

NDM50 Lora Rail Type Three Phase Electricity Meter



NDM-50 Lora

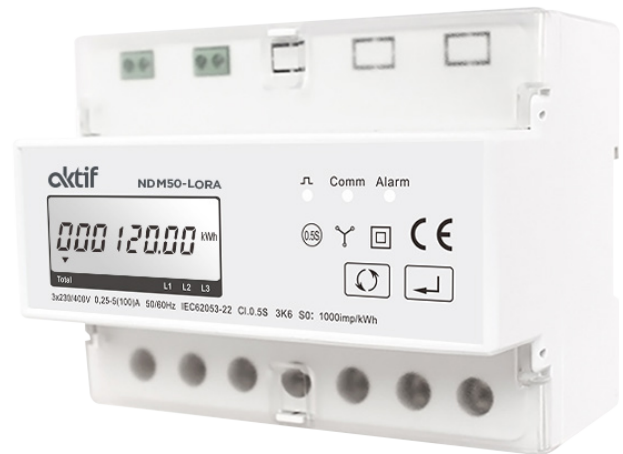
Rail Type Three Phase Electricity Meter

SDM530-LoRa is an advanced multi-function three phase energy monitoring solution with built-in LoRaWAN module. It measures all important electrical parameters, such as active energy (kWh), current (A), voltage (V), frequency(Hz), power factor, power demand, import and export energy etc. It measures and displays the characteristics of single phase two wires(1p2w) and three phase four wires(3p4w) supplies, including active energy (kWh), current (A), voltage (V), frequency(Hz), power factor, power demand, import and export energy etc. With built-in relay inside, the meter can be remotely controlled to turn on or off the electricity supply via LoRaWAN. The user can also set alarm objects and alarm level, once the alarm is activated the relay will be turned off. The relay of each phase can be controlled together or separately.

- Direct connection up to 100A
- Built-in relay for remote control
- Confirmations / Offline detection available
- Support auto-upload mode for uploading data to back server actively
- Wide range of LoRa frequency band (EU868/AS923/CN433/CN470/AU915/US902 MHz)
- Download/ Upload time interval can be set or adjusted.
- Built-in LoRa module, compliant with multiple gateway & server suppliers
- High accuracy, class 0.5s
- MID B+D certified

Application Areas

- Shopping Malls
- Industrial Zones
- Electric Distribution Companies
- Marinas
- Residences
- Airports
- Factories
- Holiday Villages



Standards and Protocols

- Active energy Class 0.5s according to IEC 62053-22
- Active energy Class 1.0 according to IEC 62053-21
- Reactive energy Class 2.0 according to IEC 62053-23
- Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013
- Low Voltage Directive: EN 61010_1:2010+A1:2019 & EN 61010-2-30:2010
- Interface standard and protocol: LoRaWAN Specification 1.0.2

Advantages

- Max.100A Direct Connect
- Wireless data transfer thanks to LoRaWAN communication,
- No cable and labor costs,
- Fewer failure points compared to wired systems due to wireless feature,
- Multifunction Measurement,
- Displays Scrollable Settings
- Support AMR, SCADA system
- Prepaid Function
- Energy Resettable
- White Backlit LCD Display
- Din Rail Mounting 35mm- Higher measurement accuracy classes compared to analyzers

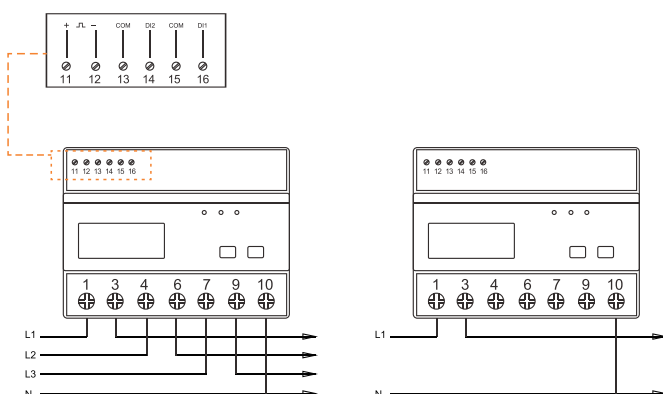
Features

- Rated voltage (Un): 3x230/400 V ac
- Operational voltage: 80%-120% of Un
- AC voltage withstand: 4KV for 1 minute
- Impulse voltage withstand: 6KV-1.2 μ S
- Base current (Ib): 10A
- Operational current range: 0.4% Ib-I_{max}
- Overcurrent withstand: 0.01s for 30 I_{max}
- Operational frequency range: 50 or 60Hz
- Internal power consumption: \leq 2W/10VA
- Display: LCD
- Maximum reading: 999999.99kWh

Performance Criteria

- Operating humidity: \leq 90%, non-condensing
- Storage humidity: \leq 95%, non-condensing
- Operating temperature: -25 to 55°C
- Storage temperature: -40 to 70°C
- Reference temperature: 23°C \pm 2°C
- International standard: IEC 62053-22
- Accuracy class: Class 0.5S
- Installation category: CAT III
- Mechanical environment: M1
- Electromagnetic environment: E2
- Pollution degree: 2
- Protection against dust and water ingress: IP51 (indoor)

Wiring Diagram



- Meter with protective insulation: class II
- Electrostatic discharges: 8kV contact / 15kV air gap
- Electromagnetic HF fields: IEC 61000-4-3
- Electrical fast transients: 4kV

Accuracy

- Voltage, Current: 0.2%
- Frequency: 0.2% of medium frequency
- Power factor: 1% of unity (0.01)
- Active power, Apparent power: \pm 5% of range maximum
- Reactive power: \pm 1% of range maximum
- Reactive energy (VARh): Class 2
- Active energy (Wh): Class 0.5s / Class 1.0

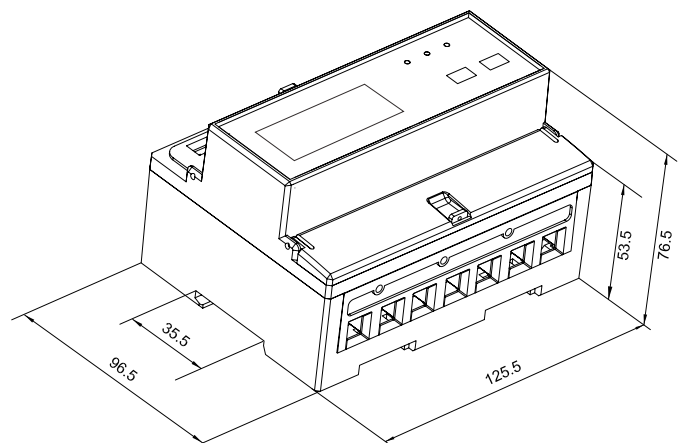
Communication

- Terminal Wire Area: 0.5-1mm²
- Recommended Tightening Torque: 0.25Nm

Pulse Output

- Pulse output: 1
- Pulse output type: Passive
- Pulse output 1: Configurable
- Pulse width: 200 / 100 (default) / 60ms

Dimensions





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