

ABSTRACT

VACUUM PUMP AND CONTROL DEVICE

A vacuum pump and a control device having a protective function which can prevent rotor destruction caused by heating without measuring a temperature of a rotor blade.

A vacuum pump including: a rotor blade that sends a gas to an outlet port; a motor that rotates/drives the rotor blade; a rotational speed measuring means that measures a rotational speed of the rotor blade; and a current measuring means that measures a current flowing through the motor, in which a first region defined such that a current measured value measured flowing through the motor is equal to or larger than a current specified value and a rotational speed measured value of the rotor blade is equal to or larger than a rotational speed specified value, a second region defined such that the current measured value flowing through the motor is less than the current specified value or the rotational speed measured value of the rotor blade is less than the rotational speed specified value, a region determining means that determines to which region of the first region and the second region the rotational speed measured value measured by the rotational speed measuring means and the current measured value measured by the current measuring means belong, and a calculating means that calculates a risk degree of a failure of the vacuum pump with elapse of time on the basis of results of the determination by the region determining means are provided.

Figure No. 6