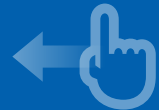


日本語

English

Hydrogen Circulation Pump for TOYOTA FCV MIRAI

トヨタMIRAI搭載水素循環ポンプ



トヨタ MIRAI 搭載

日本語

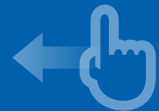
English



Hydrogen Circulation Pump



- 発電時にFCスタック内で一部未反応となる水素を再循環。
- 発電によって発生する水も同時に循環させ、FCスタックの加湿器レスに貢献。



日本語

English

■仕様

圧縮方式 : 2葉ストレートルーツ式

最大出力 : 430W

最大回転数 : 6,200r/min

搭載位置 : 運転席床下

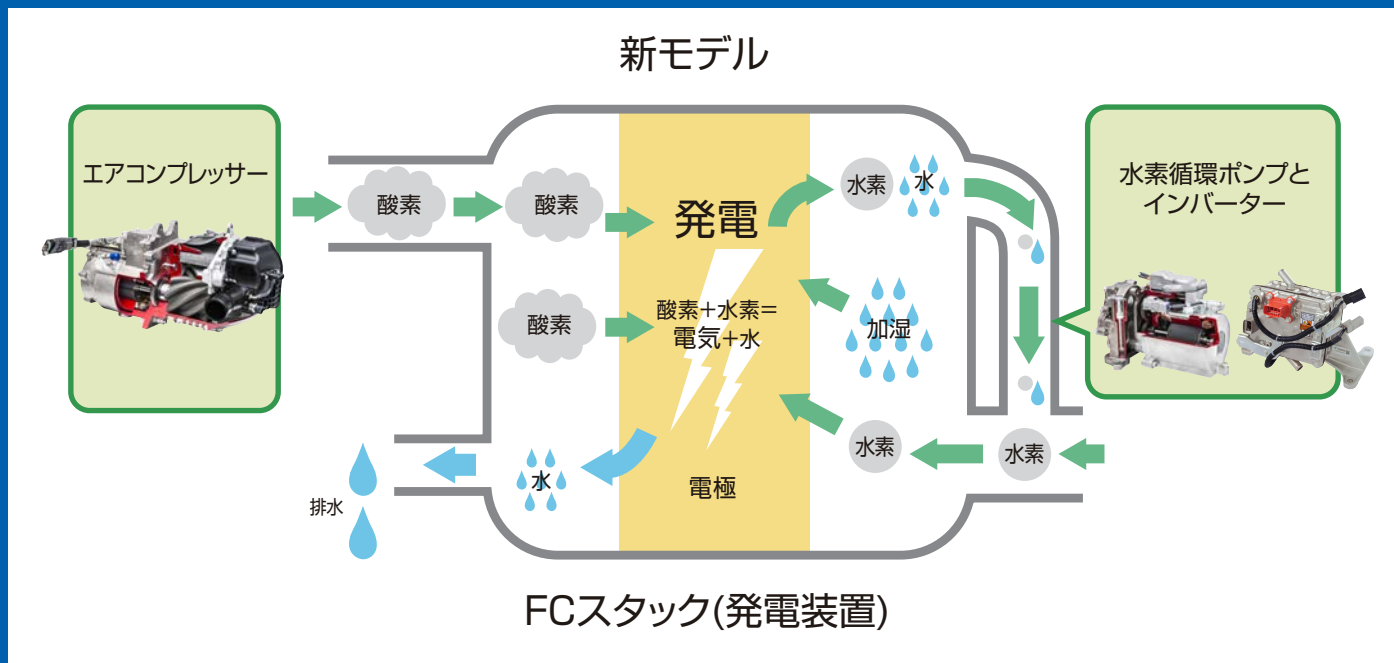
Hydrogen Circulation Pump



燃料電池のしくみと 水素循環ポンプの位置付け

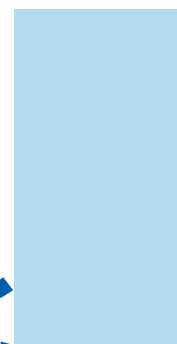
日本語

English



Hydrogen Circulation Pump

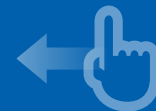
16% 小型化



日本語

English

- FCスタックと一体化することで、モーターの放熱性を向上させ、前モデルから16%小型化を実現。

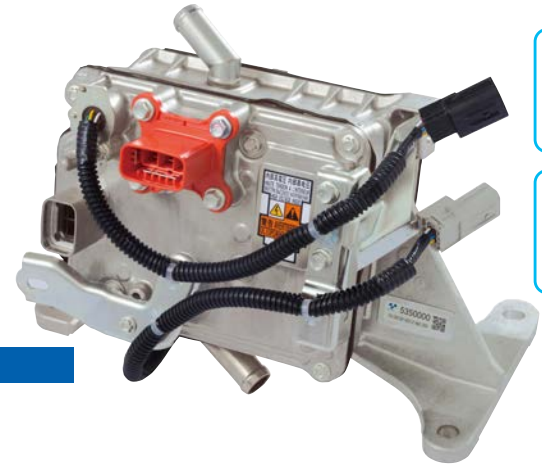


Hydrogen Circulation Pump



TOYOTA

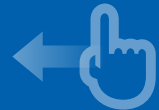
水素循環ポンプ用 インバーター



日本語

English

- 水素循環ポンプの駆動に際し、電力消費のロスを最小限にして、効率よく制御。
- ウォーターポンプのインバーターと一体化し、小型軽量を実現。



Hydrogen Circulation Pump

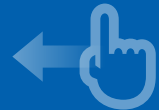


TOYOTA

日本語

English

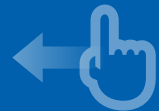
Hydrogen Circulation Pump for TOYOTA FCV MIRAI



日本語

English

Used on the Toyota MIRAI



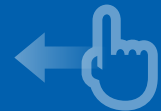
Hydrogen Circulation Pump



日本語

English

- Recirculates a portion of the hydrogen that did not undergo a chemical reaction during electric power generation in the fuel cell stack.
- The water produced from electricity generation is also circulated, contributing to the development of a fuel cell stack without a humidifier.



Hydrogen Circulation Pump



日本語

English

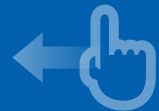
■ Specifications

Pump type : 2-lobes straight roots type

Maximum output : 430W

Maximum speed : 6,200r/min

Location : Under the driver's sheet



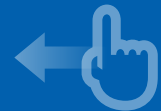
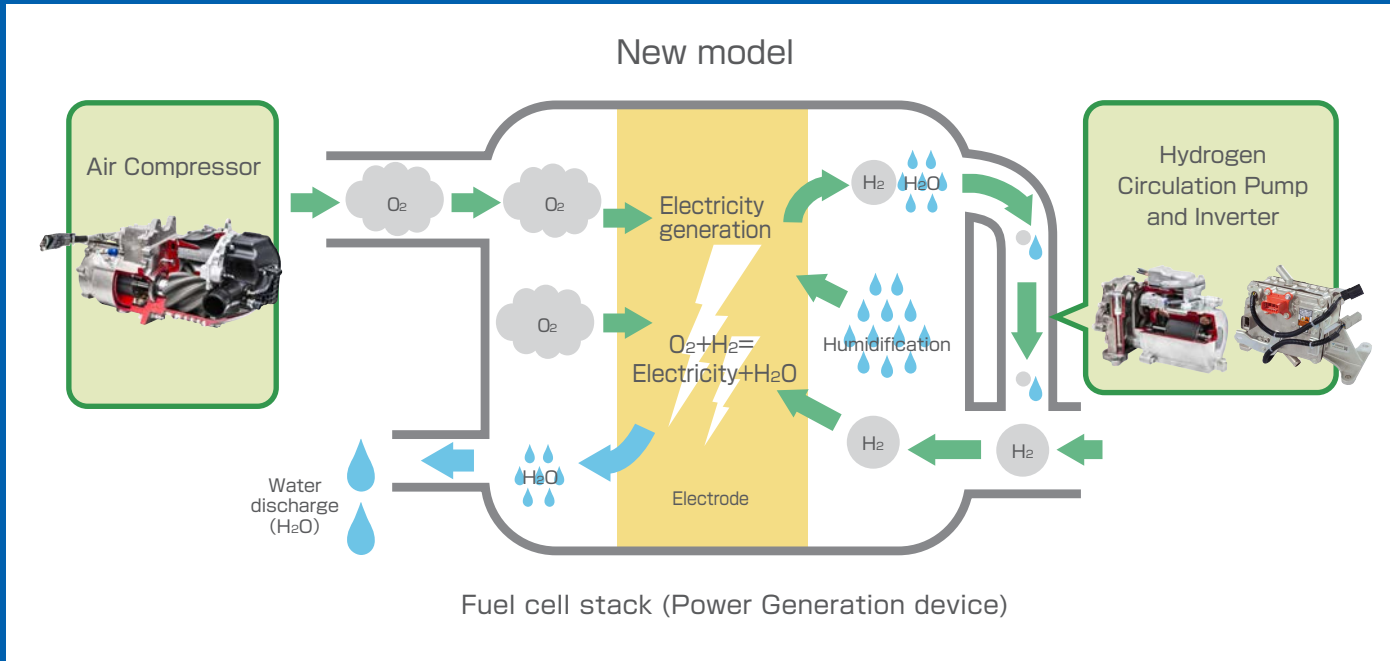
Hydrogen Circulation Pump



Mechanism of fuel cell and role of Hydrogen Circulation Pump

日本語

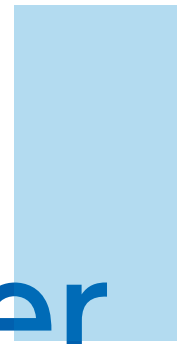
English



Hydrogen Circulation Pump



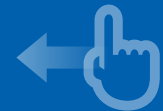
16% smaller



日本語

English

- Integrating the pump with the fuel cell stack raises the motor's heat dissipation performance and contributes to 16% smaller size than the previous model.

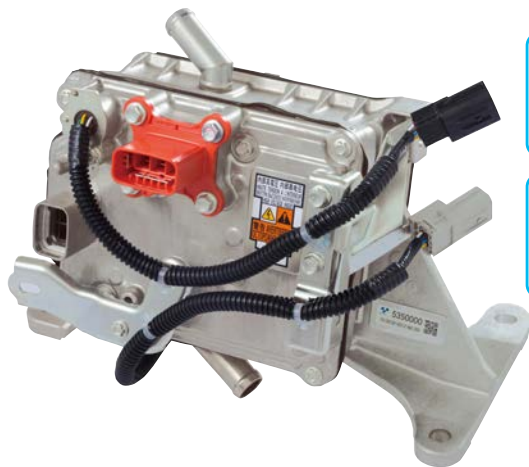


Hydrogen Circulation Pump



TOYOTA

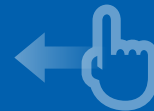
Hydrogen Circulation Pump Inverter



日本語

English

- Electric power consumption losses when operating the hydrogen circulation pump are minimized through efficient control.
- Integration with the water pump inverter contributes to a more compact size and lighter weight.



Hydrogen Circulation Pump

