HXEJ200

HXEJ200 is cost effective all in one device comprising full function meter, data concentrator and transformer protection system integrated in one package.

Terminal with Multifunction In One Device

HXEJ200

HXEJ200 is a single package device integrating all follow 3 devices into just 1 device to bring costs significantly down and make installation easier and quicker.

Right under distribution transformers usually three electronics devices can be found:
1-E-meter for measuring energy and other electrical parameters of the transformer.（optional）
2-Data concentrator to collect data from smart meters under the transformer (on the feeder)and send to master station.
3-Transformer monitoring and protection system to retain safe operation of the transformer (optional).

HXEJ200 communicates with connected meter via plug-play PLC/ RF modem and transfers message to master station through plug-play GPRS/ 3G/ 4G modem or Ethernet.

Highlights

Industrial Design
o Runs industrial light- weight RTOS
o Designed to work in harsh environment like frequently voltage fluctuating networks

Last Gasp Operation
o Detects power off and sends message to master station about latest status using its internal battery

Easy Maintenance
o Remote firmware upgrade from the master station
o Local firmware upgrade through USB
o Local maintenance using HHU / PC software

Open Protocol Compliance
o Supporting popular and open protocol of DLMS/COSEM

Multiple I/O Interface
o Input from different sensors

Large Capacity
o 30 days of data of 1024 meters for daily billing
o 4 days of data of 255 meters for hourly load profile
o 365 days of data of 1024 meters for monthly billing data

Main Functionalities

Measurement
o Instantaneous values like voltage, current, power factor (optional).
o 4 quadrant energy: active, reactive and apparent (optional).

Data Collection
o Manages up to 1024 meters for data collection and concentration.
o Collects data on request or based on schedule or once meters report event.
o Provides master station a transparent access to meters.

Transformer Monitoring and Protection
o Calculation of both copper and iron losses (optional).
o Overload detection and alarm (optional).
o Low power factor detection and alarm (optional).

Power Quality Monitoring
o Voltage and current unbalance (optional).
o Harmonic factors (optional).
o Power outage.

Events / Alarms
o Collects events/ alarms from the entire meters under the transformer
o Generates self diagnosis events/ alarms.
o Manages all events/ alarms.

Communication
o 1 Ethernet
o 2 plug-play modem for up-link (GPRS) and down-link (PLC/ RF).
o 1 RS232 for local maintenance
o 1 USB for local maintenance
o 2 RS485 for daisy chaining to meters
o 1 RF/ WIFI for local maintenance.

Synchronization
o Support time synchronization both locally and remotely.

Security
o Full end to end data encryption.

Local and Remote Access
o Hexing 's Central System
o PC software
o HHU

Installation
o On wall or equivalent
o Optional meter box for stronger protection

Technical Specifications

|		
Metering Accuracy	Active energy:	Class 0.5s (optional)
	Reactive energy:	Class 2 (optional)
Nominal Voltage	3 phase 4 wire	3X220/380V, 3X230/400V, 3X240/415V
	1 phase 3 wire	120V
Voltage Range		0.8-1.2Un
Frequency		50/60Hz
Frequency Range		47-52Hz /57-62Hz
Current Range	Ib /Iref	1A (optional)
	Imax	10A (optional)
Power Consumption	Voltage circuit:	<5W,<10VA
Temperature Range	Operation:	-30° C to +70° C
	Storage and transport:	-40° C to +85° C
Humidity Range		Up to 95%
Protection Degree		IP51 /IP54(Use sealed box)
EMC	Electrostatic discharge	Contact discharge: 8kV
		Air discharge:15kV
	Fast transient burst	4 kV
	Surge immunity	4 kV
	Electromagnetic RF fields	Frequency range: 80kHz to 2000MHz
		With current: 10 V/ m
		Without current: 30 V/ m
Insulating Strength	Impulse voltage	1.2/ 50μ s main connections 8kV
	AC voltage	4kV during 1 min
Standards		IEC 61000-4-3, IEC 61000-4-2, IEC 61000-4-4
		IEC 62052-11, IEC 62053-21, IEC 62053-22
		IEC 62053-23,etc
RTC	Clock accuracy	< 0.5s / day
Communication	Built-in	2 RS485, 1 USB2.0, 1 RS232, 1 Ethernet RJ45
		RF/ WiFi
	Modules	GPRS/ 3G/ 4G, PLC/ RF
Cable Terminal	Terminal diameter	Ø4.5mm
Housing Material		Polycarbonate +GF
Weight		Approx. 1.9kg
Dimension		300mmx 175mmx 78.3mm (L x W x H)

Dimension
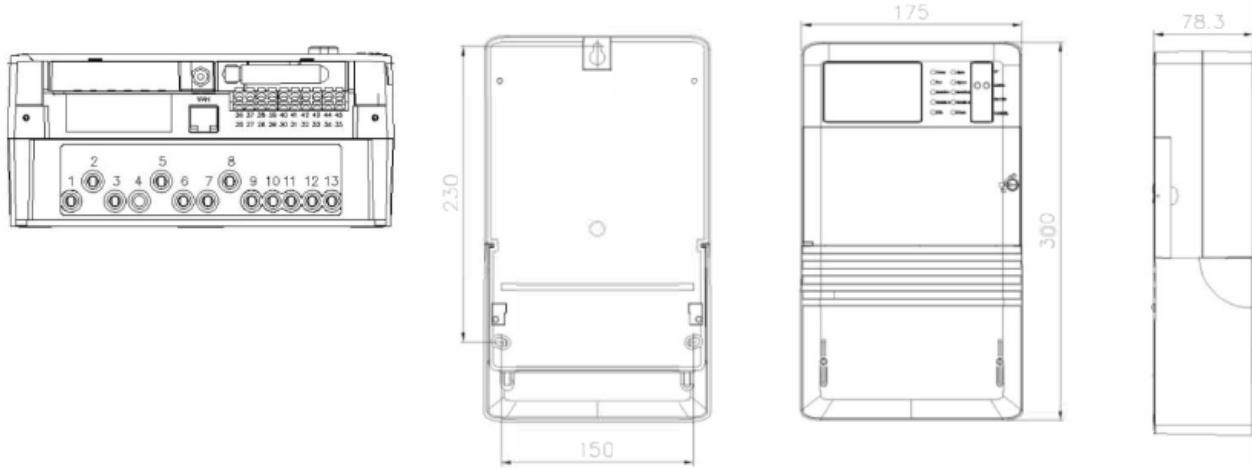
Wiring Diagram
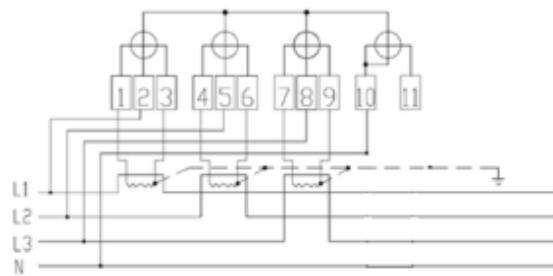
Three Phase Four Wire
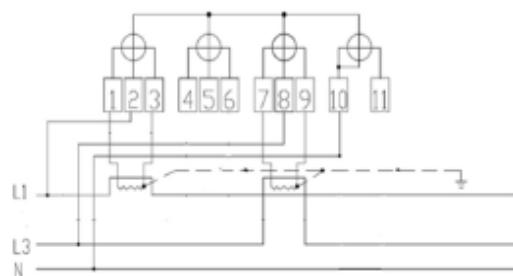
One Phase Three Wire

Model Classification

Model	LCD display	Control output
A	—	●
B	—	—
C	●	●
D	●	—
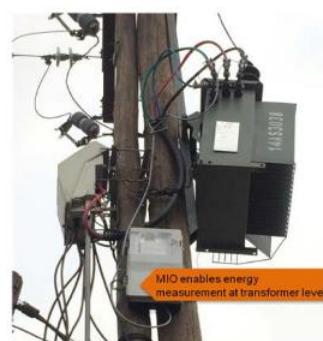
Application Scenarios

MIO enables energy measurement at transformer level

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