

# LEAKAGE CLAMP METER FOR ARRESTER

Model **ALCL-40/ALCL-40L**



Model ALCL-40L



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 $\mu$ 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 $\sim$ 40 $^{\circ}$ C, less than 80%RH, w/o condensation
  - Storage Temperature: -10 $\sim$ 60 $^{\circ}$ C, less than 70%RH, w/o condensation
- 4) Accuracy (23 $^{\circ}$ C)5 $^{\circ}$ C, less than 80%RH

### 4-1 AC Current

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

- AC Conversion : RMS Detection Method
- Crest Factor : <3 (0 $\sim$ 50% of the range)  
<2 (50 $\sim$ 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%