

Digital clamp meter AX-3550



Instruction Manual





1. Safety Information

To avoid possible electric shock or personal injury, and to avoid possible damage to the Meter or to the equipment under test, adhere to the following rules:

- 1. Before using the Meter inspect the case. Do not use the Meter if it is damaged or the case (or part of the case) is removed. Look for cracks or missing plastic. Pay attention to the insulation around the connectors.
- 2. Inspect the test leads for damaged insulation or exposed metal. Replace damaged test leads with identical model number or electrical specifications before using the Meter.
- 3. Do not apply more that the rated voltage, as marked on the Meter.
- 4. When measurement has been completed, disconnect the connection between the test leads and the circuit under test, remove the esting leads away from the input terminals of the Meter and turn the Meter power off.
- 5. Do not carry out the measurement when the Meter's back case and / or battery door is opened to avoid electric shock.
- 6. When the Meter working at an effective voltage over 30V in AC, special care should be taken.
- 7. Use the proper terminals and functionyou're your measurements.
- Do not use or store the Meter in an environment of high temperature, humidity, explosive, inflammable and strong magnetic field. The performance of the Meter may deteriorate after dampened.
- 9. Do not use the Meter if the surface of it is wet or the user's hands are wet.
- 10. When using the test leads, keep your fingers behind the finger guards





2. Function

Button	Operation Performed
	Press HOLD to enter the Hold mode any mode, Happears and the Meter beeps.
HOLD	Press HOLD again to exit the Hold mode to return to measurement mode, the Meter beeps and, Hdisappears.
筆	Press the backlight button when needed. Auto shut-down backlight after lighting 20secs.Press the button again, turn the backlight off manually
	At Active power (main display) + Phase angle (secondary display) mode, press Σ once button to sum up the current phase of 3 phase measurement result. Then carry out second phase power measurement.
Σ	Press $\pmb{\Sigma}$ and hold for over 1 second to sum up the phase power measurement result which had been selected.
	if you didn`t select any phase of 3 phase, $\pmb{\Sigma}$ is invaild.
	Press once to store single reading, and the Meter beeps. The index number shown on
SAVE	the left secondary display keep on increasing. The maximum number of data store is 99, when it achieves 99, the Meter shows \mathbb{FUL} .
	Press SEL button to step through first phase, second phase, third phase and sum of
SEL	watts.
	Press SEL and hold for over 2 second to enter 3P3W mode.
MAXMIN	Press to start recording of maximum it valid at voltage, current, active power and
	apparent power ranges only.
CI 545	At active energy range, press CLEAR and hold for over 1 second to reset time the
CLEAR	zero, then restart the timing.
	At all other ranges, press CLEAR and hold for over 1 second to clear stored





	readings.
MR	Press once to enter Memory Record mode, Will R appears and the Meter beeps.
o / o	If the Meter steps through sum of power press <pre>□/□</pre> button to switch display of active power (main display) , sum of reactive power (secondary display) , sum of power factor (main display) and sum of apparent power.
	In the MR mode, press ¤/¤ to select recoded data.
USB	Measurement data will be sent to the PC

2.1. Additional inforamtion

- 1. Turn the rotary switch deasil to make the position away from the OFF position. Hearing a beep sound indicates the meter is turned on. The LCD displays all symbols firstly and then return to the normal mode. If the symbol
- 2. After auto-shut-off, there are some parts of the circuit of the meter which is still work. If no measurement needed in a longer time, you'd better turn the rotary switch back to the OFF position.
- Press the backlight button when needed. Auto shut-down backlight after lighting 18secs.Press the button again, turn the backlight off manually

3. Display symbols



Figure 1





USB	Data Output is in progress
ø1	First phase symbol
ø2	Second phase symbol
ø 3	Third phase symbol
h	Unit for hour
mm	Unit for minute
HZ	Hz: Hertz. The unit of frequency.
PG	PG: The unit of phase angle
KVAr	KVAr. The unit of reactive power
ΣW	Watt: Sum of Watt
	The battery is low.
	\triangle Warning: To avoid false readings, which could lead to possible electric shock or personal injury, replace the battery as soon as the battery indicator appears.
S	Unit for second
MAX/MIN	Maxinum and Minimum reading
000000000000000000000000000000000000000	Analogue Bar Graph
\triangleright	Overloading
20 40 60 60 100 1 <u>11111111111111111111111111111111</u>	Ruler
CLEAR	Indicator for clear the stored reading



	Negative symbol
4	High voltage symbol
AC	Indicator for AC voltage or current
MR	Indicator for recall the stored reading
Hz	Frequency symbol
MEM	Indicator for data store
FUL	Indicator for data stored is full
	Data hold is active

4. Specifications

AC Voltage (True RMS)

Range	Resolution	Accuracy	Allowable Maximum overload protection voltage	Input Impedance	Frequency Range
100V					
400V	0.1V	±(1.2%+5)	750 RMS	10M	50Hz~200Hz
750V					

Frequency

Range Resolution	Accuracy
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5047.20047	14-	$\pm (0.5\% \pm 5)$
JULIZ~ZUULIZ	1112	±(0.J/0+J)

AC Current (True RMS)

Range	Resolution	Accuracy	Allowable Maximum overload protection current	Frequency Range
40A	0.14			
100A	0.1A			
400A		±(2%+5)	1000A RMS	50Hz~60Hz
1000A	1A			

Active Power ($W=V \times A \times COS\theta$)

Current / Voltage		,	Voltages Ran	ge
		100V	400V	750V
Current Range	40A	4.00KW	16.00KW	30.00KW
	100A	10.00KW	40.00KW	75.00KW





	400A	40.00KW	160.0KW	300.0KW
	1000A	100.0KW	400.0KW	750.0KW
Accuracy			±(3%+5)	
Resolution		<1000KW	: 0.01KW 100)kW: 0.1KW

Apparent Power (VA = $V \times A$)

Current / Voltage		Voltages Range		
		100V	400V	750V
	40A	4.00KVA	16.00KVA	30.00KVA
Current Range	100A	10.00KVA	40.00KVA	75.00KVA
	400A	40.00KVA	160.0KVA	300.0KVA
	1000A	100.0KVA	400.0KVA	750.0KVA
Accuracy		±(3%+5)		
Resolution		<1000KVA: 0.01KVA 100kW: 0.1KVA		

Reactive Power (Var = $V \times A \times SIN\theta$)

Current / Voltage	Voltages Range





		100V	400V	750V
	40A	4.00KVAr	16.00KVAr	30.00KVAr
Current Range	100A	10.00KVAr	40.00KVA	75.00KVAr
	400A	40.00KVAr	160.0KVAr	300.0KVAr
	1000A	100.0KVAr	400.0KVAr	750.0KVAr
Accuracy		±(3%+5)		
Resolution		<1000KVAr: 0.01KVAr 100kW: 0.1KVAr		

Power Factor (PF = W / VA)

Range	Accuracy	Resolution	Measuring Condition
0.3~1 (capacitive or inductive)	±0.022	0.001	The minimum measuring current 10A The minimum measuring voltage 45V
0.3-1 (capacitive or inductive)	For refer	ence only	Measuring current less than 10A OR Measuring voltage less than 45V

Active Energy (kWh)

Range	Accuracy	Resolution
1~9999kWh	±(3%+2)	0.001kWh





Phase Angle (PG=acos (PF))

Range	Accuracy	Resolution	Measuring Condition
0 ⁰ ~90 ⁰ (capacitive or inductive)	±2 ⁰	1 ⁰	The minimum measuring current 10A The minimum measuring voltage 45V
0° ~90° (capacitive or inductive)	For reference only		Measuring current less than 10A OR Measuring voltage less than 45V

Remarks:

- Allowable maximum overload protection voltage: 750V RMS
- Allowable maximum overload protection current: 1000A RMS

Basic Functions	Range	Best Accuracy
AC Voltage	100V/400V/750V	±(1.2%+5digits)
AC Current	40A/100A/400A/1000A	±(2%+5 digits)
Active Power	0.01kW-750kW	±(3%+5 digits)
Apparent Power	0.01kVA-750kVA	±(3%+5 digits)
Reactive Power	0.01kVAr-750kVAr	±(4%+5 digits)





Power Factor	0.3~1(Capacitive or Inductive)	±(0.02+2 digits)
Phase Angle	0 [°] ~90 [°]	±2°
Frequency	50Hz-200Hz	ſ
Active Energy	0.001~9999 kWh	±(3%+2 digits)
Temperature	-50°C~1300°C -58°F~2372°F	
Special Functions		
Auto Ranging		Г
Single-phase 2-wire		ſ
Balance 3-phase 3- wire		ſ
3-phase 4-wire		ſ
True RMS	AC Voltage or Curren	ſ
Data Logging	99	ſ
Data Recall		ſ
Max/Min Mode		ſ
Data Hold		ſ
USB		ſ
Display Backlight		ſ
Full Icon Display		Г





Sleep Mode		ſ
Low Battery Display		ſ
Input Impedance for AC Voltage Measurement	Around 10MW	ſ
Max. Display	9999	ſ
Analogue Bar Graph		ſ

5. Battery replacement

- 1. Replace the battery as soon as the battery indicator appears. With a low battery, the Meter might produce false readings that can lead to electric shock and personal injury.
- 2. When opening the battery door, must make sure the Meter is power off.
- 3. When servicing the Meter, use only the same model number or identical electrical specifications replacement parts.
- 4. Battery type: 9V battery.