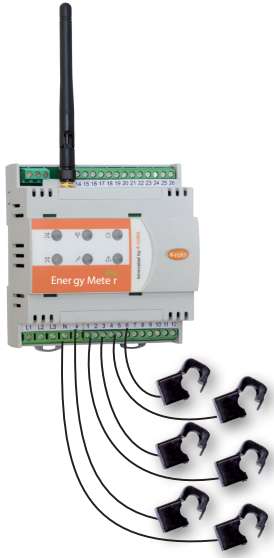


ZR-HMETER3P

Three-Phase Energy Meter with ZigBee Module



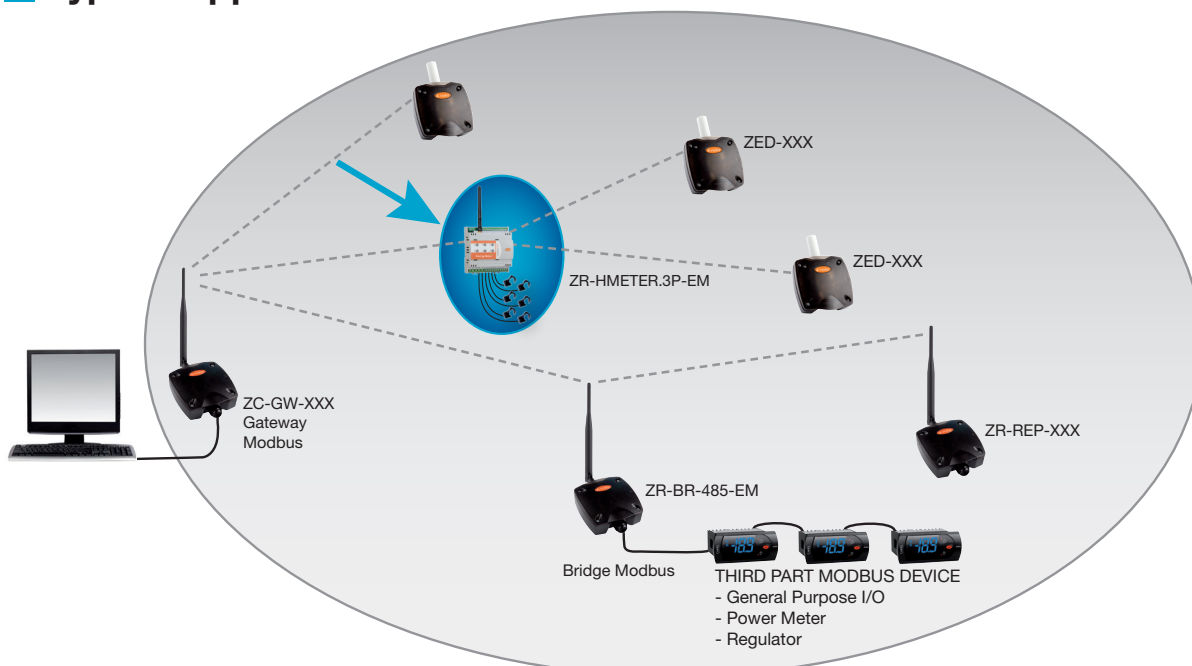
Key Features

- Real Time three phase Electricity Active Power or six single phase Electricity Active Power
- Measurement up to 100A by phase with external CT included
- ModBus profile on ZigBee platform
- Supply 230 Vac
- Star configuration only
- External antenna
- Diagnostic led
- Din rail mounted
- Precision class 1

The ZR-HMETER3P-EM is an electricity meter designed to measure the electrical consumption in civil, commercial and industrial applications. It can monitor voltage, current, power and energy from two three-phase lines or from six single-phase lines. Thanks to the external current transformer it can measure the phase true current up to 100A, the real time power up to 50 kW and has an energy counter.

All the functions are activated by simple ModBus commands issued to the ZB-Connection Gateway that transforms those commands in wireless commands. The device is continuously powered by 230 Vac; therefore it can also act as a repeater or a parent device for battery powered sensors.

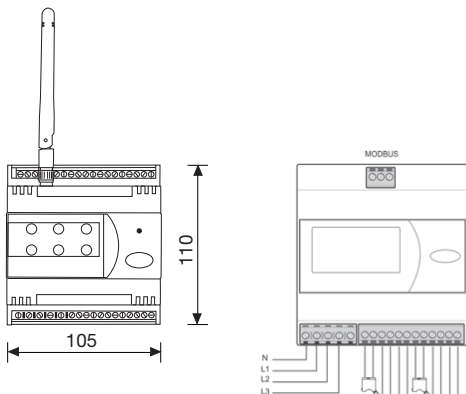
Typical Application



Technical Specs

General characteristics	Chip Ember EM357 Compatible IEEE 802.15.4 Stack EmberZnet473 (ZigBee PRO) Modbus/RTU Device address settable via internal dip-switch
RF characteristics	Frequency: 2405 MHz ÷ 2480 MHz Modulation: DSSS Nominal transmission power: 10mW (10 dBm) Reception sensitivity: 103 dBm External antenna gain: 5,5 dB Coverage outdoor/indoor: 200m/50m
Measurement	True phase voltage (Vrms) (max 400 V) - Phase true current (Irms) (max 100A) Phase active power (max 35kW) - Total active power (max 50kW) Phase reactive power - Total reactive power - Phase apparent power Total apparent power - Power factor ≥ 0.65 - Phase active/reactive energy Total active/reactive energy - Rms current 1.5%, Rms voltage 1.5% PRECISION Power Factor = 1 1.5 % from 5% to 100% of the nominal power 2.5% under 5% of the nominal power Power Factor = 0.65 1.5 % from 10% to 100% of the nominal power 2.5% under 10% of the nominal power
Connections	DIN rail. Available in 6 DIN module size 105x110x60 mm Voltage current, active power, reactive power, active energy, reactive energy
Supply	230 Vdc
Antenna	External antenna
Environment parameters	Operating temperature: 0°C ÷ +50°C; <80% U.R. not condensing Storage temperature: -20 °C ÷ +70°C; <80% U.R. not condensing Degree of protection: IP 30
Compliant with 2006/95/EEC, 89/336/EEC, 99/5/EEC directives Reference Norms:	ETSI EN 300 328: Radio Compatibility for digitals wide band transmissions ETSI EN 301 489: Radio Compatibility EN 55014-1:2006 + A 1:2009: Electromagnetic Compatibility - Immunity EN 61000-3-2:2006: Electromagnetic Compatibility - Emissions EN 61000-3-3:2008: Electromagnetic Compatibility - Emissions EN 55014-2: Electromagnetic Compatibility - Immunity EN62053-21: Active energy counting - Class 1 $\pm 1\%$ EN62053-23: Reactive energy counting - Class 3 $\pm 3\%$

Dimensions (mm)



 **ZB-Connection** is a 4-noks brand

Product Codes

CODE	DESCRIPTION
ZR-HMETER-3P1-50-EM	1 three-phase line monitoring up to 50 kW
ZR-HMETER-3P2-50-EM	2 three-phase lines monitoring up to 50 kW
ZR-HPMETER-1P6-EM	6 single-phase lines monitoring
HMETER-3P1-50	1 three-phase line monitoring up to 50 kW, ModBus 485
HMETER-3P2-50	2 three-phase lines monitoring up to 50 kW, ModBus 485

Rev 2.5 29/05/2014

4-noks is a  **ZigBee**
Member

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