Chapter 8 Option Cards

The option cards mentioned in this chapter are optional items. Please select applicable option cards for your drive or contact your local distributor for suggestion. The option cards can improve the performance of the drive significantly.

To prevent damage to the drive during installation of the option cards, please remove the cover before wiring.

8-1 Option Card Installation

1. Switch off the power supply.
2. Open the front cover of the drive.
3. As shown in Fig. 8-1, aim the two clips at the option card fixed fitting. Press the fixed fitting to clip the slot.
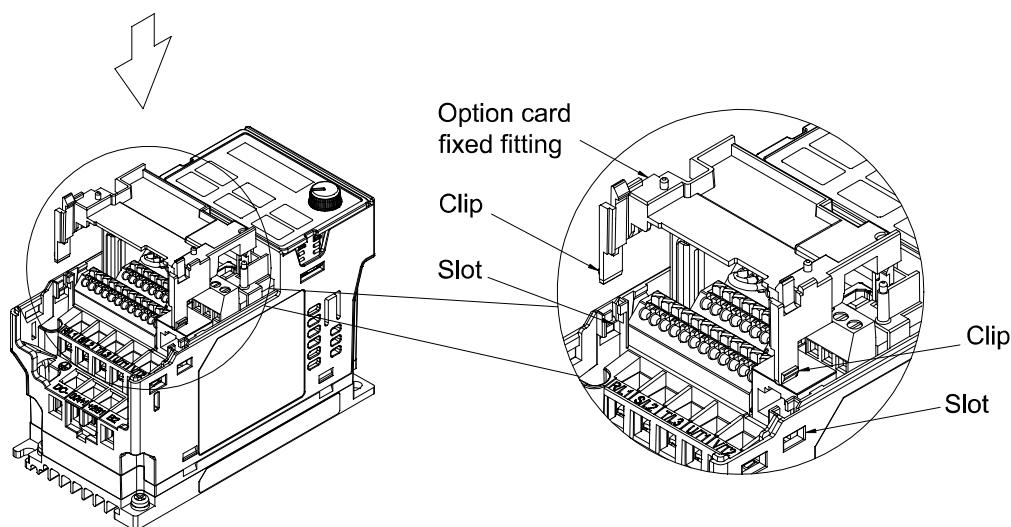

Fig. 8-1

4. As shown in Fig. 8-2, aim the three holes at the positioning pin. Press the pin to clip the holes with the option card.
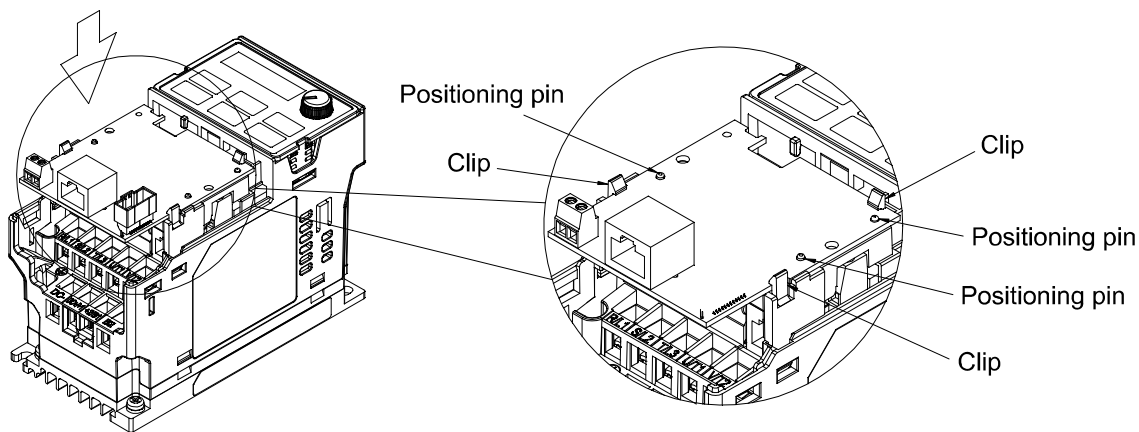

Fig. 8-2

5. Wiring after the option card fixed fitting is clipped with the holes (see ![NOTE]).
    Fasten the screw to fix the option card before wiring (shown in Fig. 8-3). Torque:4~6 kg-cm
    [3.5~5.2 lb-in] / [0.39~0.59 Nm]. While the wiring is finished, the front cover cannot put it back
    on directly but needs to assembly the option card reversely. Please refer to the subsequent
    steps to complete the installation.

Torque:
4~6 kg-cm
[3.5~5.2 lb-in.]
[0.39~0.59 Nm]

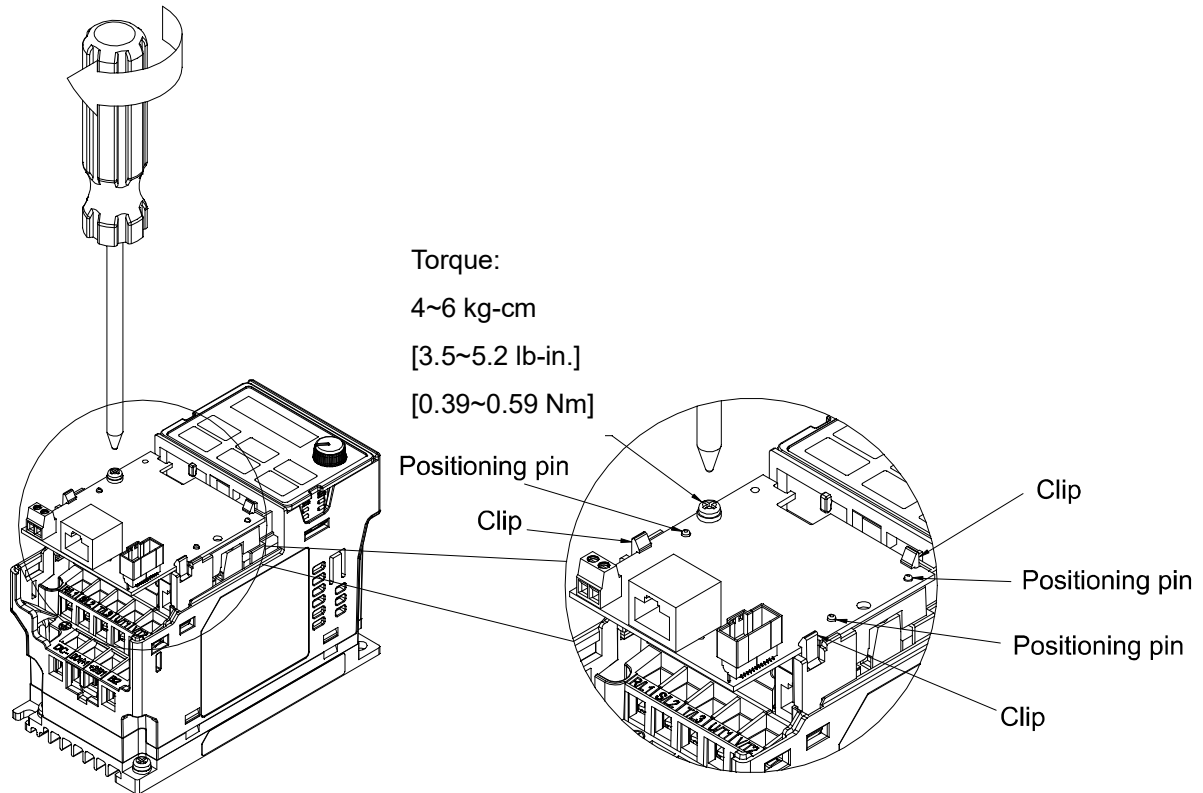Fig. 8-3

6. After the wiring is completed, loosen the option card of the front mounting，and
    reverse-mounted, aim the three holes at the positioning pin, press the pin to clip the holes with
    the option card. (shown in Fig. 8-4)

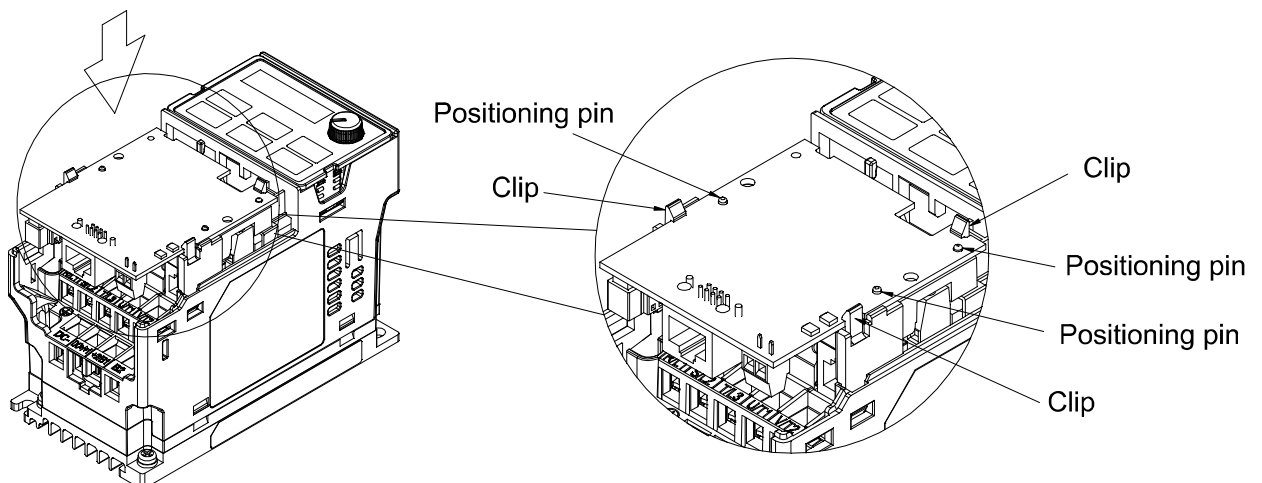
Fig. 8-4

7.   Fasten the screw after the option card fixed fitting is clipped with the holes. (shown in Fig. 8-5)
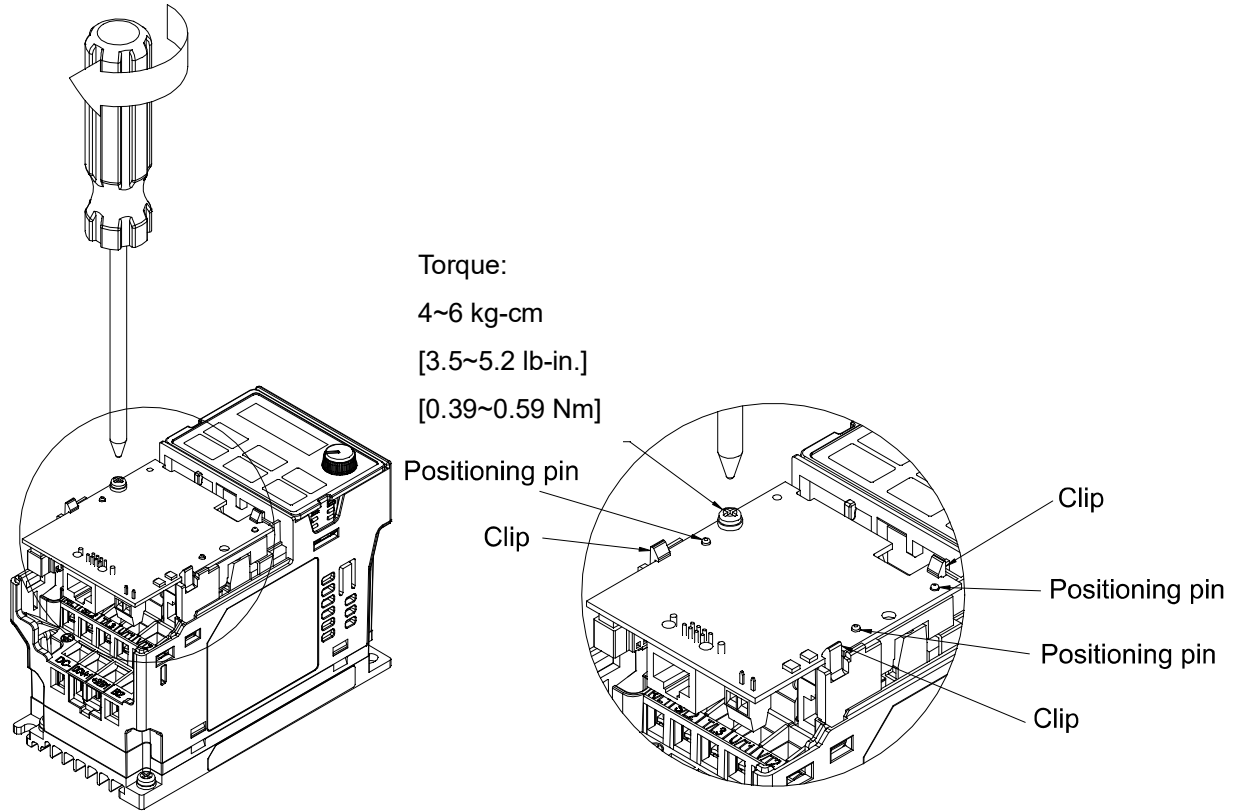
Torque:
4~6 kg-cm
[3.5~5.2 lb-in.]
[0.39~0.59 Nm]

Positioning pin

Clip

Clip

Positioning pin

Positioning pin

Clip

Fig. 8-5

8.   Installation is completed (shown in Fig. 8-6). Put the front cover back on.
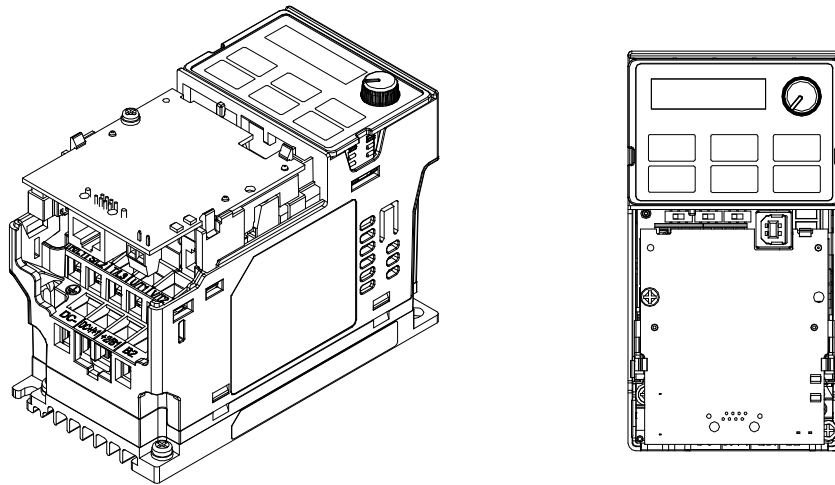
Fig. 8-6

📖 NOTE

- The option cards listed below must connect to ground when wiring. The ground terminal is enclosed with option card as shown in Fig. 8-7.

    1. CMM-MOD01
    2. CMM-PD01
    3. CMM-DN01
    4. CMM-EIP01
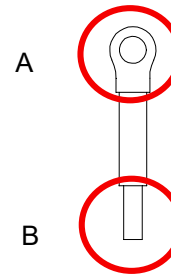
Fig. 8-7
Ground terminal

- Installation of the ground terminal:

    B side of the ground terminal connects to the ground terminal block on option card as No.6 of CMM-MOD01 shown in Fig. 8-8, and see each section in Chapter 8 for ground terminal blocks of other option cards; A side of the ground terminal connects to the PE on the drive as red circles shown in Fig. 8-9 ~ 8-11.
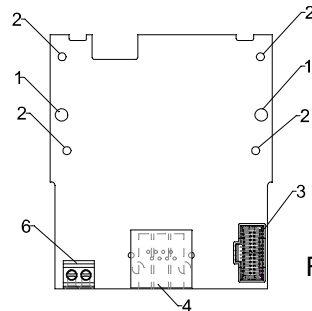
Fig. 8-8

Frame A~C   Frame D~E
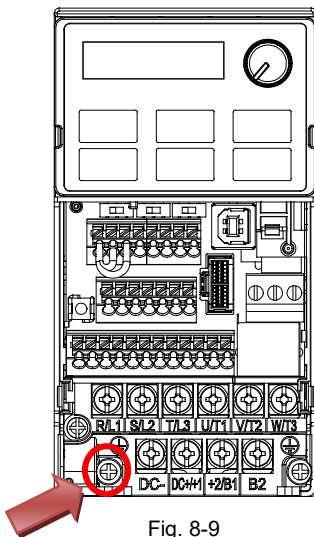
Fig. 8-9
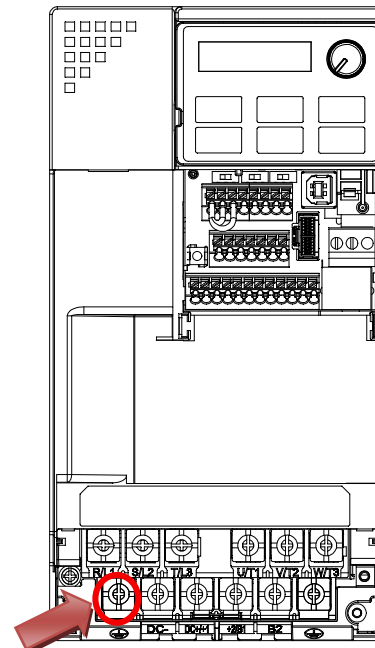
Fig. 8-10

Torque (±10%)   Torque (±10%)
Frame A: 9 kg-cm [7.8 lb-in.] [0.88 Nm]   Frame D: 20 kg-cm [17.4 lb-in.] [1.96 Nm]
Frame B: 15 kg-cm [13.0 lb-in.] [1.47 Nm]   Frame E: 25 kg-cm [21.7 lb-in.] [2.45 Nm]
Frame C: 20 kg-cm [17.4 lb-in.] [1.96 Nm]
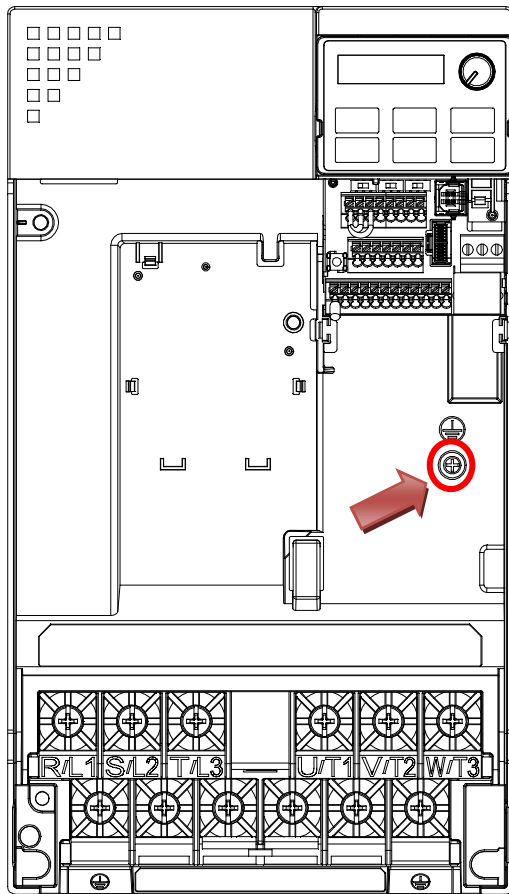
Frame F

Fig. 8-11

Torque (±10%)
Frame F: 7 kg-cm [6.1 lb-in.] [0.69 Nm]

8-2 CMM-MOD01 Modbus TCP option card

■ Features

1. Supports Modbus TCP protocol
2. MDI / MDI-X auto-detect
3. Baud rate:10 / 100 Mbps
4. E-mail alarm
5. AC motor drive keypad / Ethernet configuration
6. Virtual serial port

■ Product Profile

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. Communication port
5. Indicator
6. Ground terminal block

Wire: 24~20 AWG
Torque: 2 kg-cm / [1.7 lb-in.] / [0.2 Nm]

■ Specifications

Network Interface

Interface	RJ-45 with Auto MDI / MDIX
Number of ports	1 Port
Transmission method	IEEE 802.3, IEEE 802.3u
Transmission cable	Category 5e shielding 100 M
Transmission speed	10 / 100 Mbps Auto-Detect
Network protocol	ICMP, IP, TCP, UDP, DHCP, SMTP, MODBUS OVER TCP / IP, Delta Configuration

Electrical Specification

Power supply voltage	5 VDC (supplied by AC motor drive)
Insulation voltage	500 VDC
Power consumption	0.8 W

Mechanical Specification

Weight	25 g

Environment

Noise immunity	ESD (IEC 61800-5-1, IEC 6100-4-2)
	EFT (IEC 61800-5-1, IEC 6100-4-4)
	Surge Test (IEC 61800-5-1, IEC 6100-4-5)
	Conducted Susceptibility Test (IEC 61800-5-1, IEC 6100-4-6)
Operation / Storage	Operation: -10°C ~ 50°C (temperature)，90% (humidity)
	Storage: -25°C ~ 70°C (temperature)，95% (humidity)
Shock / Vibration resistance	International standards:
	IEC 61800-5-1, IEC 60068-2-6 / IEC 61800-5-1, IEC 60068-2-27

■ **Communication Parameters for VFD-MS300 Connected to EtherNet**

When VFD-MS300 links to EtherNet, please set up the communication parameters based on the table below.

The EtherNet master will be able to read/write frequency command word and operation command word to VFD-MS300 after the communication parameters are set.

Parameter	Function	Current Set Value	Definition of Parameter Values
00-20	Setting for source of frequency command	8	The frequency command is controlled by communication card
00-21	Setting for source of operation command	5	The operation command is controlled by communication card
09-30	Decoding method for communication	0	Decoding method for Delta AC motor drive
09-75	IP setting	0	Static IP(0) / Dynamic distribution IP(1)
09-76	IP address -1	192	IP address 192.168.1.5
09-77	IP address -2	168	IP address 192.168.1.5
09-78	IP address -3	1	IP address 192.168.1.5
09-79	IP address -4	5	IP address 192.168.1.5
09-80	Netmask -1	255	Netmask 255.255.255.0
09-81	Netmask -2	255	Netmask 255.255.255.0
09-82	Netmask -3	255	Netmask 255.255.255.0
09-83	Netmask -4	0	Netmask 255.255.255.0
09-84	Default gateway -1	192	Default gateway 192.168.1.1
09-85	Default gateway -2	168	Default gateway 192.168.1.1
09-86	Default gateway -3	1	Default gateway 192.168.1.1
09-87	Default gateway -4	1	Default gateway 192.168.1.1

■ **Basic Registers**

BR#	R/W	Content	Set Value
#0	R	Model name	Set up by the system. The model code of CMM-MOD01=H'0203
#1	R	Firmware version	Displaying the current firmware version in hex, e.g. 0100h indicates firmware version V1.00
#2	R	Release date of the version	Displaying the data in decimal form. 10,000s digit and 1,000s digit are for "month"; 100s digit and 10s digit are for "day". For 1 digit: 0 = morning; 1 = afternoon
#11	R/W	MODBUS Timeout	Pre-defined setting: 500 (ms)
#13	R/W	Keep Alive Time	Pre-defined setting: 30 (s)

■ **LED Indicator & Troubleshooting**

LED Indicators

LED	Status		Indication	Processing Methods
POWER	Green	On	Power supply in normal status	No action is required
POWER	Green	Off	No power supply	Check the power supply
LINK	Green	On	Network connection in normal status	No action is required
		Flashes	Network in operation	No action is required
		Off	Network not connected	Check if the network cable is connected

Troubleshooting

| Abnormality	Cause	Processing Methods
POWER LED off	AC motor drive not powered	Check if AC motor drive is powered, and if the power supply is normal.
	CMM-MOD01 not connected to AC motor drive	Make sure CMM-MOD01C is connected to AC motor drive.
LINK LED off	Not connected to network	Make sure the network cable is correctly connected to network.
	Poor contact to RJ-45 connector	Make sure RJ-45 connector is connected to Ethernet port.
No module found	CMM-MOD01 not connected to network	Make sure CMM-MOD01 is connected to the network.
	PC and CMM-MOD01 in different networks and blocked by network firewall.	Search by IP or set up relevant settings via the AC motor drive keypad.
Fail to open CMM-MOD01 setup page	CMM-MOD01 not connected to network	Make sure CMM-MOD01 is connected to the network.
	Incorrect communication setting in DCISoft	Make sure the communication setting in DCISoft is set to Ethernet.
	PC and CMM-MOD01 in different networks and blocked by network firewall.	Conduct the setup via the AC motor drive keypad.
Able to open CMM-MOD01 setup page but fail to utilize webpage monitoring	Incorrect network setting in CMM-MOD01	Check if the network setting for CMM-MOD01 is correct. For the Intranet setting in your company, please consult your IT staff. For the Internet setting at home, please refer to the network setting instruction provided by your ISP.
Fail to send e-mail	Incorrect network setting in CMM-MOD01	Check if the network setting for CMM-MOD01 is correct.
	Incorrect mail server setting	Please confirm the IP address for SMTP-Server.

8-3 CMM-PD01 PROFIBUS option card

■ **Features**

1. Supports PZD control data exchange.
2. Supports PKW polling AC motor drive parameters.
3. Supports user diagnosis function.
4. Auto-detects baud rates; supports Max. 12 Mbps.

■ **Product File**

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. Communication port
5. Indicator
6. Ground terminal block
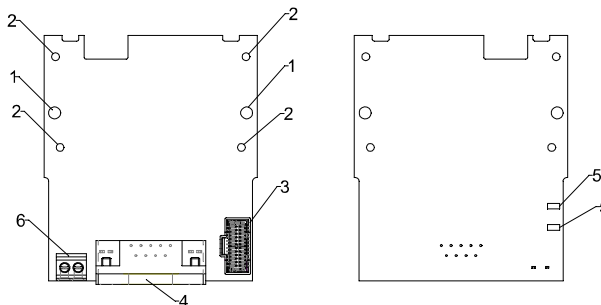
Wire: 24~20 AWG

Torque: 2 kg-cm / [1.7 lb-in.] / [0.2 Nm]

■ **Specifications**

PROFIBUS DP Connector

Interface	DB9 connector
Transmission	High-speed RS-485
Transmission cable	Shielded twisted pair cable
Electrical isolation	500 VDC

Communication

Message type	Cyclic data exchange
Module name	CMM-PD01
GSD document	DELA08DB.GSD
Product ID	08DB (HEX)
Serial transmission speed supported (auto-detection)	9.6 kbps; 19.2 kbps; 93.75 kbps; 187.5 kbps; 125 kbps; 250 kbps; 500 kbps; 1.5 Mbps; 3 Mbps; 6 Mbps; 12 Mbps (bit per second)

Electrical Specification

Power supply	5 VDC (supplied by AC motor drive)
Insulation voltage	500 VDC
Power consumption	1 W

Mechanical Specification

Weight	28 g

Environment

Noise immunity	ESD (IEC 61800-5-1, IEC 6100-4-2)
	EFT (IEC 61800-5-1, IEC 6100-4-4)
	Surge Test (IEC 61800-5-1, IEC 6100-4-5)
	Conducted Susceptibility Test (IEC 61800-5-1, IEC 6100-4-6)
Operation / Storage	Operation: -10ºC ~ 50ºC (temperature), 90% (humidity)
	Storage: -25ºC ~ 70ºC (temperature), 95% (humidity)
Shock / Vibration resistance	International standards:
	IEC 61131-2, IEC 68-2-6 (TEST Fc) / IEC 61131-2 & IEC 68-2-27(TEST Ea)

■ **Connector pin assignment**

PIN	PIN name	Definition
1	-	Not defined
2	-	Not defined
3	Rxd / Txd-P	Sending / receiving data P(B)
4	-	Not defined
5	DGND	Data reference ground
6	VP	Power voltage – positive
7	-	Not defined
8	Rxd / Txd-N	Sending / receiving data N(A)
9	-	Not defined
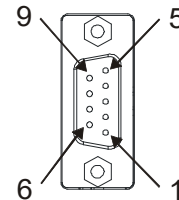
■ **LED Indicator & Troubleshooting**

There are 2 LED indicators on CMM-PD01：POWER LED and NET LED. POWER LED displays the status of the working power. NET LED displays the connection status of the communication.

POWER LED

LED status	Indication	Processing Methods
Green light on	Power supply in normal status.	No action is required
Off	No power	Check if the connection between CMM-PD01 and AC motor drive is normal.

NET LED

| LED status	Indication	Processing Methods
Green light on	Normal status	No action is required
Red light on	CMM-PD01 is not connected to PROFIBUS DP bus.	Connect CMM-PD01 to PROFIBUS DP bus.
Red light flashes	Invalid PROFIBUS communication address	Set the PROFIBUS address of CMM-PD01 between 1 ~ 125 (decimal)
Orange light flashes	CMM-PD01 fails to communicate with AC motor drive.	Switch off the power and check whether CMM-PD01 is installed correctly and connected normally to the AC motor drive.

8-4 CMM-DN01 DeviceNet option card

■ **Functions**

1. Based on the high-speed communication interface of Delta's HSSP protocol, the AC motor drive can be controlled in real-time.
2. Supports Group 2 only connection and polling I/O data exchange.
3. For I/O mapping, supports max. 32 words input and 32 words output.
4. Supports EDS file configuration in DeviceNet configuration software.
5. Supports all Baud rates on DeviceNet bus: 125 kbps, 250 kbps, 500 kbps and extendable Baud rate mode.
6. Node address and Baud rate can be set up in the AC motor drive.
7. Power supplied from AC motor drive.

■ **Product Profile**

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. Communication Port
5. Indicator
6. Ground terminal block
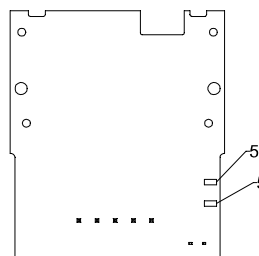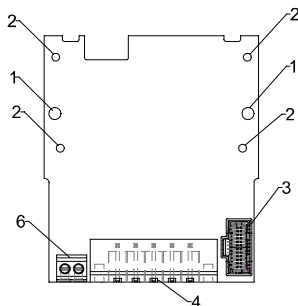
Wire: 24~20 AWG

Torque: 2 kg-cm / [1.7 lb-in.] / [0.2 Nm]

■ **Specifications**

DeviceNet Connector

Interface	5-PIN open pluggable connector. PIN interval: 5.08 mm
Transmission method	CAN
Transmission cable	Shielded twisted pair cable (with 2 power cables)
Transmission speed	125 kbps, 250 kbps, 500 kbps and extendable baud rate mode
Network protocol	DeviceNet protocol

AC Motor Drive Connection Port

Interface	50 PIN communication terminal
Transmission method	SPI communication
Terminal function	1. Communication module communicates with AC motor drive via this port. 2. AC motor drive provides power supply to communication module via this port.
Communication protocol	Delta HSSP protocol

Electrical Specification

Power supply voltage	5 VDC (supplied by AC motor drive)
Insulation voltage	500 VDC
Communication wire power consumption	0.85 W
Power consumption	1 W

Mechanical Specification

Weight	23 g

Environment

Noise immunity	ESD (IEC 61800-5-1, IEC 6100-4-2)
	EFT (IEC 61800-5-1, IEC 6100-4-4)
	Surge Test (IEC 61800-5-1, IEC 6100-4-5)
	Conducted Susceptibility Test (IEC 61800-5-1, IEC 6100-4-6)
Operation / Storage	Operation: -10ºC ~ 50ºC (temperature), 90% (humidity)
	Storage: -25ºC ~ 70ºC (temperature), 95% (humidity)
Shock / Vibration resistance	International standards:
	IEC 61800-5-1, IEC 60068-2-6 / IEC 61800-5-1, IEC 60068-2-27

DeviceNet Connector

PIN	Signal	Color	Definition
1	V+	Red	24VDC
2	H	White	Signal+
3	S	-	Earth
4	L	Blue	Signal-
5	V-	Black	0V
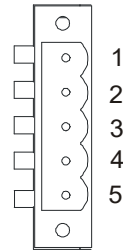
■ **LED Indicator & Troubleshooting**

There are 3 LED indicators on CMM-DN01. POWER LED displays the status of power supply. MS LED and NS LED are dual-color LEDs, displaying the connection status and error messages of the communication module.

POWER LED

LED status	Indication	Processing Methods
On	Power supply in abnormal status	Check the power supply of CMM-DN01
Off	Power supply in normal status	No action is required

NS LED

LED status	Indication	Processing Methods
Off	No power supply or CMM-DN01 has not completed MAC ID test yet.	1. Check the power of CMM-DN01 and see if the connection is normal. 2. Make sure there are at least one or more nodes on the bus. 3. Check if the Baud rate of CMM-DN01 is the same as that of the other nodes.
Green light flashes	CMM-DN01 is on-line but has not established connection to the master.	1. Configure CMM-DN01 to the scan list of the master. 2. Re-download the configured data to the master.
Green light on	CMM-DN01 is on-line and is normally connected to the master.	No action is required
Red light flashes	CMM-DN01 is on-line, but I/O connection is timed-out.	1. Check if the network connection is normal. 2. Check if the master operates normally.
Red light on	1. The communication is down. 2. MAC ID test failure. 3. No network power supply. 4. CMM-DN01 is off-line.	1. Make sure all MAC IDs on the network are not repeated. 2. Check if the network installation is normal. 3. Check if the Baud rate of CMM-DN01 is consistent with that of the other nodes. 4. Check if the node address of CMM-DN01 is illegal. 5. Check if the network power supply is normal.

MS LED

LED status	Indication	Processing Methods
Off	No power supply or being off-line	Check the power supply of CMM-DN01 and see if the connection is normal.
Green light flashes	Waiting for I/O data	Switch the master PLC to RUN status
Green light on	I/O data are normal	No action is required
Red light flashes	Mapping error	1. Reconfigure CMM-DN01 2. Re-power the AC motor drive
Red light on	Hardware error	1. See the error code on the drive's keypad. 2. Send back to the factory for repair if necessary.
Orange light flashes	CMM-DN01 is establishing connection with AC motor drive	If the flashing lasts for a long time, check if CMM-DN01 and the AC motor drive are correctly installed and normally connected to each other.

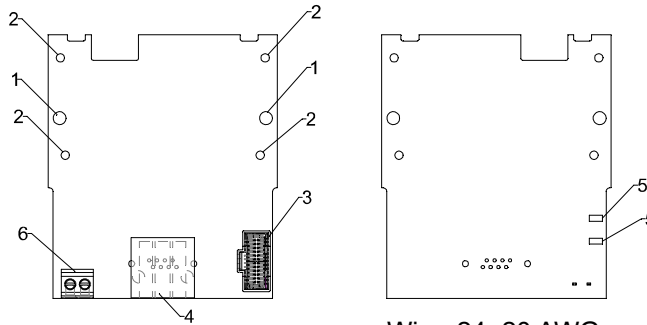## 8-5 CMM-EIP01 Modbus TCP/EtherNet IP option card

■ **Features**

1. Supports MODBUS TCP and Ethernet / IP protocol
2. MDI / MDI-X auto-detect
3. Baud rate: 10 / 100 Mbps auto-detect
4. E-mail alarm
5. AC motor drive keypad / Ethernet configuration
6. Virtual serial port

■ **Product Profile**

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. Communication port
5. Indicator
6. Ground terminal block

Wire: 24~20 AWG
Torque: 2 kg-cm / [1.7 lb-in.] / [0.2 Nm]

■ **Specifications**

Network Interface

Interface	RJ-45 with Auto MDI / MDIX
Number of ports	1 Port
Transmission method	IEEE 802.3, IEEE 802.3u
Transmission cable	Category 5e shielding 100 M
Transmission speed	10 / 100 Mbps Auto-Detect
Network protocol	ICMP, IP, TCP, UDP, DHCP, HTTP, SMTP, MODBUS OVER TCP / IP, EtherNet / IP, Delta Configuration

Electrical Specification

Insulation voltage	500 VDC
Power consumption	0.8 W
Power supply voltage	5 VDC

Mechanical Specification

Weight	25 g

Environment

Noise immunity	ESD (IEC 61800-5-1, IEC 61000-4-2)
	EFT (IEC 61800-5-1, IEC 61000-4-4)
	Surge Test (IEC 61800-5-1, IEC 61000-4-5)
	Conducted Susceptibility Test (IEC 61800-5-1, IEC 61000-4-6)
Operation / Storage	Operation: -10°C ~ 50°C (temperature), 90% (humidity)
	Storage: -25°C ~ 70°C (temperature), 95% (humidity)
Shock / Vibration resistance	International standard:
	IEC 61800-5-1, IEC 60068-2-6 / IEC 61800-5-1, IEC 60068-2-27

■ **Installation**

Connecting CMM-EIP01 to Network

1. Switch off the power supply.
2. Open the front cover of the drive.
3. Connect CAT-5e network cable to RJ-45 port on CMM-EIP01
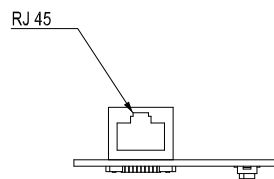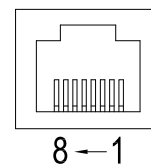   (shown in Figure 2).

RJ 45

Figure 2

RJ-45 PIN Definition

PIN	Signal	Definition	PIN	Signal	Definition
1	Tx+	Data transmit positive	5	--	N/C
2	Tx-	Data transmit negative	6	Rx-	Data receive negative
3	Rx+	Data receive positive	7	--	N/C
4	--	N/C	8	--	N/C

8 ← 1

■ **Communication Parameters for VFD-MS300 Connected to Ethernet**

When VFD-MS300 links to Ethernet, please set up the communication parameters based on the table below. The Ethernet master will be able to read/write the frequency command word and operation command word of VFD-MS300 after the communication parameters are set.

Parameter	Function	Current Set Value	Definition of Parameter Values
00-20	Frequency command source	8	The frequency command is controlled by communication card.
00-21	Operation command source	5	The operation command is controlled by communication card.
09-30	Decoding method for communication	0	The decoding method for Delta AC motor drive
09-75	IP setting	0	Static IP(0) / Dynamic distribution IP(1)
09-76	IP address -1	192	IP address <u>192</u>.168.1.5
09-77	IP address -2	168	IP address 192.<u>168</u>.1.5
09-78	IP address -3	1	IP address 192.168.<u>1</u>.5
09-79	IP address -4	5	IP address 192.168.1.<u>5</u>
09-80	Netmask -1	255	Netmask <u>255</u>.255.255.0
09-81	Netmask -2	255	Netmask 255.<u>255</u>.255.0
09-82	Netmask -3	255	Netmask 255.255.<u>255</u>.0
09-83	Netmask -4	0	Netmask 255.255.255.<u>0</u>
09-84	Default gateway -1	192	Default gateway <u>192</u>.168.1.1
09-85	Default gateway -2	168	Default gateway 192.<u>168</u>.1.1
09-86	Default gateway -3	1	Default gateway 192.168.<u>1</u>.1
09-87	Default gateway -4	1	Default gateway 192.168.1.<u>1</u>

■　**LED Indicator & Troubleshooting**

There are 2 LED indicators on CMM-EIP01: POWER LED and LINK LED. POWER LED displays the status of the working power, and LINK LED displays the connection status of the communication.

LED Indicators

| LED	Status		Indication	Processing Methods
POWER	Green	On	Power supply in normal status	No action is required
		Off	No power supply	Check the power supply.
LINK	Green	On	Network connection in normal status	No action is required
		Flashes	Network in operation	No action is required
		Off	Network not connected	Check if the network cable is connected.

Troubleshooting

Abnormality	Cause	Processing Methods
POWER LED off	AC motor drive not powered	Check if AC motor drive is powered, and if the power supply is normal.
	CMM-EIP01 not connected to the AC motor drive	Make sure CMM-EIP01 is connected to the AC motor drive.
LINK LED off	CMM-EIP01 not connected to network	Make sure the network cable is correctly connected to network.
	Poor contact to RJ-45 connector	Make sure RJ-45 connector is connected to the Ethernet port.
No communication card found	CMM-EIP01 not connected to the network	Make sure CMM-EIP01 is connected to the network.
	PC and CMM-EIP01 in different networks and blocked by network firewall	Search by IP or set up relevant settings via the AC motor drive keypad.
Fail to open CMC-EIP01 setup page	CMM-EIP01 not connected to the network	Make sure CMM-EIP01 is connected to the network.
	Incorrect communication setting in DCISoft	Make sure the communication setting in DCISoft is set to Ethernet.
	PC and CMM-EIP01 in different networks and blocked by network firewall	Conduct the setup via the AC motor drive keypad.
Able to open CMC-EIP01 setup page but fail to utilize webpage monitoring	Incorrect network setting in CMM-EIP01	Check if the network setting for CMM-EIP01 is correct. For the Intranet setting in your company, please consult your IT staff. For the Internet setting at home, please refer to the network setting instruction provided by your supplier (ISP) .
Fail to send e-mail	Incorrect network setting in CMM-EIP01	Check if the network setting for CMM-EIP01 is correct.
	Incorrect mail server setting	Please confirm the IP address for the SMTP-Server.

8-6 CMM-COP01 CANopen option card
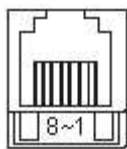
■ **Product Profile**

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. Communication port
5. Indicator
6. Ground terminal block
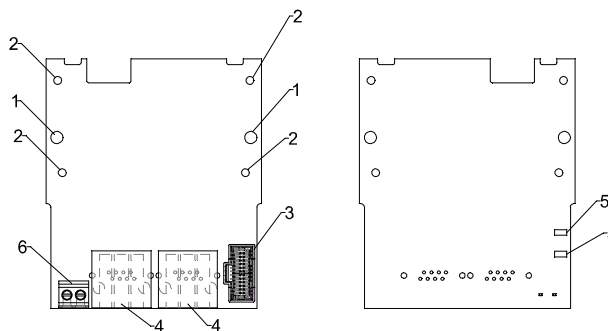
Wire: 24~20 AWG

Torque: 2 kg-cm / [1.7 lb-in.] / [0.2 Nm]

■ **RJ-45 Pin definition**

Socket

Pin	Signal	Description
1	CAN_H	CAN_H bus line (dominant high)
2	CAN_L	CAN_L bus line (dominant low)
3	CAN_GND	Ground / 0V / V-
7	CAN_GND	Ground / 0V / V-

■ **Specifications**

Interface	RJ-45
Number of ports	1 Port
Transmission method	CAN
Transmission cable	CAN standard cable
Transmission speed	1Mbps; 500 kbps; 250 kbps; 125 kbps; 100 kbps; 50 kbps
Communication protocol	CANopen protocol
Terminating resistance	Switch by SSW1，SSW1 turn left the terminating resistance close, it needs to connect by external ; SSW1turn right the terminating resistance open then internal connection.

Electrical Specification

Insulation voltage	500 VDC
Power consumption	0.8 W
Power supply voltage	5 VDC

■ CANopen Communication Cable
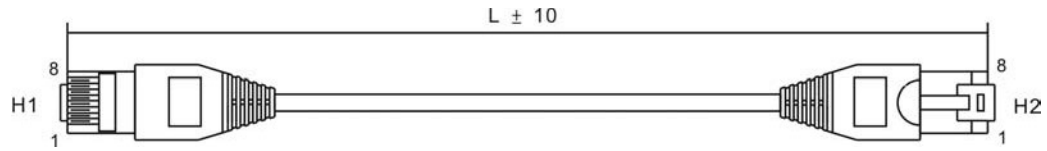
| Title	Part No.	L	
		mm	inch
1	UC-CMC003-01A	300	11.8
2	UC-CMC005-01A	500	19.6
3	UC-CMC010-01A	1000	39
4	UC-CMC015-01A	1500	59
5	UC-CMC020-01A	2000	78.7
6	UC-CMC030-01A	3000	118.1
7	UC-CMC050-01A	5000	196.8
8	UC-CMC100-01A	10000	393.7
9	UC-CMC200-01A	20000	787.4

■ **CANopen Dimension**

Model：TAP-CN03
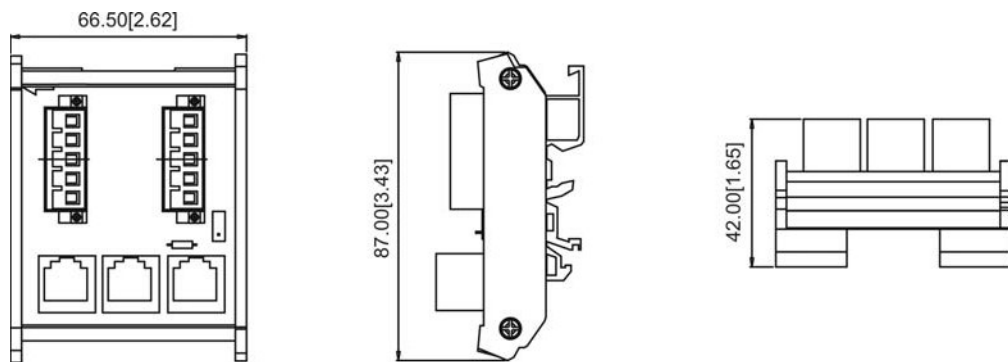
📧 **NOTE**

For more information on CANopen, please refer to CANopen user manual or download related manuals on Delta website: http://www.delta.com.tw/industrialautomation/.

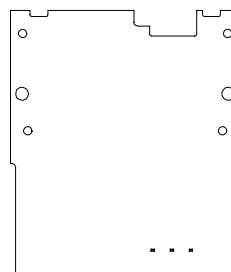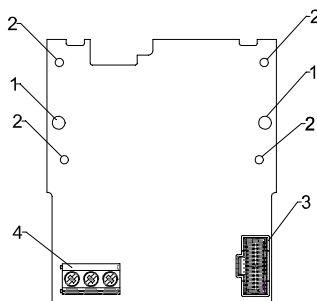## 8-7 EMM-BPS01 Back-up Power Supply option card

■   **Features**

1.   External 24V DC input via this card
2.   To keep the control board alive for parameter read/write, status monitoring and communication.
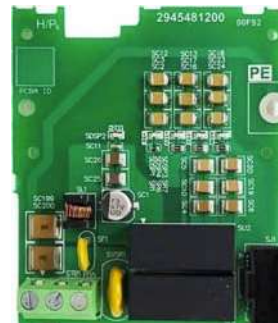
■   **Product Profile**

1.   Screw fixing hole
2.   Positioning hole
3.   AC motor drive connection port
4.   +24V Terminal block

Wire: 24~20 AWG

Torque: 5 kg-cm / [4.3 lb-in.] / [0.49 Nm]

■   **Specifications**

When the drive is only powered by EMC-BPS01, communication stays normal, including support of all communication cards and the following functions: ■   Parameters can be read and written   ■   Display with keypad   ■   Keypad buttons   (except the RUN button)   ■   Analog input can operate   ■   Multifunction inputs (FWD, RV, MI 1~MI 8) need external power supply to operate
The following functions are not supported: ■   Relay output   ■   PLC function