NET VISION 2010

THREE-PHASE NETWORK ANALYZER

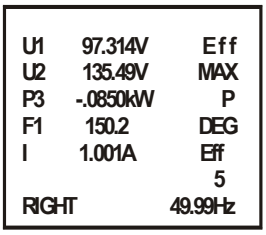
Application and brief description

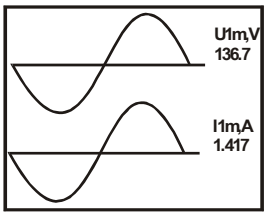
NET VISION 2010 is a portable device designed for a quick and precise measurement of the electric values of three-phase network. It is used by power engineers for measurement in substations, check of AC motors, relay current protections, electricity meters, etc.

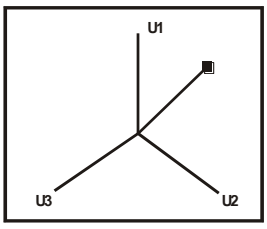
The true RMS values of the three phases of voltage and one current are measured simultaneously. Active power, reactive power, power factor, sequence of rotation, frequency, phase-shift between voltages and between each voltage and current, harmonic analysis are computed and indicated. The vector diagram and the waveforms of the input signals can also be drawn on the graphic LCD display.

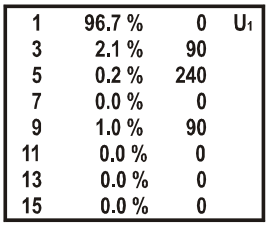
The current is measured with a current clamp to 100 A or to 1000 A.

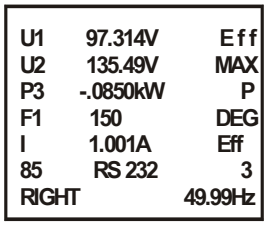
The device can work without batteries – it is supplied from the measuring circuit of the voltages.











Features

- Mode – **"Indication of the measured values"**

  The sequence of rotation and the frequency of the net are displayed permanently in this mode. Five more parameters are also displayed, which could be changed by the operator.
  The following parameters could be displayed:
  - True RMS values of voltage and current (three voltages and one current)
  - Active power (each phase)
  - Reactive power (each phase)
  - Power factor (each phase)
  - Phase-shift between voltage and current in [Degree]
  - Peak values of voltage and current
  - Crest factor (Umax /(Uef E √2))
  - Phase-shift between two voltages in [Degree]

  All values displayed on the screen can be memorized under running numbers from 1 to 100.

- Mode – **"Two beam oscilloscope"**

  Two waveforms in real time are drawn on the graphic display in this mode. The operator can choose the waveforms from the three voltages and one current.

- Mode – **"Vector diagram"**

  The three voltages and the current are drawn as a vector diagram in this mode.

- Mode – **"Harmonic analysis"**

  Indication of the harmonics to 15th of one signal in real time.

- Mode **"Display of memorized screens"**

  The operator can visualize screens which are memorized. The whole memorized data can be transferred to a computer in this mode.

Technical data

- **Range of voltage** (with auto sub ranges) — 50V ÷ 275 V RMS; 5V ÷ 275 V RMS (power supply – batteries)
- **Range of current** (with auto sub ranges)
  - Current clamp to 1000 A — 0.2 ÷ 1000 A RMS
  - Current clamp to 100 A — 0.02 ÷ 100 A RMS
- **Instrumental error**
  - Voltage measurement — ± 0.1 [%]
  - Current measurement — ± 0.4 [%]
  - Power measurement — ± 0.5/ cos φ [%]
  - Phase measurement — ± 0.1°
- **Resolution ability**
  - Voltage measurement — 0.01V
  - Current measurement — 0.001A
  - Power measurement — 0.1W(Var)
  - Phase measurement — 0.1°
- **Power supply** — - from the measuring circuit (50V to 275V); - from 4 batteries x 1.5 V
- **Graphic LCD, back lit display** — 128 x 64 pixels
- **Dimensions** — 190 x 90 x 60 mm
- **Weight** — 0.5 кg
- **Working temperature** — -5°C ÷ 50°C
- **Relative humidity** — < 90% non condensing
- **Jaw capacity of the current clamp 100 A** — 12 mm diameter
- **Jaw capacity of the current clamp 1000 A** — 52 mm diameter

Safety Tests

According to EN 61010-1

The model complies with IEC 1010 – 1, 300V CAT III

EMC Test

EN 61000-4-2, EN 61000-4 – 4, EN 61000-4-5, EN 61000-4-6

Equipment Accessories

- Four safety cables for voltage with Alligator clips;
- One current clamp;
- Portable case
- Disc with Software;
- Calibration Certificate;

EMSYST

Blvd. Tsarigradsko shousse 7th km, BIC IZOT, office 304, 1784 SOFIA, BULGARIA

Tel: +359/ 2/ 971-83-50, Fax: +359/ 2/ 971-84-19; e-mail: emsyst@emsyst.com ; www.emsyst.com

Certificate HU03/0186