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(54) Title: FULLY ENCLOSED SELF-VENTILATED ELECTRIC MOTOR

(54) 发明名称: 一种全封闭自通风电机

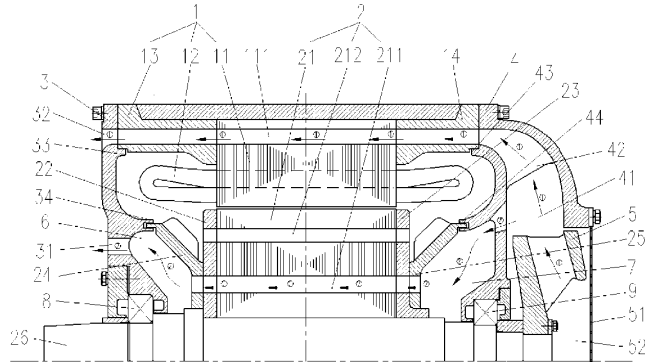


图 1

(57) Abstract: A fully enclosed self-ventilated electric motor comprises a stator, a rotor, a front end cover and a rear end cover. The rotor is arranged inside the stator, and the rotor comprises a rotor core, a rotor press ring, a rotating shaft, a front-end rotor interlayer and a rear-end rotor interlayer. The stator comprises a stator core, a stator winding and a stator press ring. The front end cover and the rear end cover are respectively arranged at the front end and the rear end of a power structure composed of the stator and the rotor. A through axial stator air duct is provided in the stator core, and a through inner rotor air duct is provided in the rotor. An air outlet and a front end cover ventilation duct are provided in the front end cover, and an air inlet and a rear end cover ventilation duct are provided in the rear end cover. The air inlet of the rear end cover, the rear end cover ventilation duct, the axial stator air duct and the front end cover ventilation duct form a first cooling air circuit, and the air inlet of the rear end cover, the inner rotor air duct and the air outlet of the front end cover form a second cooling air circuit. Neither the first cooling air circuit nor the second cooling air circuit is in communication

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with the stator winding. The fully enclosed self-ventilated electric motor of the present application has an excellent cooling effect.

(57) 摘要: 一种全封闭自通风电机, 包括定子、转子、前端盖和后端盖, 转子设置在定子的内侧, 转子包括转子铁心、转子压圈、转轴、前端转子夹层和后端转子夹层, 定子包括定子铁心、定子绕组、定子压圈, 前端盖、后端盖分别设置在定子和转子组成的动力结构的前端和后端, 定子铁心开有贯通的定子轴向风道, 转子上开设有贯通的转子内侧风道, 前端盖设有出风口和前端盖通风道, 后端盖设有进风口和后端盖通风道; 后端盖的进风口、后端盖通风道、定子轴向风道及前端盖通风道组成第一冷却风路, 后端盖的进风口、转子内侧风道及前端盖的出风口组成第二冷却风路, 第一冷却风路、第二冷却风路均不与定子绕组连通。本申请的全封闭自通风电机具有较优的冷却效果。