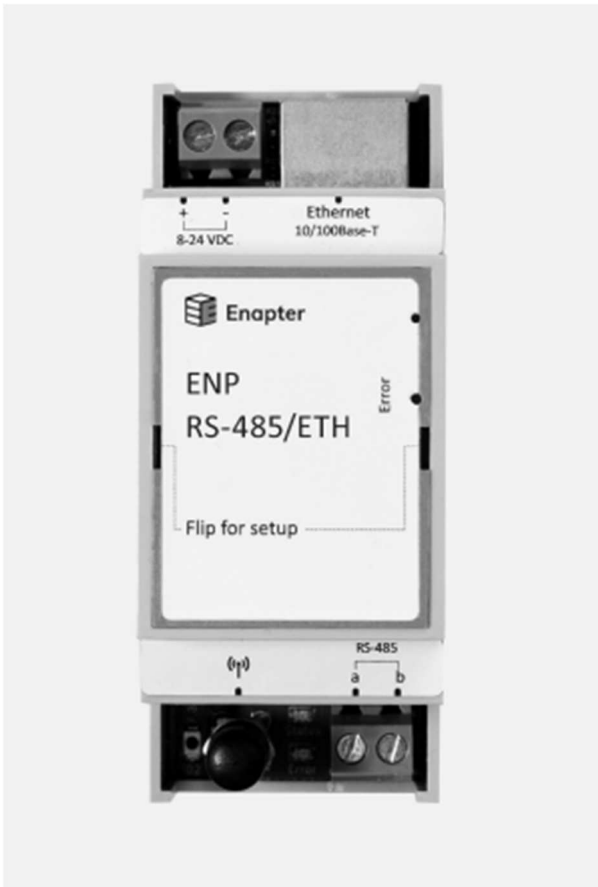# Enapter ENP-RS485/ETH Module Datasheet

RS-485/Ethernet Module

The RS-485/Ethernet Module is used to read data from devices such as inverters, ventilation systems, valves, irradiance sensors, power meters and others using RS-485 or Ethernet interfaces. The RS-485/Ethernet Module sends the collected data to the Enapter Gateway and Cloud via secure wireless connection.

Technical Data

Voltage	8…24 V DC
Wireless Communication	Wi-Fi 2.4 GHz Bluetooth 4.0 LE
Integrated connection type	RS-485 interface
Ethernet connection type	Ethernet 10/100 BASE-T, IEEE 802.3/802.3u 8P8C connection
Antenna connection type	SMA-F (module) – SMA-M (antenna)
Local signaling	1 LED (green) steady – correct operation blinking – establishing connection with server
	1 LED (red) module error
Current consumption	50 mA 12 V DC, max. 300 mA
Mounting	35 mm Din rail acc. to IEC 60715
Height	90.2 mm (3.55 inch)
Depth	57.5 mm (2.26 inch)
Width	36.3 mm (1.43 inch)
Net weight	0.090 kg

Environmental Conditions

Ambient air temperature for operation	-40…+60 °C
Ambient air temperature for storage	-40…+60 °C
Relative humidity for operation	20…90 %, without condensation
Relative humidity for storage	20…90 %, without condensation
Operating altitude	0…2000 m
Storage altitude	0…3500 m
Pollution degree	2
IP degree of protection	IP20

Connected RS-485 device

Type	Inverter
	Ventilation system
	Valve
	Irradiance sensor
	Power meter and others
Voltage supply	8…24 V DC when module and RS-485 device powered from shared power supply
Connection	2-pin screw terminal block

Connected Ethernet device

Type	Inverter
	Fuel cell
	Internet Service
	and others APIs
Connection	Ethernet 10/100 BASE-T, IEEE 802.3/802.3u 8P8C connection
Protocol	Modbus TCP
	MQTT
	SNMP
	HTTP
	and others

Dimensions

The dimensions are in mm and in brackets in inch.
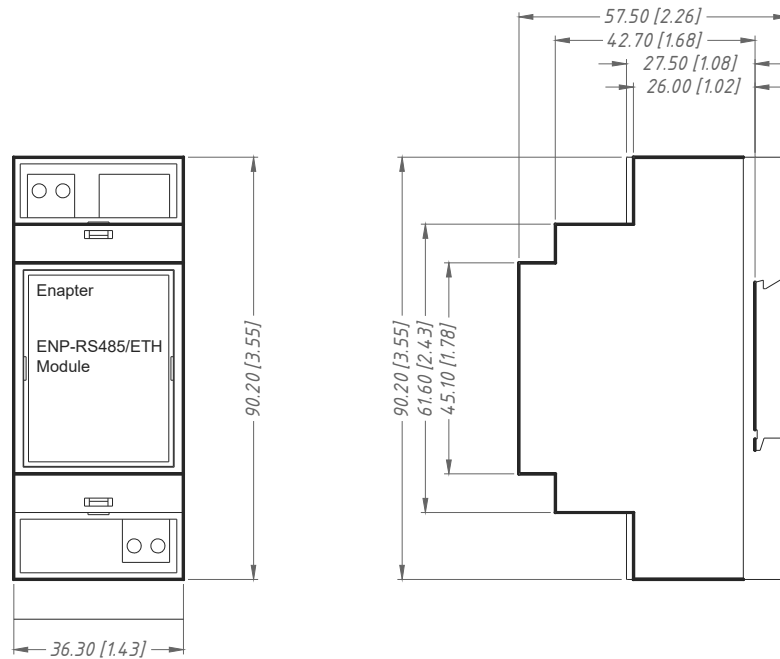
Mounting

The ENP-RS485/ETH Module must be horizontally mounted on 35 mm DIN rail according to IEC 60715.
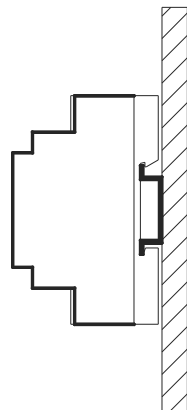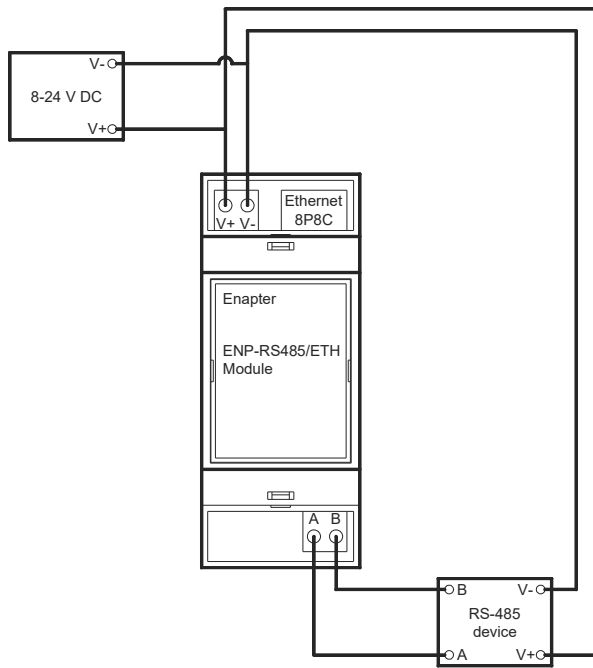
Correct Mounting Position   **Incorrect Mounting Position**
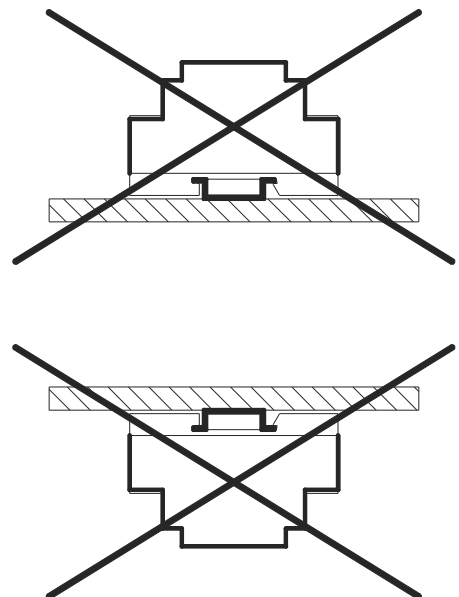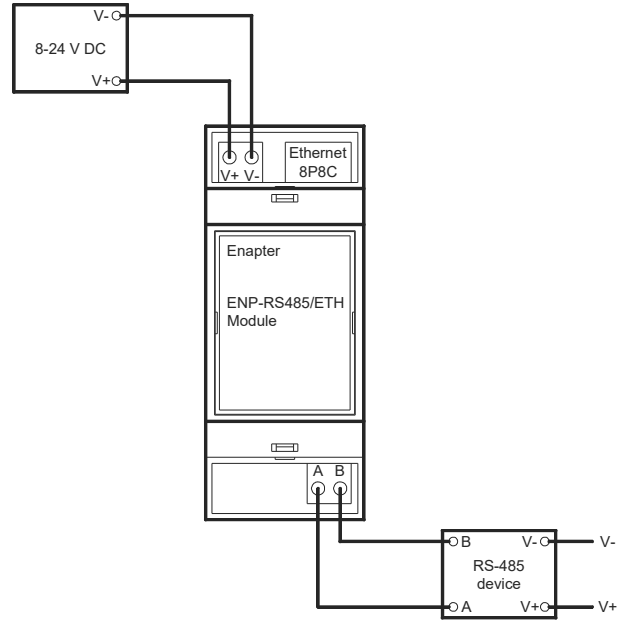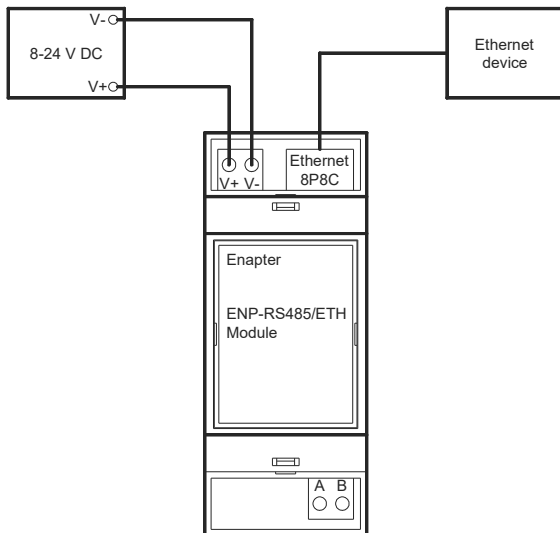
Connection Examples

Module and RS-485 device powered from shared power supply.

Module and RS-485 device powered from independent power supplies.

Module connected to Ethernet device.

Note: 1 Amp Circuit Breaker recommended to use on power line for the ENP-RS485/ETH Module.

Standards

Wi-Fi protocols – 802.11 b/g/n/e/i (802.11n up to 150 Mbit/s).

Bluetooth protocols – Bluetooth v4.2 BR/EDR and BLE specification.

Warnings

Alternating current voltage of 110 – 220 V is potentially lethal!

All works on assembly and installation should be performed only with a disconnected power supply!

The installation and assembly of electrical equipment must be carried out by electrically qualified persons.

The appearance of the product may differ from the images presented on the website or in this manual. The discrepancy between the appearance and packaging of the goods with a picture and description on the website or this manual is not an indication of poor quality goods. The manufacturer reserves the right to make changes to the design and packaging of the product without prior notice.