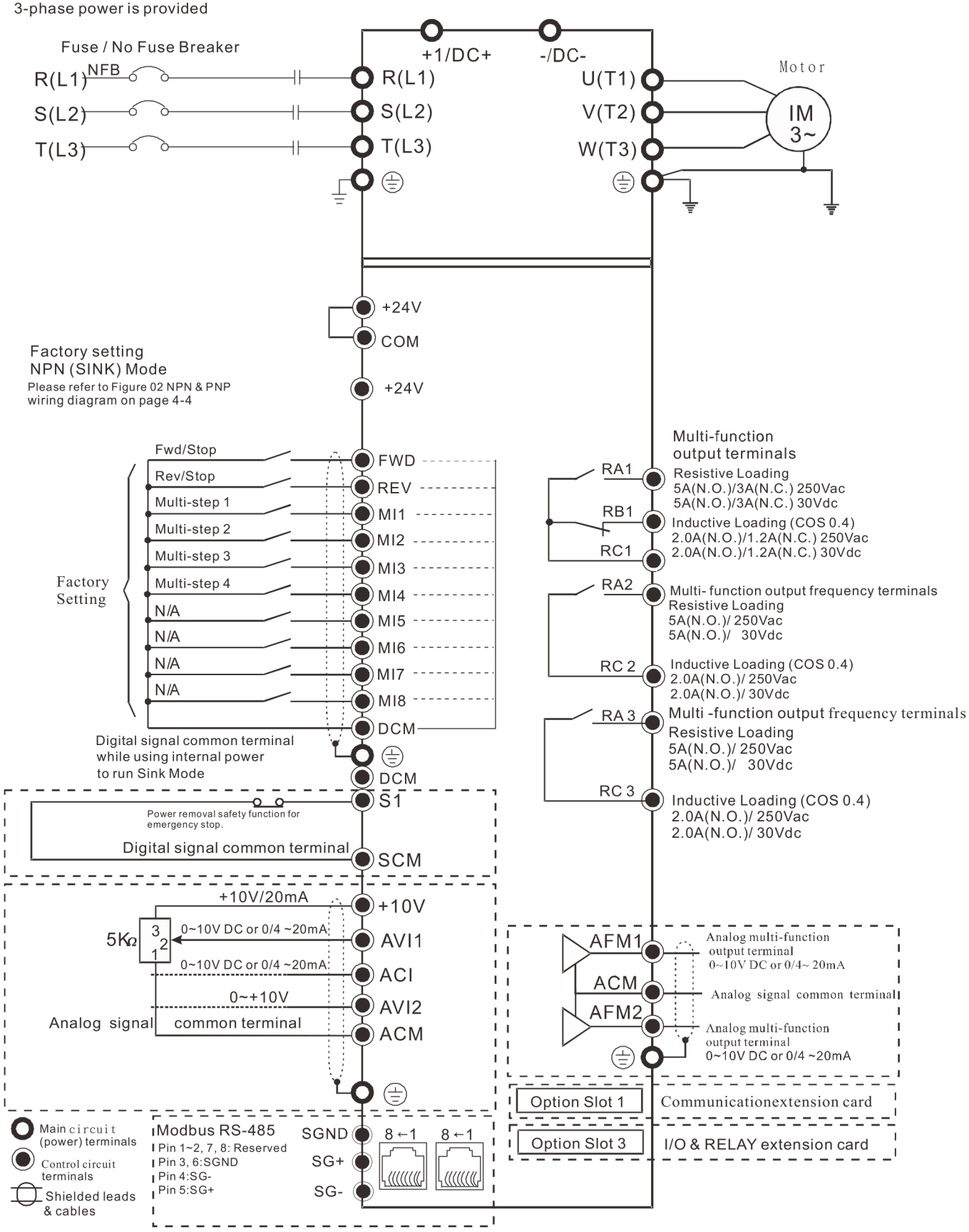
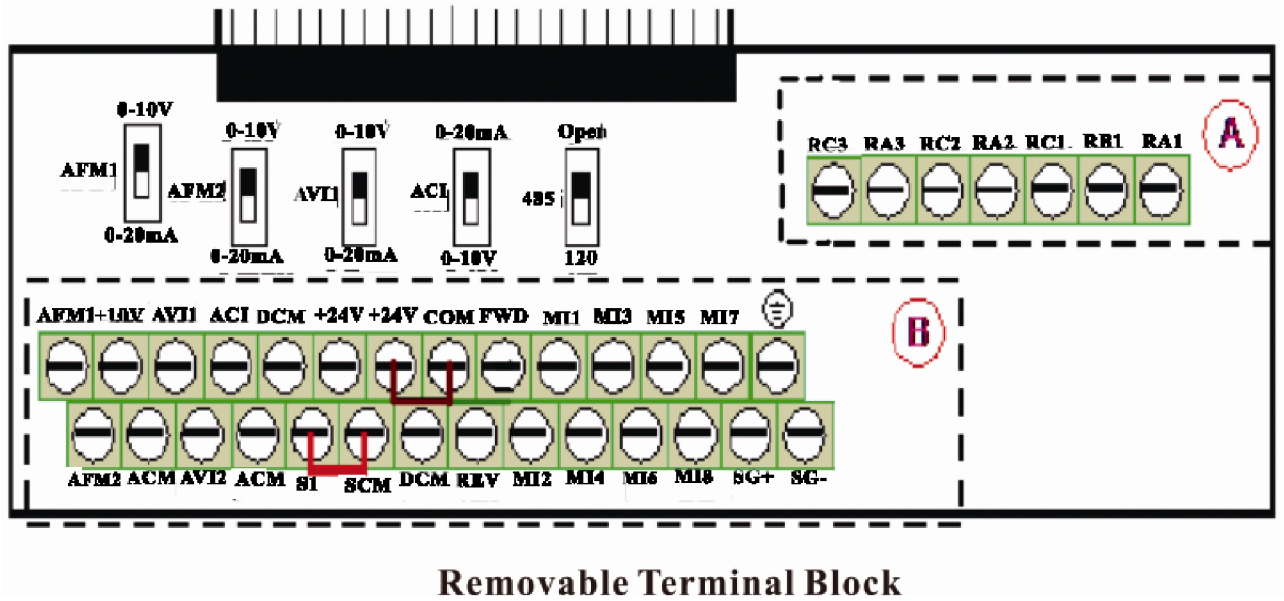
Wiring Diagram for Frame D

3-phase power is provided



Do not connect any inlet phase capacitor nor automatic power factor regulator (APFR) directly to the VFD.

But if it is necessary to connect any of them, make sure a reactor is installed between the VFD and inlet phase capacitor/APFR



Removable Terminal Block

Control Terminal Specifications

Wire Gauge: 26~16AWG（0.1281-1.318mm^2）,
Torque: (A) 5kg-cm [4.31lb-in.] (0.49Nm) (As shown in figure above)
(B) 8kg-cm [6.94lb-in.] (0.78Nm) (As shown in figure above)

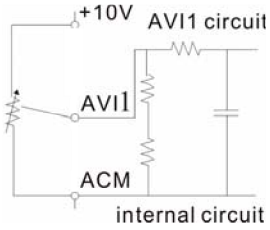
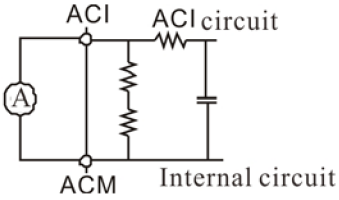
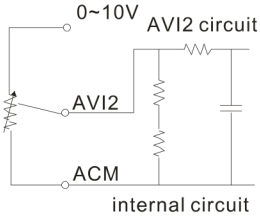
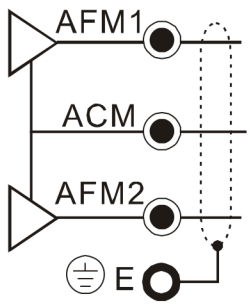
Wiring precautions:

- Reserves 5mm and properly install the wire into the terminal; fasten the installation by a slotted screwdriver. If the wire is stripped, sort the wire before install into the terminal.
- Flathead screwdriver: blade width 3.5mm, tip thickness 0.6mm
- In the figure above, the factory setting for S1-SCM is short circuit. The factory setting for +24V-COM is short circuit and SINK mode (NPN); please refer to Chapter 4 Wiring for more detail.

Terminals	Terminal Function	Factory Setting (NPN mode)
+24V	Digital control signal common (Source)	+24V±5% 200mA
COM	Digital control signal common (Sink)	Common for multi-function input terminals
FWD	Forward-Stop command	FWD-DCM: ON➔ forward running OFF➔ deceleration to stop
REV	Reverse-Stop command	REV-DCM: ON➔ reverse running OFF➔ deceleration to stop
MI1 ~ MI8	Multi-function input 1~8	Refer to parameters 02-01~02-08 to program the multi-function inputs MI1~MI8. ON: the activation current is 6.5mA≧11Vdc OFF: leakage current tolerance is 10μA≦11Vdc
DCM	Digital frequency signal common	
RA1	Multi-function relay output 1 (N.O.) a	Resistive Load: 5A(N.O.)/3A(N.C.) 250VAC 5A(N.O.)/3A(N.C.) 30VDC
RB1	Multi-function relay output 1 (N.C.) b	

<table>
<tr><td>RC1</td><td>Multi-function relay common (Relay)</td><td rowspan="5">Inductive Load (COS 0.4):
2.0A(N.O.)/1.2A(N.C.) 250VAC
2.0A(N.O.)/1.2A(N.C.) 30VDC

These terminals are to output monitoring signals, such as drive is in operation, frequency attained or overload indication.

Note: RA1 has N.O. and N.C.; RA2 and RA3 has N.O. only.</td></tr>
<tr><td>RA2</td><td>Multi-function relay output 2 (N.O.) a</td></tr>
<tr><td>RC2</td><td>Multi-function relay common (Relay)</td></tr>
<tr><td>RA3</td><td>Multi-function relay output 3 (N.O.) a</td></tr>
<tr><td>RC3</td><td>Multi-function relay common (Relay)</td></tr>
<tr><td>+10V</td><td>Potentiometer power supply</td><td>Analog frequency setting: +10Vdc 20mA</td></tr>
<tr><td>AVI1</td><td>Analog voltage input
 
</td><td>Impedance: 20kΩ
Range: 0~ 20mA/0~10V =0~ Max. Output Frequency (Pr.01-00)
AVI switch, factory setting is 0~10V</td></tr>
<tr><td>ACI</td><td>Analog current input
 
</td><td>Impedance: 250Ω
Range: 0 ~ 20mA/0~10V=0~ Max. Output Frequency (Pr.01-00)
ACI Switch, factory setting is 0~20mA</td></tr>
<tr><td>AVI2</td><td>Auxiliary analog voltage input
 
</td><td>Impedance: 20kΩ
Range: 0 ~ +10VDC=0~ Max. Output Frequency (Pr.01-00)</td></tr>
<tr><td>AFM1</td><td rowspan="2"> 
</td><td>0~10V Max. output current 2mA, Max. load 5kΩ
-10~10V maximum output current 2mA, maximum load 5kΩ
Output current: 2mA max
Resolution: 0~10V corresponds to Max. operation frequency
Range: 0~10V → -10~+10V
AFM 1 Switch, factory setting is 0~10V</td></tr>
<tr><td>AFM2</td><td>0~10V Max. output current 2mA, Max. load 5kΩ
0~20mA Max. load 500Ω
Output current: 20mA max
Resolution: 0~10V corresponds to Max. operation frequency
Range: 0~10V → 0/4~20mA
AFM 2 Switch, factory setting is 0~10V</td></tr>
<tr><td>ACM</td><td>Analog Signal Common</td><td>Common for analog terminals</td></tr>
<tr><td>S1</td><td colspan="2">Factory setting: short-circuit</td></tr>
</table>

SCM	Power removal safety function for emergency stop.	
SG+	Modbus RS-485	
SG-		
SGND		
RJ45	PIN 1,2,7,8 :Reserved	PIN 3, 6: SGND
	PIN 4: SG-	PIN 5: SG+

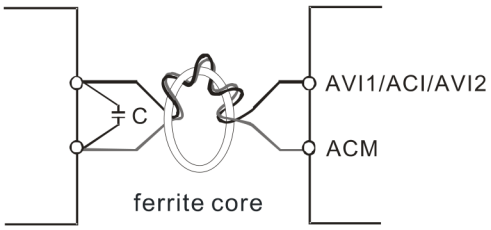
* NOTE: Wire size of analog control signals: 18 AWG (0.75 mm^2) with shielded wire

Analog input terminals (AVI 1, ACI, AVI 2, ACM)

☑ Analog input signals are easily affected by external noise. Use shielded wiring and keep it as short as possible (less than 20 meters (65.6168 feet)) with proper grounding. If the noise is inductive, connecting the shield to terminal ACM can bring improvement.

☑ This way of using contacts in a circuit should be able to process weak signals at the bifurcated contacts. Besides, don't use contacts to control the terminal ACM.

☑ If the analog input signals are affected by noise from the AC motor drive, please connect a capacitor and ferrite core as indicated in the following diagram.



Digital inputs (FWD, REV, MI1~MI8, COM)

☑ When using contacts or switches to control the digital inputs, please use high quality components to avoid contact bounce.

Remove the Terminal Block

1. Loosen the screws by screwdriver. (As shown in figure below)