

NO-LOAD LOSS MEASUREMENT UNIT

Reliable core magnetic loss
detection test for transformers



- Precaution options at design stage with no-load test
- Soft data storage of both voltage & current values
- Core sheet metal on-time magnetic quality check
- Variable applied frequency & voltage option
- Full protection system around test field

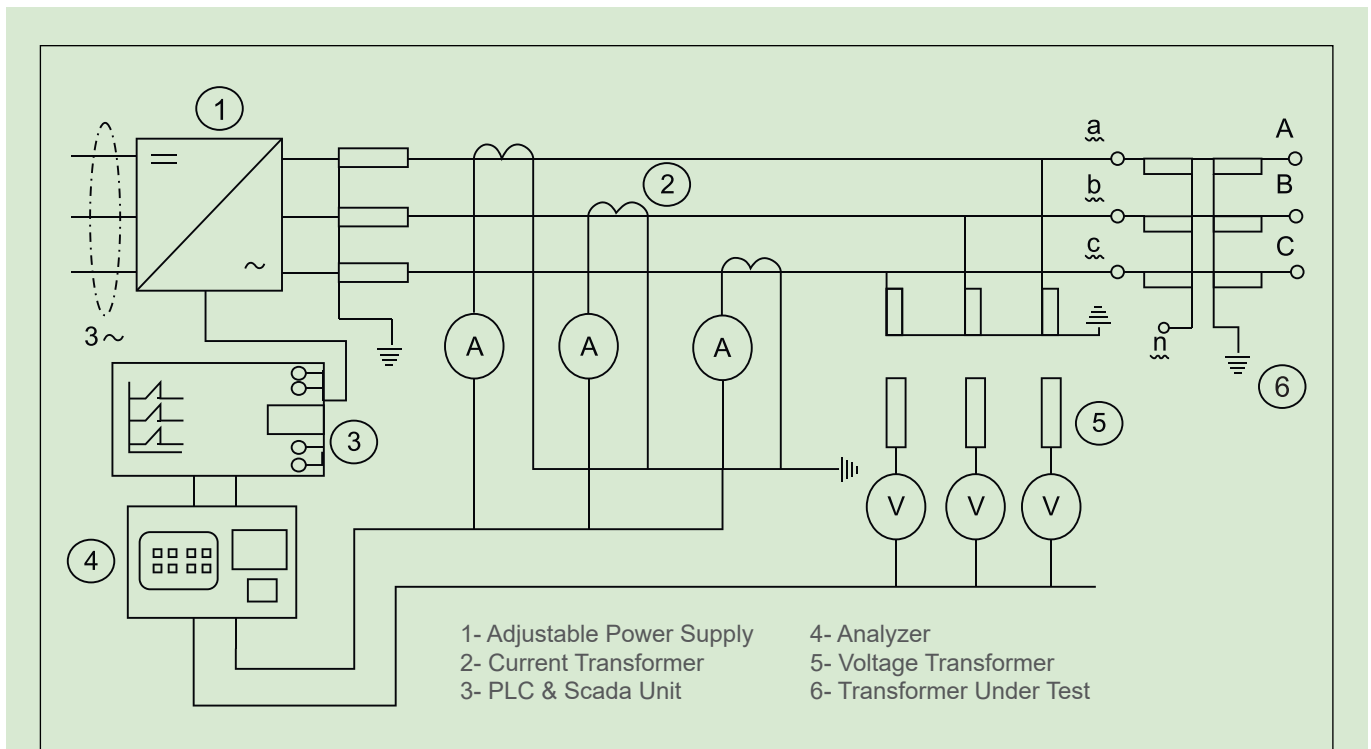
Magnetic Core Loss on Transformers

There are currently two main losses of transformer magnetic cores known as iron and copper loss. Copper loss has minor affect on efficiency compared to iron loss. Iron losses in a transformer arise as currents get induced in it while creating the magnetic circuit. This type of loss consist of hysteresis and Eddy current loss. Both are frequency dependent. These losses can be specified via no-load loss measurement test.



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Working Principle

Operational performance of a transformer is directly related to no-load losses on the magnetic core. One side of the windings is kept open (open circuit) where the other winding is supplied with a rated voltage and frequency to perform this test. In other words one side of the winding is kept without any load while power is supplied on the other side. During

this test no-load current and no-load loss can be measured by measuring equipment. Thanks to this testing method, iron losses of the magnetic core or the efficiency coefficient of the transformer can be calculated. These losses are significant during design stage of transformers.

