

# Matlab-Simulink Electric Machine Model

This is a 4-quadrant simulation electric machine model developed in Matlab-Simulink. It includes efficiency tables for both motoring and generating. This model was developed with multiple applications in mind. It can be used for performance and efficiency studies of both traction motors and generators. It is intended for steady state use as it does not include transient effects due to rotor inertia. It also does not include thermal effects although these could be added fairly easily by using the efficiency tables. A version of this model is incorporated in the latest revision of SAE J2188, currently under ballot in the SAE Heavy Duty Truck and Bus Powertrain Steering Committee

