

LoRaWAN Three Phase Prepaid Energy Meter (CL730S22)



The CL730S22 is a three-phase smart energy meter certified by both MID and DLMS/COSEM for high accuracy and stable performance. It's designed for three-phase environments and has a LoRaWAN communication module for remote billing, configuration, credit purchases, and alarm event uploads from a central server. It supports both prepayment and post-paid options, and can detect tampering and cut off power supply when necessary. Consist with CL710K22, it's equipped with tamper detection and magnetic immunity features, and an integrated relay allows for convenient and secure remote connection and disconnection of consumer electricity supply.

LoRa Radio Parameters

Communication Protocol	LoRaWAN
LoRa MAC Version	1.0.3
Device Type	Class A/C
Network Registration Way	OTAA, ABP
LoRaWAN Uplink Confirmation	Confirm or Partially Confirm
LoRa Chip	STM32WLE5CCU6
MCU	Arm® 32-bit Cortex®-M4
Memory	256KB Flash; 64KB RAM
ISM Bands	AS923,AU915,EU868
TX Power	Up to 22dBm
Uplink Channels	8 settable channels with bandwidth of 125kHz
RX Sensitivity	Down to -125dBm@BW = 125 kHz, SF = 7
Spreading Factor	SF7~SF10 (Adaptive)
LBT(Listen Before Talk)	Yes
Report Interval	Configurable via Downlink Commands
Data Cach when LoRa Network Interrupt	Yes
Data Logger in local device	Optional
Communication Distance	3km to 10km (Eyesight distance in open space)
Built-in Valve/Relay	Relay
Anti-tampering	Yes



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Electrical Parameters

Connection Wiring	3P4W L1L1-L2L2-L3L3-NN
Nominal Voltage	3×230/400V (AC)
Operating Voltage range	70% ~ 130% Un
Basic Current	5A
TX Current	≤127mA @ 22dBm
Maximum Current	0.25 ~ 5(100)A
Starting Current	4%Ib / 20mA
Frequency	50 Hz ± 5%
Accuracy kWh/kVarh	Class 1/Class 2(IEC), Class B(MID)
Pulse Constant	1000 imp/kWh, 1000 imp/kVarh
Power Consumption Voltage Circuit	≤0.75W; ≤1.2VA (For each phase)
Power Consumption Current Circuit	≤0.1VA (For each phase)
Max power consumption in voltage circuit with PLC module	5W