



packetSENSE AC Energy Meter with packetMODBUS DTSD 1352-4S

The **packetSENSE AC Energy Meter with packetMODBUS - DTSD 1352-4S** is a compact and energy-efficient device designed for measuring and monitoring diverse electrical parameters, including voltage, current, and power. Its versatility makes it suitable for applications in homes, buildings, and large electrical systems. Additionally, it can be configured to measure either single-phase or three-phase electrical parameters, offering flexibility in various settings.

The device uses a combination of direct access and mutual inductor access measurement methods, ensuring highly accurate results. The data from the device can be effortlessly read and transferred through a packetMODBUS device compatible with the LoRaWAN® network. Widely utilized for energy management, facility monitoring, and eco-friendly building regulation, this device proves to be versatile across various applications.

Technical Specification

packetSENSE AC Energy Meter

Electricals

Input Voltage Rating	3 × 220 / 380 V
Current Input	Overload: 1.2 times rated value (continuous) Rated value: AC 250 A, 100 A; (external closed port transformer) Overload: 1.2 times rated value (continuous) 10 times rated value/second
Auxiliary Power Supply	AC/DC 85-265 V; power consumption ≤10 VA
Power Consumption	≤0.5 VA (per channel)

Measuring Performance

Measurement Accuracy	Frequency 0.05 Hz, voltage and current class 0.5, active energy class 1, reactive energy class 2 2-31 harmonic accuracy ±1 %
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Pulse

Pulse Output	Output mode: Optocoupler pulse with open collector (one out of two with active input)
Pulse Width	80 ms ± 20 ms
Pulse Constant	3 × 1(6) A specification 6400 imp/kWh 3 × 10(80) A specification 400 imp/kWh

Switch

Input	4-channels passive dry contact input, built-in power supply 2-channels active wet node input, Identify engine oil and Power connection (or pulse output)
Current	Relay normally open contact output Contact rating: AC 250 V / 3 A DC 30 V / 3 A

Communication

RS485 Interface	RS485 interface, Modbus-RTU protocol/QZTT 1017-2015
Baud Rate	1200-38400

Security

Power Frequency Withstand Voltage	>AC 2 kV/min
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Surroundings

Temperature	Operating temperature: -20°C - +60 °C Storage temperature: -40°C - +70 °C
Humidity	≤95% RH No condensation, no corrosive gas place
Altitude	≤2500 m
Electromagnetic compatibility	Better than level 3
Electric Parametric Alarms	Under-voltage, over-voltage, under-current, over-current, overload, under-load

packetModbus

Data Communication Supported

Device	S76S
Integrated MCU	STM32L073xZ
Integrated RF IC	SX1276
Frequency	EU868/AS923-1/AS923-3
Antenna	Internal
RF power	+25 dBm

Electricals

Input Voltage Rating	220V AC
Operating Current	500 mA (max)
Operating Voltage	3.3 V and 5 V - On-board Electronics

General Device Specifications

Transceiver	ADM485JR-REEL EIA RS-485 Transceiver
Operating temp range	-40 °C to 85 °C
Operating voltage	DC 3.0 - 5.5 V
Operating current	8 mA
Protection grade	IP65

Mechanical

Dimension	250 mm x 195.00 mm x 90 mm enclosed by HT12 IP65 Enclosure
Mounting	Din-rail mount inside HT12 Enclosure

Features

- Total active energy, forward and reverse active energy, multi-rate active energy measurement
- Measured parameters: V, I, P, Q, S, PF, F
- Single-phase and three-phase energy measurement
- Eight-digit segment LCD, backlight display
- Key programmable communication, number of loops, single three-phase mode, external control mode and other parameters
- Active pulse output
- LoRaWAN® compatible
- Optimized as IoT end-node
- Periodic status update

Applications

- Eco Smart Buildings
- Real estate/Villages
- Condominiums
- Data centers
- Warehouses
- Factories
- Utilities
- Offices

packetworx

WE CONNECT THINGS

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