

Ariadna IF3

Live network LV lines phase identifier

Low voltage connectivity data (relates data from MV/LV transformer and phases with end user) results critical for the correct management of electrical distribution network. The use of this data in a GIS solution allows calculation of transformer load balances, faults, preventive maintenance tasks planning, etc., and at end, to guarantee the quality of the electrical supply.

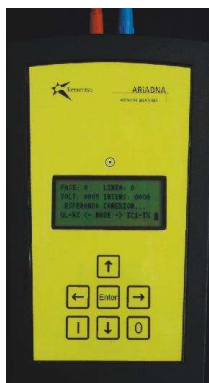


Central Unit (UC)

In order to cope with Electric Utilities needs, **Ariadna Instruments** has designed the **IF-3**, a Low Voltage phase identifier.

This equipment determines connectivity between subscribers and the phases of an MV/LV transformer substation in a fast, easy and reliable way.

Ariadna IF3 works without de-energizing the line, so electrical supply is kept throughout the identification process.



Line Unit (UL)

Main features:

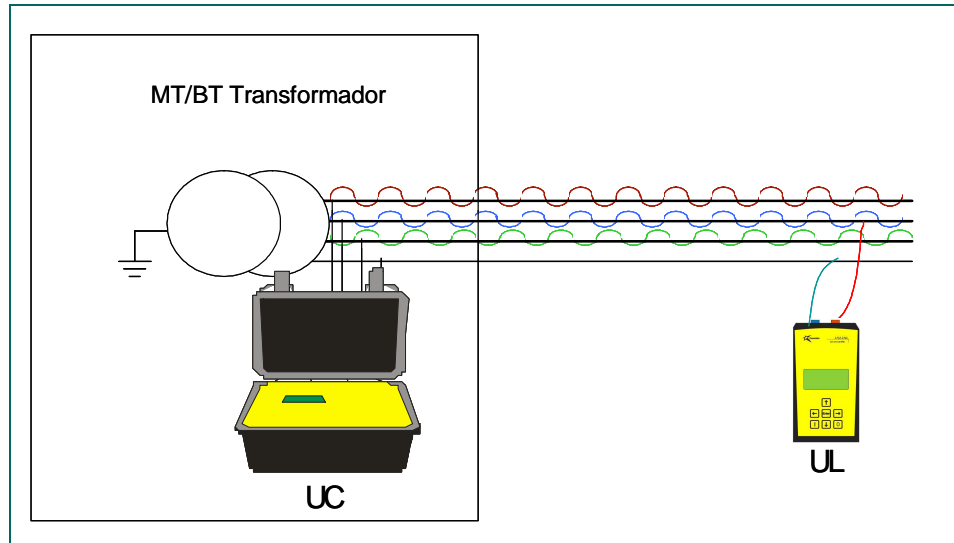
- Works in service, without de-energizing the line.
- Three phases can be identified in a few seconds.
- Proved efficiency in lines up to 1 km.
- Central and Line unit communicate with each other by means of coded messages through the Low Voltage network. This way the use of radio or other communication extra equipment is avoided.
- A single operator can easily use it.
- Operational for all kind of Low Voltage network configurations, up to 440 V between phases, 50 or 60 Hz, with coupled and/or ringed lines.
- "Plug and Play". Contains all features needed to start working, without any additional programming or adjust.

Working diagram

Ariadna IF3 phase identifier meets European Low Voltage Directive 73/23/CEE and is compliant with:

Central Unit (UC):
EN-50178, Electronic Equipment for use in power installations.

Line Unit (UL):
EN 61010-1 (Safety requirements for Electrical Equipment for measurement, control and laboratory use).



The above mentioned conformity is indicated with the CE Symbol.

The Central Unit (CU) injects three different signals, each in a different phase. Using the Line unit (LU) these signals are identified upstream or downstream to the point where the UC is connected to.

Technical features

Central unit (CU)		Line unit (LU)	
Dimensions (cm):	27.3x24.7x12.7	Dimensions (cm):	12 x 22 x 6,5
Protection:	IP54	Protection:	IP54
Weight:	2.5 kg	Weight:	0,75 Kg
V Phase-Neutral	100-280 Vac (50/60Hz)	Power supply:	4 x 1,5v AA batteries
V Phase-Phase	200-440 Vac (50/60Hz)	V connection	100 - 440 Vac (50/60Hz)
Cable length:	300 cm	Working temperature:	-10 °C / 55°C
Short circuit protection:	2A, 5x20 mm fuses	Short circuit protection:	250 cm
Overtoltage protection:	Internal	Overtoltage protection:	Internal
Miss-connection protection:	Internal	Miss-connection protection:	Internal

Power cables identification and location solutions



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