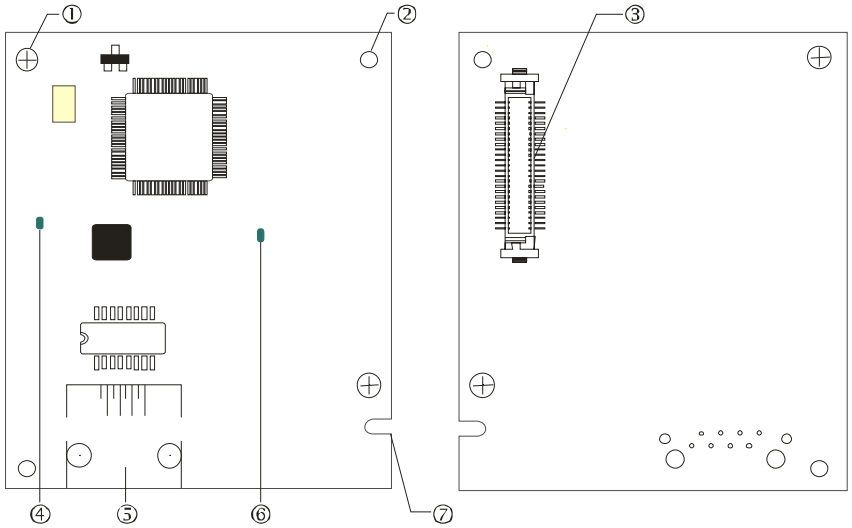
8-9 CMC-EIP01 -- Communication card, EtherNet/IP

8-9-1 Features

1. Supports Ethernet/IP and Modbus TCP protocol
2. User-defined corresponding parameters (EIP V1.06 and above)
3. Simple firewall function for IP Filter
4. MDI/MDI-X auto-detect
5. Baud rate: 10/100 Mbps auto-detect mail alarm

8-9-2 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. Fool-proof groove

8-9-3 Specifications

Network Interface

Interface	RJ45 with Auto MDI/MDIX
Number of ports	1 Port
Transmission method	IEEE 802.3, IEEE 802.3u
Transmission cable	Category 5e shielding 100M
Transmission speed	10/100 Mbps Auto-Detect
Network protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, SMTP, EtherNet/IP, Modbus TCP

Electrical Specification

Weight	25 g
Insulation voltage	500 V_{DC}
Power consumption	0.8 W
Power supply voltage	5 V_{DC}

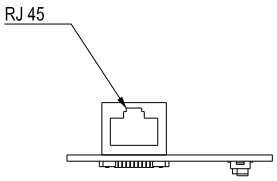
Environment

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)
Vibration/shock immunity	International standard: IEC 61800-5-1, IEC 60068-2-6/IEC 61800-5-1, IEC 60068-2-27

8-9-4 Installation

Connecting CMC-EIP01 to Network

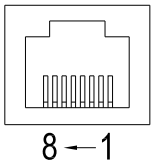
1. Turn off the power of AC motor drive.
2. Open the cover of AC motor drive.
3. Connect CAT-5e network cable to RJ45 port on CMC-EIP01 (See the figure on the right).



RJ45 PIN Definition

PIN	Signal	Definition
1	Tx+	Positive pole for data transmission
2	Tx-	Negative pole for data transmission
3	Rx+	Positive pole for data receiving
4	--	N/C

PIN	Signal	Definition
5	--	N/C
6	Rx-	Negative pole for data receiving
7	--	N/C
8	--	N/C



8-9-5 Communication Parameters for CP2000 Connected to Ethernet

When the CP2000 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/write the frequency word and control word of CP2000 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

8-9-6 LED Indicator & Troubleshooting

There are 2 LED indicators on CMC-EIP01: POWER LED and LINK LED. 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	How to correct it
POWER	Green	ON	Power supply in normal status	--
		OFF	No power supply	Check the power supply.
LINK	Green	ON	Network connection in normal status	--
		Flashes	Network in operation	--
		OFF	Network not connected	Check if the network cable is connected.

Troubleshooting

Abnormality	Cause	How to correct it
POWER LED OFF	AC motor drive not powered	Check if AC motor drive is powered, and if the power supply is normal.
	CMC-EIP01 not connected to AC motor drive	Make sure CMC-EIP01 is connected to AC motor drive.
LINK LED OFF	CMC-EIP01 not connected to network	Make sure the network cable is correctly connected to network.
	Poor contact to RJ45 connector	Make sure RJ45 connector is connected to Ethernet port.
No communication card found	CMC-EIP01 not connected to network	Make sure 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	CMC-EIP01 not connected to network	Make sure CMC-EIP01 is connected to the network.
	Incorrect communication setting in DCISoft	Make sure the communication setting in DCISoft is set to Ethernet.
	PC and CMC-EIP01 in different networks and blocked by network firewall.	Conduct the setup by AC motor drive keypad.

Abnormality	Cause	How to correct it
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, 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.