**LEAKAGE CLAMP METER FOR ARRESTER**

**MODEL ALCL-40L / ALCL-40**

- Diagnostic Indicator of Oxide Surge Arresters in Service
- Easy, Fast, Operation
- Just Clamp on to the Grounding Earth of Arresters
- Safety Design (Model ALCL-40L)
  - Motor Operated Opening/Closing CT Jaw
  - Extension ABS and Glass Fiber Rod (Max. 2680mm Long)
- Measurement
  - True RMS Leakage Current
  - Dominant and Third Harmonic Current

1. **GENERAL**

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

2. **SPECIFICATIONS**

(AlCL-40L)

1) **CT Sensor**
   - Inside Diameter of CT: 37mm
   - Structure: Apart from Measuring Part

2) **Measuring Part**
   - Measuring Function: Leakage Current, Harmonic Current (Dominant & Third)
   - Measuring Method: CT Clamp-on Method
   - Measuring Range: 0-300 μA/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 (ALCL-40L)

3) **General Specs.**
   - Power Supply: AA size Alkaline battery x 4
   - Power Consumption: Approx. 20mW
   - Operating Circuit Voltage: Less than 500V AC
   - Operating Temperature: 0~50°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

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy (45~65Hz)</th>
<th>Max. Applicable Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 μA</td>
<td>100nA (0.1 μA)</td>
<td>1.2% ± 8 digit</td>
<td>40A rms</td>
</tr>
<tr>
<td>3mA</td>
<td>1 μA (0.001mA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30mA</td>
<td>10 μA (0.01mA)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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% ± 5 digit) ± (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%

(Influence of External Magnetic Field: Less than 10 μA nearby 400A turns)

**MOTOR OPERATED OPENING/CLOSEING CT JAW (ALCL-40L)**

Dimensions & Weight: 160(W) × 950(H) × 84(D) (when retracted), Approx. 2600gs
160(W) × 2680(H) × 84(D) (when extended)

**LCD DISPLAY (ALCL-40L)**

Dimensions & Weight: CT Part 135(W) × 166(H) × 61(D)mm
Approx. 1000gs
Display Part 95(W) × 160(H) × 34(D)mm
Approx. 260gs