power

LPD

Line Phase Detector

Reliable and cost effective HV Line Voltmeter/Line Phasing Device

Energy distribution companies as well as medium and high voltage consumers such as heavy industries often have to parallel two HV sources to take care of requisite loads. This requires a reliable and safe instrument to check the line voltage and phase identification of the sources. Line Phase Detector LPD can be used for indoor and outdoor applications for the same with absolutely safe working conditions.

Design Features

The system consists of two high impedance probes, extension rod A with provision for fixing the indicating device, extension rod B with provision for interconnection with the indicating device, two earth cables with earth clamps. The high impedance probes can be connected to the extension rods in straight or right angle positions depending upon the convenience of use. The earth terminals of both the probes are connected to the safety earth for all measurements and personnel safety

A resistor divider network in series with each high impedance probe produces low voltage drop across it that is used for indicating the phase to earth or phase to phase voltage measurements

Safety Features

Line Phase Detector LPD has all the safety features necessary to safeguard the operator during high voltage testing. Probe tester is provided with the kit to ensure proper resistance and insulation of the same before the commencement of the test.

Suitable safety devices have been incorporated in the circuit to bypass excessive voltage across the indicating device and in turn the operator.

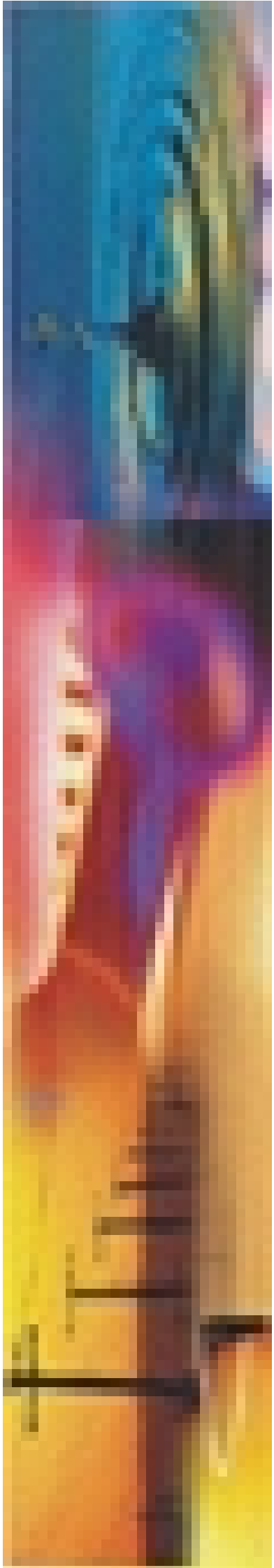
Two sets of suitable safety hand gloves have been provided for safe working condition

Most important safety feature of LPD is that, the interconnecting cable between the second probe and indicating device does not elevate to high voltage during phase identification tests. High voltage presence on this cable can cause flash over and severe accident.

Operation

When high impedance probe with indicating device is touched to a live phase, the line voltage is indicated on the meter. This is repeated for each phase of the two lines, before proceeding for phase identification tests.

When the interconnecting cable from other probe is connected to the indicating device, it goes into phase checking mode. The indicating device touched to any of the phases under test, deflect the meter needle in the center, marked SINGLE PHASE. When the second probe is touched to other phase, the meter needle deflects to the region marked OUT, if the two phases are out of phase with each other. It deflects to the region marked IN, if the two phases are in phase with each other. Based on the above results, the respective in-phases of the two sources are joined for parallel operation.



Configuration

The kits are available in the following configurations:

a) **Dedicated Unit:** suitable for particular system voltage, such as 6.6 /11/22/33 kV

b) **Versatile Unit :** kit containing pairs of high impedance probes for line voltages ranging from 6.6 kV 33 kV

System contents and accessories

High Impedance probes
250 mm/400 mm, Fiberglass tubes 16 mm/ 25 mm diameter
Weight : 130 gm / 200 gm
Qty : 2 nos.

Extension rods with earth cable
Rod A and B : 1200 mm each, Fiberglass tubes 16 mm/25mm with earth cable 5 meter length
and earth clamp
Weight : 1.7/ 2.1 kg each inclusive of cable and clamp
Additional extension rods can be provided on request.

Indicating device
Dimensions : 108 (H) x 97 (W) x 68 (D) mm
Weight : 370 gm
Qty : 1 no.

Probe tester
Battery operated 500/1000 V DC insulation tester
Dimensions : 145 (H) x 95 (W) x 57 (D) mm
Weight : 400 gm including batteries
Qty : 1 no.

Safety hand gloves
Two sets of safety hand gloves of 33 kV working grade are provided as standard accessories with the kit.

Carrying case
Soft carrying case to accommodate all the contents supplied with the kit.

Customer service
All instruments have been designed based on safety, capability, field application, ruggedness and ease of operations.
We try to offer the best possible solution for the job. We not only offer our after sales services to the customers through our branches/authorized agents, but also offer training to the working staff of the customer under specialized training programs