model：4.0KW~7.5KW

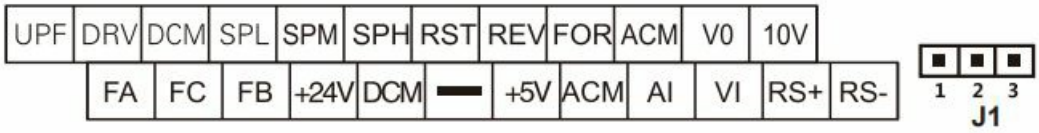
E ⏚	R	S	T	P	Pr	U	V	W

Figure1.1-1 Terminals of main circuit

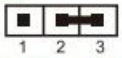
Terminal Symbol	Function Description
R、S、T	Terminals of 3 phase AC input
U、V、W	Terminals of 3 phase AC output
P+、Pr	Spare terminals of external braking unit （This function requires customization）
⏚	Terminals of ground

Note: The wiring terminals are subject to the actual.

1.2 Arrangement of Control Circuit Terminals



Notes: Please short circuit the 2-3 foot of JI terminal when using the board potentiometer

Like chart:  PD002=1,PD070=1

Please short circuit the 1-2 foot of JI terminal when using the external connection potentiometeror the external power supply.

Like chart:  PD002=1,PD070=1

1.3 Function Description of Control Circuit Terminals

Symbol	Function Description	Factory setting
FOR	Multi-Input 1	Forward run
REV	Multi-Input 2	Reverse run
RST	Multi-Input 3	Reset
SPH	Multi-Input 4	High speed
SPM	Multi-Input 5	Middle Speed
SPL	Multi-Input 6	Low Speed
DCM (COM)	Common Terminal of Digital and Control Signals	
+10	Power Supply for Speed Setting	+10V
VI	Analog Current Frequency Reference Input	0～+10V corresponding to the highest operating frequency
AI	Analog Current Frequency Reference Input	4～20mA corresponding to the highest operating
ACM (GND)	Common Terminal of Analog and Control Signals	

Symbol	Function Description	Factory setting
ACM (GND)	Common Terminal of Analog and Control Signals	
FA(MB) FB(MA) FC(MA)	Multi-Output 3 (N/O or N/C)	
V0	Output terminals of digital frequency	0～10V

1.4 Wiring Diagram

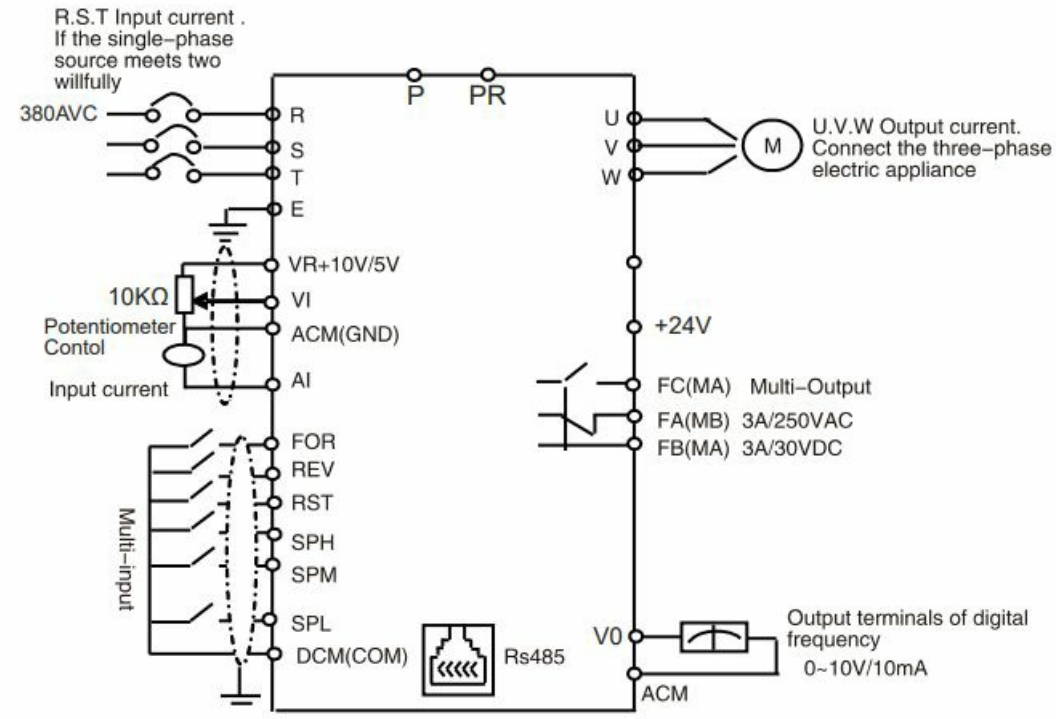


Figure1.4 Wiring Diagram

2 Keypad description

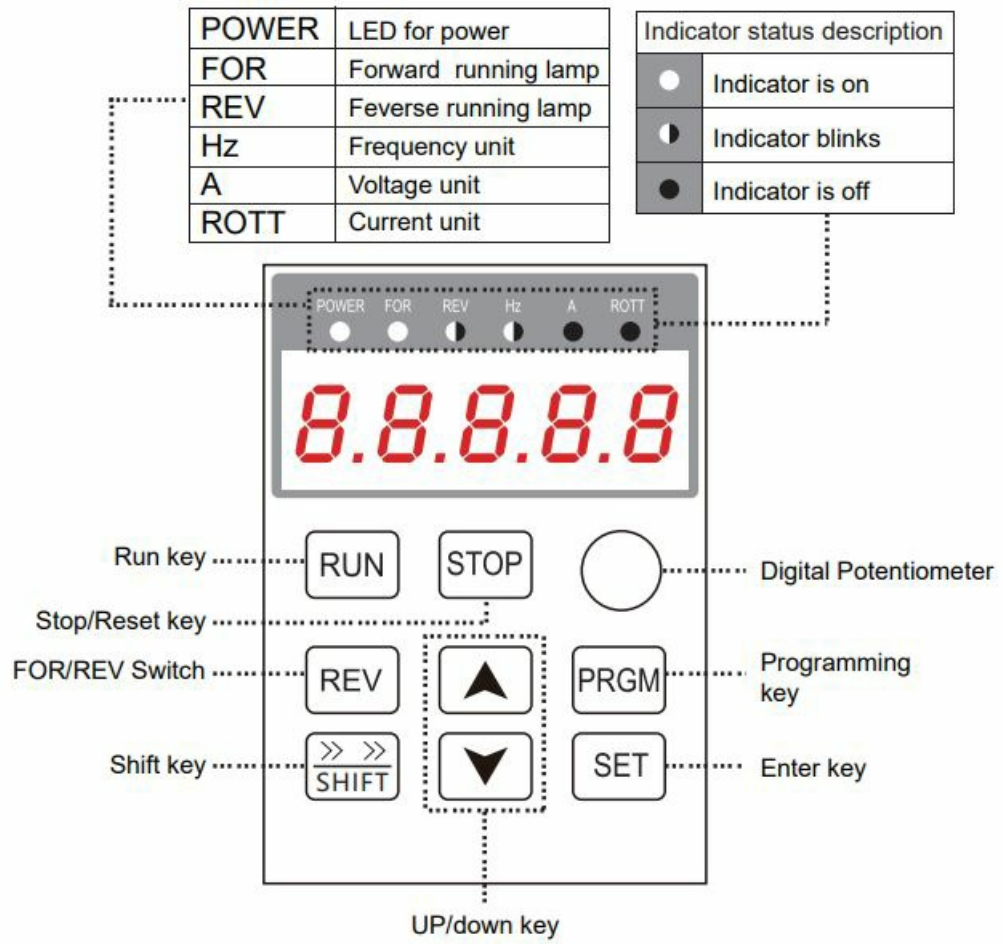


Figure 2 Keypad

3 Parameter setting description

Note: The sign ” ” below means cursor flicking

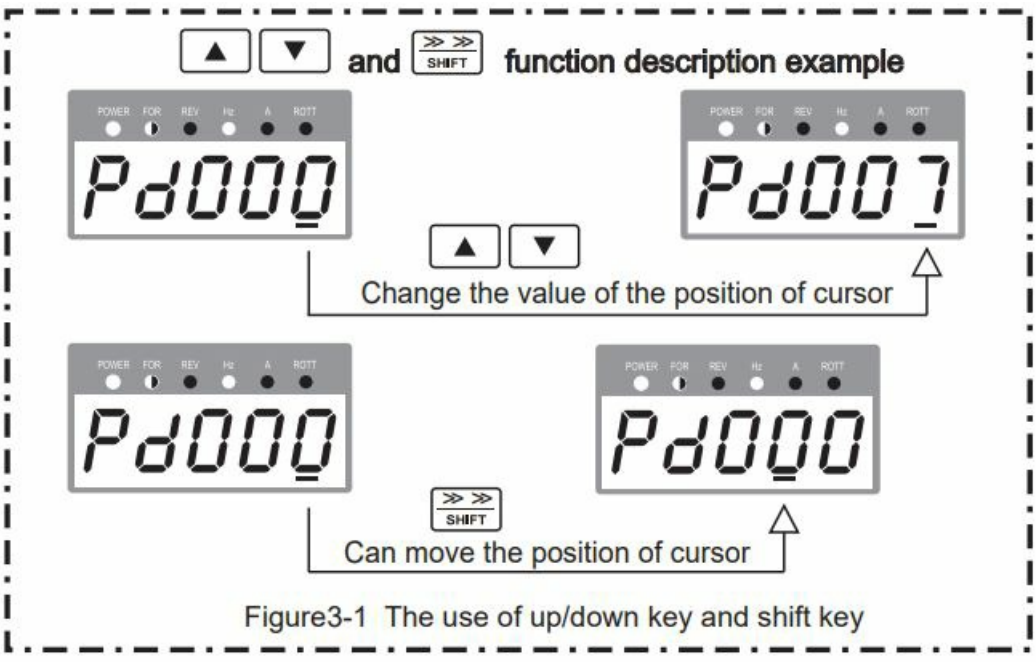


Figure3-1 The use of up/down key and shift key

3.1 Parameter setting figure

The operation panel of HY series adopts two-level menu structure for parameter setting and other operations. The

following flowchart is an example of how to set function code Pd001 to 1 (change the running function of the keyboard RUN to terminal control).

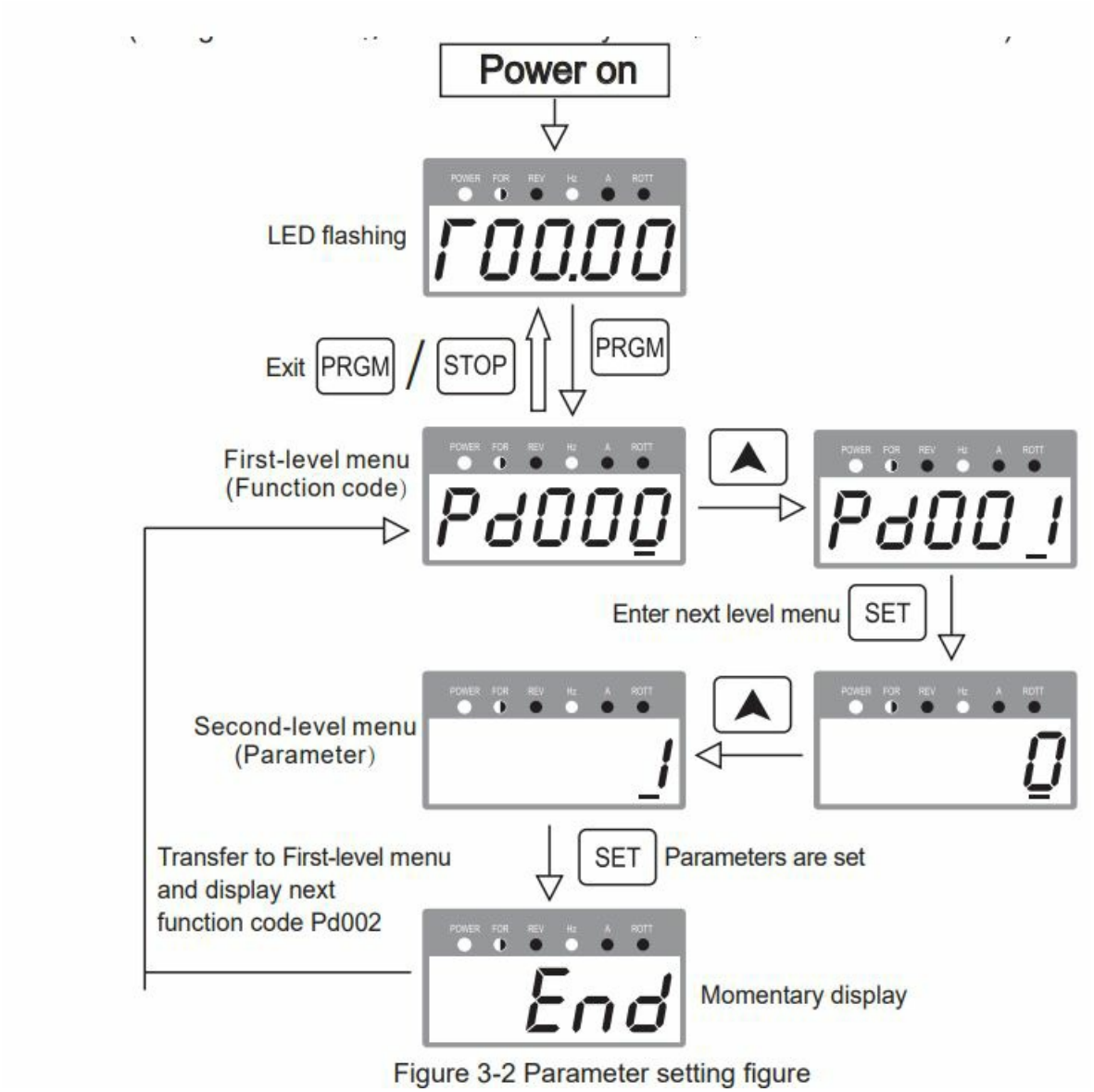


Figure 3-2 Parameter setting figure

Remarks: Press the PRGM , STOP or SET can return to the first-level menu from the second-level menu. The difference of the three is: press the SET to save the set parameters into the control panel and then return to the first-level menu with shifting to the next function code automatically; press the PRGM or STOP to directly return to the first-level menu without saving parameters and keep staying at the current function code.

4 Cases about operation

Note: The sign ” ” below means cursor flicking

- Example 1: Restore factory setting, set function code Pd013 from 00 to 08.

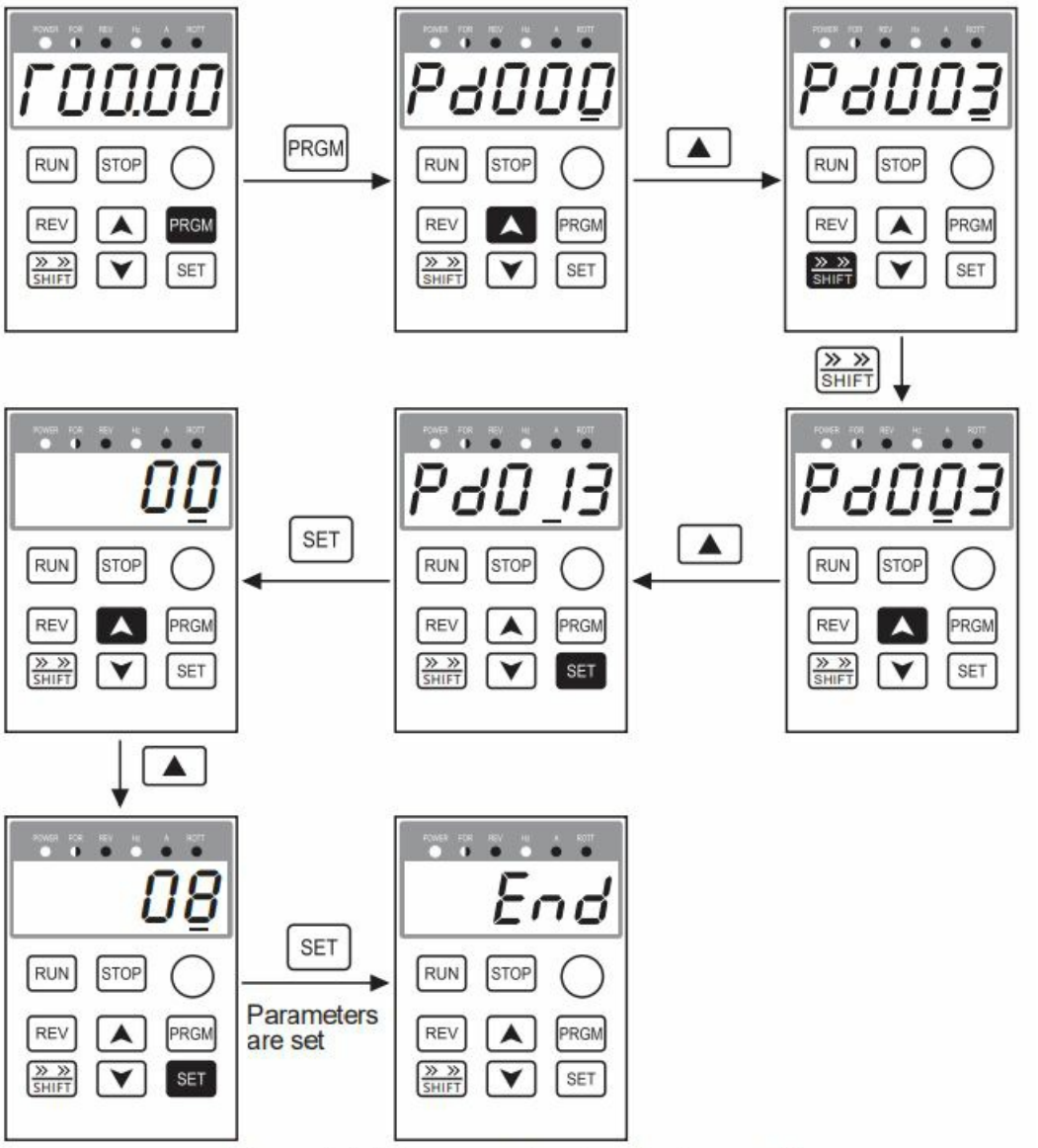


Figure 4-1. Diagram of restore factory setting

Note: After factory set, panel potentiometer needs to be set to work cPD0.02=1 and Pd070=1}Suitable for 50hz motor)

- Example2 Set frequency from 50Hz to 400Hz

1. Set function code Pd005 to 400
2. Set function code Pd004 to 400
3. Set function code Pd072 to 400

(Note: The setting sequence cannot be changed)

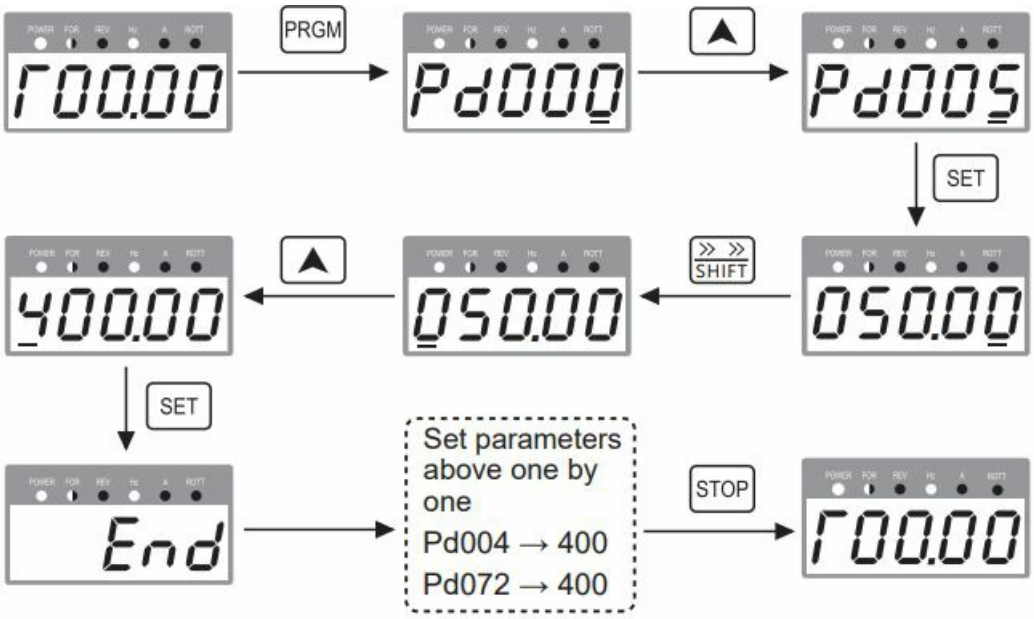


Figure 4-1. Frequency setting figure

- Example 2: The potentiometer on keypad is available set function code Pd002 to 1cfor the 50hz motor

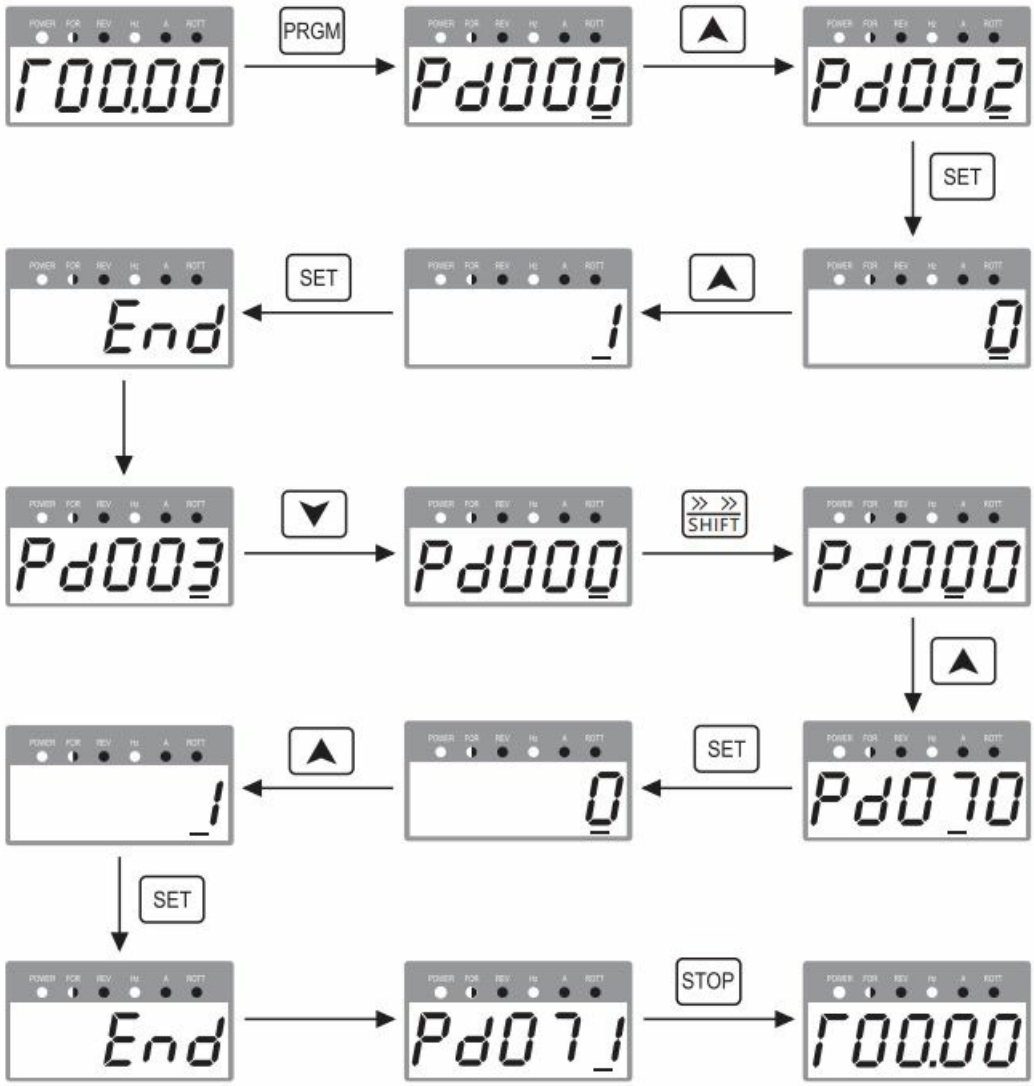


Figure 4-2. Panel potentiometer set to effective schematic diagram

5 General functional parameters

Function code	Name	Detailed description of parameters	Default value
Pd001	Source of run commands	0:Operator 1:External terminal 2: Communication port	0
Pd002	Source of operating frequency	0:Operator board 1: Simulation amount set (board potentiometer and external potentiometer)	0
Pd003	Main Frequency	0.00～400.00Hz	*
Pd004	Base frequency	0.01～400.00Hz	50.00
Pd005	Max. voltage	10.00～400.00Hz	50.00
Pd013	Parameset Reset	01:Restore factory setting	00
Pd044	FOR（D1）	0:Invalid; 1:Run; 2:For rotation; 3:Rev rotation; 4:Stop; 5:FOR/REV.; 6:Jog; 7:Jog For rotation;	02

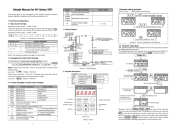
Function code	Name	Detailed description of parameters	Default value
Pd045	REV(D2)	8:Jog Rev Rotation; 9:Timer1; 10:Timer2; 11:Reserved; 12:Overheat of heat sink or motor; 13:Emergent stop; 14:Reset; 15~16:Reserved 17:Rampselect 1; 18 Ramp select2; 19:Multi-speed1; 20:Multi-speed2; 21:Multi-speed 3; 22:High speed; 23:Middle speed; 24:Low speed; 25:PID Start; 26:Reserved; 27:UP functionCounter; 28:DOWN function; 29:Drawing; 30:Reserved; 31:Counter; 32:Counter reset	03
Pd046	RST(D3)		04
Pd047	SPH(D4)		07
Pd048	SPL(D5)		19
Pd049	SPM(D6)		20
Pd052	Terminals of FA、FB、FC	0:Invalid; 1:Run: 2:Zero Speed; 3:Fault indication; 4:Braking indication; 5:Set Frequency reach; 6:In Accel.; 7:In Decel.; 8:Arbitrary Frequency 1 reach; 9:Arbitrary Frequency 2 reach;	01

Pd070	Analog input	0:0～10V 1:0～5V 2:0～20mA 3:4～20mA 4:0～10V，Stacked4～20mA 5:Exterior pulse of input	0
Pd072	Higher Analog Frequency;	0.00～400.00Hz	50.00
Pd073	Lower Analog Frequency;	0.00～400.00HZ	0
Pd074	Bias Direction at Higher Frequency;	0:Positive direction 1:Negative direction	0
Pd075	Bias Direction at Lower Frequency;	0:Positive direction 1:Negative direction	0

Note: The function code parameters can be changed under the status of inverter stopping output.

HUANYANG ELECTRICAL CO.,LTD
Factory Add: Chennan Village, Damaiyu Street ,Yu Huan Town,
Tai zhou City, Zhejiang 317600 China

Documents / Resources

	Huanyang HY Series VFD Variable Frequency Drive [pdf] User Guide HY Series VFD Variable Frequency Drive, HY Series, VFD Variable Frequency Drive, Variable Frequency Drive, Frequency Drive, Drive

References

- User Manual