$\xi < 1$

$$\omega(t) = \mathcal{L}^{-1}\left[\frac{K_0 E_{a\,nom}}{s(s^2 + 2\xi\omega_n s + \omega_n^2)}\right]$$

$$i_a(t) = \mathcal{L}^{-1}\left[\frac{(Js + B)K_0 E_{a\,nom}}{s(s^2 + 2\xi\omega_n s + \omega_n^2)}\right]$$

$$= \mathcal{L}^{-1}\left[\frac{(Js)K_0 E_{a\,nom}}{s(s^2 + 2\xi\omega_n s + \omega_n^2)}\right] + \mathcal{L}^{-1}\left[\frac{BK_0 E_{a\,nom}}{s(s^2 + 2\xi\omega_n s + \omega_n^2)}\right]$$

$$= K_0 E_{a\,nom}\left[\mathcal{L}^{-1}\frac{J}{s^2 + 2\xi\omega_n s + \omega_n^2} + \mathcal{L}^{-1}\frac{B}{s(s^2 + 2\xi\omega_n s + \omega_n^2)}\right]$$

Penge-check-an :

* Keadaan awal :

$t = 0 \longrightarrow \omega(0) = 0 \quad i_a(0) = 0$

* Keadaan akhir

$t \to \infty \longrightarrow \omega(\infty) = \omega_{nom}$

$i_a(\infty) = I_{a\,nom}$