

ABSTRAK

ANALISIS RUGI-RUGI DAYA TRANSFORMATOR DISTRIBUSI 20

Kv PENYULANG ONTA PA0675 Di PT.PLN (Persero) ULP Rivai

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Rugi-rugi dan efisiensi transformator distribusi jenis starlite 20 kV saat pengujian, menyesuaikan antara nameplate dengan pengukuran dan rumus perhitungan yang telah ditetapkan. Untuk mengetahui nilai rugi-rugi dan efisiensi transformator ketika diberi beban nominal. Setiap hari rugi tembaga mengalami kenaikan, pada hari pertama didapatkan rugi tembaga sebesar 893,022 dan pada hari ke 7 didapatkan rugi tembaga sebesar 1.961,072. Nilai rugi total transformator berbanding terbalik dengan efisiensinya karena semakin besar rugi-rugi total, maka semakin kecil efisiensi yang dihasilkan, efisiensi terendah dihasilkan pada hari ke 7 sebesar 97,35 % dengan besar rugi-rugi total 2.171,072 watt sedangkan efisiensi tertinggi dihasilkan pada hari pertama sebesar 98,63 % dengan besar rugi-rugi total 1.103,022 watt. Transformator harus diadakan pemeliharaan berdasarkan jadwal dan kondisi untuk memaksimalkan kinerja dari transformator untuk tetap optimal dan efisien.

Kata kunci : Daya Listrik, Rugi-rugi daya, Penyulang 20 KV

ABSTRACT

POWER LOSS ANALYSIS OF 20 Kv DISTRIBUTION TRANSFORMER ONTA PA0675 FEEDERS AT PT.PLN (Persero) ULP Rivai

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Losses and efficiency of 20 kV starlite distribution transformer during testing, adjusting between the nameplate and the measurements and calculation formulas that have been set. To find out the value of losses and efficiency of the transformer when given a nominal load. Every day the copper loss increases, on the first day a copper loss of 893.022 was obtained and on the 7th day a copper loss of 1,961.072 was obtained. The total loss value of the transformer is inversely proportional to its efficiency because the greater the total losses, the smaller the efficiency produced, the lowest efficiency was produced on the 7th day of 97.35% with a total loss of 2,171.072 watts while the highest efficiency was produced on the first day of 98.63% with a total loss of 1,103.022 watts. Transformers must be maintained based on schedule and conditions to maximize the performance of the transformer to remain optimal and efficient.

Keywords : Electric power, Power losses, Feeder 20 KV.