Claim rejection under 35 USC 112

The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains,or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctlyclaiming the subject matter which the inventor or a joint inventor regards as the invention.  
The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA),second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor,

**Regarding claim 1**. An electric power steering device, comprising:  
a motor, which includes a stator including at least two independent coil winding groups, and is configured to rotate a steering mechanism of a vehicle; a drive control circuit, which is configured to drive the at least two independent coil winding groups of the motor independently of each other; and a controller, which is configured to calculate a control amount through feedback control to output the control amount, to thereby cause the drive control circuit to drive the at least two independent coil winding groups, wherein: the at least two independent coil winding groups are controlled independently or in cooperation; the controller includes a failure detector, which is configured to detect a failure of the motor or the drive control circuit; and the controller is configured to:  
output, when occurrence of a failure in one group out of the at least two independent coil winding groups is detected by the failure detector, a control amount so that control is continued solely by another normal group;  
resume, when recovery of the one group from the failure is detected by the failure detector during a period in which the control is continued solely by the another group, cooperative control by the one group and the another group; and  
set, when starting the cooperative control, target current values of the one group and the another group to values different from a final target current value common to the at least two independent coil winding groups so that a sum of an actual current of the one group, which has recovered from the failure, and an actual current of the another group falls within an acceptable change amount based on an actual current value or a target current value of the another group at a time of the recovery from the failure, to thereby output respective control amounts for the cooperative control.   
   
**Regarding claim 2**. An electric power steering device according to claim 1, wherein the controller is configured to, at the time of the recovery from the failure:  
set the target current value of the another group to a value equal to or larger than half of the actual current value or the target current value of the another group at the time of the recovery from the failure; set the target current value of the one group to a value equal to or smaller than half of the final target current value; and change the target current value of the one group and the target current value of the another group toward the final target current value as time elapses.   
   
**Regarding claim 3**. An electric power steering device according to claim 1, wherein the controller is configured to, at the time of the recovery from the failure:  
set the target current value of the another group to a value equal to or smaller than half of the actual current value or the target current value of the another group at the time of the recovery from the failure; set the target current value of the one group to a value equal to or larger than half of the final target current value; and change the target current value of the one group and the target current value of the another group toward the final target current value as time elapses.   
   
**Regarding claim 4**. An electric power steering device according to claim 1, wherein the controller is configured to change the target current values or output the control amounts so that the one group, which has recovered from the failure, follows the target current value earlier than the another group when the controller carries out the cooperative control toward the final target current value after the recovery from the failure.   
   
**Regarding claim 5**. An electric power steering device according to claim 2, wherein the controller is configured to change the target current value of the one group so that the target current value gradually increases to the final target current value, and change the target current value of the another group so that the target current value gradually decreases to the final target current value when the actual current value of the another group at the time of the recovery from the failure is equal to or larger than a half value of the final target current value, to thereby carry out the cooperative control.   
   
**Regarding claim 6**. A method of controlling an electric power steering device,  
the electric power steering device including:  
a motor, which includes a stator including at least two independent coil winding groups, and is configured to rotate a steering mechanism of a vehicle;  
a drive control circuit, which is configured to drive the at least two independent coil winding groups of the motor independently of each other; and  
a controller, which is configured to calculate a control amount through feedback control to output the control amount, to thereby cause the drive control circuit to drive the at least two independent coil winding groups,  
 the at least two independent coil winding groups being controlled independently or in cooperation, the method, which is carried out by the controller, comprising: a failure detection step of detecting a failure of the motor or the drive control circuit; a sole control step of outputting, when occurrence of a failure in one group out of the at least two independent coil winding groups is detected in the failure detection step, a control amount so that control is continued solely by another normal group; a control change step of resuming, when the one group recovers from the failure during a period in which the control is continued solely by the another group, cooperative control by the one group and the another group; a first cooperative control step of setting, when starting the cooperative control, target current values of the one group and the another group to values different from a final target current value common to the at least two independent coil winding groups so that a sum of an actual current of the one group, which has recovered from the failure, and an actual current of the another group falls within an acceptable change amount based on an actual current value or a target current value of the another group at a time of the recovery from the failure, to thereby output respective control amounts for the cooperative control; and a second cooperative control step of changing, after the cooperative control is started, the target current value of the one group and the target current value of the another group toward the final target current value as time elapses.   
   
**Regarding claim 7**. An electric power steering device according to claim 3, wherein the controller is configured to change the target current value of the one group so that the target current value gradually increases to the final target current value, and change the target current value of the another group so that the target current value gradually decreases to the final target current value when the actual current value of the another group at the time of the recovery from the failure is equal to or larger than a half value of the final target current value, to thereby carry out the cooperative control.   
   
**Regarding claim 8**. An electric power steering device according to claim 4, wherein the controller is configured to change the target current value of the one group so that the target current value gradually increases to the final target current value, and change the target current value of the another group so that the target current value gradually decreases to the final target current value when the actual current value of the another group at the time of the recovery from the failure is equal to or larger than a half value of the final target current value, to thereby carry out the cooperative control.