

BL I&C ZEROME H

Multi-functional Power and Energy Meter

Leading future-oriented
The best energy management solutions

Catalog 2024

Optimize Power, Protect the Planet:
Smart Energy Use for a Smaller Carbon Footprint



ZEROME H

The image shows a digital energy meter with a display screen and several indicator lights. The display shows the following data:

T	289.7	U
	8.7	A
	1.8	kW
	2.3	kWh
	8.881	t.CO2
HM	9.887	%

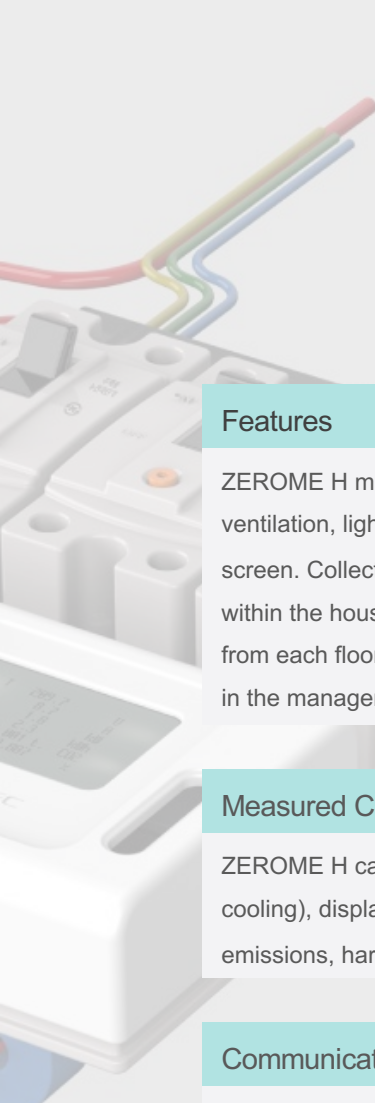
Below the display, the text "BL16C" is visible. To the left of the display, there are five indicator lights, with the second and fourth lights from the top being illuminated (red and green respectively). To the right of the display, there is a vertical bar graph.

The Need for Monitoring Power in Household Distribution Boards

With the impacts of global warming and air pollution, the importance of energy saving and greenhouse gas reduction in high-energy-consuming buildings is being increasingly emphasized. Consequently, national greenhouse gas reduction goals have been established, extending from central governments to local authorities and the private sector, intensifying building energy regulations to achieve national carbon neutrality goals.

From 2024, the mandatory Zero Energy Building (ZEB) certification system for multi-unit housing necessitates energy management solutions that meet market needs. The paradigm is shifting from total load energy management centered on power supply to important load-specific energy management focused on usage, urgently requiring individual household power energy management devices. Ultimately, the goal is to create green buildings through efficient management of power energy in buildings, achieving zero energy certification.





Features

ZEROME H measures real-time power usage for three or more types of usage (cooling, ventilation, lighting) for zero-energy certification, displaying power and harmonics on an LCD screen. Collected data can be integrated with existing home network equipment installed within the household. Power consumption data (for three or more types of usage) collected from each floor is transmitted to the zero-energy system or remote metering system installed in the management office or central monitoring room, enabling communication linkage.

Measured Circuit Quantity

ZEROME H can measure power for three or more single-phase circuits (lighting, ventilation, cooling), displaying voltage, current, active power, active energy, reactive power, carbon emissions, harmonics, etc.

Communication Function

ZEROME H can form a fast and accurate communication network with an upper-level zero-energy management system or remote metering system through RS-485 communication.

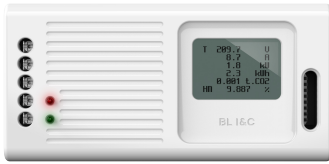
Precision Measurement Function

As a critical component of energy management systems, ZEROME H provides precise measurements with voltage/current accuracy of 0.2% F.S and power/power quantity accuracy of 0.5% F.S, enabling accurate analysis and diagnostics.

Ease of Installation

Using an embedded through-type Current Transformer makes the installation of current measurement sensors easy, safe, and almost unrestricted by space due to its compact size.

ZEROME H

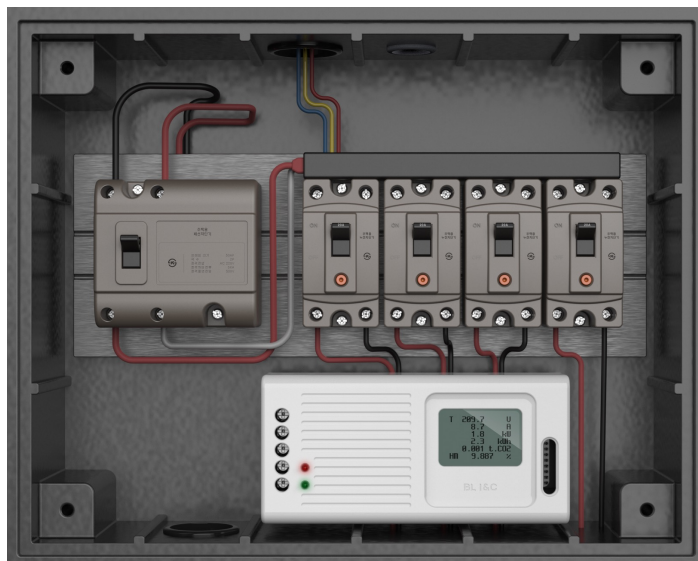


Single Phase : 3 Channel

Measuring Branches Circuit

CPU	ARM 32bit Cortex 72MHz
Memory	Flash : 256KByte, SRAM : 64KByte FRAM : 32Kbit
Communication	RS-485 (Modbus RTU)
LCD Display	1.5 inch Display 2 Line 8 digit 84 x 48 Pixel Monochrome
Size	135W * 65D * 25H
Mount	Panel Mount

Parameter	Range	Accuracy (%)	Remarks
Voltage	VL-L = 660Vac	±0.2%	
Current	CTs = 100%	±0.2%	VL-N = 380V 0~CT 1st Current (30A) Starting Current : 0.1% FS
Frequency (Hz)	42 ~ 65	±0.1%	
Power Factor (pF)	-0.1 ~ +0.1	±0.5/1.0%	
Effective Power (kW)	65kW (Each Phase)	±0.5/1.0%	Accuracy - Solid Core CTs = 0.5% - Solid Core CTs = 1.0%
Reactive Power (kVar)	±30kVar (Each Phase)	±0.5%/1.0	
Effective Power Electricity (kWh)	65.535kW (Each Phase)	±0.5%/1.0	
Harmonic Wave	Current Value	0.3%	



Ordering String & Spec

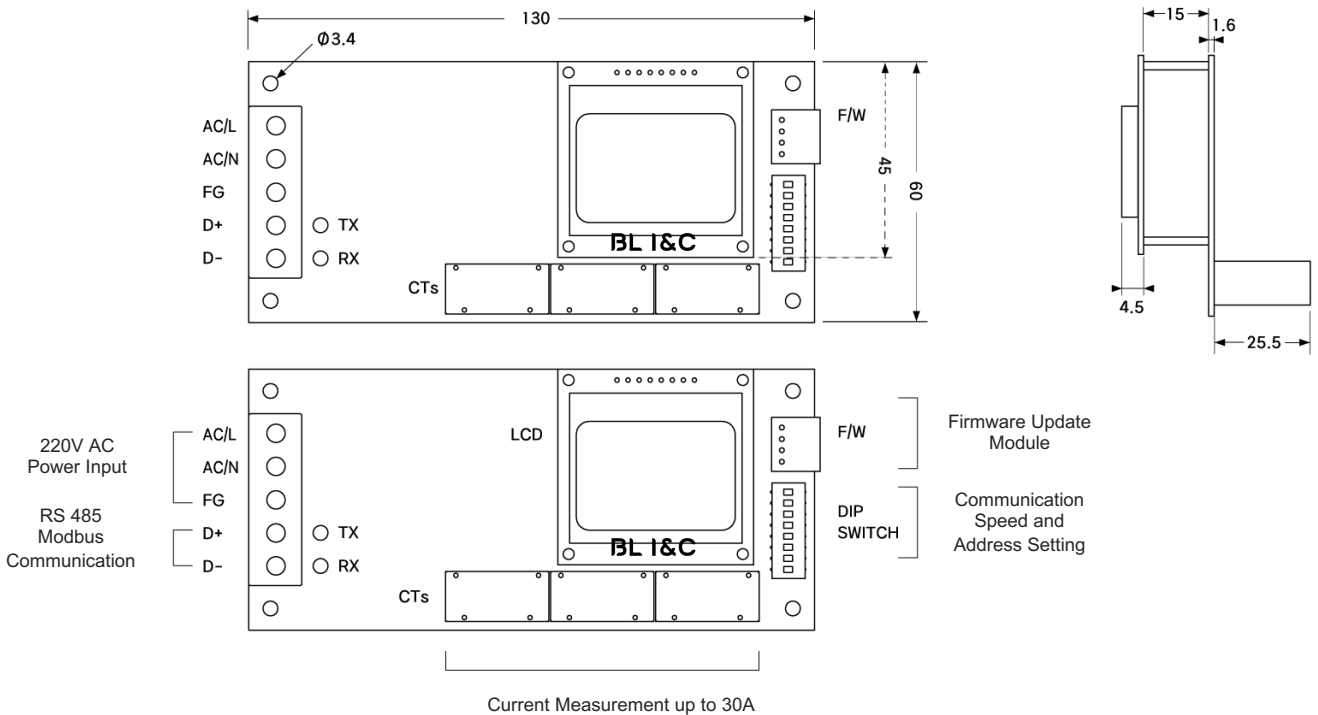
Model	Detail
Display Items	Current, Active Power, Reactive Power, Accumulated Power, Harmonics, Carbon Emissions
Communication	RS-485
LCD Display	YES

Technical Specifications

Input Ratings	Value
Parameter	
Nominal Frequency	50 / 60 Hz
AC Voltage	Single Phase 3 line
L-N Voltage	85 ~ 265 Vac
Max L-L Voltage	265 VAC
Burden	~ 1.5 VA
Isolation	2,500V RMS/m

Technical Specifications

Input Ratings	Value
AC Current	
Current Input (1st)	0 ~ 100A
Max Input Current	120A (CT 1st)
Burden (Per Phase)	~ 0.2 VA
Isolation	2,500V RMS/m
Communication	
Default Port	RS-485
Node Num	31 Node
Protocol	Modbus RTU
Communication Speed	9,600 ~ 38,400bps
Other	
LCD Display	6 Line 12 Digit
Push Button S/W	-
Non-volatile memory cycle	20yrs
RTC	No
Weight	Approx. 0.8kg
Environmental Conditions	
Operating Temp	-20°C ~ 60°C
Storage Temp	-20°C ~ 80°C
Humidity	5 ~ 90% Non-Condensing



Collection of 3 Types of Power Consumption Data in Individual Households

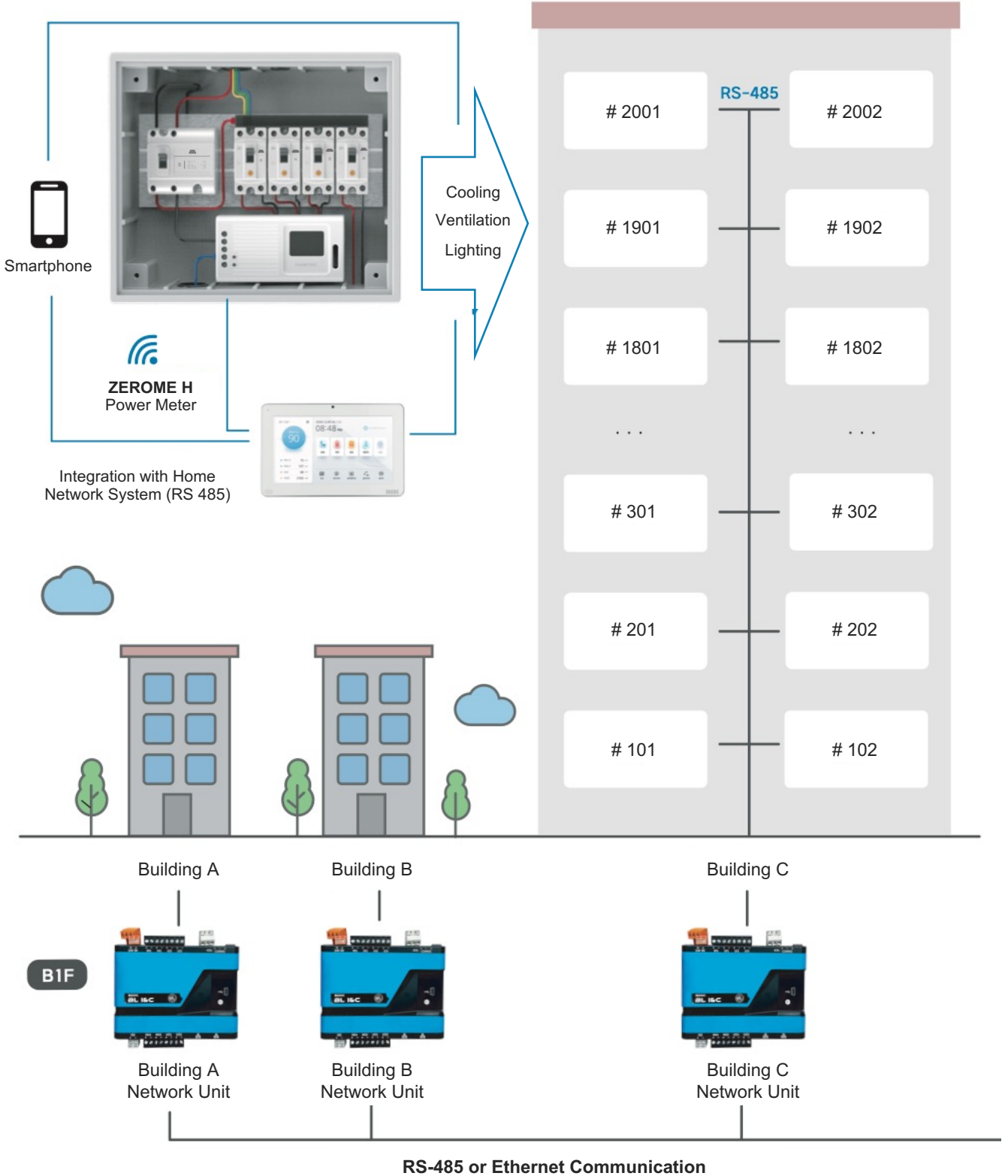
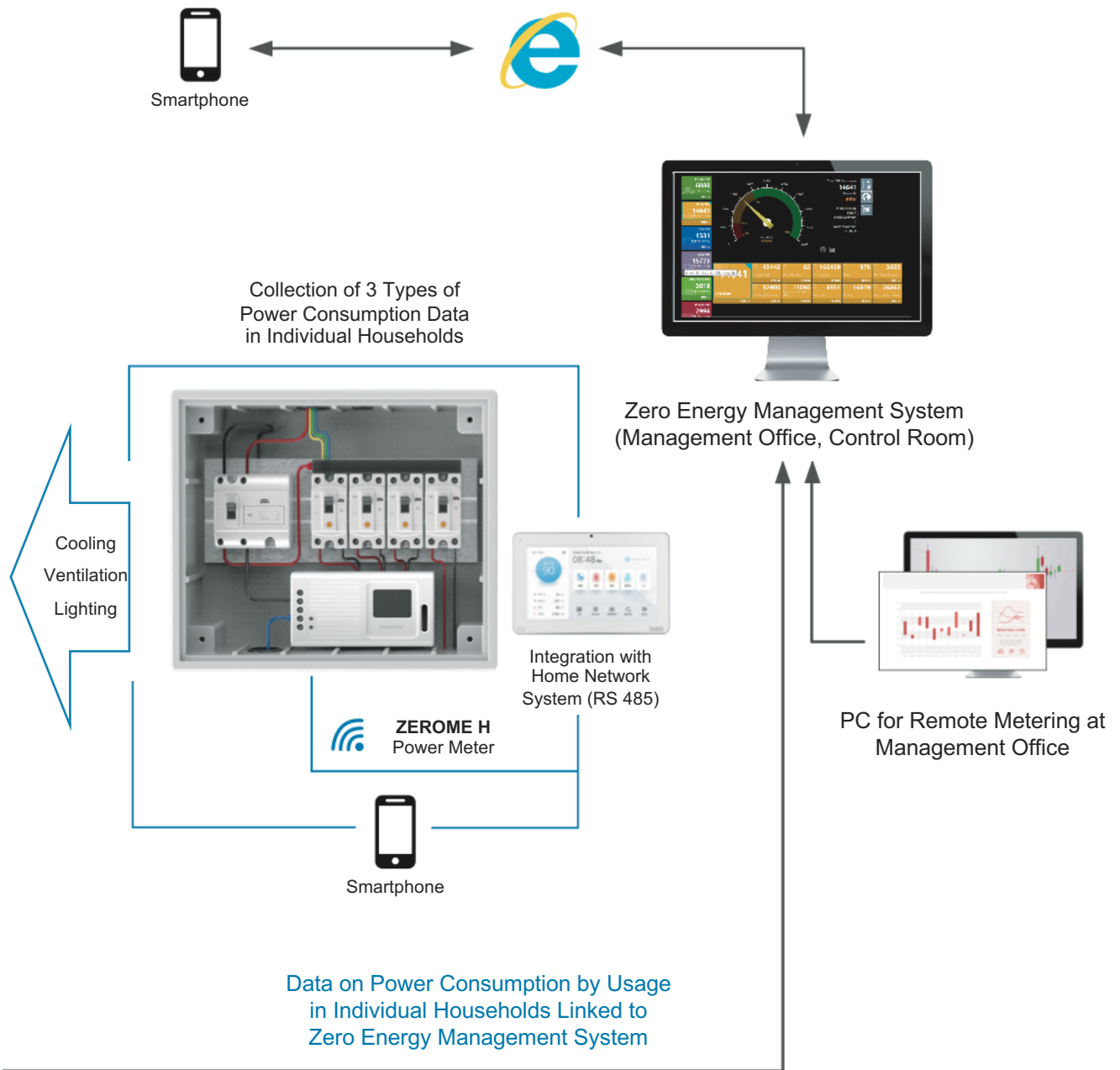


Diagram of Zero-Energy System Integration through Measurement of Three Types of Power Usage in Individual Households





The information provided in this brochure includes only a general description and features of the performance. It is not always applicable as described in actual use and may be subject to change due to subsequent product development. The responsibility for the provision of each feature exists only as specified in the contract.



For more information

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ENG : www.blkor.com/en

BL I&C
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