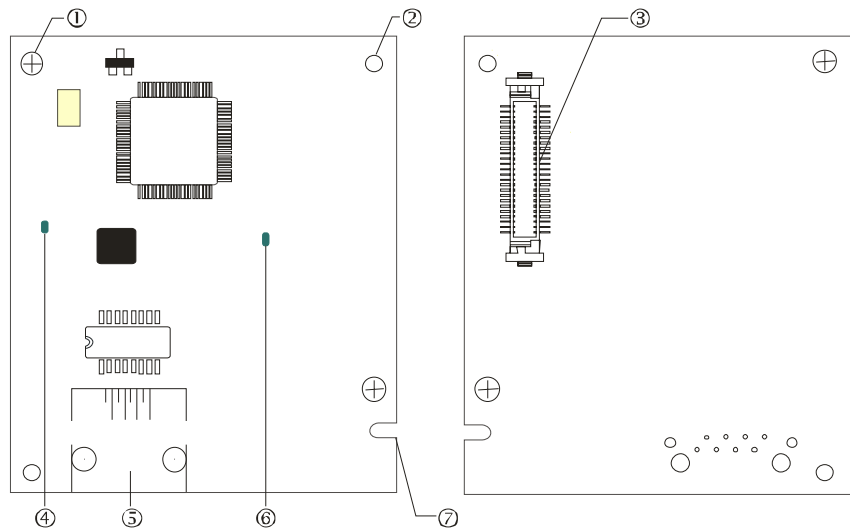


### 8-13 CMC-EIP01 -- Communication card, EtherNet/IP

#### 8-13-1 Features

1. Supports Ethernet/IP and Modbus TCP protocol
2. User-defined corresponding parameters (use with EIP V.1.06)
3. IP filter simple firewall function
4. MDI/MDI-X auto-detect
5. Baud rate: 10/100 Mbps auto-detect

#### 8-13-2 Product Profile



(Figure1)

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. LINK indicator
5. RJ45 connection port
6. POWER indicator
7. Alignment groove

#### 8-13-3 Specifications

##### Network Interface

|                  |  |
|------------------|--|
| Interface        | RJ45 with Auto MDI/MDIX  |
| Number Of Ports  | 1 Port   |
| Transmission     | IEEE 802.3, IEEE 802.3u  |
| Transmission     | Category 5e shielding 100 M  |
| Transmission     | 10/100 Mbps Auto-Detect  |
| Network Protocol | ICMP, IP, TCP, UDP, DHCP, HTTP, SMTP, Modbus over TCP/IP, EtherNet/IP, Delta Configuration |

##### Electrical Specification

|                    |  |
|--------------------|--|
| Weight             | 25 g                                     |
| Insulation Voltage | 500 V <sub>DC</sub>                      |
| Power              | 0.8 W                                    |
| Power Supply       | 5 V <sub>DC</sub> (provided by C2000-HS) |

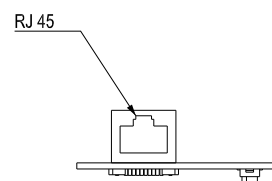
## Environment

|                            |   |
|----------------------------|---|
| Noise Immunity             | ESD (IEC 61800-5-1, IEC 61000-4-2)<br>EFT (IEC 61800-5-1, IEC 61000-4-4)<br>Surge Test (IEC 61800-5-1, IEC 61000-4-5)<br>Conducted Susceptibility Test (IEC 61800-5-1, IEC 61000-4-6) |
| Operation / Storage        | Operation: -10°C–50°C (temperature), 90% (humidity)<br>Storage: -25°C–70°C (temperature), 95% (humidity)  |
| Vibration / Shock Immunity | International standards: IEC 61800-5-1, IEC 60068-2-6 / IEC 61800-5-1, IEC 60068-2-27   |

## 8-13-4 Installation

## Connecting CMC-EIP01 to Network

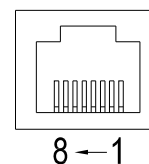
1. Turn off the power of the drive.
2. Open the cover of the AC motor drive.
3. Connect a CAT-5e network cable to the RJ45 port on the CMC-EIP01 (See Figure 2).



(Figure 2)

## RJ45 PIN Definition

| PIN | Signal | Definition                       | PIN | Signal | Definition                       |
|-----|--------|----------------------------------|-----|--------|----------------------------------|
| 1   | Tx+    | Positive pole for data           | 5   | --     | N/C                              |
| 2   | Tx-    | Negative pole for data           | 6   | Rx-    | Negative pole for data reception |
| 3   | Rx+    | Positive pole for data reception | 7   | --     | N/C                              |
| 4   | --     | N/C                              | 8   | --     | N/C                              |



## 8-13-5 Communication Parameters for C2000-HS Connected to Ethernet

When the C2000-HS is connected to an Ethernet network, set up the communication parameters for it according to the table below. The Ethernet master is only able to read and write the frequency word and control word of C2000-HS after the communication parameters are set.

| Parameter | Function                            | Set value (Dec) | Explanation  |
|-----------|-------------------------------------|-----------------|--|
| Pr.00-20  | Source of frequency command setting | 8               | The frequency command is controlled by communication card. |
| Pr.00-21  | Source of operation command setting | 5               | The operation command is controlled by communication card. |
| Pr.09-30  | Decoding method for communication   | 0               | The decoding method for Delta AC motor drive               |
| Pr.09-75  | IP setting                          | 0               | Static IP(0) / Dynamic distribution IP(1)                  |
| Pr.09-76  | IP address -1                       | 192             | IP address 192.168.1.5                                     |
| Pr.09-77  | IP address -2                       | 168             | IP address 192.168.1.5                                     |
| Pr.09-78  | IP address -3                       | 1               | IP address 192.168.1.5                                     |
| Pr.09-79  | IP address -4                       | 5               | IP address 192.168.1.5                                     |

| Parameter | Function           | Set value (Dec) | Explanation                 |
|-----------|--------------------|-----------------|-----------------------------|
| Pr.09-80  | Netmask -1         | 255             | Netmask 255.255.255.0       |
| Pr.09-81  | Netmask -2         | 255             | Netmask 255.255.255.0       |
| Pr.09-82  | Netmask -3         | 255             | Netmask 255.255.255.0       |
| Pr.09-83  | Netmask -4         | 0               | Netmask 255.255.255.0       |
| Pr.09-84  | Default gateway -1 | 192             | Default gateway 192.168.1.1 |
| Pr.09-85  | Default gateway -2 | 168             | Default gateway 192.168.1.1 |
| Pr.09-86  | Default gateway -3 | 1               | Default gateway 192.168.1.1 |
| Pr.09-87  | Default gateway -4 | 1               | Default gateway 192.168.1.1 |

### 8-13-6 LED Indicator & Troubleshooting

There are 2 LED indicators on the CMC-EIP01. The POWER LED displays the status of power supply, and the LINK LED displays the connection status of the communication.

#### LED Indicators

| LED   | Status | Indication | Corrective Action                   |  |
|-------|--------|------------|-------------------------------------|--|
| POWER | Green  | ON         | Power supply in normal status       | --                                       |
|       |        | OFF        | No power supply                     | Check the power supply.                  |
| LINK  | Green  | ON         | Network connection in normal status | --                                       |
|       |        | Flashing   | Network in operation                | --                                       |
|       |        | OFF        | Network not connected               | Check if the network cable is connected. |

#### Troubleshooting

| Abnormality                       | Cause   | Corrective Action   |
|-----------------------------------|---|---|
| POWER LED OFF                     | AC motor drive not powered  | Check the power of the AC motor drive, and if the power supply is normal. |
|                                   | The CMC-EIP01 not connected to the AC motor drive                       | Ensure that CMC-EIP01 is connected to the AC motor drive.                 |
| LINK LED OFF                      | The CMC-EIP01 not connected to network                                  | Ensure that the network cable is correctly connected to network.          |
|                                   | Poor contact to RJ45 connector  | Ensure that RJ45 connector is connected to Ethernet port.                 |
| No communication card found       | The CMC-EIP01 not connected to network                                  | Ensure that CMC-EIP01 is connected to network.                            |
|                                   | PC and CMC-EIP01 in different networks and blocked by network firewall. | Search by IP or set up relevant settings by AC motor drive keypad.        |
| Fail to open CMC-EIP01 setup page | The CMC-EIP01 not connected to network                                  | Ensure that CMC-EIP01 is connected to the network.                        |
|                                   | Incorrect communication setting in DCISoft                              | Ensure that the communication setting in DCISoft is set to Ethernet.      |
|                                   | PC and CMC-EIP01 in different networks and blocked by network firewall. | Set up with the AC motor drive keypad.                                    |

| Abnormality  | Cause                                  | Corrective Action  |
|--|--|--|
| Able to open CMC-EIP01 setup page but fail to utilize webpage monitoring | Incorrect network setting in CMC-EIP01 | Check if the network setting for CMC-EIP01 is correct. For the Intranet setting in your company, please consult your IT staff. For the Internet setting in your home, refer to the network setting instruction provided by your ISP. |
| Fail to send e-mail  | Incorrect network setting in CMC-EIP01 | Check if the network setting for CMC-EIP01 is correct.   |
|  | Incorrect mail server setting          | Confirm the IP address for SMTP-Server.  |