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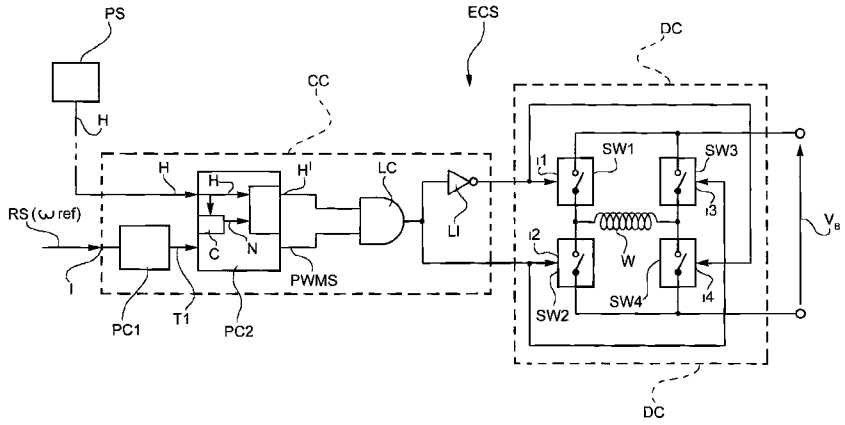
(54) Title: SYSTEM AND METHOD FOR CONTROLLING A SYNCHRONOUS ELECTRIC MOTOR, PARTICULARLY FOR HOUSEHOLD APPLIANCES



(57) Abstract: The system (ECS) comprises a rectifier circuit (RC) to supply a direct current voltage (VB) as output; a driver circuit (DC) which is connected to a rectifier circuit (RC) and includes a plurality of controlled switches (SW1-SW4) which can permit passage of a current in the stator winding (W) selectively in one direction and in the opposite direction; a sensor (PS) which can supply a signal (H) which is indicative of the angular position of the rotor (R) ; and a control circuit (CC) which is designed to receive a signal (RS) which is indicative of the speed of rotation required (ωref) for the motor (M) , and is connected to the position sensor (PS) . The control circuit is designed to generate, from the passage of the rotor (R) to a predetermined position, a counting signal (N) which is a function of the time (t) , and to reset this signal (N) when it reaches a predetermined value (Nref) corresponding to the speed of rotation required (ωref) for the motor (M) ; and then to control the driver circuit (DC) selectively on the basis of the position signal (H) of the rotor or on the basis of the counting signal (N) , when the speed of rotation (ω) of the motor (M) is respectively lesser and greater than the speed required (ωref) .

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