

12. Prilog

Tabela 1 - Podaci o asinhronom motoru

800 W, Δ 195 V, two pole, 4200 rpm/min

$$\begin{aligned} R_s &= 9.1 \, \Omega, \quad R_r = 5.67 \, \Omega \\ L_m &= 0.518 \, \text{H}^* \\ L_s &= 0.552 \, \text{H}^*, \quad L_r = 0.552 \, \text{H}^*, \\ \sigma L_s &= 0.065 \, \text{H}^* \\ T_r &= 0.0973 \, \text{s} \end{aligned}$$

* Za nominalnu vrednost fluksa

Tabela 2 – Bazne veličine korišćene u DSP procesoru

$$\begin{aligned} V_b &= V_{\max} = 472 \text{ V}, \quad I_b = I_{\max} = 8,333 \text{ A}, \quad R_b = \frac{V_b}{I_b} = 56.64 \\ \omega_b &= \omega_{\text{nom}} = 2\pi 50 \text{ rad / s} = 314.15 \text{ rad / s}, \\ \Psi_b &= \frac{V_b}{\omega_b} = 1.07866, \quad L_b = \frac{V_b}{I_b \omega_b} = 0.129439. \end{aligned}$$

Tabela 3 – Inicijalni parametri modela za procenu rotorskog fluksa

3.1 NAPONSKI MODEL

$$\omega_l = 2\pi 2 \text{ rad/s}, \quad R_s = 9.1/R_b = 0.16 \text{ (0x1490 f1.15)}$$

3.2 STRUJNI MODEL

$$T_r = \frac{L_r}{R_r} = 0.0973, \quad \frac{T}{T_r} = 0.001027 \text{ (0x21 AD1E, f1.31)}$$

$$L_m = 4.005 \text{ (0x4014 f3.15)}$$

$$K_1^{\omega_i} = \left(1 - \frac{T}{T_r}\right) = 0.998972 \text{ (0x7FDE 52E1, f1.31)}$$

$$K_2^{\omega_i} = L_m \frac{T}{T_r} = 0.004116 \text{ (0x86 DF82 f1.31)}$$

$$K_3^{\omega_i} = T = 0.0001 \text{ (0x3 46DC f1.31)}$$