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本国际公布:

- 包括国际检索报告 (条约第 21 条(3))。

(54) Title: HYDROGEN FUEL CELL AND SYSTEM THEREOF, AND METHOD FOR DYNAMIC VARIABLE HUMIDITY CONTROL

(54) 发明名称: 氢燃料电池及其系统及动态变湿度控制方法

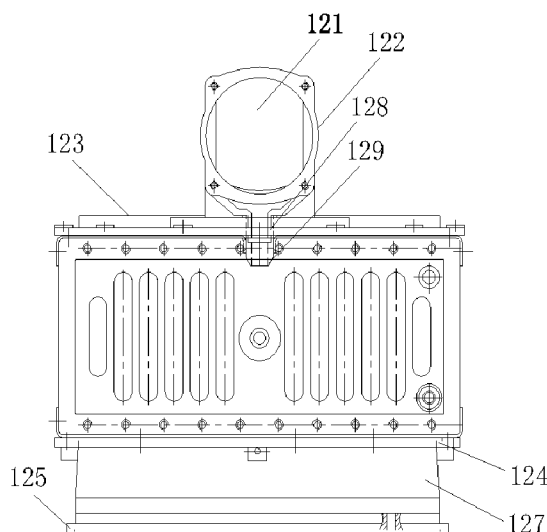


图 2 B / FIG. 2 B

(57) Abstract: Disclosed are a hydrogen fuel cell and system thereof, and a method for dynamic variable humidity control; the hydrogen fuel cell comprising a stack assembly and an outside plate gas distribution device; the stack assembly is encapsulated with a hard housing; the outside plate gas distribution device is fixed on the hard housing; the outside plate gas distribution device comprising a working gas flow outside plate gas distribution device and a heat dissipation gas distribution device; the working gas flow outside plate gas distribution device is provided with a fan mount for connecting with a working fan, and the working gas flow outside plate gas distribution device extends into the inner cavity of the housing from outside of the housing; the heat dissipation gas distribution device comprising a heat dissipation channel disposed outside of the housing and connected to the housing inner cavity, and a heat dissipation vent disposed on the housing; and the heat dissipation channel is provided with a heat dissipation fan mount for connecting with a heat dissipation fan. The hydrogen fuel cell of the present invention improves power generation efficiency, reduces costs and increases service life.

(57) 摘要:

[见续页]

本发明公开了一种氢燃料电池及其系统及动态变湿度控制方法，所述氢燃料电池包括电堆组合体和板外配气装置；所述电堆组合体采用硬壳式壳体封装；所述板外配气装置固定在硬壳式壳体上，板外配气装置包括工作气流板外配气装置和散热配气装置，所述工作气流板外配气装置上设有风机安装座，用于与工作风机相连接，所述工作气流板外配气装置自壳体外部伸入到壳体内腔中，所述散热配气装置包括设置于壳体外、与壳体内腔相通的散热通道和设置于壳体上的散热口，所述散热通道上设有散热风机安装座，用于与散热风机相连接。本发明的氢燃料电池提高了发电效率、降低了成本并提高了寿命。