

Substitusi Pers (3) ke Pers (2),

$$K_m \dot{\omega}(t) = J \frac{d\omega(t)}{dt} + B \omega(t)$$

dalam keadaan nominal; $\frac{d\omega(t)}{dt} = 0$

$$K_m I_{a \text{ nom}} = B \omega_{\text{nom}}$$

$$K_m = \frac{B \omega_{\text{nom}}}{I_{a \text{ nom}}} = \frac{T_{\text{nom}}}{I_{a \text{ nom}}}$$

Substitusi Pers (4) ke Pers (1):

$$E_a(t) - K_b \omega(t) = R_a i_a(t) + L_a \frac{di_a(t)}{dt}$$

dalam keadaan nominal; $\frac{di_a(t)}{dt} = 0$

$$E_{a \text{ nom}} - K_b \omega_{\text{nom}} = R_a I_{a \text{ nom}}$$

$$K_b = \frac{E_{a \text{ nom}} - R_a I_{a \text{ nom}}}{\omega_{\text{nom}}}$$

$$T_{\text{nom}} = \frac{P_{\text{nom}}(\text{mekanik})}{\omega_{\text{nom}}} = B \omega_{\text{nom}}$$

$$B = \frac{T_{\text{nom}}}{\omega_{\text{nom}}} \quad \left[\frac{\text{N.m sec}}{\text{rad}} \right]$$