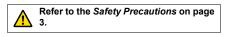
Portable Power Monitor ZN-CTX/-CTM

Easy and Quick "Checking Power" at the Worksite

- Display and record power consumption without stopping the power supply.
- · Battery driven, mounted with a magnet, and super thin.
- Easy installation with only a CT to install.
- Special PC Software Multi Data Viewer Light* available easily graph total power consumption.
- Download the PC Software Multi Data Viewer Light from the following OMRON website (http://www.fa.omron.co.jp/multi-d-v-e).



Ordering Information

Portable Power Monitor

Logging unit

Appearance	Product name	Model	Power supply
	Logging unit	ZN-CTX21-A	Battery/DC cable



Dedicated CT unit (Branch type)

Appearance	Product name	Model
0	Branch cable (cable length 1.3 m)	ZN-CTM11-C
•	_	ZN-CTM11-5A
U		ZN-CTM11-50A
U	Split type CT Connector: For connecting the branch cable	ZN-CTM11-100A
	Cable length: 0.2 m	ZN-CTM11-200A
U		ZN-CTM11-400A
	Clamp type CT Connector: For connecting the branch cable Cable length: 0.2 m	ZN-CTM51-200A

Guideline for selecting dedicated CT unit

Model Applicable circuits	Branch cable ZN-CTM11-C	CT exclusive for branch type ZN-CTM⊡-⊡A*	
Single-phase 2-wire	1	1	
Single-phase 3-wire	1	2	
Three-phase 3-wire	1	2	
Three-phase 4-wire	1	3	
(Necessary quantity is indicated in the table			

You can connect up to three Branch-type CT Units to the Branch Cable. Be sure, however, not to connect a CT of different rated current. Correct measurement will be blocked.

Optional

Appearance	Product name	Model
8	Mounting magnet	ZN9-EM01-S
	DC cable Connector: Straight type Cable length: 2 m (A set is attached to Model ZN-CTX21-A.)	ZN9-ED01-S
	DC cable Connector: Right angle type Cable length: 2 m	ZN9-ED02-S
	Environmental Visualization Software *1*2 Wave Inspire ES *3	ZN-SW11-S

*1. This software has the following merits.

- Real-time monitoring of waveforms is available. Monitoring is synchronized with temperature/humidity sensors and other
- environmental sensor series units
- Data is displayed on layout drawings.
 *2. Operating environment/OS: Microsoft Windows 10 (32 bit/64 bit)/ Microsoft Windows 11 (64 bit) CPU: Intel convertible processor 1 GHz minimum Memory: 1 GB minimum (2 GB or greater is recommended)
 *3. Supportable version is Ver. 2.4.0 or later.

Ratings and Specifications

Logging unit (rating)

Item Model	ZN-CTX21-A
Connectable sensor	ZN-CTM 1- A
Display	7-seg. 5-digit 2-step LCD display, auxiliary information indicator displays
Recording Interval	1 s, 2 s, 5 s, 10 s, 20 s, 30 s, 1 min. *1
Calculation functions *2	Momentary power, Integrated power consumption
Measurement Mode	Normal mode, Sleep mode *3, High-speed logging mode *4
Recording Mode	Continue mode *5, Ring mode *6
External Output	Alarm output (Photocoupler output) *7
Internal storage device	Internal memory: approx. 6500 data items
External storage device	SD card (measured value and converted value saving/set value saving and reading), Recommended SD card: HMC-SD292 (2 GB) and HMC-SD492 (4 GB) (manufactured by OMRON) *8
Power Supply	DC input: 24 VDC ±10%; Batteries: Two AAA batteries *9
Current Consumption	80 mA max.
Battery Life *10	Approx. 1 week *11
Operating Temperature	Battery Supply: -10°C to 60°C (no condensation or icing)
Operating Humidity	20% to 85% (no condensation or icing)
Storage Humidity/ Temperature	-15°C to +60°C, 20% to 85% (no condensation or icing)
Insulation Resistance	20 MΩ (500 VDC)
Withstand Voltage	1000 VAC, 50/60 Hz, 1 min.: Between the case and current input circuit
Vibration Resistance	With mounting screws: 10 to 150 Hz, 0.7 mm double amplitude, acceleration: 50 m/s ² for each in X, Y and Z directions for 80 min. With mounting magnets: 10 to 55 Hz, 0.3 mm double amplitude, acceleration: 20 m/s ² for each in X, Y and Z directions for 50 min.
Shock Resistance	150 m/s ² in 6 directions (+/–X, +/–Y, and +/–Z directions), 3 times each *12
Material	ABS
Degree of Protection	IP30
Mounting	Magnet mounting, screw mounting, hook
Weight (in Package)	Approx. 500 g
Accessories	Instruction Sheet, Startup Guide, Mounting Magnets *13, Alarm Output Connector *14, DC Cable, and Ferrite Core

In high-speed logging mode, data is recorded in 83 ms at 60 Hz and in 100 ms at 50 Hz. *1. *2.

Momentary power and integrated power values are converted from the measured current. Correctly specify the number of used channels, application circuit, CT type, frequency, voltage, and power factor. The display turns OFF after 10 seconds of no user operation and recovers by a key operation when SLEEP mode is specified LAN cannot be used when sleep mode is specified *3.

3. The display turns OFP and no seconds of horse operation and recovers by a key operation when SLEEP mode is specified
*4. Ethernet cannot be used during high-speed logging.
*5. Automatically writes the data to the SD memory card when the internal memory reaches its capacity and continues recording until the SD card memory capacity reaches its limit. The unit stops operation if there is no SD memory card inserted when the internal memory reaches its capacity. (Recording can be resumed after inserting an SD memory card and outputting the data to it at a press of button.)
*6. Continues the recording of the latest measured values until the internal memory reaches its capacity. (If the internal memory capacity exceeds the capacity, data is overwritten from the oldest one in the memory.)
*7. Output when the integrated power upper limit specified inTHR mode is exceeded. An alarm output is not available in SLEEP mode.
*8. When using a third party SD card, it is recommended to use a reliable and durable industrial SD card (SD standard or SDHC standard (not compliant with SDXC standard), Class 4 or higher, flash memory type SLC or MLC type). You must confirm the operation of the SD card yourself.
*9. Nickel-metal hydride cells or alkaline dry cells can be used. Manganese battery cells cannot be used.
*10. Battery life varies depending on the measurement environment, recording interval, operation mode as well as the battery type and performance.
*11. Conditions: Two AAA nickel-metal hydride cells; Sleep mode; Continue mode; Recording interval: 1 s; SD memory card: HMC-SD292; Operation temperature: 23°C; and Automatic range selection off
*12. The installation place must be free from physical shock when using mounting magnets.
*13. Already installed on the product by factory default.
*14. OMRON's XW4B-02B1-H1 connector.

Logging unit (rating)

Logging un	sogging unit (runig)			
ltem	Model	ZN-CTX21-A		
Primary side current	rated	Dedicated CT (5 A/50 A/100 A/200 A/400 A)		
Primary side input current		120% of rated current (Continue)		
Accuracy		±2.0%FS±1 digit (Ambient temperature 23°C, rated input, rated frequency) *		
Measurement frequency	target	50 Hz/60 Hz		
Recording va	lues	Current value, instantaneous power, integrated power consumption		
Applicable cit	rcuit	Single phase two-wire, single phase three-wire, three-phase three-wire, three-phase four-wire		
* Are a man of the	ام ما م ما ام ما			

* An error of the dedicated CT is not included.

Dedicated CT unit (rating and performance)

3,000 turns 10 Hz to 5 kHz	50A	100A	200A	400A	200A	
10 Hz to 5 kHz			* 			
			3,000 turns 6,000 turns			
Between output termin		10 Hz to 5 kHz				
Between output terminal and case: 50 M Ω minimum (500 VDC megohms)						
Between output terminal and case: 2,000 VAC 1 minute						
7.5 V clamp element						
100 times 5,000 times						
	9.5 mm dia. maximum	14.5 mm dia. maximum	24.0 mm dia. maximum	35.5 mm dia. maximum	23.0 mm dia. maximum	
-20°C to +60°C 85% maximum (no condensdtion or icing)						
-30°C to +65°C 85% maximum (no condensdtion or icing)						
480 VAC maximum						
7. n -2	5 V clamp element 20 times 9 mm dia. aximum 20°C to +60°C 85% r 30°C to +65°C 85% r 30 VAC maximum	5 V clamp element 20 times 9 mm dia. aximum 20°C to +60°C 85% maximum (no condens 30°C to +65°C 85% maximum (no condens 30 VAC maximum	5 V clamp element 200 times 9 mm dia. 9.5 mm dia. 14.5 mm dia. aximum 20°C to +60°C 85% maximum (no condensdtion or icing) 30°C to +65°C 85% maximum (no condensdtion or icing)	5 V clamp element 200 times 9 mm dia. aximum 9.5 mm dia. maximum 14.5 mm dia. maximum 24.0 mm dia. maximum 24.0 mm dia. maximum 20°C to +60°C 85% maximum (no condensdtion or icing) 30°C to +65°C 85% maximum (no condensdtion or icing) 30 VAC maximum	5 V clamp element 200 times 9 mm dia. 9.5 mm dia. 14.5 mm dia. 24.0 mm dia. 35.5 mm dia. maximum 20°C to +60°C 85% maximum (no condensdtion or icing) 30°C to +65°C 85% maximum (no condensdtion or icing) 30 VAC maximum	

Safety Precautions

\rm MARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.

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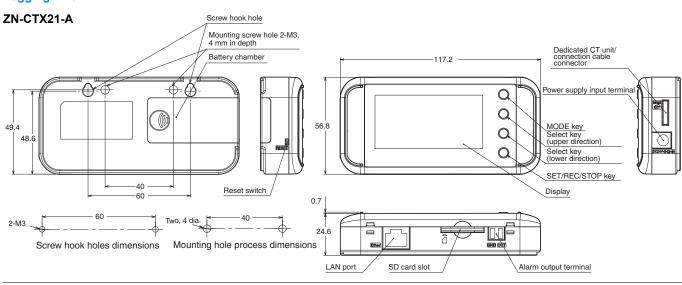
The sensor head connector and the CT input circuit of the Portable Power Monitor ZN-CTX21 are not isolated. Extensive property damage, minor or moderate injury may be caused by the electrical flow through the product. Do not connect the dedicated connection cable to AC or DC power supplies. For technical information and product FAQs, refer to the "Technical Guide" on your OMRON website.

ZN-CTX/-CTM

Dimensions

(Unit: mm) Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

Logging unit

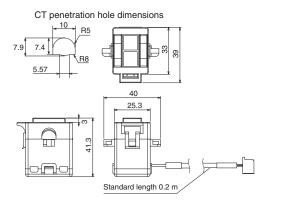


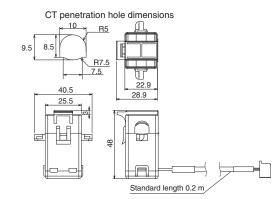
ZN-CTX/-CTM

Dedicated CT unit (Branch type)

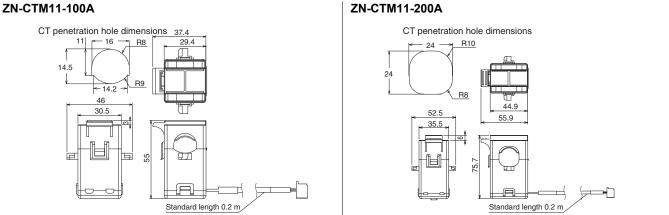


ZN-CTM11-50A



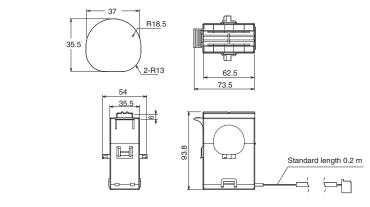


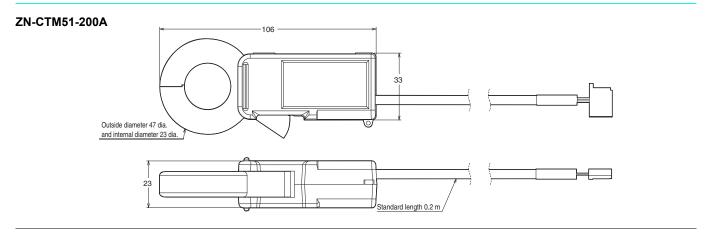
ZN-CTM11-200A



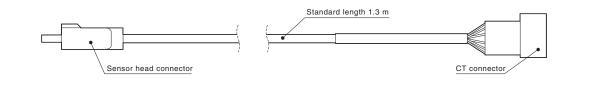
ZN-CTM11-400A

CT penetration hole dimensions





ZN-CTM11-C



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