

Abstract:

Motor control arrangement, and shaver comprising such a motor control arrangement.

A motor control arrangement comprises a control circuit for controlling the speed of an electric motor (EM), which control circuit comprises a measurement resistor (MR) and a switching transistor (ST) having a control electrode and a main current path coupled in series with the electric motor (EM) and the measurement resistor (MR), a pulse width control stage (PW) coupled to the control electrode of the switching transistor (ST), a motor current measurement stage (MI) for controlling the pulse width control stage (PW) in response to a motor current of the electric motor (EM), and a motor voltage measurement stage (MV) for controlling the pulse width control stage (PW) in response to a motor voltage (EM) of the electric motor (EM). In order to improve the speed control the motor current measurement stage (MI) comprises a voltage-current converter (M3, M4; A1) having an input coupled to a first terminal (3) coupled to the electric motor (EM) and having an output coupled to the pulse width control stage (PW), the voltage-current converter (M3, M4; A1) being adapted to realize a motor current transformation, and the motor voltage measurement stage (MV) comprises a resistor (R1) and a first current mirror (M1) having an input coupled, by a resistor (R1), to a second terminal coupled to the electric motor (EM) and having an output coupled to the pulse width control stage (PW).

(Figure 1)