Conext™ RL Ethernet card

Quickstart Guide

Device for Photovoltaic Inverter Monitoring and Control

A Introduction

Conext RL Ethernet card is an add-on accessory for the Conext RL series of PV inverters. This card extends the monitoring capability of Conext RL Inverters by providing the user with a rich graphical webpage interface. The card has both 10/100 Mbps Ethernet connection and standard RS485-Modbus interface.

HAZARD OF ELECTRIC SHOCK AND FIRE

- All the wiring must be done by qualified personnel to ensure compliance with all applicable installation codes and regulations.
- For use only with Conext RL series PV Inverters.
- Suitable only for connection to Class 2, energy limited, separated extra-low voltage circuits (SELV).
- Follow the installation and safety instructions in the Conext RL Installation and Operation Manual.
- Do not disassemble.
- Disconnect all the sources of energy before adding or removing the communication module or the Ethernet card.

Failure to follow these instructions will result in death or serious injury.

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Contact Information

www.schneider-electric.com

B Material List

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<td>Ethernet card for local monitoring</td>
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<td>Set of screws</td>
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<td>Two M3.5 Philips pan-head captive screws (attached to card)</td>
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<td>Cable gland</td>
<td>1</td>
<td>MG25A M26x1.5 (attached to card)</td>
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C Important Physical Features

- 10/100 Mbps Ethernet port
- RS485 port (dual port)
- Screw terminal
- Cable gland
- Termination resistor

D Pre-requisites

Web browsers:
- Windows Internet Explorer 9.x or later
- Firefox 22.x or later
- Google Chrome 22 or later (recommended)
- Safari 5.1.7 or later

E Installation of Conext RL Ethernet card

1. De-energize the inverter. If possible follow the lock-out tag-out procedure.
2. Wait at least five minutes for internal voltages to discharge before doing any of the following steps.
3. Remove the existing communication module from the Conext RL expansion socket. (For detailed instructions, refer to the "Removing the Communication Module" section in the Conext RL Installation and Operation Manual).
4. If an RS485 connection already exists, unplug and disconnect the RS485 connection from the existing Conext RL Communication module card.

5. Depending on the local network, follow step 6 (Direct connection to computer) or step 7 (Connection through a network switch or router)

6. Direct connection to computer
   1. Connect one end of a CAT5 Ethernet cable to the 10/100 Mbps Ethernet port on the Conext RL Ethernet card (Refer to the figure under Section C for the location of Ethernet port).
   2. Connect the other end of the Ethernet cable to the laptop or PC.

Note: An old PC or laptop may require an Ethernet cross over cable.

- The default IP address is: 169.254.1.100.
- Do not connect the Ethernet cable to the Modbus RS485 port, to avoid potential damage to the Ethernet card.
Installation of Conext RL Ethernet card (continued)

OR

Connection through a network switch or router.
1. Connect one end of the CAT 5 Ethernet Cable to the RJ45 Ethernet port on the Conext RL Ethernet card.
2. Connect the other end of the CAT5 Ethernet cable to the network router Ethernet port.
Note: Do not connect the CAT5 Ethernet cable to the MODEM/ WAN port on the router.

8. If required, reconnect the RS485 Modbus cables to RS485 Modbus ports. Refer to the figure under section C for RS485 port locations. (For detailed instructions on connecting cables, refer to the “Connecting Cables to the Communication Module” section in the Conext RL Installation and Operation Manual).
Note: Do not connect the Modbus cable to the Ethernet port.

9. Insert the Conext RL Ethernet card into the Conext RL Communication module expansion slot and secure the card by tightening the two captive screws on both sides.

10. Energize the inverter by connecting all the AC and DC sources that power the system and wait for the inverter to power-up.

11. Wait for around 60 seconds and navigate to the IP address option on the LCD display. (Refer to the “Communication Settings” option in the Conext RL Installation and Operation Manual for viewing the Ethernet IP address).

12. Open a web browser on your laptop or tablet and type the IP address displayed on the LCD display. The Conext RL login webpage will be loaded and displayed by the web browser.

Accessing the webpage

1. Select the preferred language.
2. Login with the username and password.
   • The default username is Owner.
   • The default password is ConextRL.

On successful login, the Conext RL dashboard is displayed as shown below:

3. To view and edit the network settings, click on the Settings tab.

Specifications

Communication interfaces

- Ethernet
  • Connector: 1 x RJ45, 10/100 Mbps (auto-negotiation)
  • DHCP / SNTP / DNS / NBNS / HTTP

- RS485
  • Connector: 2 x RJ45
  • Modbus slave: 2 Wire Serial
  • Speed: 9600 bps

General specifications

- Weight
  115 g (0.25 lbs)

- Dimensions (H x W x D)
  64 mm x 80 mm x 122 mm (2.52 in x 3.15 mm x 4.8 in)

- Power consumption
  1.5 Watt maximum

- Interface
  Golden finger 24 pins

- Operating temperature
  -20° C to 85° C (-4° F to 185 ° F)

- Storage temperature
  -20 ° C to 85 ° C (-4° F to 185 ° F)

- Operating humidity
  0 - 90 % Non-condensing

Features

- User Interface
  Integrated Web Server (Internet Browser)

- Warranty
  Two years