

THE EFFECT OF CURRENT EXCITATION AGAINST THE REACTIVE POWER AT PT. INDONESIA POWER UPJP KAMOJANG

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ABSTRACT

The last of these duty discuss the effect of the excitation current against reactive power in PT. Indonesia Power UPJP Kamojang. The focus is the current study fluctuations excitation and the reactive power as well as the relations between them. The goal is to find fluctuations the current excitation and the reactive power and the effect of the current excitation against the reactive power. The current excitation directly proportional to the reactive power. In fact, the current excitation and the reactive power not always directly proportional. This study concluded that the bigger I_F so E_a is large. At the phase R in a position $I_F = 418,6$ A which was previously $I_F = 405,1$ A worth $E_a = 12,2777$ kV formerly $E_a = 12,2637$ kV surge I_F of 3.23 % of the current excitation formerly and there was a change in I_F of $\pm 7,43$ A. The value V_T tending to constant because keep synchronization with the system , Is as much as 11,814 kV be 11,8216 kV. Surge voltage 0,064 % of voltage formerly and there was a change in V_T of $\pm 0,00768$ kV. The increase in E_a of $\pm 0,0096$ kV , the increase in E_a cause increase of 0,64 % of voltage network before. Fluctuations Q resulting from a change if range 6,128 % with change Q of $\pm 0,501$ MVAR. The linear value current excitation to power reactive 70,59 %. Besides part in phase R , the phase S and the phase T may have condition fluctuations that similar to the phase R .

Keyword : **Generator, current excitation, reactive power, output voltage generator , fluctuations the current excitation and the reactive power.**