

## 4.2 Eddy Current Brake Design

### Braking Torque Requirements

When considering the 90 mm roller size that was selected in Section 4.1, the Torque requirements for different power outputs is shown in Figure 4.3 below. From the figure, it can be seen that the torque requirement at low speeds will dominate the torque requirement and should thus be used as consideration when selecting torque requirements of the brake.

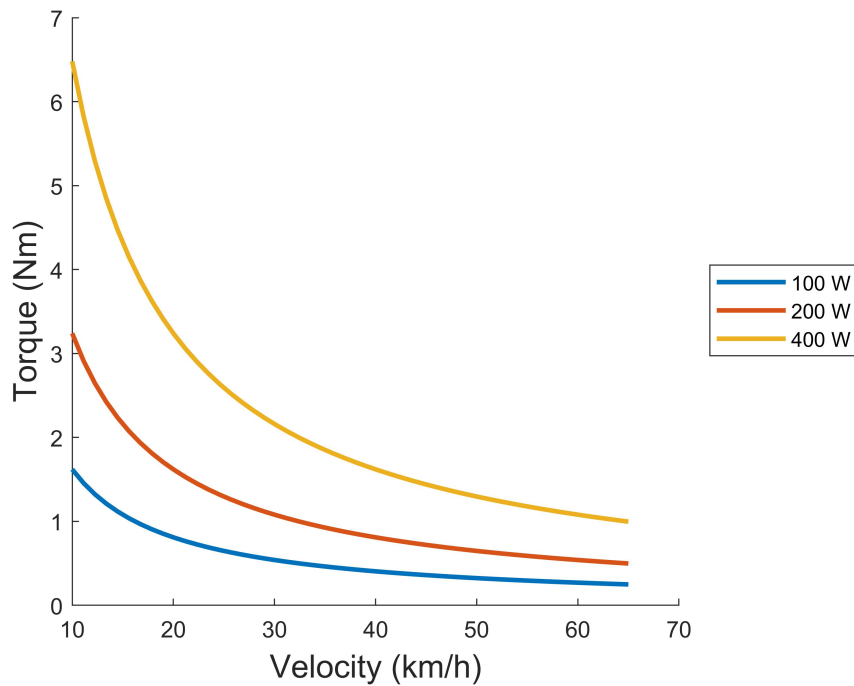


Figure 4.3: Torque Requirement Curve

### Parameter Selection

For the ECB, Neodymium rare earth permanent disk magnets were selected as they would provide the highest magnetic flux density.