Energy | R&D

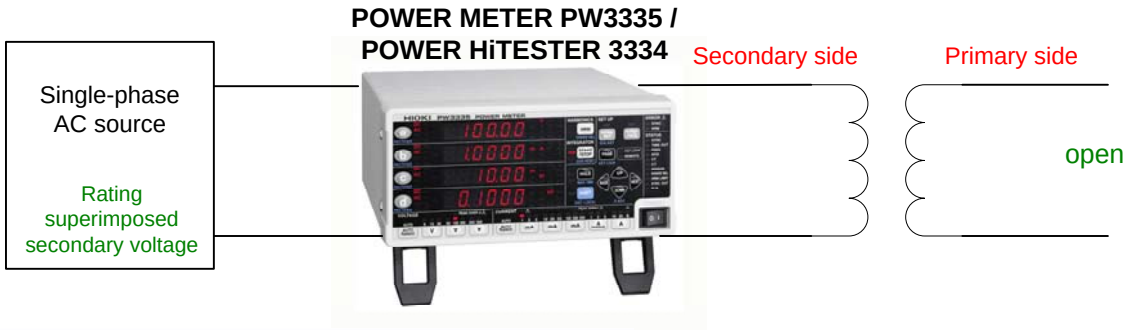
Non-load Loss Measurement of Transformers

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.

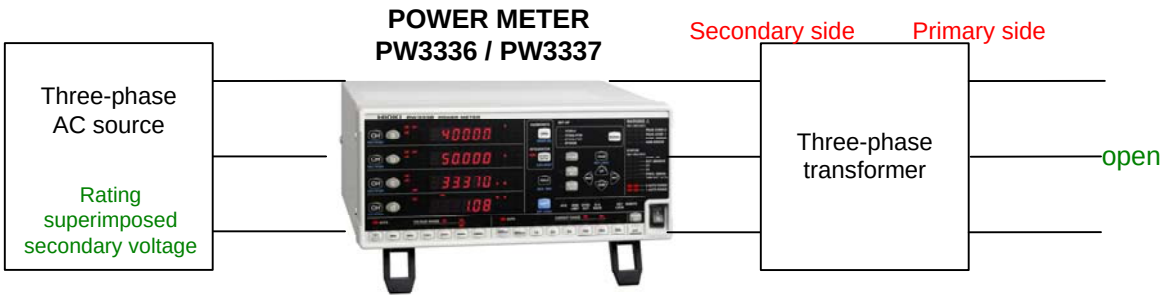
■Highlights

- 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.

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