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User Manual
ETJ-N7B
Concentrator

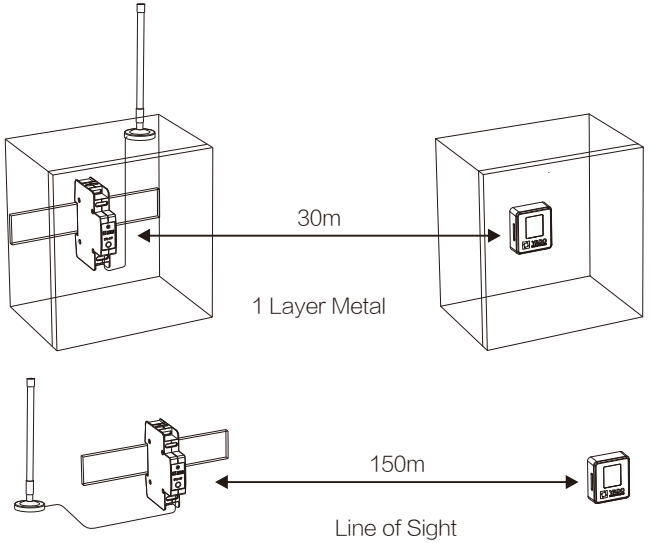
1. Packing List

No.	Material	Appearance	Function	Qty
1	Concentrator		Receiving device	1
2	User manual		Instructions of use	1

2. Wireless Range

The wireless concentrator comes in multiple models based on antenna type, suited for different scenarios, with coverage ranging from a single switchgear within 5 meters to up to 150 meters and dozens of devices.

The ETJ-N7B model features an external fiberglass antenna with a magnetic base for enhanced range. It is designed to receive signals from all sensors within the same electrical or distribution room. For optimal performance, it is recommended that sensors enclosed in a single metal layer should be installed within 30 meters of the ETJ-N7B. In outdoor substations with line-of-sight conditions, the range can extend up to 150 meters.



3. Installation

3.1 HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

1. Disconnect all power from all equipment including connected devices, prior to removing any covers or doors, or installing or removing any accessories, hardware, cables, or wires except under the specific conditions specified in the appropriate hardware guide for this equipment.

2. Always use a properly rated voltage sensing device to confirm the power is off where and when indicated.

3. Replace and secure all covers, accessories, hardware, cables, and wires and confirm that a proper ground connection exists before applying power to the equipment.

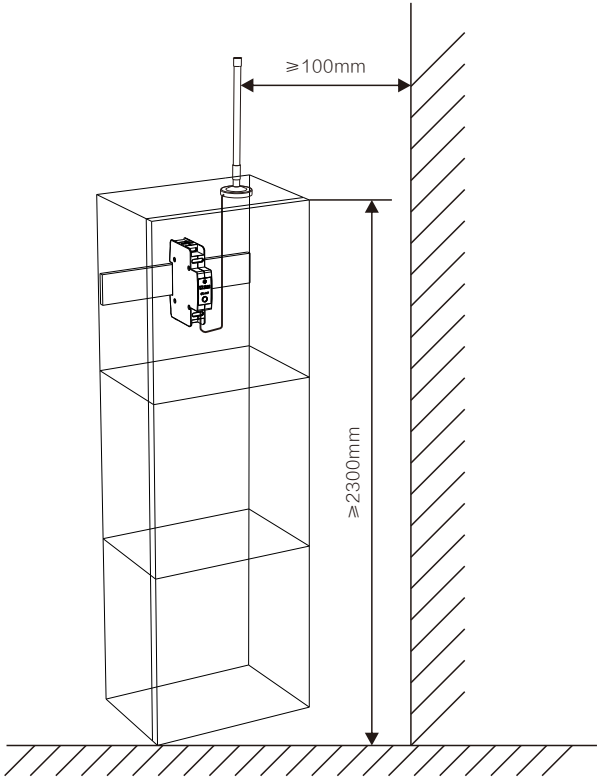
4. Use only the specified voltage when operating this equipment and any associated products.

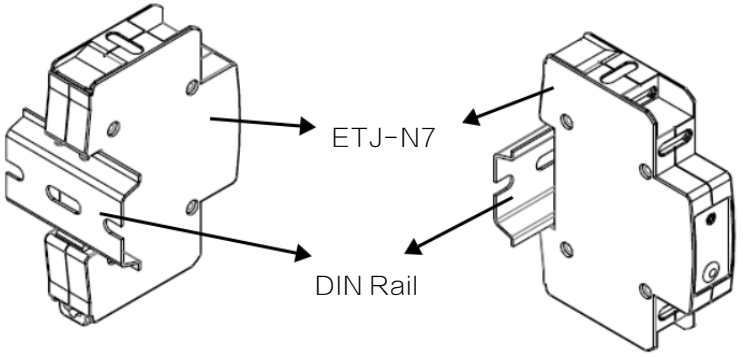
Failure to follow these instructions will result in death or serious injury.

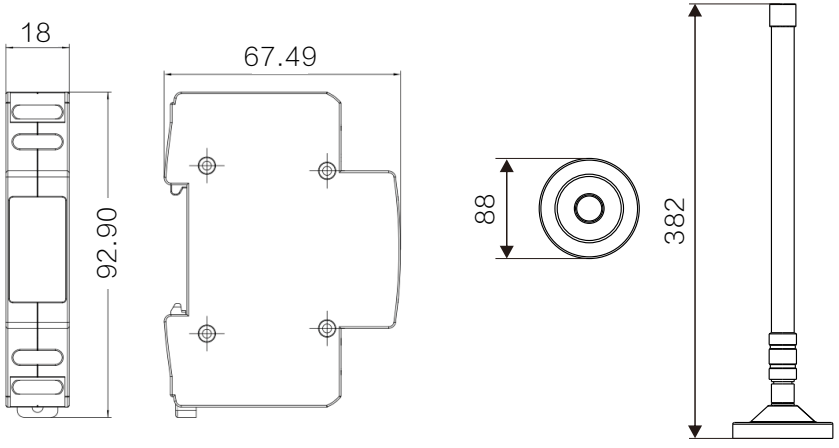
3.2 Mounting Instructions

Mount ETJ-N7B on the DIN Rail

Installation instructions Attach the magnetic-base external antenna to the upper shell of the distribution box or cubicle. The antenna body should be perpendicular to the ground and more than 10cm away from the wall.

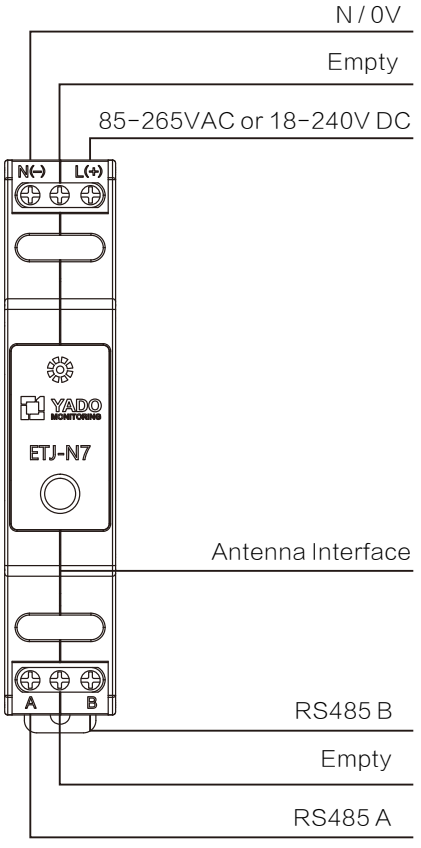






Dimensions (mm)

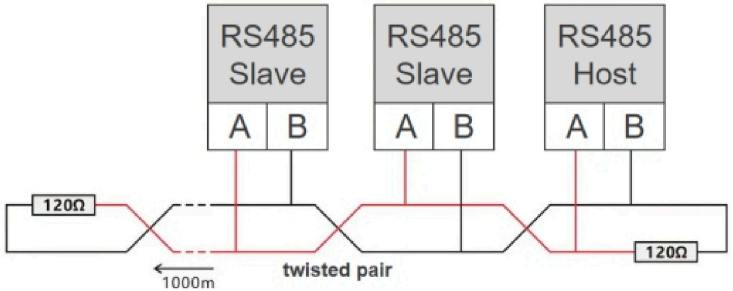
3.3 Electrical Instructions



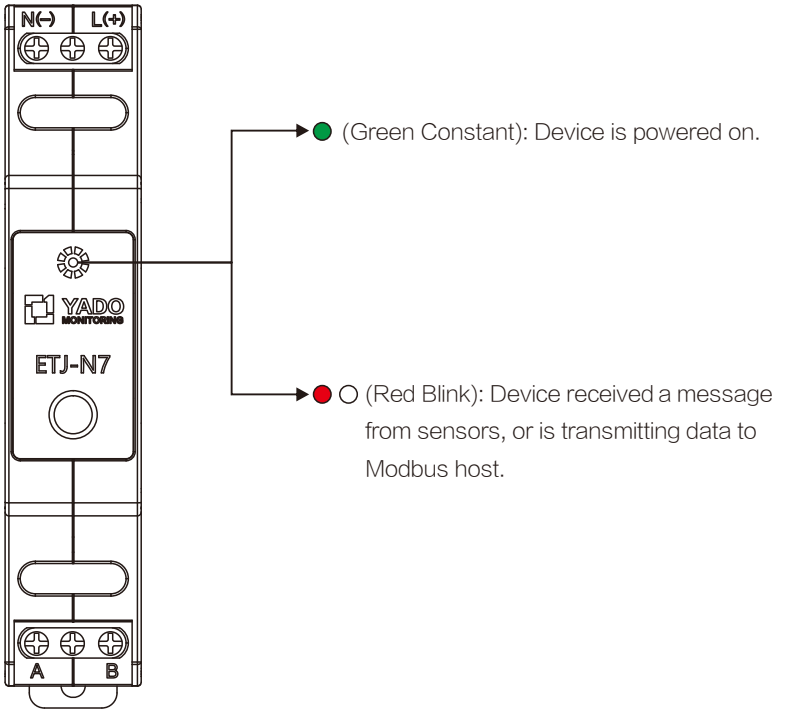
3.4 RS485 Bus Wiring

1. The number of devices connected in parallel on the same RS485 bus should not exceed 32.

2. When the RS485 communication distance is as long as 1000m, a 120Ω matching resistor should be added at the end.



3.5 Installation



4. Paring with sensors

4.1 Overview

The device shall be configured to receive data from wireless sensors and transmit it to a Modbus host. It can be pre-configured at the factory per customer requirements or configured by the user via Windows or mobile applications. The default Modbus slave address is printed on the device label and can be modified through the configuration tools.

4.2 Configurations on Windows

To configure the device on Windows, the following are required:

- Hardware: RS485-to-USB converter
- Software: ETJ-N7 Configuration Tool.exe
- Documentation: ETJ-N7 Configuration Tool User Manual. pdf

Please reach out to technical support for the above mentioned files.

4.3 Configurations on Mobile devices

The ETJ-N7 can be configured via Bluetooth using a mobile device.

Please reach out to technical support to download the mobile application.

4.4 Technical Data

Product Model	ETJ-N7B
Power Supply	AC 85-265V ; DC 18-240V
Maximum Power Consumption	1W
Upstream Interface	RS485
Upstream Protocol	Modbus-RTU
Baud Rate	9600bps (default), adjustable
Modbus Slave Address	1～247
Upstream Distance	Up to 1000m(at 4800bps baud rate)
Radio Frequency ISM band	2.4GHz
Downstream Wireless Protocol	Q/GDW 12020-2019
Number Of Wireless Sensors Reception	≯96

Wireless Transmission Range	30m (Sensor installedinside a single-layer metal enclosure)	150m (line of sight)
Operating Environment	-30 ~70 ° C, ≤ 95% RH, no condensation	
Protection Class	IP20	
Rated Power Frequency Withstand Voltage	1.5 kV 50 Hz (IEC 60947-5-1)	
[Uimp] Rated Impulse Withstand Voltage	4 kV (IEC 60664-1)	
Surge Immunity	1kV differential mode, 2kV common mode (IEC 61000-4-5)	
Width	18mm	
Depth	67.49mm	
Height	92.90mm	
Weight	0.057kg	
Antenna weight	0.5kg	
Antenna dimensions	88*382mm (diameter*height)	

5. Customer Support

For installation or usage assistance, please contact us through:

WhatsApp: (+857) 94278114

Email: ny@eado.com.cn

Local technical support

Website: yado.co

6. Legal Disclaimer

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Only qualified personnel trained in electrical safety should install, operate, maintain, or service this product. Failure to comply may lead to serious injury, death, or equipment damage.

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