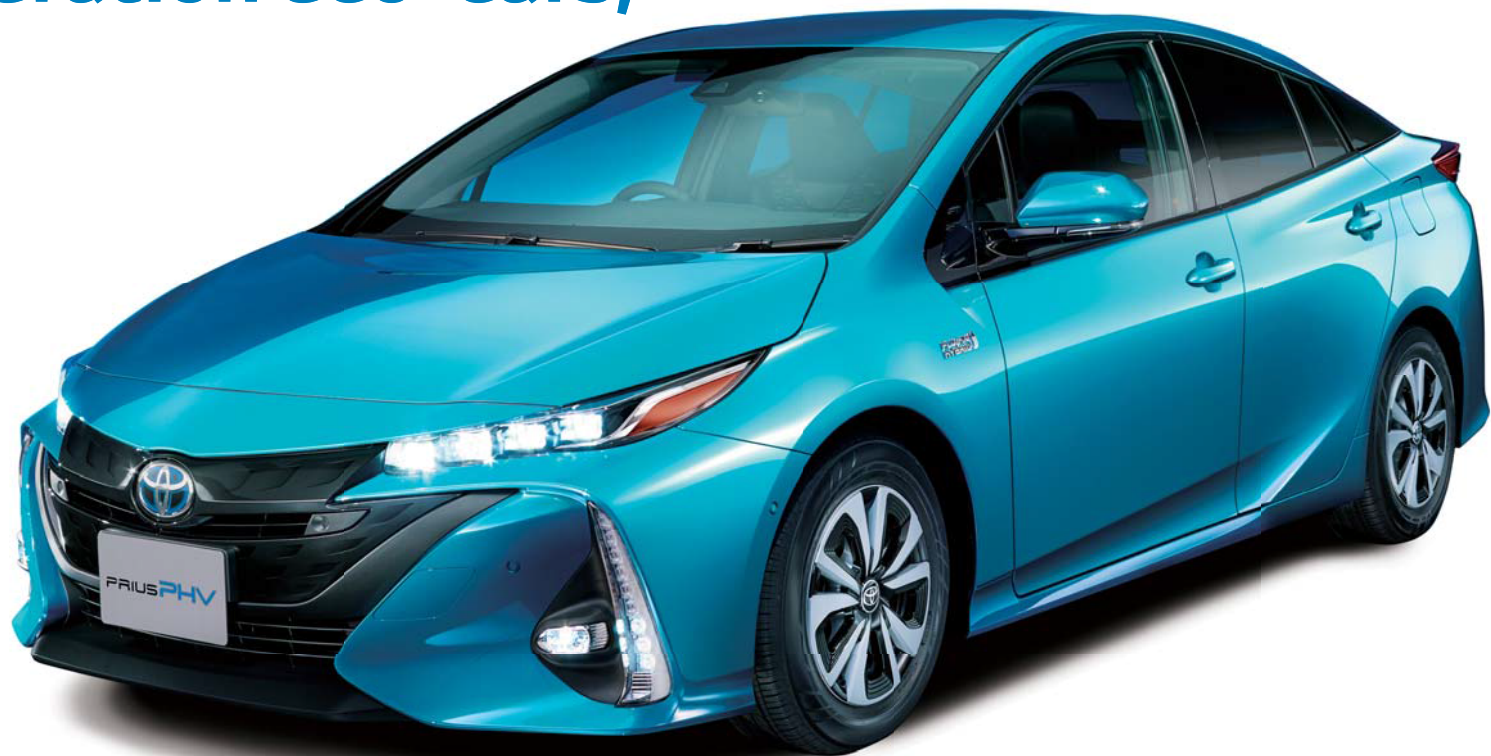


# The New Prius PHV



Departing from a new starting point, the significantly evolved new Prius has been established as the pillar of next generation eco-cars;



Length/Width/Height	mm	4,645/1,760/1,470
Wheelbase	mm	2,700
Tread (front/rear)	mm	1,530/1,540
Seat Capacity	persons	4
Vehicle weight	kg	1,510
Tire size		195/65R15
EV cruising range	km	68.2km <sup>*1</sup>
EV maximum speed	km/h	135 <sup>*2</sup>
Hybrid model fuel efficiency	km/ℓ	37.2 <sup>*3</sup>
Transmission		Electric continuously variable transmission
Drivetrain		2WD(FF)

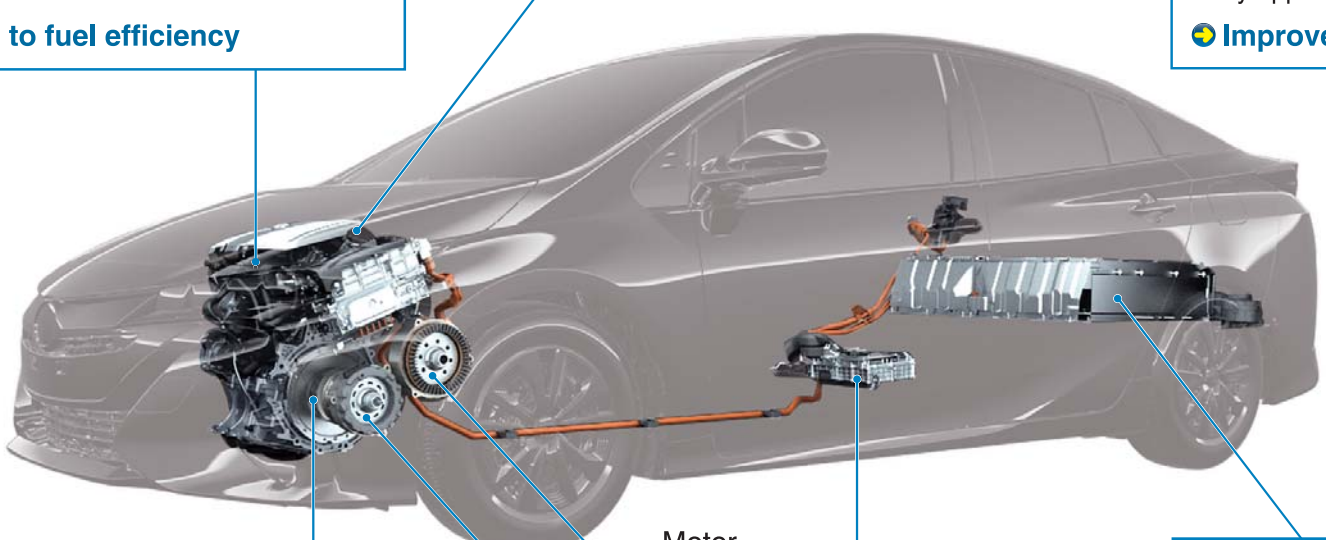
Engine	Type	Inline 4-cylinder DOHC
	Displacement	cc 1,797
	Maximum output	kW(PS)/r.p.m. 72(98)/5,200
	Maximum torque	N·m(kgf·m)/r.p.m. 142(14.5)/3,600
Motor	Maximum output	kW(PS) 1NM:53(72)/1SM:23(31)
	Maximum torque	N·m(kgf·m) 1NM:163(16.6)/1SM:40(4.1)
	System maximum output <sup>*2</sup>	kW(PS) 90(122)
Traction battery	Type	Lithium-ion battery
	Cell capacity	Ah 25
	Number of cells	95
	Total electric power	kWh 8.8

<sup>\*1</sup>: Regardless of the remaining battery charge, EV driving mode may automatically be switched over to hybrid driving mode depending on the state of the engine and drive battery, air conditioner usage, driving mode (rapid acceleration, exceeding the set vehicle speed), and road conditions (hill climbing).  
Based on the JC08 Japanese test cycle for EV mode range (on a fully charged battery) and verified by the Ministry of Land, Infrastructure, Transport and Tourism of Japan

<sup>\*2</sup>: Measured by Toyota

<sup>\*3</sup>: JC08 mode fuel efficiency. Ministry of Land, Infrastructure, Transport and Tourism evaluation value

## EV Performance Including Powerful EV Acceleration and Significantly Extended EV Cruising Range



### High efficiency 1.8-liter engine

- 2ZR-FXE engine with maximum thermal efficiency of 40%
- **Contributes to fuel efficiency**

### Power Control Unit

- Increased step up converter output (increase output by approximately 1.8 times of previous model)
- **Improved EV cruising performance**

### Hybrid Transaxle

- Dual Motor Drive System Used
- **Powerful EV cruising performance is enhanced with the use of the motor and generator to drive the vehicle**

### Charging System

- Improved charger output
- **The EV cruising range is 2 times longer, while the charging time has been reduced by approx. 1.5 times (AC200V)**
- Simplification of the construction of the charging infrastructure
- **By setting or adopting the charging current at AC100V/6A, construction of dedicated circuit is not needed**
- Quick charging system adopted
- **The system can charge approx. 80% of the battery in a short period of time (20 minutes)**

### Traction Battery (Lithium-ion)

Increased battery capacity (approx. double that of the previous batteries)

**EV cruising range: Target of 68.2 km<sup>\*1</sup>**  
**Maximum speed: 135 km/h<sup>\*2</sup>**

Battery warming system adopted

**Improves EV cruising performance at low temperatures**


Toyota's measurements		New model	Previous model
EV cruising range	km	<b>68.2<sup>*1</sup></b>	26.4
Hybrid mode fuel efficiency	km/L	<b>37.2<sup>*3</sup></b>	31.6
EV maximum speed	km/h	<b>135</b>	100
Traction battery capacity	kWh	<b>8.8</b>	4.4

### Significantly extended EV cruising range

By installing a high-capacity lithium-ion battery and efficient PHV system, the target cruising range has advanced dramatically.


**New Prius PHV**

**68.2<sup>\*1</sup> km** EV maximum speed : **135 km/h<sup>\*2</sup>**



**Previous Prius PHV**

**26.4<sup>\*1</sup> km** EV maximum speed : **100 km/h<sup>\*2</sup>**



### World class-leading hybrid mode fuel efficiency

Fuel efficiency\* in JC08 mode has been increased it further by improving the PHV system.

**37.2<sup>\*3</sup> km/L** ● The previous Prius PHV : **31.6 km/L**

\*1 : Regardless of the remaining battery charge, EV driving mode may automatically be switched over to hybrid driving mode depending on the state of the engine and drive battery, air conditioner usage, driving mode (rapid acceleration, exceeding the set vehicle speed), and road conditions (hill climbing). Based on the JC08 Japanese test cycle for EV mode range (on a fully charged battery) and verified by the Ministry of Land, Infrastructure, Transport and Tourism of Japan

\*2 : Measured by Toyota

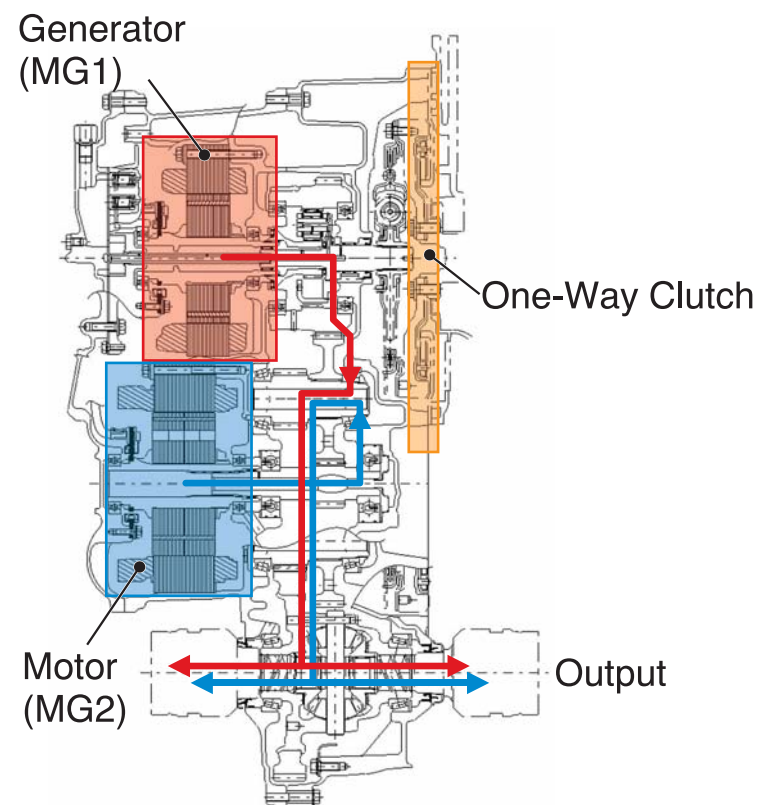
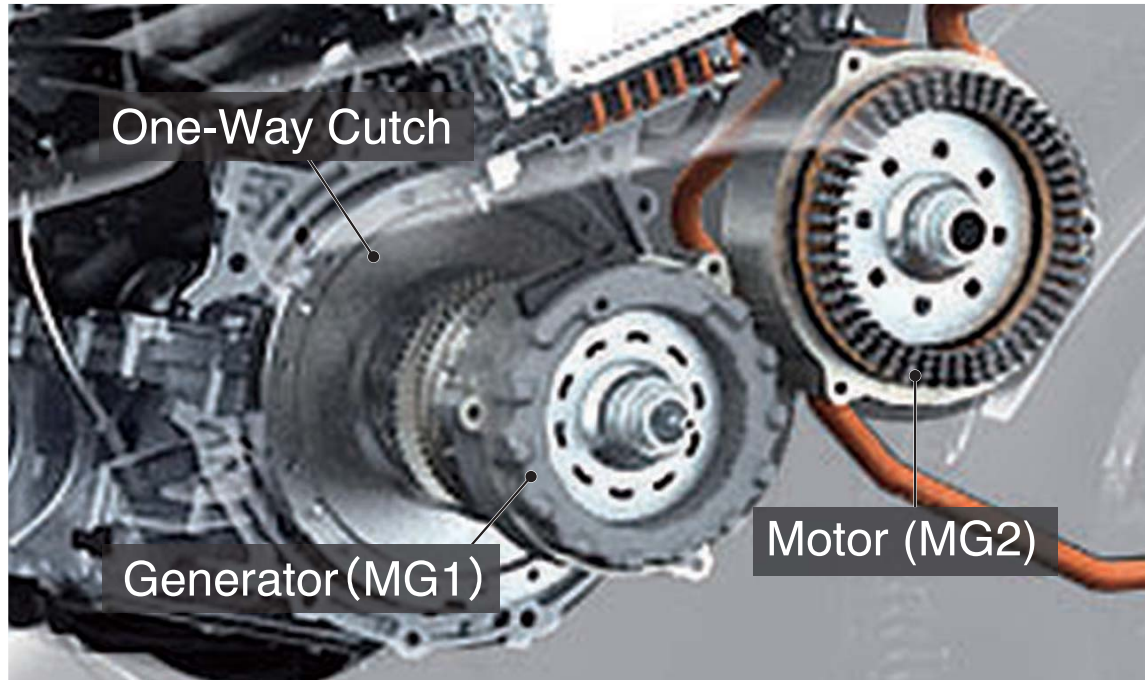
\*3 : JC08 mode fuel efficiency. Ministry of Land, Infrastructure, Transport and Tourism evaluation value



# Dual Motor Drive System

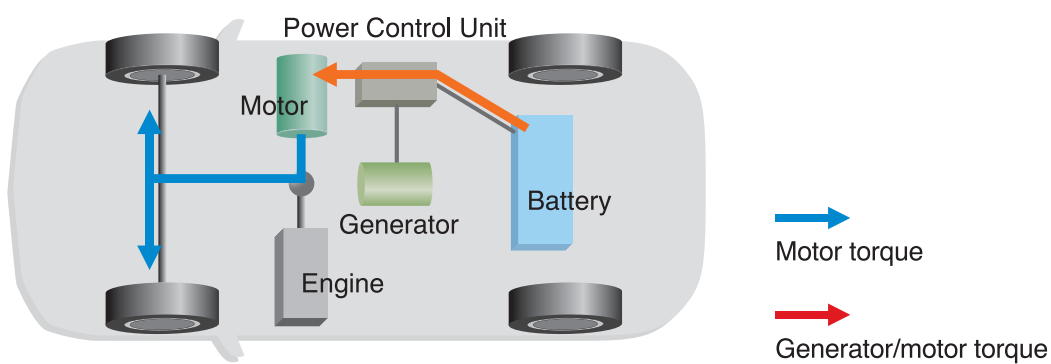


System allows for the power to operate the generator with the motor and powerful EV cruising.

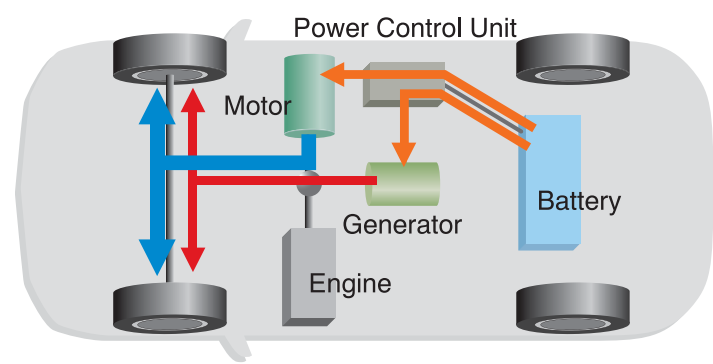


## Electric power is supplied from the battery to two motors

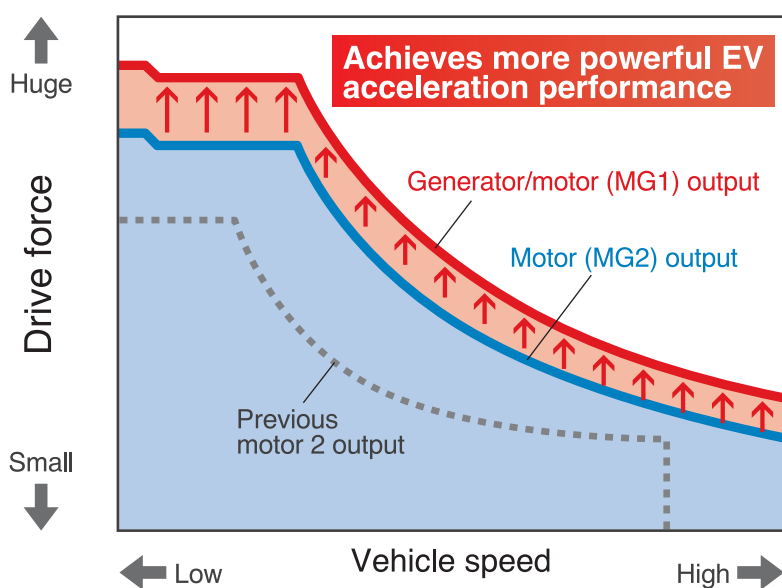
### During normal EV operation



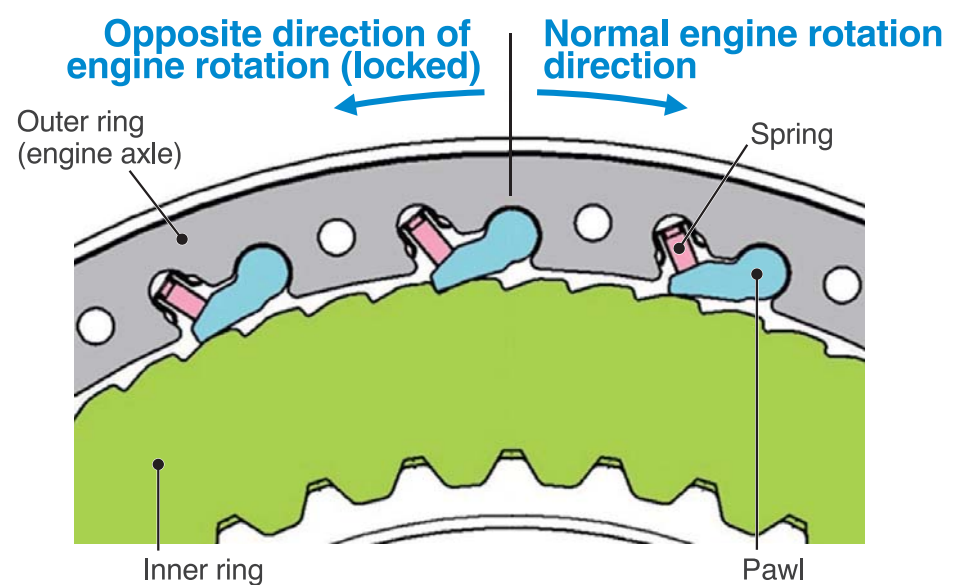
### At maximum output during EV cruising



## Driving force during EV cruising



## One-Way Clutch



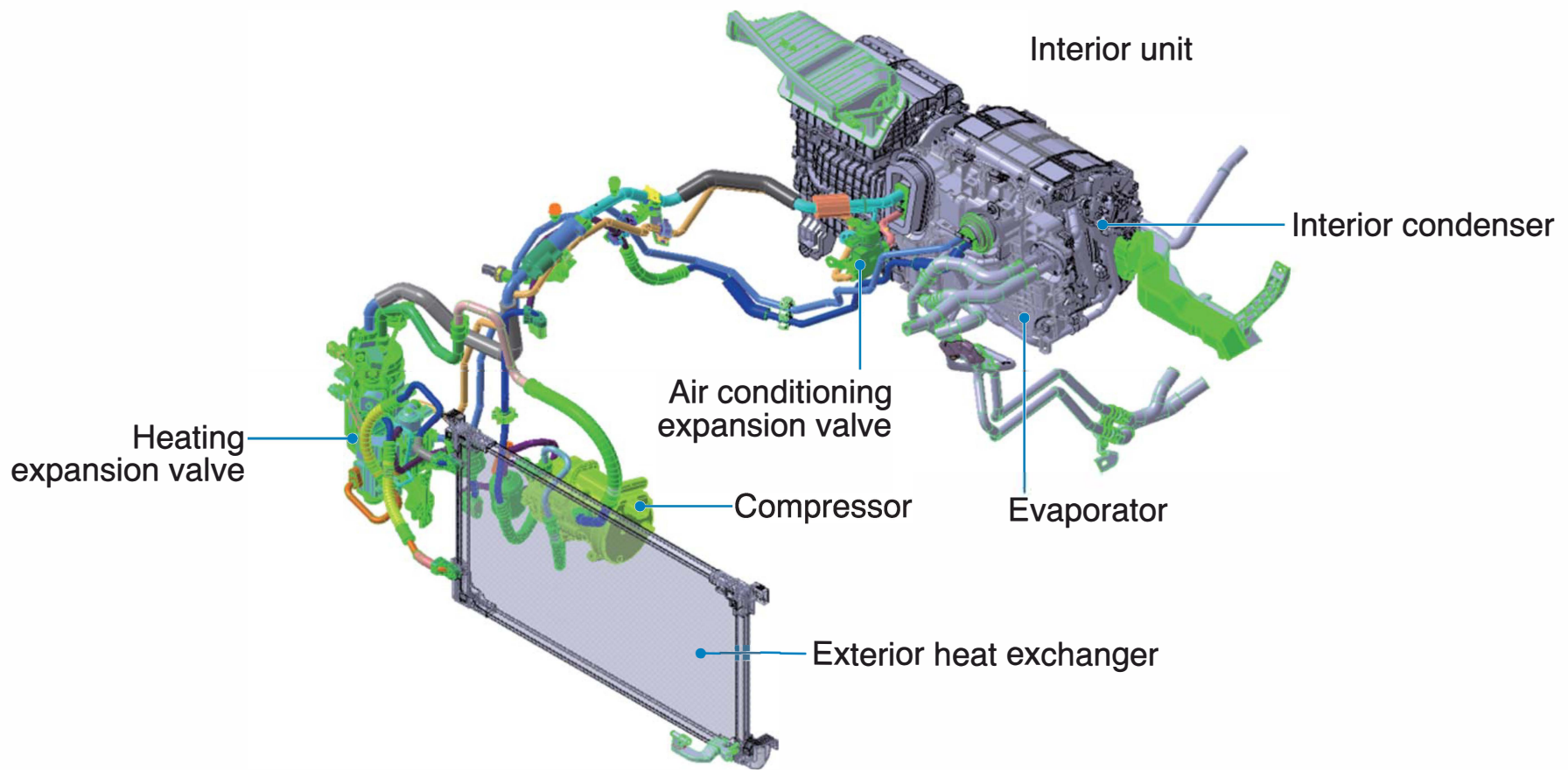
**World's first**

# Heat Pump Auto Air Conditioner with Gas Injection Function

PRIUS PHV 

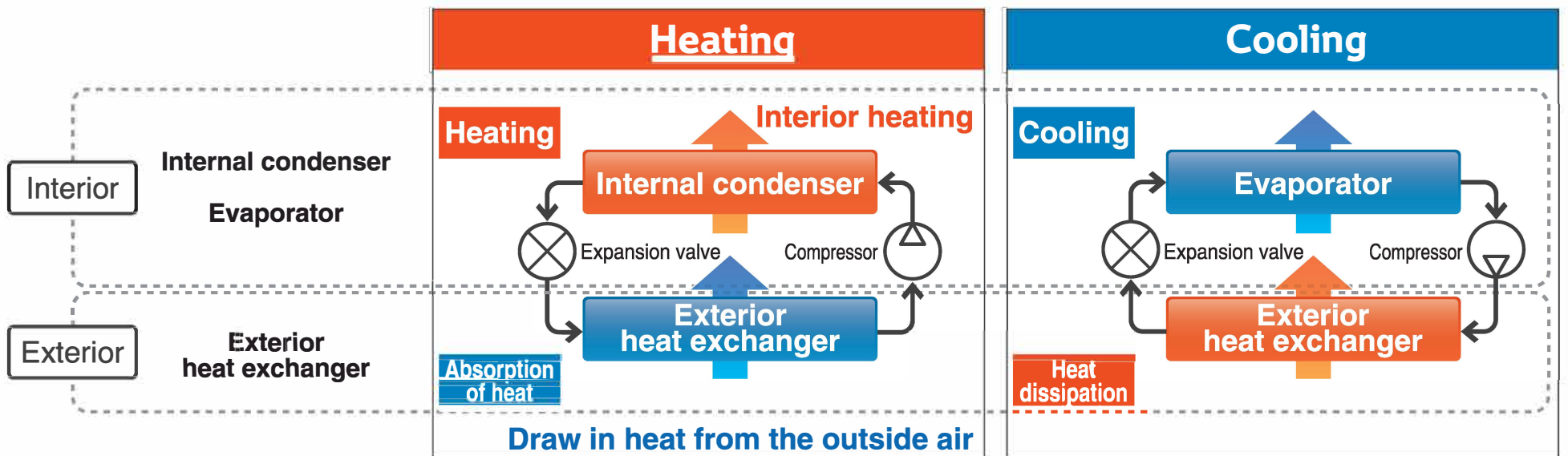
As of August 2016, according to a Toyota survey

## The heater runs during EV operation without relying on the engine, even at cold temperatures.



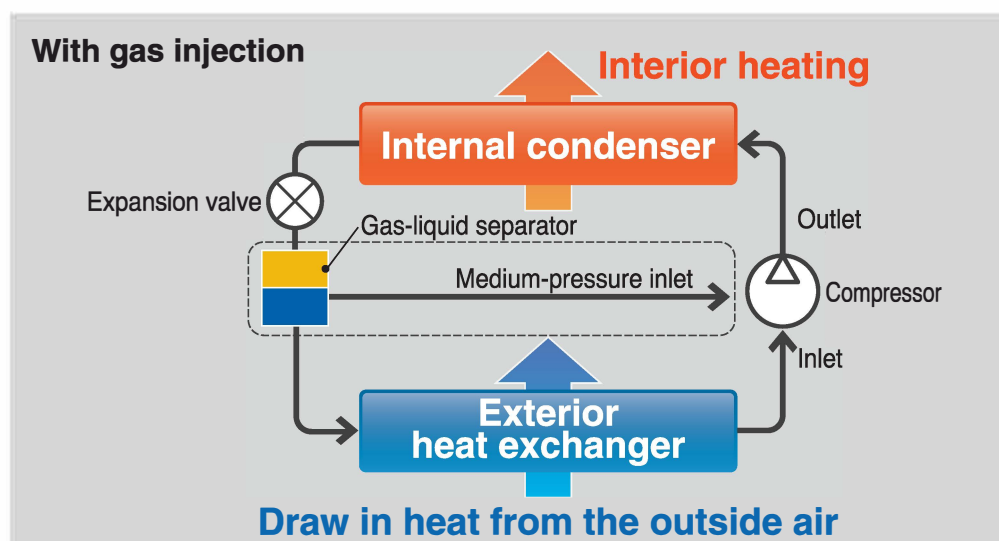
### Overview of Heat Pump

A system that efficiently heats the car by drawing heat from the outside air with a coolant



### Overview of the Gas Injection

Gas is separated from the mixed gas-liquid coolant and injected into the compressor to increase the coolant flow rate and heating capacity.

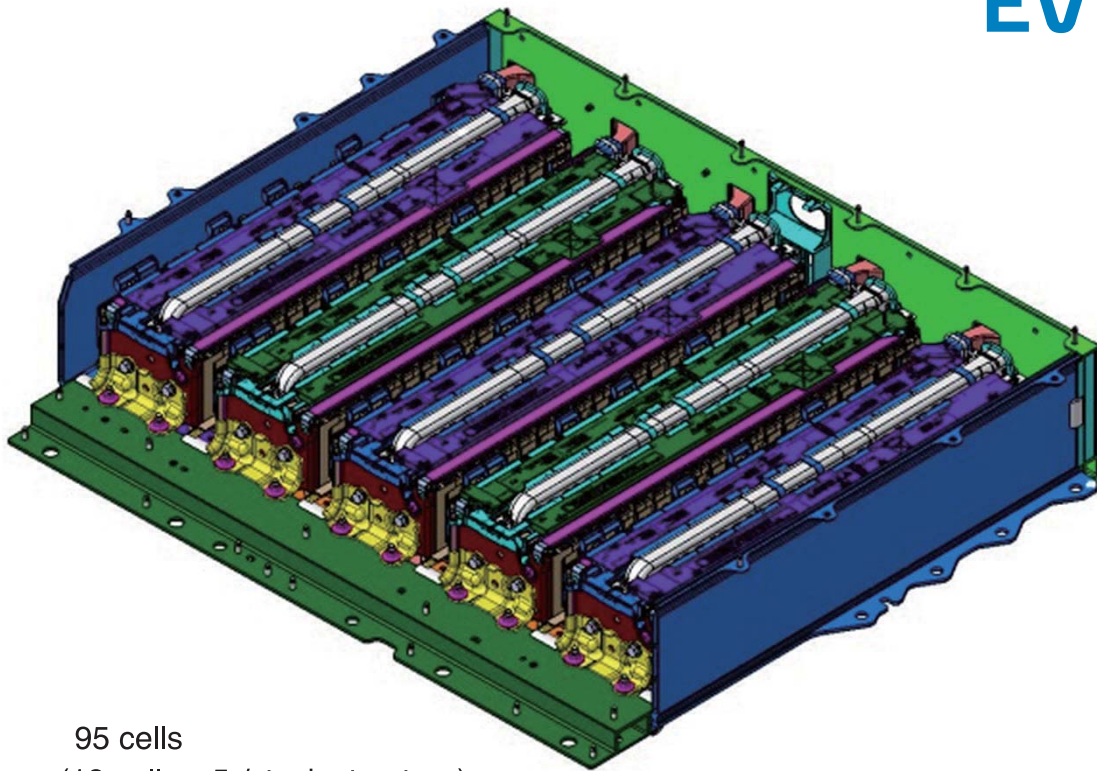




## The use of a large-capacity battery and a battery heating system to ensure adequate EV cruising range even in winter

### EV cruising range: 68.2km\*

\*Regardless of the remaining battery charge, EV driving mode may automatically be switched over to hybrid driving mode depending on the state of the engine and drive battery, air conditioner usage, driving mode (rapid acceleration, exceeding the set vehicle speed), and road conditions (hill climbing). Based on the JC08 Japanese test cycle for EV mode range (on a fully charged battery) and verified by the Ministry of Land, Infrastructure, Transport and Tourism of Japan



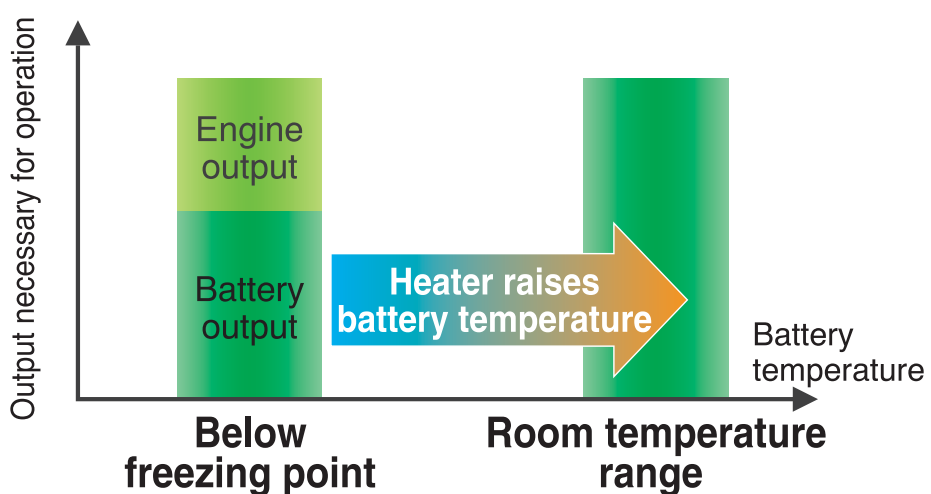
95 cells  
(19 cells x 5-/stack structure)

#### Main Specifications

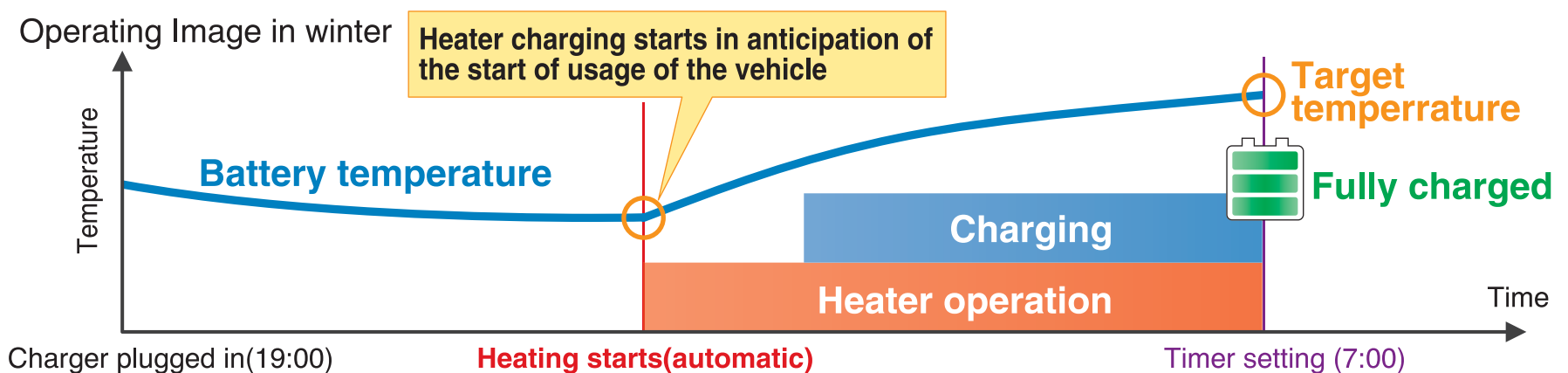
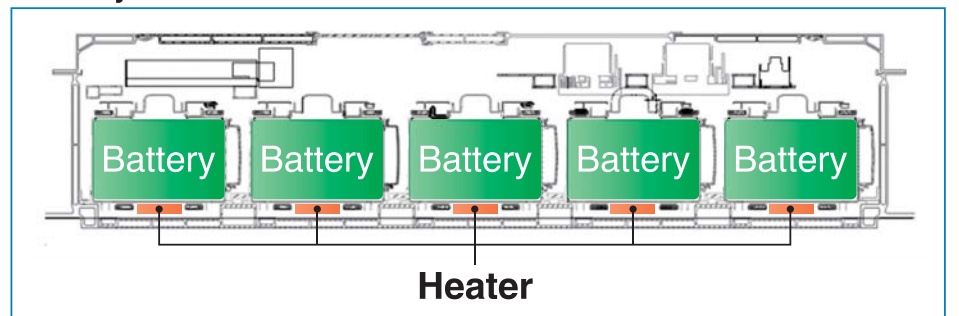
	New model	Previous model	Ratio compared to previous model
Total electric power kWh	8.8	4.4	Approximately <b>2</b> times
Mass kg	120	80	Approximately <b>1.5</b> times
Volume L	145	87	Approximately <b>1.6</b> times
Total voltage v	351.5	207.2	—
Cell capacity Ah	25	21.5	—
Number of cells	95	56	—

### Battery Heating System

Even when fully charged, the output of the drive battery decreases at low temperatures, and as a result, the engine runs in low-temperature environments..Hence, Toyota developed a new battery with a battery heating system that includes an electric heater installed in the battery. The use of a system that automatically increases the battery temperature during external charging ensures EV operation even in winter.



Battery cross-section

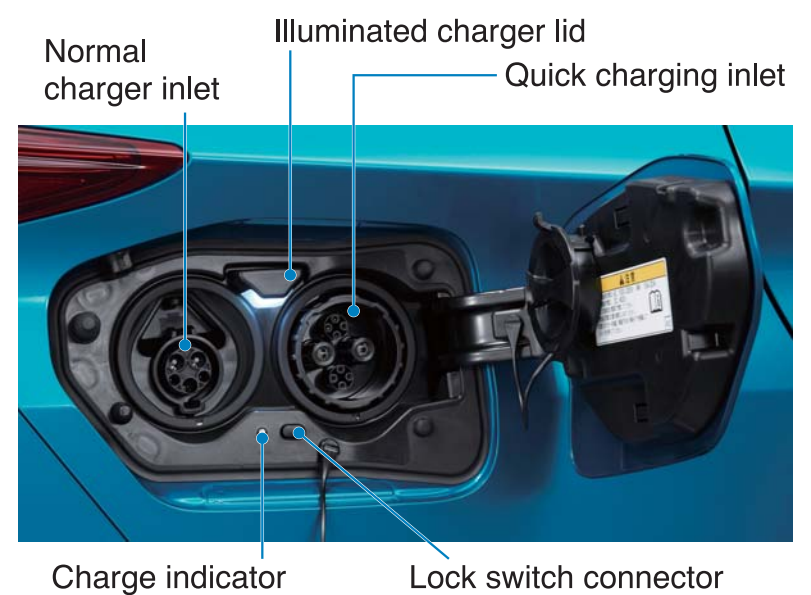
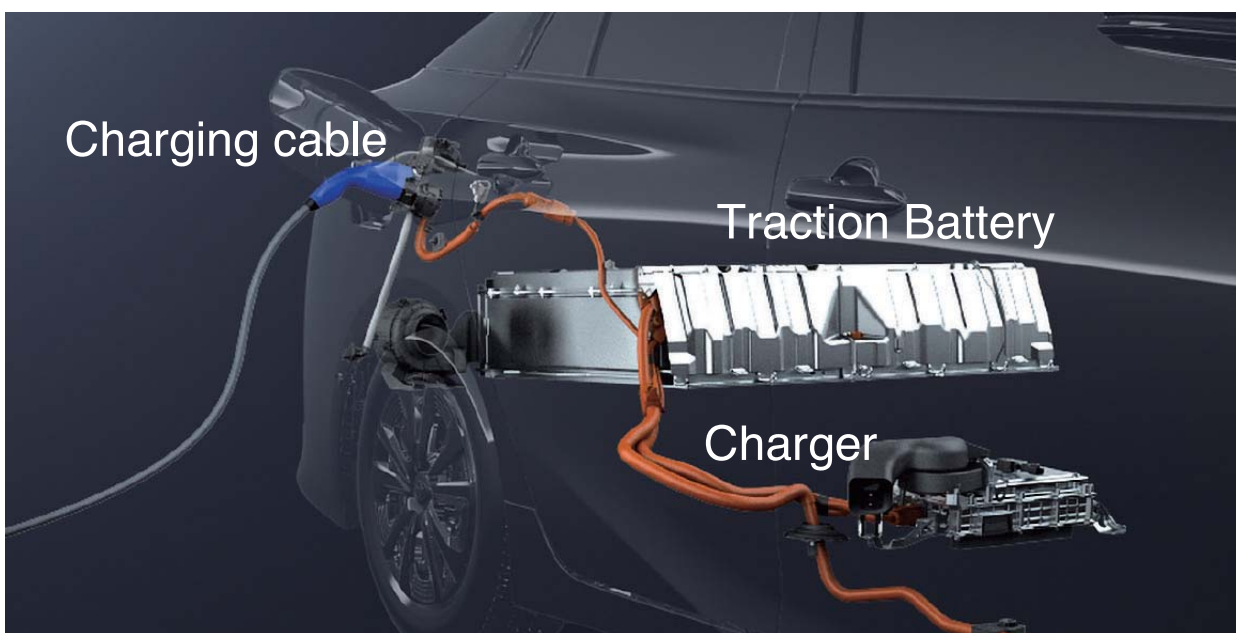


# Battery Charging System



Charging is now made more convenient with the addition of AC 100V (6A), increasing the output of the charger to reduce charging time (AC 200V), as well as a quick charging feature.

Improvements in other features such as timer charging and a charge connector lock also increases the ease-of-use.



## Charging method and charging time

- **Quick charging:**  
Quick charging using public rapid charging stands is possible.
- **Normal charging:**  
**AC200V charging:**  
Charging at a maximum of 3.0 kW is possible at residential and public ordinary charging stands.  
\* Charger output: Approximately 1.6 times higher than previously
- **AC100V charging:**  
Charging is possible by using general household circuits.  
\* By setting the charging current at 6A, construction to install a dedicated circuit is not needed.

### Charging time

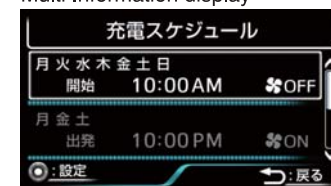
Charging method		Charging time
<b>Quick charging</b>		Approximately <b>20</b> minutes (approx. 80% charge)
<b>Normal charging</b>	200V/16A	Approximately <b>2</b> hours and <b>20</b> minutes (full charge)
	100V/6A	Approximately <b>14</b> hours (full charge)

## Timer-based charging

- **Weekly repeated settings:**  
Repeated settings can be set on a weekly basis (max. of 15 settings).
- **Air Conditioning Linkage:**  
By setting the departure time and having the air conditioning turned on, you can adjust the interior to a comfortable temperature.

- **Smartphone Connectivity:**  
It is possible to adjust timer settings from a remote area by connecting a smartphone to the vehicle.

Multi Information display



Large 11.6 inch display



## Smart lid and lock connector system

- The system has a function that locks and released the charger connector and charger lid, operates in tandem with the smart key system



World's first

# Solar Charging System

PRIUS PHV 

As of August 2016, according to a Toyota survey

Toyota has developed the world's first mass-produced vehicle that uses solar power as the energy source to power the vehicle.

Even when the vehicle is parked where there is no charger, or a blackout caused by a natural disaster or accident, the traction battery can be charged if the car is directly in the sun.



## System Performance (Reference Values)

While parking outdoors, the electric power that is generated by the large solar panel that is installed on the vehicle roof is supplied to the traction battery.

### EV cruising range on the solar charging system

Up to **6.1** km on one's day charge      Annual average **2.9** km on one's day charge

Maximum amount of charge generated by the solar charging system while the vehicle is parked, converted into travelling distance according to the JC08 Japan test cycle. Calculated based on the Japan Photovoltaic Energy Association Labeling Guidelines (FY2015), taking into account the various losses incurred in on-board systems. Solar radiation amount calculated based on the daily data in an average year between 1990 and 2009 in the Nagoya district (source: NEDO).

## System Structure

### 1 Solar Roof

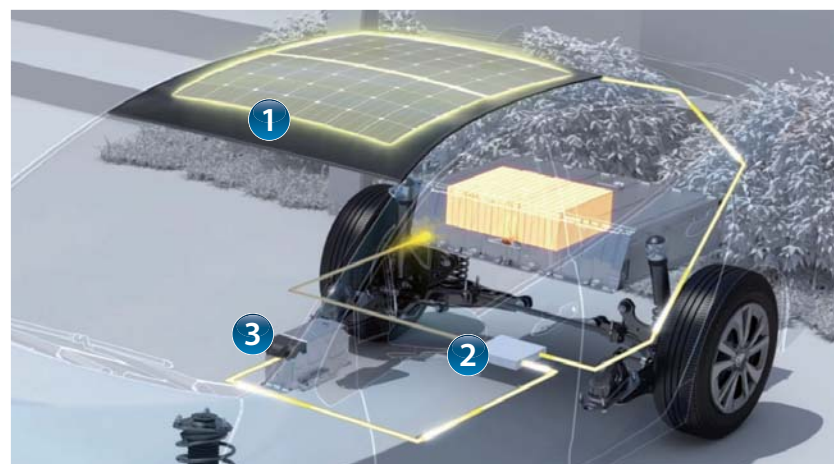
Generates a maximum output of approx. 180 W\* with a solar panel  
\* Toyota's measurement values

### 2 Solar ECU

The solar ECU contains a DC/DC converter, and manages the energy for the generation of electric power

### 3 Solar battery

Operates as a temporary storage battery for the generated electric power  
[Battery type: nickel-metal hydride]

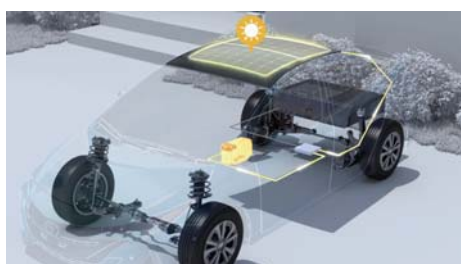


## Operating Modes

### While Parked\* Charging Traction Battery

Solar electric power is temporarily stored in the solar battery and then sent to the traction battery all at once to reduce electric power consumption by the system, and to also charge the traction battery efficiently.

\*READY indicator light off



### While Driving Reduces the consumption of the traction battery power

By supplementing the power consumption of the 12 V battery system with the use of solar electric power, the system reduces the power consumption of the traction battery.



# Carbon-Fiber-Reinforced Plastic Backdoor



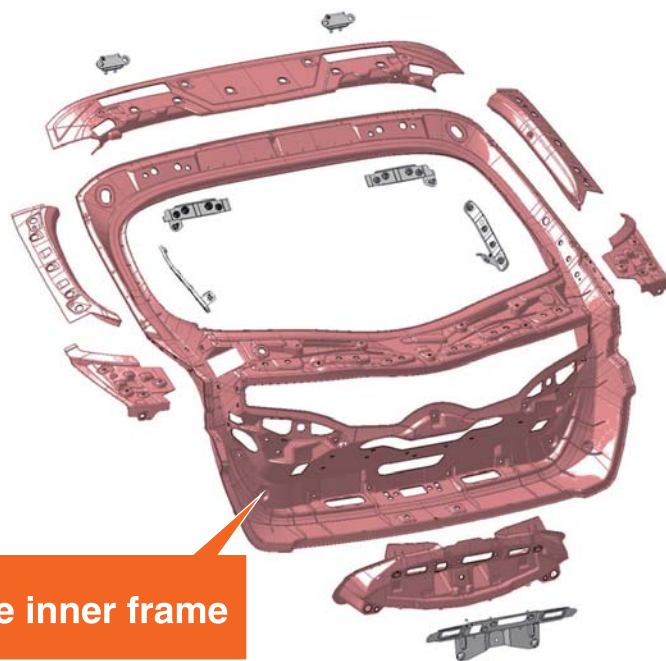
The backdoor frame is made from carbon-fiber-reinforced plastic (CFRP).

As such, it is approximately 40% lighter than an aluminum backdoor frame

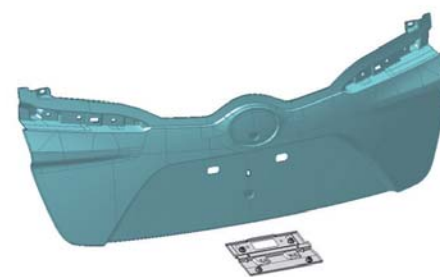
⟨Compared to an aluminum frame with the same design⟩



## Lightweight



- CFRP
- Toyota Super Olefin Polymer (TSOP)
- Steel



CFRP is used in the inner frame

## Expanded Rear Visibility



By adopting a plastic inner frame with integrated side trim, rear visibility is expanded

In comparison with previous models: **+6.4°**  
(In comparison with the Prius: **+1.7°**)





# 11.6インチ T-Connect SD ナビゲーションシステム

11.6-inch T-Connect SD Navigation System



トヨタ初 A Toyota First

## 先進感あふれる11.6インチ大型ディスプレイ 使って「楽しい・心地よい」インターフェースを追求

11.6-inch navigation system display with an advanced feel. Toyota sought to create a fun to use and pleasant interface.

「使いやすさ」だけでなく、「楽しさ」や「心地良さ」も同時に感じていただくために、トヨタ初となる11.6インチ大型ディスプレイを新開発。ナビやオーディオ、空調などのプリウスPHVに関するさまざまな情報をディスプレイに集約しました。フルHDの高精細な表示によって視認性を追求したほか、スマートフォンの感覚の直感的な操作も実現

11.6-inch display - a first for Toyota, had been developed not just for the ease-of-use, but also, to provide a fun and enjoyable experience. The system centrally displays a variety of information concerning the Prius PHV, including navigation, audio system, and air conditioning data. The full HD high-resolution screen provides high visibility, and offers intuitive operation resembling a smartphone.

### 主な機能

- T-Connect SDナビゲーション ■ DCM (Data Communications Module)
- 地上デジタルTV ■ 音声ガイダンス機能付カラーバックガイドモニター ■ AM/FM (ワイドFM対応)
- Bluetooth対応(ハンズフリー・オーディオ) ■ 空調 ■ 車両カスタマイズ設定
- エネルギーフロー表示 ■ 毎分燃費 ■ 区間燃費 ■ 航続可能距離表示
- タイマー充電・プレ空調設定 ■ 先読みエコドライブ支援表示

### Main functions

- T-Connect SD navigation system ■ DCM (Data Communications Module)
- Digital Terrestrial television ■ Color backup guide monitor with voice guidance feature
- AM/FM radio (wide FM compatible) ■ Bluetooth support (hands-free audio) ■ Air conditioning
- Vehicle customization settings ■ Energy flow display ■ Per-minute fuel consumption
- Trip segment fuel consumption ■ Possible cruising distance display
- Timer charging and pre-air conditioning settings ■ Anticipatory eco-drive support display

## 11.6インチ T-Connect SD ナビゲーションシステムの特徴 Features of 11.6-inch T-Connect SD Navigation System

### 情報を一画面に表示

Information Displayed on a Single Screen



ナビ画面を表示しながら、オーディオや空調など、他の機能の2画面表示操作が可能です

Two-screen display operation is possible, enabling the system to display a navigation screen while simultaneously displaying the screens of other functions such as audio or air conditioning.



夜間は画面上部の意匠も連動し、ランプが点灯します。

画面いっぱいに地図を表示。進行方向の遠くまで見渡せるので、広い範囲の進むべき道を確認できます

Maps are displayed full-screen. This allows for a longer distance of the direction of travel to be displayed, enabling the driver to confirm the intended route across an extended range.



タイマー充電の設定と充電スケジュールを同時表示。充電情報を集約し、1週間分の予約状況を見ながら予約の設定・変更が行えます

Timer charging settings and the charging schedule are simultaneously displayed. Charging information is consolidated and an entire week's schedule can be displayed when setting and modifying schedules.

### 進化したグラフィック表現

Advanced Graphic Displays

エネルギーモニターは、リアルな3Dにより、エネルギーの流れをリアルかつ詳細に表現

The energy monitor uses real 3D to show the energy flows in a highly detailed linear format.



オープニングムービー



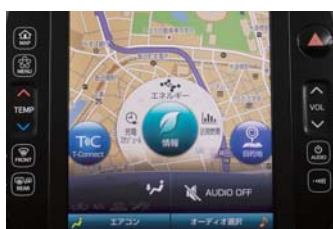
エンディングムービー



スマートパワースイッチONおよびOFFの際には、ICONIC Human-techをイメージしたムービーが流れます

### スマートフォン感覚の直感操作を実現

Intuitive, Smartphone-like Feel



静電気タッチパネルにより、フリックやピンチイン/アウトなどスマートフォン感覚の直感操作を実現。各種機能や情報へのアクセス操作は、画面下に表示されるメニューアイコンで実施。左右フリックすることで順次アイコンが回転するように切り替わります。また、縦にフリックすれば、地図を全画面に表示できます

The electrostatic touch panel offers an intuitive operation with the feel of a smartphone such as flicking, or pinching in and pinching out. Operations to access various functions and information are performed using menu icons displayed at the bottom of the screen. By flicking to the left or right, the icons scroll in rotation. A vertical flick is used to display the map in full screen.

表示例 Display Examples



地図全体表示  
Full-screen map display



メニュー画面  
Menu screen



エアコン操作画面  
Air conditioning operation screen



オーディオ操作画面  
Audio operation screen



11.6インチ T-Connect SDナビゲーションシステムでご利用いただける

# 「T-Connect DCMパッケージ」のご紹介

Introduction to the T-Connect DCM Package to be used with the 11.6-Inch T-Connect SD Navigation System

## 安心安全機能を強化した「T-Connect DCMパッケージ」で快適なPHVライフをサポート

The T-Connect DCM Package with Enhanced Safety and Security Functions Supports Comfortable Use of the PHV

※当サービスは日本仕向けのみご利用が可能です。  
※ This service is available only in Japan market.

### 安全・安心機能を強化した基本サービス Basic Service with Enhanced Safety and Security Functions

## 24時間安心・安全をサポート[クルマ見守り]

24-Hour Safety and Security Support (Vehicle Protection)

### ● ヘルプネット(ワンタッチタイプ車内専用ボタン付)

Helpnet (with one-touch button inside vehicle)

### ● マイカーSecurity

My Car Security

[アラーム通知/車両の位置追跡・警備員の派遣/エンジン始動通知/カーファイnder(停車位置確認)/うっかり通知/リモート確認]

車両盗難・車上荒らしなどがあった時、ドアロックの閉め忘れなどがあった時、さらに自車の位置を確認したい時、メールやスマートフォンを通じて、適切な対応を行います。

Alarm notification, vehicle location tracing and security personnel dispatch, engine start notification, car finder (confirms where the vehicle has stopped), 'forgetfulness alert', remote confirmation

You can take appropriate action by email or smartphone in the event of theft of the car or its contents, you forget to lock the doors, or if you want to check where your car is located.

### ● リモートメンテナンスサービス (eケア/マイカーカスタマイズ)

Remote Maintenance Service (e-Care, my car customization)

#### eケア(走行アドバイス)

警告灯点灯時に、お客様から販売店にお問い合わせがあった場合、またはトヨタ販売店からお客様にご連絡する場合、お車から発信される情報をもとにした適切なアドバイスが可能です。

#### e-Care (operating advice)

When a dealer receives an inquiry from a customer about a warning light or when a Toyota dealer contacts a customer, appropriate advice can be given based on the information transmitted by the vehicle.

#### eケア(ヘルスチェックレポート)

お車のバッテリーの状態、エンジンオイルなどのメンテナンスについて、T-Connectスマホアプリで確認できます。

#### e-Care (health check report)

Customers can check maintenance items such as battery condition and engine oil using the T-Connect smartphone application.

#### マイカーカスタマイズ

車両カスタマイズ項目の一部について、T-Connectスマホアプリより遠隔で設定変更ができます。

#### My Car Customization

Some vehicle customization settings can be changed remotely using the T-Connect smartphone application.

その他にも、エージェントや、Apps、マップオンデマンド等のT-Connect DCMパッケージの基本サービスがご利用いただけます。

In addition, T-Connect DCM Package basic services such as Agent, apps, and maps on demand can also be used.

### マイカーSecurity -アラーム通知から警備員派遣までの流れ

My car security  
- Procedure from alarm notification to security personnel dispatch

1 オートアラームが作動。  
Auto-alarm is triggered.



2 お客様にメールで通知。  
同時にお電話で連絡。  
Customer is notified by email,  
and contacted by phone.



3 要請に応じて  
オペレーターが  
車両位置を確認。  
Upon request, operator  
confirms vehicle's location.



4 さらに要請に基づき、  
警備員を派遣。  
警備員が車両を確認。  
Upon further request,  
security personnel dispatched  
to check on vehicle.



### 2つのPHV専用サービス Two PHV-Exclusive Services

## スマホアプリ「Pocket PHV」

Smartphone Application (Pocket PHV)

クルマから離れていても、車両情報(電池残量・給電・ソーラー充電)の確認や操作、リモートエアコン(冷暖房)の起動・停止、充電ステーションの検索の他、楽しくエコドライブができるコンテンツを提供します。

Even when away from your car, you can check on and operate some vehicle systems (such as remaining battery power, charging and solar charging), operate the remote air conditioning (cooling & heating), search for a charging station, and access other content designed to provide an enjoyable eco-driving experience.

#### 充電・給電情報

Charging and power supply information



#### リモートエアコン(冷暖房)

Remote air conditioning (cooling and heating)



#### 充電ステーション検索

Charging station search



#### ESPO(エコ運転サポート)

ESPO (eco-driving support)



## ナビ向けサービス [充電ステーション検索]

Navigation System Service (charging station search)

全国の普通、急速、複合充電ステーションを検索してナビ画面に表示。そのまま目的地として設定できます。

Standard, quick-charge and combination charging stations can be searched for nationwide, and displayed on the navigation system screen. Customers can set a station as a destination point directly from that screen.

#### 満空情報あり

トヨタ販売店のG-Station、NCS充電ステーション

#### Charger usage information available

Toyota dealer G-Stations, NCS charging stations

	利用可能 Available	利用不可 Not available
普通 Standard		
急速 Quick		
複合 Combination		

#### 満空情報なし

一般充電ステーション

Charger usage information unavailable

General charging stations

	利用可能 Available	利用不可 Not available
普通 Standard		
急速 Quick		
複合 Combination		



充電ステーションボタン選択  
Charging stations button selection



充電ステーション検索画面  
Charging stations search screen

※ご利用には、販売店でのT-Connectのお申込み(基本利用料3年間無料/4年目以上12,000円(税抜)とナビでのご利用開始操作が必要です。

※ To use, customers must submit a T-Connect application at a dealer (basic usage fee is waived for the first 3 years, JPY12,000 (excl. tax) per year from 4th year on), and conduct initial set-up via the navigation system.

# TOYOTA