Non-load Loss Measurement of Transformers

To conserve energy, we need to reduce power loss. Use HIOKI Power HiTESTERs to test non-load current and non-load loss of transformers in order to evaluate and improve the efficiency of transformers for distribution.

**Highlights**

- Non-load measurement distorts the current waveform, increases the crest factor (wave Height rate), and reduces the power factor. Accordingly, it is ideal to use the following power meters for measurements.
- Measurement ranges can be switched at the peak current value in auto range mode.
- Measurement from a low power factor is possible and accuracy is guaranteed.

**Single-phase transformer non-load current and non-load loss measurements**

**Three-phase transformer non-load current and non-load loss measurements**

*For details on the measurement procedure, please check the following standards and other documents.

- JIS C4306-2013 6 kV mold transformer for distribution
- JIS C4304-2013 6 kV oil-immersed transformer for distribution
- IEC60076-1 Power transformers - Part 1: General

**Products used**

- Power meter for single-phase transformer: POWER METER PW3335 (with LAN, RS-232C)
  AC/DC POWER HiTESTER 3334 (with RS-232C)

- Power meter for three-phase transformers: POWER METER PW3336 (2ch, with LAN, RS-232C)
  POWER METER PW3337 (3ch, with LAN, RS-232C)

Information valid as of February 2015.
Specifications are subject to change and revision without notice.