

8-4 CMM-EIP02 -- Communication Extension Card, (Single-port) EtherNet/IP, Modbus TCP

8-4-1 Product Profile



Figure 8-36

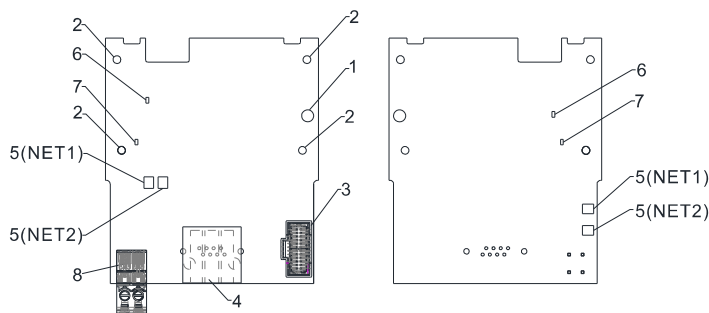


Figure 8-37

1. Screw fixing hole
2. Positioning hole
3. AC motor drive connection port
4. Communication port
5. Indicator
NET1 (NS), NET2 (MS)
6. POWER indicator
7. Ground terminal block

Wire gauge: 0.25–0.5 mm² (24–20 AWG)
 Stripping length: 7–8 mm
 Screw torque: 4–6 kg-cm / (3.5–5.2 lb-in.) / (0.39–0.59 Nm)

8-4-2 Features

1. Supports Modbus TCP and EtherNet/IP protocol
2. 32 / 32 words parameter reading / writing correspondence
3. User-defined corresponding parameters
4. MDI / MDI-X auto-detect
5. E-mail alarm
6. IP filter simple firewall function

8-4-3 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 100 M
Transmission Speed	10/100 Mbps Auto-Detect
Network Protocol	ICMP, IP, TCP, UDP, DHCP, HTTP, SMTP, Modbus TCP, EtherNet/IP, Delta Configuration

Table 8-19

Electrical Specifications

Power Supply Voltage	15 V _{DC}
Insulation Voltage	500 V _{DC}
Power Consumption	0.8 W
Weight	25 g

Table 8-20

Environmental Conditions

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: -10–50°C (temperature), 90% (humidity) Storage: -25–70°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

Table 8-21

8-4-4 Installation

Connecting the CMM-EIP02 to the Network

1. Turn off the power of the drive.
2. Open the front cover of the drive.
3. Connect the CAT-5e network cable to the RJ45 port of the CMM-EIP02 (as shown in the right figure).

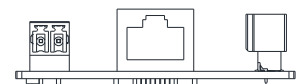


Figure 8-38

RJ45 PIN Definition

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

Table 8-22

Table 8-23

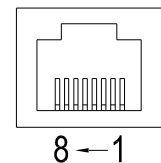


Figure 8-39

8-4-5 MS300 Communication Parameter Settings when Connecting to Ethernet

When you connect the MS300 to Ethernet, set up the communication parameters based on the table below. The Ethernet master reads and writes the frequency command words and operation command words after you set the communication parameters.

Parameters	Function	Current Setting Value	Description
00-20	Master frequency command source	8	The frequency command is controlled by the communication card.
00-21	Operation command source	5	The operation command is controlled by the communication card.
09-30	Communication decoding method	0	The decoding method for Delta AC motor drive.
09-75	IP configuration	0	0: Static IP 1: Dynamic IP (DHCP)
09-76	IP address 1	192	IP address 192.168.1.5
09-77	IP address 2	168	IP address 192.168.1.5

Parameters	Function	Current Setting Value	Description
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

Table 8-24

8-4-6 LED Indicator & Troubleshooting

There are four LED indicators on the CMM-EIP02: NET1 (NS), NET2 (MS), POWER LED and LINK LED. NET1 displays the network status, NET2 displays the module status. POWER LED displays the status of the working power. LINK LED displays the connection status of the communication.

LED Indicators

LED Indicators	Status		Indication	Corrective Action
NET1 (NS)	The red and green lights flash alternately		Self-test of network status.	No action is required.
	OFF		Network not connected.	Check if the network cable is connected.
	Red	ON	Duplicate IP.	Check if the IP setting is wrong.
		Flashes	Communication time out / disconnected / IP changed.	Check if the communication setting is wrong.
	Green	ON	Network connection in normal status.	No action is required.
		Flashes	Sending / receiving network packet.	No action is required.
NET2 (MS)	The red and green lights flash alternately		Self-test of product status .	No action is required.
	OFF		No power supply.	Check the power supply.
	Red	ON	An error cannot be restored occurs.	Hardware malfunction, contact with the dealer.
		Flashes	An error can be restored occurs.	Check if any parameter setting is wrong.
	Green	ON	The parameter setting finished.	No action is required.
		Flashes	No parameter setting.	Follow manual instructions to set parameters.
POWER	Orange	ON	Power supply in normal status.	No action is required.
	OFF		No power supply.	Check the power supply.

LED Indicators	Status		Indication	Corrective Action
LINK	Orange	On	Network connection in normal status.	No action is required.
		Flashes	Sending / receiving network packet.	No action is required.
	OFF		Network not connected.	Check if the network cable is connected.

Table 8-25

Troubleshooting

Abnormality	Cause	Corrective Action
Cannot find communication card	The CMM-EIP02 is not connected to the network.	Ensure that the CMM-EIP02 is correctly connected to the network.
	The PC and the CMM-EIP02 are in different networks and blocked by network firewall.	Search by IP or set up relevant settings using the AC motor drive keypad.
Cannot open CMM-EIP02 setup page	The CMM-EIP02 is not connected to the network.	Ensure that the CMM-EIP02 is correctly connected to the network.
	Incorrect communication setting in DCISoft	Ensure that the communication setting in DCISoft is set to Ethernet.
	The PC and the CMM-EIP02 are in different networks and blocked by network firewall.	Set up with the AC motor drive keypad.
The CMM-EIP02 setup page opens successfully but webpage monitoring is unavailable	Incorrect network setting in the CMM-EIP02	Check if the network setting for the CMM-EIP02 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 instructions provided by your ISP.
Cannot send e-mails	Incorrect network setting in the CMM-EIP02	Check if the network setting for the CMM-EIP02 is correct.
	Incorrect mail server setting	Confirm the IP address for the SMTP-Server.

Table 8-26