CLAIMS

1. Monitoring device for monitoring the insulation and/or continuity of at least one electric cable including a plurality of electrical wires, wherein the device comprises a measuring circuit that can be connected to the electrical wires of the cable, the measuring circuit comprising:

- a measuring stage comprising at least one voltage generator;

- a switching stage, that can be connected to the measuring stage, suited to connect each electrical wire automatically and successively to the measuring circuit and/or suited to connect the measuring circuit to ground;

- a looping stage of the measuring circuit that can be connected, electrical wire to electrical wire of the cable, to the switching stage;

the looping stage being configured to operate automatically in at least one of two modes, insulating or resistive, respectively associated with the monitoring of the insulation or the monitoring of the continuity of the electrical cable.

2. Monitoring device according to claim 1, wherein the polarity of the looping stage in the insulating mode is the reverse of the polarity of the looping stage in the resistive mode.

3. Monitoring device according to any one of the preceding claims, wherein, for each wire, the looping stage comprises at least one component for the unidirectional passage of electrical current, wherein each component for the unidirectional passage of electrical current is turned on when the looping stage is in the resistive mode and is blocked when the looping stage is in the insulating mode.

4. Monitoring device according to claim 3, wherein for each wire the looping stage comprises at least one resistor with the at least one unidirectional component.

5. Monitoring device according to any one of the preceding claims, wherein the switching stage comprises electronic switches, in particular CMOS switches.

6. Monitoring device according to claim 5, wherein the electronic switches are automatically controlled by a shift register.

7. Monitoring device according to any one of the preceding claims, wherein the measuring stage comprises, connected in series to the voltage generator, a measuring resistor, wherein the voltage at the terminals of the measuring resistor being suited to be measured, and representative of the quality of the insulation and/or the continuity of each electrical wire of the cable.

8. Monitoring device according to any one of the preceding claims, wherein the voltage generator is a variable voltage generator.

9. Monitoring device according to any one of the preceding claims, wherein the monitoring device is manually transportable and comprises a battery.

10. Method for monitoring the insulation and/or continuity of at least one electrical cable including a plurality of electrical wires, the method being automatically carried out by a monitoring device according to any one of claims 1 to 10, wherein the monitoring device comprises a measuring circuit that can be connected to the electrical wires of the cable, the measuring circuit comprising:

- a measuring stage comprising at least one voltage generator;
- a switching stage, that can be connected to the measuring stage, suited to connect each electrical wire automatically and successively to the measuring circuit;
- a looping stage for the measuring circuit that can be connected wire to wire to the switching stage;

the method comprising the following steps, carried out automatically by the monitoring device:

- receipt of input data via an interface of the monitoring device,
- depending on the value of the input data, automatically activating at least one of two modes of the looping stage, insulating or resistive, respectively associated with the monitoring of the insulation or the monitoring of the continuity of the electrical cable ,
- measuring the voltage at the terminals of a measuring resistor of the measuring stage, after the successive connection of each electrical wire of the at least one cable to the measuring circuit by the

switching stage of the measuring circuit until an insulation and/or continuity failure of the electrical wire is detected, or until all of the electrical wires of the said at least one cable are connected.