$$Tmech = T_0\left(a\omega^2 + b\ \omega + c + d\omega^e\right)$$

$$Pmech = \frac{Tmech}{\omega^{DM-1}}$$

where:

$$c = 1.0 - a - b - d$$

$$To = initial\ torque = \frac{\omega_o^{\ DM-1}}{Tmech(\omega_o)}$$

ω_o = initial motor speed