EVTSCAN DTS6619-016

EVTSCAN DTS6619-016 3-Phase Energy Meter User Manual

Model: DTS6619-016 | Brand: EVTSCAN

1. Introduction

This manual provides essential information for the safe and efficient operation of your EVTSCAN DTS6619-016 3-Phase Energy Meter. Please read this manual thoroughly before installation and use, and keep it for future reference. This device is designed for accurate measurement of active energy in 3-phase 4-wire systems.

2. Safety Information

WARNING: Installation and maintenance should only be performed by qualified personnel. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power before installing or servicing the meter.
- Ensure all wiring connections are secure and correct according to the wiring diagram.
- Do not operate the meter if it appears damaged.
- The meter is designed for indoor use in a dry environment, protected from direct sunlight and extreme temperatures.
- Observe all local electrical codes and regulations.

3. Product Features

The EVTSCAN DTS6619-016 energy meter offers a range of features for comprehensive energy monitoring:

- **Multifunctional Display:** Shows total power, current, voltage, power, power factor, and frequency.
- **3-Phase Measurement:** Designed for 3-phase 4-wire systems.
- **Backlight:** Equipped with a backlight for clear readability in various lighting conditions.
- **Switch Output:** Includes a switch output function.
- **RS485 Communication:** Features RS485 remote reading capability for accurate active energy measurement.
- **Large LCD Screen:** Provides a clear and convenient digital display.
- **DIN Rail Mounting:** Facilitates quick and easy installation.

4. Specifications

Parameter	Value
Type	3-Phase Energy Meter
Model	DTS6619-016 (LCD Display)
Reference Voltage (Un)	220/380V, 230/400V, 240/415V
Operating Voltage	181-279V AC (3~) / 300-500V AC (3~)
Rated Current (Ib)	1.5A, 5A, 10A, 15A, 20A, 30A
Maximum Current (Imax)	6A, 20A, 40A, 60A, 80A, 100A
Starting Current	Not more than 0.004 Ib
Tolerance Overload Current	30 Imax for 0.01 seconds
Working Frequency	50 Hz ± 10%
Internal Power Consumption	Not more than 2W / 10VA
Pulse Constant	400 imp/1600 imp
Data Storage Duration	> 20 years
Operating Humidity	Not more than 75%
Operating Temperature	-10 ℃ ~ +50 ℃
Storage Humidity	Not more than 95%
Storage Temperature	-30 ℃ ~ +70 ℃
International Standard	IEC 62053-21
Accuracy	Level 1
Dust and Water Resistance	IP 51
Protection Insulation Type	II

5. Setup and Installation

The DTS6619-016 energy meter is designed for DIN rail mounting. Follow these steps for proper installation:

1. **Power Disconnection:** Ensure all power to the installation area is completely disconnected before beginning.
2. **Mounting:** Securely attach the meter to a standard 35mm DIN rail in an appropriate electrical enclosure.
3. **Wiring:** Connect the input and output wires according to the wiring diagram provided below. Pay close attention to the phase (A, B, C) and neutral (N) connections, as well as the RS485 and pulse output terminals.
4. **Verification:** Double-check all connections for tightness and correctness.
5. **Power Restoration:** Once all connections are verified, restore power to the system.

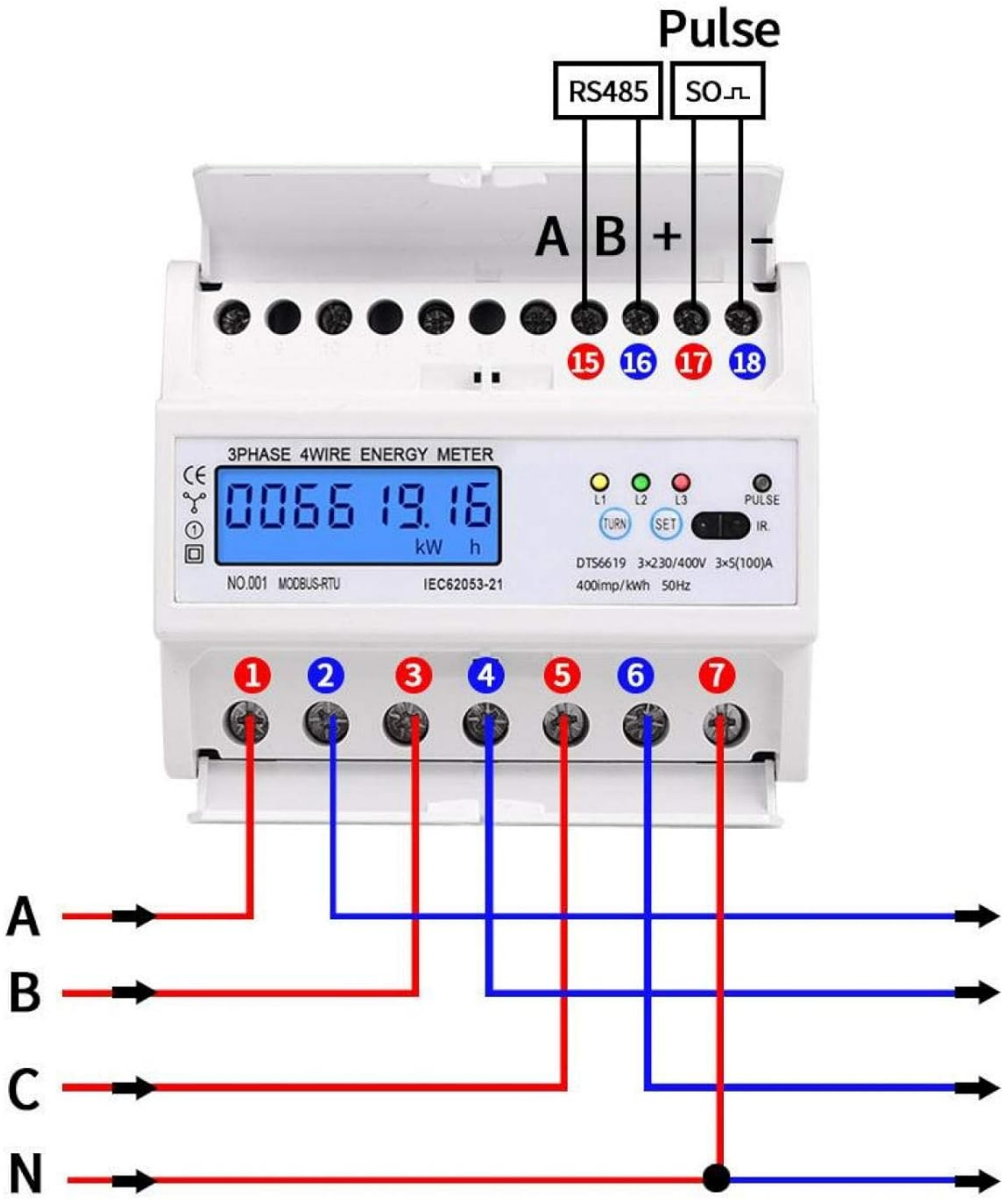

Figure 5.1: Wiring diagram for the DTS6619-016 energy meter. Connect phases A, B, C, and Neutral (N) to the corresponding terminals (1-7). RS485 (A+, B-) and Pulse output terminals are also indicated (15-18).

Figure 5.2: The DTS6619-016 energy meter being installed in an electrical panel, demonstrating its DIN rail mounting capability.

6. Operating Instructions

The DTS6619-016 meter features an LCD display and two control buttons: "TURN" and "SET".

Figure 6.1: Front view of the DTS6619-016 energy meter, showing the LCD display and the "TURN" and "SET" buttons.

- **Power-On:** Upon power-on, the meter will display the total active energy (kWh).
- **"TURN" Button:** Press the "TURN" button to cycle through different display parameters such as total power, current (L1, L2, L3), voltage (L1, L2, L3), instantaneous power, power factor, and frequency.
- **"SET" Button:** The "SET" button is typically used for configuration or resetting certain parameters. Refer to the detailed technical documentation for advanced settings if available. For basic operation, the "TURN" button is sufficient for viewing data.
- **Backlight:** The LCD display includes a backlight for improved visibility.
- **Pulse Indicator:** The "PULSE" LED will flash to indicate energy consumption.
- **RS485 Communication:** The meter supports RS485 for remote data reading. Consult the RS485 communication protocol documentation for integration with monitoring systems.

7. Maintenance

The EVTSCAN DTS6619-016 energy meter is designed for minimal maintenance.

- **Cleaning:** Periodically clean the exterior of the meter with a soft, dry cloth. Do not use abrasive cleaners or

solvents.

- **Inspection:** Regularly inspect the wiring connections to ensure they remain tight and free from corrosion.
- **Environment:** Ensure the operating environment remains within the specified temperature and humidity ranges to prolong the meter's lifespan.
- **No User Serviceable Parts:** There are no user-serviceable parts inside the meter. Do not attempt to open or repair the device.

8. Troubleshooting

If you encounter issues with your energy meter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display / Meter not powering on	No power supply; Incorrect wiring; Internal fault.	Check power supply to the meter. Verify wiring connections according to the diagram. If problem persists, contact support.
Incorrect readings	Incorrect wiring; Meter not calibrated (unlikely for new unit); External interference.	Verify all wiring connections. Ensure the meter is installed correctly for a 3-phase 4-wire system. If readings are consistently inaccurate, contact support.
PULSE LED not flashing	No load connected; Meter not receiving power; Internal fault.	Ensure there is an active load connected to the circuit being measured. Check power supply. If problem persists, contact support.
RS485 communication failure	Incorrect RS485 wiring; Incorrect communication settings; Device address conflict.	Verify RS485 A+ and B- connections. Check communication parameters (baud rate, parity, stop bits). Ensure unique device addresses if multiple meters are on the bus.

For issues not covered here, please contact EVTSCAN customer support.

9. Warranty and Support

EVTSCAN products are manufactured to high-quality standards. While specific warranty details are not provided in this manual, please retain your proof of purchase for any warranty claims.
For technical support, troubleshooting assistance, or warranty inquiries, please contact EVTSCAN customer service through their official website or the retailer from whom you purchased the product.
Manufacturer: EVTSCAN
Model Reference: EVTSCANq8o9dbfveg (Internal reference, not the product model number)