

Abstract

METHODS, APPARATUSES, AND SYSTEMS FOR SPEED CONTROL OF A MOVABLE PARTITION

A movable partition system includes a movable partition including coupled panels and a lead post engaged with and movable along a track. A motor control system includes a motor coupled to the movable partition and a switching circuit coupled to the motor and for selectively coupling the motor to a positive power source and a negative power source responsive to one or more PWM signals. An encoder is configured for generating one or more rotation signals indicative of operational direction and operational speed of the motor. A motor controller is coupled to the switching circuit and is configured for improving airflow around the panels of the movable partition when the lead post of the movable partition is between a predefined position and a fully retracted position indicative of a billowing effect for the panels by adjusting pulse widths of the PWM signals to control rotational speed of the motor.

Figure 2.