COEFFICIENT FOR CONVERTING TORQUE TO DUTY CYCLE

$$K' = \underbrace{\left(\frac{100\% \cdot R}{4 K_T \cdot V_{DC}}\right)}_{C_K} K$$ ← FROM LECTURE

$$C_K = \frac{100\% \cdot R}{4 K_T V_{DC}}$$

FROM DATASHEET:

$R = 2.21 \Omega$

$K_T = 13.8 \ mN \cdot m/A$

LET $V_{DC} = 5V$

$$C_K = \frac{100\% \cdot 2.21[\Omega]}{4 \cdot 13.8 \times 10^{-3}[N \cdot m/A] \cdot 5[V]}$$

$C_K = 800.72 \ \%/N \cdot m$