Digital Arrester Clamp Tester

Leakage & Harmonics Current Measurements For Arrester

Model ALCL-40L

GENERAL

Lightning arresters are designed to protect a power distribution system by shunting to ground the high voltage surges caused by lightning. ALCL-40L measures to warn that an arrester is damaged or deteriorated 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
- Motor operation for opening/closing of the jaw with extensional ABS glass fiber insulation rod

SPECIFICATIONS

CT Sensor

CT	: ϕ 37mm
Opening/closing of the jaw	: Motor operation
Withstanding voltage	: AC 2300V,1 minute(Between the core of CT and CT outer case)

Measuring and display unit

Measuring function	: Leakage current, Harmonic current (Fundamental & third harmonics)
Measuring method	: Dual slope integration mode
Measuring range	: AC 0-300 μ A/3mA/30mA(3range manual)
Input frequency	: 45-60Hz(Fundamental frequency)
AC conversion	: AC coupled true rms responding
Display	: LCD Max. 3200 count
Sampling	: 2 times/sec.
Over indication	: "OL"mark on LCD
Low battery indication	: "Low" mark on LCD
Data hold indication	: "DH" mark on LCD
Auto power off function	: Approx.10 minutes later after power on
Power supply	: AA size alkaline battery x 4
Limitation of circuit voltage	: Less than 500V AC
Operating temperature	: 0-40℃, less than 80%RH, w/o condensation
Storage temperature	: -10~60℃, less than 70%RH, w/o condensation
Dimensions	: 160(W)×950(L)×84(D)(When retracted) : 160(W)×3680(L)×84(D)(When stretched)
Weight	: Approx.2.6kgs

AC Current

Accuracy (23℃±5℃, less than 80%RH)

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

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%±5digit)±(Basic accuracy of ACA) – (error by neighboring harmonics)

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

Accessories : CT cover case……1
Instruction manual….. 1