SYSTEM FOR MEASURING PARTIAL DISCHARGES IN POWER

DESCRIPTION OF THE TECHNOLOGY

System for measuring partial discharges in power lines that combines the use of two different sensors to determine the direction of movement of the discharge pulses produced In a power line, so that the area from which the electrical discharge comes can be determined in order to facilitate maintenance and repair thereof.

The invention is applicable in mains of power distribution for high and medium voltage, and more particularly in lines connected to electric machines such as generator or transformer engines, so as to determine if the discharge pulses come from the line or electrical machine.

For such purpose the measurement device comprises means for storing an experimentally obtained table, which indicates the direction from which the partial discharge comes on the basis of the polarities detected from the inductive and capacitive sensors, so that after detecting the polarity of the partial discharge in the inductive sensor and capacitive sensor, the means for determining the polarity access the table and determine the direction in which the partial discharge has been produced (right or left of the point of measurement).

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APLICATION BUSINESS SECTORS

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VENTAJAS TÉCNICAS Y BENEFICIOS EMPRESARIALES

- The measure can be made in the three cables that make up the power line, but obviously the measure can be performed in a single cable, if so required.
- Allows for the measurement of the direction of travel of the pulses produced by electric shock.
- The inductive and capacitive sensor is connected to both separate cables that end outside the cell by wall bushings, to which the measurement device is connected from outside the cell.

CURRENT STATE OF THE TECHNOLOGY

Laboratory tested with real elements.

INTELLECTUAL PROPERTY RIGHTS

The technology comes from research conducted through a project and belongs to the Institute for Energy Technology.

The technology is protected by patent:

- “Sistema de medida de descargas parciales” - ES2365779
- “System for measuring partial discharges in power lines” - Application EP2482090
- “System for measuring partial discharges in power lines” - Application WO2011/036325A1

COLLABORATION SOUGHT

Companies interested in the following forms of cooperation:

- Agreement patent license for implementation and use of technology.

- Agreement for the development of the R & D (TC) to complete the development of technology, or application to other sectors.

RELATES IMAGES

CONTACT DATA

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