appVersion(4) = "0.99.6970.38715"

$$\begin{bmatrix} I_{11} \\ I_{22} \end{bmatrix} := \text{maple}\left(\text{solve}\left(\left\{\begin{array}{l} I_{11}\cdot\left(R_0+R_1+p\cdot L+\frac{1}{p\cdot C}\right)-I_{22}\cdot\frac{1}{p\cdot C}=\frac{U_{Co}}{p}+L\cdot I_{Lo} \\ I_{11}\cdot\left(\frac{-1}{p\cdot C}\right)+I_{22}\cdot\left(\frac{1}{p\cdot C}+R_2\right)=\frac{E_m}{p}-\frac{U_{Co}}{p} \end{array}\right., \begin{Bmatrix} I_{11} \\ I_{22} \end{Bmatrix}\right)\right)$$

$$I_C(p) := \text{maple}\left(collect\left(simplify\left(I_{22}-I_{11}\right), p\right)\right)$$

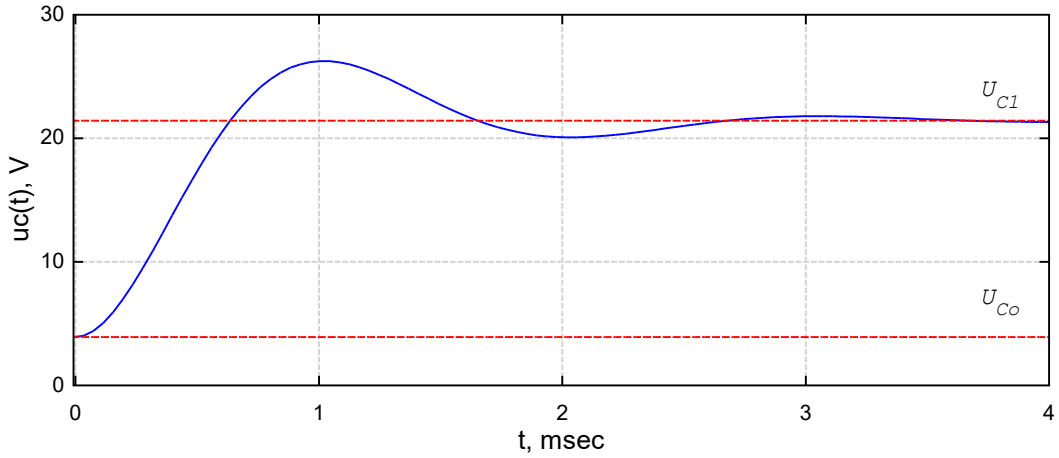
$$I_C(p) = -\frac{C\cdot\left(L\cdot\left(-E_m+U_{Co}+I_{Lo}\cdot R_2\right)\cdot p-E_m\cdot\left(R_0+R_1\right)+U_{Co}\cdot\left(R_0+R_1+R_2\right)\right)}{R_0+R_1+R_2\cdot\left(1+p^2\cdot C\cdot L\right)+\left(L+R_2\cdot C\cdot\left(R_0+R_1\right)\right)\cdot p}$$

$$U_C(p) := \frac{I_C(p)}{p\cdot C}$$

$$R_0 := 25 \quad R_1 := 5 \quad R_2 := 243 \quad E_m := 195 \quad C := 2.2\cdot 10^{-6} \quad L := 46\cdot 10^{-3}$$

$$U_{Co} := \frac{E_m\cdot R_1}{R_1+R_2} = 3.9315 \qquad I_{Lo} := \frac{E_m}{R_1+R_2} = 0.7863 \qquad U_{C1} := \frac{E_m\cdot\left(R_0+R_1\right)}{R_0+R_1+R_2} = 21.4286$$

$$u_c(t) := \text{maple}\left(convert\left(invlaplace\left(U_C(p), p, t\right), float\right)\right)$$



$$\begin{cases} u_c(t\cdot 0.001)+U_{Co} \\ U_{Co} \\ U_{C1} \end{cases}$$