

ABSTRACT

The present invention provides an air compressor that reduces a load torque at the time of starting. A compressor 1 includes a compressor body 2, an electric motor 6 that drives the main body 2, and a current supply circuit 21 that supplies a current to the electric motor 6. The circuit 21 is switchable between a steady operation mode in which a rated voltage of a power supply is applied to the electric motor and a start mode in which a voltage lower than the rated voltage is applied to the electric motor. The compressor 1 further includes an intake adjustment valve 100 switchable between an opened state and a closed state, and a controller 20 that controls the modes of the circuit 21 and the opened and closed states of the valve 100. The controller 20 determines whether or not the electric motor 6 reaches a rated rotational speed. The valve 100 is closed and the circuit 21 is set to the start mode for a period from a start time to a steady operation start time when it is determined that a rotational speed of the electric motor 6 reaches the rated rotational speed, and the circuit 21 is switched to the steady operation mode and the valve 100 is opened in synchronization with the switching for a period after the steady operation start time.

(Fig.1)