

TRIM CIRCUITARY AND METHOD FOR ACCURACY
IMPROVEMENT IN CURRENT SENSING

ABSTRACT OF THE DISCLOSURE

A motor driver circuit (12) for providing drive signals to stator coils of a polyphase dc motor (10) includes a plurality of current paths, each connected between a supply voltage and a reference potential. Each current path includes two driver transistors (14,20, 16,22, 18,24), a node (A, B, C) of each of the stator coils being connectable between the driver transistors in respective current flow paths. A commutator (26) is connected to operate the driver transistors in a sequence in which drive currents are delivered for application in a predetermined sequence to the stator coils. A plurality of sensing transistors (32) are connected to produce a mirror current which mirrors a mirrored current in an associated driver transistor (20) in a respective current flow path. Circuitry (26) is provided which is responsive to the mirror currents of the sensing transistors to control the amplitudes of the currents in the associated driver transistor in a respective current flow path. At least one trim transistor (51-55) is connected in parallel with a respective one of the sensing transistors (50), and a programmable circuit (48) is connected to selectively activate the at least one trim transistor to adjust the amplitudes of the mirrored currents in the current flow path with which the sensing transistor with which the at least one trim transistor is associated.

FIGURE 1