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ZEROME B Series

Multi-functional Power and Energy Meter

Leading future-oriented
The best energy management solutions

Catalog 2024

ZEROME B Series

Need for Monitoring MCC Panels/Distribution Boards

ZEROME B is a future-oriented energy management solution for power energy. Traditional energy management systems, centered on distribution boards, fall short in managing detailed energy consumption. At a time when energy costs are steadily and sharply rising, ZEROME B accurately measures and manages the energy usage of the final load, thereby reducing unnecessary waste.

Features

Traditional Digital Power Meters are suitable for monitoring the energy of power distribution equipment but are not ideal for distribution board energy monitoring due to cost-effectiveness, space requirements, and installation risks. ZEROME excels specifically for monitoring energy usage of specific loads. It employs Split Core Current Transformers (Clamp CTs) for energy monitoring of existing and new distribution boards, offering ease of installation and reduced risks during live work.

Measured Circuit Quantity

ZEROME can measure power for single-phase and three-phase circuits across 1-channel (3-phase 1, single-phase 3), 4-channel (3-phase 4, single-phase 12), and 8-channel (3-phase 8, single-phase 24) configurations. It can be conveniently installed in MCC panels or distribution boards and offers various energy management solutions to administrators.

Communication Function

Using RS-485/Ethernet communication, ZEROME can establish a fast and accurate communication network with upper-level energy management systems.

Display

ZEROME's expansion capabilities include installing a Touch Panel Display on the distribution board front for on-site monitoring and an internal LCD to monitor energy usage by branch.

Precision Measurement Function

As a critical component of energy management systems, ZEROME 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

While traditional solid-type CTs require turning off the load for installation and are often constrained by their size, ZEROME uses Split Core Current Transformers, making sensor installation easier, safer, and less space-restrictive due to their compact size.

ZEROME B

ZEROME B is a power energy meter designed for efficiently managing and forecasting power and energy within buildings, factories, apartments, schools, data centers, and multi-use facilities. It measures voltage and current in MCC and panel boards, enabling the assessment of power consumption and carbon emissions. This device is essential for the effective management and predictive analysis of electrical and energy resources in various settings.

Features

01 Analysis and reduction planning of power and energy usage by purpose and time of day

02 Target management of greenhouse gases and carbon emissions

03 Ability to calculate energy source and carbon emissions for individual components

04 Automatic calculation of oil equivalent tons and greenhouse gas emissions relative to power usage

05 Automatically transmits various data to BEMS and zero-energy systems

Multi-Channel

Measurement of Single-Phase and Three-Phase, Individually and in Combination

Greenhouse Gas
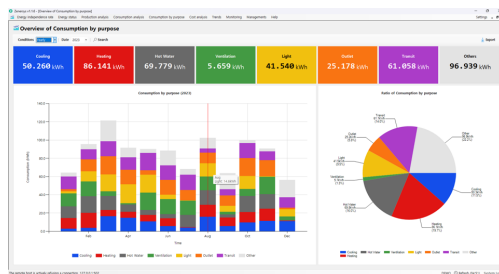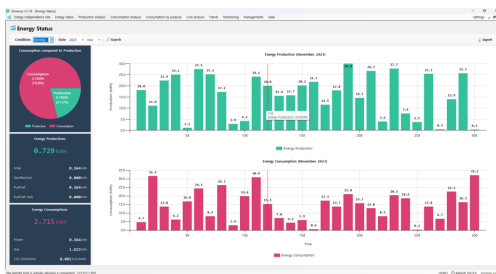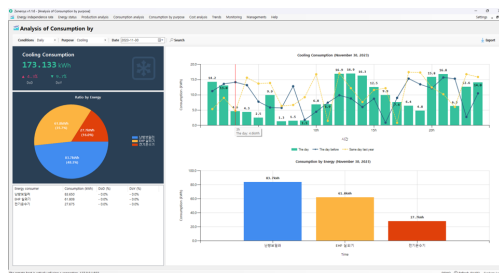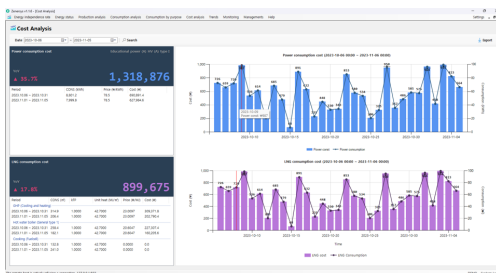
Measurement of Greenhouse Gas Emissions
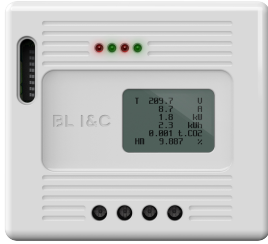
Oil Equivalent Ton

Measurement of Oil Equivalent Ton Emissions

User Interface Software

ZENERSYS v1.0

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ZEROME B1

3 Phase : 1 Channel , Single Phase : 3 Channel

Measuring Branches Circuit

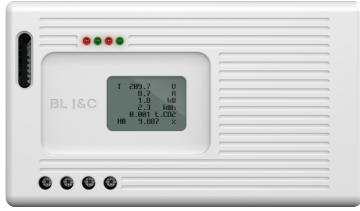|	
CPU	ARM 32bit Cortex 72MHz
Memory	Flash : 256KByte, SRAM : 48KByte FRAM : 16Kbit
Communication	RS-485 (Modbus RTU)
LCD Display	1.5 inch Display 84 x 48 Pixel Monochrome
SIze	107W * 97D * 25H
Mount	Din Rail Mount

Parameter	Range	Accuracy (%)	Remarks
Voltage	VL-L = 660Vac	±0.3% F.S	VL-N = 265Vac
Current	0 ~ 300 A	±0.3% F.S	
Frequency (Hz)	42 ~ 65	±0.1% F.S	
Power Factor (pF)	-0.95 ~ +1.00	±0.5% F.S	
Effective Power (kW)	76kW (Each Phase)	±0.5% F.S	
Reactive Power (kVar)	76kW (Each Phase)	±0.5% F.S	
Effective Power Electricity (kWh)	76kW (Each Phase)	±0.5% F.S	

Input Ratings	Value
Parameter	
Nominal Frequency	50 / 60 Hz
AC Voltage	3 phase 4 line / 3 phase 3 line
Control Voltage	85 ~ 265 Vac
Maxmum L-N Voltage	265 Vac
Maxmum L-L Voltage	660 Vac
Burden (Per Phase)	Below 0.5 VA
Isolation	Galvanic Isolation
AC Current	
Current Input (Primary Current)	0~50 / 100 / 200 / 300 A
Burden (Per Phase)	Below 0.2 VA
Communication	
Default Port	RS-485
Number of Node	31 Node (Max)
Protocol	Modbus RTU
Speed	9,600 ~ 38,400 bps

Other	
LCD Display	1.5 inch Display 84 x 48 pixel monochrome
Non-volatile memory cycle	20 years
RTC	No
Weight	Approx. 0.6kg
Environmental Conditions	

Operation Temp : -20℃~50℃

Storage Temp : -25℃~60℃

Humidity : 20~90% Non-Condensing

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ZEROME B4

3 Phase : 4 Channel , Single Phase : 12 Channel

Measuring Branches Circuit

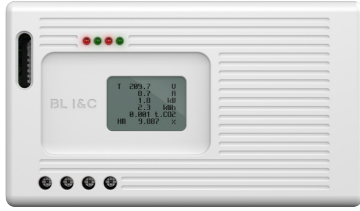|	
CPU	ARM 32bit Cortex 72MHz
Memory	Flash : 256KByte, SRAM : 48KByte FRAM : 16Kbit
Communication	RS-485 (Modbus RTU)
LCD Display	1.5 inch Display 84 x 48 Pixel Monochrome
SIze	167W * 97D * 25H
Mount	Din Rail Mount

Parameter	Range	Accuracy (%)	Remarks
Voltage	VL-L = 660Vac	±0.3% F.S	VL-N = 265Vac
Current	0 ~ 300 A	±0.3% F.S	
Frequency (Hz)	42 ~ 65	±0.1% F.S	
Power Factor (pF)	-0.95 ~ +1.00	±0.5% F.S	
Effective Power (kW)	76kW (Each Phase)	±0.5% F.S	
Reactive Power (kVar)	76kW (Each Phase)	±0.5% F.S	
Effective Power Electricity (kWh)	76kW (Each Phase)	±0.5% F.S	

Input Ratings	Value
Parameter	
Nominal Frequency	50 / 60 Hz
AC Voltage	3 phase 4 line / 3 phase 3 line
Control Voltage	85 ~ 265 Vac
Maxmum L-N Voltage	265 Vac
Maxmum L-L Voltage	660 Vac
Burden (Per Phase)	Below 0.5 VA
Isolation	Galvanic Isolation
AC Current	
Current Input (Primary Current)	0~50 / 100 / 200 / 300 A
Burden (Per Phase)	Below 0.2 VA
Communication	
Default Port	RS-485
Number of Node	31 Node (Max)
Protocol	Modbus RTU
Speed	9,600 ~ 38,400 bps

Other	
LCD Display	1.5 inch Display 84 x 48 pixel monochrome
Non-volatile memory cycle	20 years
RTC	No
Weight	Approx. 0.6kg
Environmental Conditions	
Operation Temp : -20℃~50℃	
Storage Temp : -25℃~60℃	
Humidity : 20~90% Non-Condensing	

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ZEROME B8

3 Phase : 8 Channel , Single Phase : 24 Channel

Measuring Branches Circuit

CPU	ARM 32bit Cortex 72MHz
Memory	Flash : 256KByte, SRAM : 48KByte FRAM : 16Kbit
Communication	RS-485 (Modbus RTU)
LCD Display	1.5 inch Display 84 x 48 Pixel Monochrome
SIze	167W * 97D * 25H
Mount	Din Rail Mount

Parameter	Range	Accuracy (%)	Remarks
Voltage	VL-L = 660Vac	±0.3% F.S	VL-N = 265Vac
Current	0 ~ 300 A	±0.3% F.S	
Frequency (Hz)	42 ~ 65	±0.1% F.S	
Power Factor (pF)	-0.95 ~ +1.00	±0.5% F.S	
Effective Power (kW)	76kW (Each Phase)	±0.5% F.S	
Reactive Power (kVar)	76kW (Each Phase)	±0.5% F.S	
Effective Power Electricity (kWh)	76kW (Each Phase)	±0.5% F.S	

Input Ratings	Value
Parameter	
Nominal Frequency	50 / 60 Hz
AC Voltage	3 phase 4 line / 3 phase 3 line
Control Voltage	85 ~ 265 Vac
Maxmum L-N Voltage	265 Vac
Maxmum L-L Voltage	660 Vac
Burden (Per Phase)	Below 0.5 VA
Isolation	Galvanic Isolation
AC Current	
Current Input (Primary Current)	0~50 / 100 / 200 / 300 A
Burden (Per Phase)	Below 0.2 VA
Communication	
Default Port	RS-485
Number of Node	31 Node (Max)
Protocol	Modbus RTU
Speed	9,600 ~ 38,400 bps

Other	
LCD Display	1.5 inch Display 84 x 48 pixel monochrome
Non-volatile memory cycle	20 years
RTC	No
Weight	Approx. 0.6kg
Environmental Conditions	
Operation Temp : -20℃~50℃ Storage Temp : -25℃~60℃ Humidity : 20~90% Non-Condensing	

For more information
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