

MULTI

ALCL-40 / ALCL-40L

LIGHTNING ARRESTER LEAKAGE CURRENT MONITOR

Description

Models **ALCL-40/ALCL-40L** measures very small leakage current of grounding line connected with lightning arrester. Specially developed measuring CT is hardly affected by external magnetic field/electric field. Models **ALCL-40/ALCL-40L** can measure leakage current very accurately in high magnetic and electric field.



The Necessity

Lightning arresters are designed to protect a power system by shunting the high voltage surges caused by lightning to the ground. **ALCL-40/ALCL-40L** measures the leakage current to warn that an arrester is damaged or deteriorated and should not be energized. It is a diagnostic indicator of oxide surge arrester in service. It helps in making decision regarding the healthiness of surge arresters.

Salient Features

- The least influence from external magnetic field and noise by triple shielding for CT
- Measurement with a resolution of 100nA with maximum accuracy
- Motor operation for opening/closing of the jaw with extensional glass fiber insulation rod
- Harmonic current measurement
- Easy & fast operation : Just clamp on to the grounding earth of arresters
- Measurement of true RMS leakage current (Dominant and third harmonic current)
- Compliant with IEC 60099-5-B1



An ISO 9001 : 2015 Company

Specifications

CT Sensor	ALCL-40	ALCL-40L*
CT	φ 40mm	φ 40mm
Opening/closing of the jaw	Spring operation	Motor operation
Withstanding voltage	AC 2200V, 1 minute between the core of CT and CT outer case	AC 2200V, 1 minute between the core of CT and CT outer case

Measuring & Display Unit	ALCL-40	ALCL-40L
Measuring function	Leakage current, Harmonic current (Fundamental & third harmonics)	Leakage current, Harmonic current (Fundamental & third harmonics)
Measuring method	CT Clamp on method	CT Clamp on method
Measuring range	0-300 μA/3mA/30mA (3 ranges)	AC 0-300 μA/3mA/30mA (3 ranges)
Input frequency	45-60Hz	45-60Hz
AC conversion	AC coupled true RMS responding	AC coupled true RMS responding
A/D conversion	Dual slope integration mode	Dual slope integration mode
Display	LCD 3200 count max.	LCD 3200 count max.
Sampling rate	2 times/sec	2 times/sec
Over indication	"OL" mark on LCD	"OL" mark on LCD
Low battery Indication	"B" mark on LCD	"Low" mark on LCD
Data hold function	"DH" mark on LCD	"DH" mark on LCD
Auto power off	Approx. 10 minutes later after power ON	Approx. 10 minutes later after power ON
Power supply	AA size Alkaline battery x 4	AA size Alkaline battery x 4
Power consumption	Approx. 20mW	Approx. 20mW
Limitation of circuit voltage	Less than 500V AC	Less than 500V AC
Operating Temperature	0~50 , less than 80% RH, w/o condensation	0~50 , less than 80% RH, w/o condensation
Storage Temperature	-10~60 , less than 70% RH, w/o condensation	-10~60 , less than 70% RH, w/o condensation
Dimensions & Weight	Unit : 95(W)x160(H)x34(D)mm, 260 gms CT : 135(W)x166(H)x61(D)mm, 1000 gms	160(W)x950(L)x84(D)(When retracted) 160(W)x3680(L)x84(D)(When stretched) Weight : Approx.2.6 kgs

AC Current

Range	Resolution	Accuracy	Max.Input Current
300mA	100 nA (0.1mA)	1.2% ±8 digit	40A RMS
3mA	1mA (0.001mA)		
30mA	10mA (0.01mA)		

Harmonic Current Measurement (Fundamental & third harmonics)

Measuring method : PLL method
 Minimum fundamental input : More than 3% of full scale in each range
 Accessories : Carrying case, Instruction Manual

*ALCL 40L has been designed to test leakage current of lightning arresters maintained at higher voltage levels, highly induced environments & clearances unaccessible for manual operation. ALCL 40L is equipped with extensional glass fibre insulation rod and motor operable jaw, making it easy-to-use, reliable & safe under highly induced testing environments.



TAURUS POWERTRONICS PVT LIMITED

Corporate Off.: No. 26, "Mahadimane", 12th Main, 1st Block, Rajajinagar, Bengaluru - 560 010. INDIA. Tel : + 91 80 23012301
 Email : info@tauruspowertronics.com, care@tauruspowertronics.com, Tollfree : 1800 425 2112, WhatsApp : +91 73496 44344
 Sales & Service Off.: No. 648/54, KLE College 2nd Block, Rajajinagar, Bengaluru - 560 010. INDIA , Tel : + 91 80 2352 2136/74

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