

LEAKAGE CLAMP METER FOR ARRESTER

Model **ALCL-40**



GENERAL

This model ALCL-40 mainly measures very small leakage current of grounding line connected with Arrestor, etc. The CT which is applied to this model is hardly affected by external magnetic field and therefore, model ALCL-40 can measure leakage current very accurately in high magnetic and electric field

SPECIFICATIONS

- 1) CT Sensor
 - Inside Diameter of CT : 40mm
 - Structure : Apart from Measuring Part
- 2) Measuring Part
 - Measuring Function : Leakage Current, Harmonic Current(Dominant & Third Wave)
 - Measuring Method : CT Clamp-on Method
 - Measuring Range : 0-300 μ A/3mA/30mA(3range manual)
 - Input Frequency : 45-60Hz(Dominant Wave Frequency)
 - AC Conversion : RMS Detection Method
 - A/D Conversion : Double Integration Method
 - Display : 3200 count max.,LCD
 - Sampling Rate : 2 times/second
 - Over Indication : "OL" on the display
 - Low Battery Indication : "B" sign on the display
 - Data Hold Function : "DH" sign on the display
 - Auto Power Off : Approx.10 minutes after power on
 - Other Function : Motor Drive Switch for CT open/close
- 3) General Specs.
 - Power Supply : AA size Alkaline battery \times 4
 - Operating Circuit Voltage : Less than 500V AC
 - Operating Temperature : 0~40°C, less than 80%RH, w/o condensation
 - Storage Temperature : -10~60°C, less than 70%RH, w/o condensation
- 4) Accuracy (23°C)5°C, less than 80%RH)
 - 4-1 AC Current

Range	Resolution	Accuracy(45~65Hz)	Max.Applicable Current
300 μ A	100nA(0.1 μ A)	1.2% \pm 8digit	40A rms
3mA	1 μ A(0.001mA)		
30mA	10 μ A(0.01mA)		

AC Conversion : RMS Detection Method

Crest Factor : <3 (0~50% of the range)

<2 (50~100% of the range)

4-2 Harmonic Current(Dominant Current, 3rd Harmonic Current)

Detection Method : Automatic Tuned Filter

Min. Dominant Current Input : more than 3% of each range

Accuracy : (1% \pm 5digit) \pm (AC Current Accuracy) - (Tolerance influenced by adjacent frequency)

* In case that the harmonic current is more than 4% of the dominant wave

Tolerance influenced by adjacent frequency : 1.5%

DIGITAL HARMONICS TESTER

Model **HWT-300**

Measurement for harmonics on current



FEATURES

- The best monitor for determining harmonic distortion levels in the field use.
- Measures harmonics current flow up to the 25th harmonic.
- Small size, light weight, low cost.
- Easy to use with clamp-on operation.

SPECIFICATIONS

General Specification	
Measuring method	: Dual integration mode with true rms reading
Measuring function	: Load current & leakage current (All pass mode), harmonics current (Harmonics mode)
Display	: 3.5 digit LCD, max. reading of 4000
Range	: 0~400mA/4A/40A/300A
Input frequency	: 45Hz~65Hz
Jaw opening capability	: 40mm ϕ
Over range indication	: "OL" mark on LCD readout
Low battery indication	: "B" mark on LCD readout
Sampling time	: 2 times/s
Data hold indication	: "DH" mark on LCD readout
Data output	: DC 100mV for full scale (400mA/4A/40A range) DC 75mV for full scale (300A range)
Affection of magnetic fields	: Less than 3mA (100A nearby conductor)

- Auto power off : The meter is set to power off mode approx. 10 minutes after the power switch on.
- Withstanding voltage : AC 2200V, 1 minute max. (Between the core of CT and outer case)
- Limitation of circuit voltage : Less than AC 600V
- Operating temperature : 0°C \pm 40°C, <80%RH (Non-condensing)
- Storage temperature : -10°C \pm 60°C, <70%RH (Non-condensing)
- Power supply : 1.5V ("AAA" size, R03) \times 3 or AC adaptor (Optional)
- Power consumption : Approx. 13mA
- Battery life : Approx. 50 hours (Manganese battery)
- Size : 68(W) \times 207(H) \times 33(D)mm
- Weight : Approx. 430g
- Accessories : Carrying case.....1 Instruction manual.....1 Batteries3

Measuring Mode

1. All pass mode accuracy : 400mA, 4A, 40A range; \pm 1% rdg \pm 8 dgt
300A range; \pm 1% of full scale
2. Harmonics mode
 - Measuring method : Synchronous filter
 - Measurable harmonics : Fundamental frequency to 25th harmonics
 - Minimum fundamental input current : More than 5% of full scale in each range
 - Accuracy (23°C \pm 5°C) : 1% rdg \pm 5 dgt
 - Error by neighboring harmonics

Harmonics	※ Harmonics component ratio of the neighboring frequency	Typical accuracy
5th	65%	\pm 3% rdg \pm 5 dgt
7th	41%	\pm 3.5% rdg \pm 5 dgt
11 · 13th	20%	\pm 4% rdg \pm 5 dgt
15~23rd	10%	\pm 5% rdg \pm 5 dgt

※ For example : The neighboring frequency of 5th harmonic means 4th harmonic and 6th harmonic. If the harmonic component ratio of 4th harmonic and 6th harmonic is 65%, the typical accuracy will be \pm 3% rdg \pm 5 dgt.