

MOTOR DRIVE SWITCHED MODE POWER SUPPLY SYSTEMS AND METHODS

ABSTRACT

[0056] The embodiments described herein include one embodiment that provides a motor drive that includes driver circuitry that controls operation of an inverter in the motor drive to output power to a motor, control circuitry that controls operation of the driver circuitry, and a switched mode power supply that supplies electrical power to the driver circuitry, the control circuitry, or both. The switched mode power supply includes a primary coil, in which a primary controller stores electrical energy in the primary coil by selectively connecting the primary coil to a power source, and a secondary coil electrically isolated from the primary coil, in which the secondary coil outputs electrical power based at least in part on the electrical energy stored in the primary coil, in which a secondary controller controls the electrical power supplied to the driver circuitry, the control circuitry, or both by selectively connecting the secondary coil to a power output of the switched mode power supply.

Fig. 1