**Network analysis for the design of compensation / filter solutions**

Grid analysis to assess the grid conditions for the subsequent design of compensation / filter solutions. With evaluation of the voltage quality according to applicable standards and the energy load profiles.

The measurement is carried out in the LV network (230/400V 50Hz) according to EN 61000-4-30 class A.

Data is collected and recorded at selectable intervals of 5sec. - 15min. (average, max. and min. values) over a period of 7 days per measuring point:

- 10min. Voltages L-N, L-L in L1,L2,L3

- 10min. Voltages N-PE

- 10min. Current L1,L2,L3, N

- 10min. Active power L1,L2,L3, sum

- 10min. Apparent power L1,L2,L3, sum

- 10min. Reactive power L1,L2,L3, sum

- 10min. Fundamental oscillation Reactive power L1,L2,L3, sum

- 10min. Power factor PF L1,L2,L3 or sum values

- 10min. Displacement factor Cos phi L1,L2,L3, sum

- 10min unbalance

- 10sec. Frequency

- 15min. Active-apparent reactive energy, inductive reactive energy

- 10min. 1st to 50th harmonic / interharmonic voltage, L1,L2,L3

- 10min. 1st to 50th harmonic / interharmonic current, L1,L2,L3

- 10min. THD & TDD L1,L2,L3

- 10min short term flicker / 2h long term flicker

- Voltage and current events: >10 ms

- Transients: > 50µs with history (pre/post trigger)

The measurement is to be carried out during a representative operation of the plant section in consultation with the specialist planner.

Final protocol with transfer of the relevant data in individual report form (pdf) to the technical planner.Presentation of all measured variables required for the evaluation of the network in graphical form incl. comments and catalogue of measures as well as targeted technical solutions. On the basis of the network analysis, a compensation / filter design must be possible.

It is assumed that an electrician with the appropriate specific knowledge of the system is present during the installation and dismantling of the measurement. (plant/work supervisor).

Travel costs and overnight stays will be charged at cost. Price group 4.

Manufacturer: Janitza electronics GmbH

Type: Service

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