

## **Analysis of Contact Resistance Test for PMT Bay Kuningan II 70KV at Sunyaragi Substation**

### *Analisa Uji Tahanan Kontak PMT Bay Kuningan II 70KV di Gardu Induk Sunyaragi*

Rezza Badruzzaman  
Arnisa Stefanie

University of Singaperbangsa Karawang  
University of Singaperbangsa Karawang

Electrical energy is included in the primary needs of humans in this era, where in this modern era, almost all equipment is electronic based so that the need for electrical energy is very large. In Indonesia, there is a company that is in charge and responsible for processing and distributing electricity to the public, namely PLN or more specifically the Substation. To distribute electricity at this substation, there are primary equipment that functions as a transmission regulator, one of which is a power breaker (PMT). PMT is one of the important assets in the reliability of the electricity system at the substation, so periodic testing and maintenance is very necessary. Testing and maintenance on PMT are very diverse from insulation resistance testing, simultaneous testing (Breaker Analyzer), SF6 gas characteristic testing, and PMT contact resistance testing. This contact resistance test is carried out to determine the resistance value of the PMT contact, from the resistance value obtained it can also be seen for the value of the power loss generated by the PMT when operating.

## **References**

1. A. A. Bhole and B. S. Bobdey, "Dynamic Contact Resistance Measurements on HV Circuit Breaker," *Esrta Publ.*, vol. 3, no. 1, pp. 1292-1296, 2014.
2. A. Risdiyanto, N. A. Rachman, and M. Arifin, "Effect of Contact Pressure on the Resistance Contact Value and Temperature Changes in Copper Busbar Connection", *J. Mechatronics, Electr. Power, Veh. Technol.*, vol. 3, no. 2, p. 73, 2012, doi: 10.14203/j.mev.2012.v3.73-80.
3. A. Setyawan. Surakarta, "Analisa Pengaruh Tahanan Kontak Pemutus Tenaga Pada Kopel Busbar Tegangan Tinggi Terhadap Rugi Daya Penghantar Di Gardu Induk Palur," 2018.
4. D. Aribowo et al., "Analisis Hasil Uji PMT 150 kV pada Gardu Induk Cilegon Baru BAY KS 1," pp. 59-65, 2018.
5. F. C. Lisi, F. Lisi, and S. Silimang, "Analisa Perhitungan Kapasitas dan Pemilihan Circuit Breaker (CB) pada Penyulang Gardu Induk Paniki Sistem Minahasa," *J. Tek. Elektro dan Komput.*, vol. 7, no. 1, pp. 9-16, 2018, doi: 10.35793/jtek.7.1.2018.19086.
6. M. Lukas Santoro and Ir. Yuningtyastuti, "Pemeliharaan pemutus tenaga gardu induk 150 kv krapyak," *Teknik Elektro*. pp. 1-12, 2012.
7. Nuryanto, 2017, *Pengujian Tahanan Kontak Pemutus Tenaga (PMT) 70KV Pada Bay IBT V 100 MVA 150/70 KV Di Gardu Induk Sunyaragi*, Universitas 17 Agustus 1945, Cirebon.
8. PT. PLN (Persero), 1979, *Buku manual PMT merk ASEA*, PT. PLN (Persero) UPT Cirebon.
9. PT. PLN (Persero), 2017, *Buku manual PMT merk UNINDO*, PT. PLN (Persero) UPT Cirebon.
10. PT. PLN (Persero). 2014, *Buku Pedoman Pemeliharaan Pemutus Tenaga (PMT)*, SE No.0520-2.K/DIR/2014, PT. PLN (Persero), Jakarta.
11. PT. PLN (Persero). 2014, *Buku Petunjuk Gardu Induk*, SE No.0520- 2.K/DIR/2014, PT. PLN (Persero), Jakarta.
12. Irwan Pranomo, 2019, "Analisis Pengujian Pemutus Tenaga Bay Gondangrejo 2 dalam Pemeliharaan Dua Tahunan di Gardu Induk Palur", Universitas Muhammadiyah Surakarta.
13. J. J. Rikumahu, Denny R. P., and J. Marselin, "Perancangan Peningkatan Keandalan Sistem Tenaga Listrik Pada Gardu Hubung Poka Kota Ambon", *Jurnal Simetrik*, Vol. 9. No. 1, Juni

2019.

14. R. L. Imani, S. Suprijadi, and A. Siswanto, "Analisis Hasil Over Houl Pemutus Tenaga (Pmt) 70Kv Pada Bay Arjawinangun 2 Di Pt Pln Persero App Cirebon Gi Kadipaten," Conf. Innov. Appl. Sci. Technol., vol. 1, no. 1, pp. 618-625, 2018.
15. Malik Riyadi, 2019, Analisis Pengujian Pemutus Tenaga (PMT) bay Pedan 2 dalam Pemeliharaan dua tahunan di Gardu Induk Klaten, Universitas Widya Dharma Klaten.
16. S. Robaga, A. Setyo, I. Samsu, and E. Al, "Buku Pedoman Pemeliharaan Peralatan Primer Gardu Induk," PT. PLN, pp. 1-61, 2009.
17. Megger, "Data Sheet DLRO Megger 600",  
[https://embed.widencdn.net/pdf/plus/megger/cnldfjed13/DLRO600\\_DS\\_en.pdf?u=k67mr7](https://embed.widencdn.net/pdf/plus/megger/cnldfjed13/DLRO600_DS_en.pdf?u=k67mr7)  
<Diakses 20 Februari 2020>