# **Digital Arrester Clamp Tester**

Leakage & Harmonics Current Measurements For Arrester Model ALCL-40



## GENERAL

Lightning arresters are designed to protect a power distribution system by shunting to ground the high voltage surges caused by lightning.

ALCL-40 measures to warn that an arrester is damaged or deteriorating and should not be energized.

## FEATURES

- •ALCL-40 is designed to test the diagnostic of OXIDE SURGE ARRESTER
- •The least influence from the external magnetic field and noise by triple shielding for CT
- •Compliant with IEC6099-5
- •Enabled the measurement for 100nA resolution and harmonics current

## **SPECIFICATIONS**

CT Sensor	
СТ	∶ <b>ø</b> 37mm
Opening/closing of the jaw	Spring operation
Withstanding voltage	AC2200V, 1 minute between the core of CT and CT
	outer case
Measuring & Display Unit	
Measuring function	: Leakage current, Harmonic current(Fundamental &
	third harmonics)
Measuring method	: CT clamp sensor
Measuring range	: 0-300 µ A/3mA/30mA(3range manual)
Input frequency	: 45-60Hz
AC conversion	AC coupled true rms responding
A/D conversion	: Dual slope integration mode
Display	: LCD 3200 count max.,
Sampling rate	: 2 times/sec
Over indication	: "OL" mark on LCD
Low battery Indication	: "B" mark on LCD
Data hold function	: "DH" mark on LCD
Auto power off	Approx.10 minutes later after power on
Power supply	AA size Alkaline battery x 4
Power consumption	: Approx. 20mW
Limitation of circuit voltage	: Less than 500V AC
Operating Temperature	$0\sim 40^{\circ}$ C, less than 80%RH, w/o condensation
Storage Temperature	:-10~60°C, less than 70%RH, w/o condensation
Dimensions & Weight	: Unit : 95(W)x160(H)x34(D)mm, 260gs
	CT : 135(W)x166(H)x61(D)mm,1000gs
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### AC Current

Range	Resolution	Accuracy( $45 \sim 65$ Hz)	Max.Input Current
$300\mu\mathrm{A}$	100nA(0.1 μ A)	*	
3mA	1 μ A(0.001mA)	$1.2\%\pm 8 { m digit}$	40A rms
30mA	10 μ A(0.01mA)		
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Crest factor : <3 (0~50% of the range) <2 (50~100% of the range)

#### Harmonic Current Measurement (Fundamental & third harmonics)

Measuring method	: PLL method
Minimum fundamental input	: More than 3% of full scale in each range
Accuracy	$: (1\% \pm 5 \text{digit}) \pm (\text{Basic accuracy of ACA})$
	– (Error by neighboring harmonics)

#### \*Accuracy specified : More than 4% harmonics are necessary against fundamental harmonics

Accessories	: Carrying case	
	Instruction manual	