

# Analisa kinerja current limiting reactor pada electrostatic precipitator unit 7 PT Indonesia Power UBP Suralaya = Performance analysis on current limiting reactor of electrostatic precipitator unit 7 PT Indonesia Power UBP Suralaya

Muhamad Irfan, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20392606&lokasi=lokal>

---

## Abstrak

[Skripsi ini membahas tentang kinerja current limiting reactor (CLR) dalam hal membatasi arus saat terjadi tegangan percikan di transformer rectifier (TR) pada electrostatic precipitator (EP). Objek yang dijadikan pada penulisan karya tulis ini adalah EP unit 7 UBP.Suralaya. Penelitian dilakukan dengan melakukan pengukuran nilai input dan output dari TR yang kemudian data tersebut diolah untuk kemudian dibandingkan antara hasil perhitungan dengan data pengamatan, selain itu dilakukan pula pengamatan kinerja CLR jika dilihat dari tata letak TR yang digunakan. Dari hasil penelitian, diketahui bahwa kinerja dari CLR yang digunakan pada EP unit 7 UBP.Suralaya masih baik. Hal ini diketahui dari nilai jatuh tegangan yang didapat pada sisi primer TR masih tidak melenceng terlalu jauh dari nilai rating peralatan yang digunakan. Sehingga dapat dikatakan tidak terlalu berdampak terhadap pengurangan efisiensi penangkapan debu EP. Diketahui pula bahwa jumlah tegangan percikan dipengaruhi oleh tata letak dari TR yang digunakan. Semakin TR tersebut berdekatan dengan kontak terhadap debu, maka semakin besar kemungkinan terjadinya tegangan percikan dan semakin besar pula kemungkinan jumlah tegangan percikan yang terjadi sehingga memungkinkan untuk CLR melakukan kerja yang lebih berat. .... This thesis discusses the performance of current limiting reactor (CLR) in terms of limiting current occurs when the voltage spark in rectifier transformers (TR) on the electrostatic precipitator (EP). Objects that are used in writing this paper is that the EP unit 7 UBP.Suralaya. The study was conducted by measuring the input and output values of TR and then the data is processed and then compared the results of calculations with observational data, but it also made observations of the performance of CLR when viewed from TR layout used. From the research, it is known that the performance of the CLR is used on the EP unit 7 UBP.Suralaya still good. It is known from the voltage drop value obtained on the primary side of the TR is still not too far from the rating value of used equipment. So it can be said has little impact on the reduction of EP dust capture efficiency. It found that the number of spark voltage is affected by the layout of the TR is used. The TR is getting close to the contact of the dust, the greater the likelihood of the spark voltage and the greater the likelihood that the amount of voltage spark occurs making it possible for the CLR do the heavier work.;This thesis discusses the performance of current limiting reactor (CLR) in terms of limiting current occurs when the voltage spark in rectifier transformers (TR) on the electrostatic precipitator (EP). Objects that are used in writing this paper is that the EP unit 7 UBP.Suralaya. The study was conducted by measuring the input and output values of TR and then the data is processed and then compared the results of calculations with observational data, but it also made observations of the performance of CLR when viewed from TR layout used. From the research, it is known that the performance of the CLR is used on the EP unit 7 UBP.Suralaya still good. It is known from the voltage drop value obtained on the primary side of the TR is still not too far from the rating value of used equipment. So it can be said has little impact on the reduction of EP dust capture efficiency. It found that the number of spark voltage is affected by the layout of the TR is

used. The TR is getting close to the contact of the dust, the greater the likelihood of the spark voltage and the greater the likelihood that the amount of voltage spark occurs making it possible for the CLR do the heavier work., This thesis discusses the performance of current limiting reactor (CLR) in terms of limiting current occurs when the voltage spark in rectifier transformers (TR) on the electrostatic precipitator (EP). Objects that are used in writing this paper is that the EP unit 7 UBP.Suralaya. The study was conducted by measuring the input and output values of TR and then the data is processed and then compared the results of calculations with observational data, but it also made observations of the performance of CLR when viewed from TR layout used. From the research, it is known that the performance of the CLR is used on the EP unit 7 UBP.Suralaya still good. It is known from the voltage drop value obtained on the primary side of the TR is still not too far from the rating value of used equipment. So it can be said has little impact on the reduction of EP dust capture efficiency. It found that the number of spark voltage is affected by the layout of the TR is used. The TR is getting close to the contact of the dust, the greater the likelihood of the spark voltage and the greater the likelihood that the amount of voltage spark occurs making it possible for the CLR do the heavier work]