

الهيئة السعودية للمواصفات والمقاييس والجودة  
Saudi Standards, Metrology and Quality Org. (SASO)



**Draft of update of SASO 2847:2017  
and SASO 2847:2017/Amd1:2018**

**FUEL ECONOMY LABELLING REQUIREMENTS  
FOR NEW LIGHT DUTY VEHICLES**

**ICS : 43.060.40**

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**مقدمة**

قامت الهيئة السعودية للمواصفات والمقاييس والجودة باعتماد تحديث المواصفة القياسية السعودية رقم SASO 2847:2025 " متطلبات بطاقة اقتصاد الوقود لمركبات الخدمة الخفيفة الجديدة " بعد استعراض المواصفات القياسية العربية و الاجنبية و الدولية و المؤلفات المرجعية ذات الصلة على أن تلغى المواصفة القياسية السعودية رقم SASO 2847:2017 والتعديل SASO 2847:2017/Amd1:2018 و تحل محلها.

**Foreword**

Saudi Standards, Metrology and Quality Organization (SASO) has updated the Saudi Standard No. SASO 2847:2025 " Fuel Economy Labelling Requirements For New Light Duty Vehicles " based on relevant ADMO, International and National foreign Standards and references. The approved Saudi Standard will replace and supersede the Saudi Standard No. SASO 2847:2017 and SASO 2847:2017/Amd1:2018.

**FUEL ECONOMY LABELLING REQUIREMENTS  
FOR NEW LIGHT DUTY VEHICLES**

**Date of SASO Board of Directors' Approval :**

**Date of Publication in the Official Gazette:**

**Date of Enforcement of this Standard :**

**From model year 2027**

## **FUEL ECONOMY LABELING REQUIREMENTS FOR NEW LIGHT DUTY VEHICLES**

### **1- SCOPE AND FIELD OF APPLICATION**

This Standard is concerned with the fuel economy labeling requirements of all new incoming light duty vehicles (including Battery Electric Vehicle (BEV) and Plug-in Battery Electric Vehicle (PHEV)).

### **2- DEFINITIONS**

The following definitions are limited for application of this Standard requirements.

#### **2.1. Light Duty Vehicles (LDVs)**

Vehicles with a maximum gross weight of 3,500 kg and which are primarily used to transport passengers or goods.

#### **2.2. Passenger Car**

A passenger car is any light duty vehicle (other than a car capable of off-highway operation) manufactured primarily for use in the transportation of not more than 10 individuals.

#### **2.3. Light Truck**

A light truck is any light duty vehicle that is not a passenger car or a work truck and includes vehicles described in paragraphs 2.3.1. and 2.3.2 of this section:

##### **2.3.1 A light duty vehicle designed to perform at least one of the following functions:**

**2.3.1.1** Transport more than 10 persons.

**2.3.1.2** Provide temporary living quarters.

**2.3.1.3** Transport property on an open surface.

**2.3.1.4** Provide, as sold to the first retail purchaser, greater cargo-carrying than passenger-carrying volume, such as in a cargo van. If a vehicle is sold with a second-row seat, its cargo-carrying volume is determined with that seat installed, regardless of whether the manufacturer has described that seat as optional.

**2.3.1.5** Permit expanded use of the automobile for cargo-carrying purposes or other non-passenger-carrying purposes through:

**2.3.1.5.1** For non-passenger automobiles manufactured prior to model year 2012, the removal of seats by means installed for that purpose by the automobile's manufacturer or with simple tools, such as screwdrivers and wrenches, so as to create a flat, floor level, surface extending from the forward most point of installation of those seats to the rear of the automobile's interior.

**2.3.1.5.2** For non-passenger automobiles manufactured in model year 2008 and beyond, the vehicles equipped with at least 3 rows of designated seating positions as standard equipment, permit expanded use of the vehicle for cargo-carrying purposes or other non-passenger-carrying purposes through the removal or stowing of foldable or pivoting seats so as to create a flat, leveled cargo surface extending from the forwardmost point of installation of those seats to the rear of the automobile's interior.

**2.3.2 A vehicle capable of off-highway operation, as indicated by the fact that it:**

**2.3.2.1** Has 4-wheel drive or is rated at more than 2,721.5 kg gross vehicle weight.

**2.3.2.2** Has at least four of the following characteristics calculated when the vehicle is at curb weight, on a level surface, with the front wheels parallel to the vehicle's longitudinal centerline, and the tires inflated to the manufacturer's recommended pressure.

**2.3.2.2.1** Approach angle of not less than 28 degrees.

**2.3.2.2.2** Breakover angle of not less than 14 degrees.

**2.3.2.2.3** Departure angle of not less than 20 degrees.

**2.3.2.2.4** Running clearance of not less than 20 centimeters.

**2.3.2.2.5** Front and rear axle clearances of not less than 18 centimeters each

**2.4. New vehicle**

Any light duty vehicle that fits all of the following criteria:

- a. Has a model year that is one year older, matches or exceeds the current cycle year.
- b. Has not been driven for over 1,000 km.

**2.5. Model Year**

The period starting with the first production of the new model and lasting until the following model is introduced. This period shall not exceed 24 months terminating by the end of the last month of the calendar year by which the model is designated.

**2.6. Model Type Approval (MTA) / (Conformity Certificate)**

A Model Type Approval is a type approval certificate issued by GSO for internal combustion engine (ICE). In terms of Battery electric vehicles (BEV) / plug-in electric vehicles (PHEV), model type approval must be from SASO Certificate of Conformity.

**2.7. Vehicle engine size**

The total volume within all cylinders of an engine when pistons are at their lowest positions.

**2.8. Entity definitions****2.8.1 Saudi Energy Efficiency Center (SEEC)**

The entity which was established through Council of Ministers decree 363 / 2010 and acts as the custodian of demand-side energy efficiency in the Kingdom of Saudi Arabia.

**2.8.2 Saudi Standards Metrology and Quality Organization (SASO)**

The entity which is responsible for issuing and updating the standards and regulations and managing inspection and testing activities in the Kingdom of Saudi Arabia. In addition, it's the entity which is responsible for granting Model Type Approval / Conformity Certificates for BEVs and PHEVs.

**2.8.3 GCC Standardization Organization (GSO)**

The entity which is responsible for granting Model Type Approval / Conformity Certificates for ICE and mild hybrid vehicles.

**2.8.4 Ministry of Commerce (MC)**

The ministry, which is responsible for market surveillance and laboratories registry in the Kingdom of Saudi Arabia.

**2.8.5 Vehicle Importer**

Any entity importing vehicles for sale in the Kingdom of Saudi Arabia, and includes Traders and Dealers.

**2.8.6 Automotive manufacturer**

Any entity manufacturing vehicles for export and sale in the Kingdom of Saudi Arabia.

**2.8.7 Trader**

Any entity importing vehicles for sale in the Kingdom of Saudi Arabia without any alliance with a manufacturer (licensed from MC).

**2.8.8 Dealer / distributor**

Any entity engaged in the import and sales of new vehicles directly from the automotive manufacturers (licensed from MC and with agreements with the automotive manufacturers).

**2.8.9. Showroom**

Location at which vehicles are displayed for the purpose of selling inside the Kingdom of Saudi Arabia.

**2.9 Electric Vehicle (EV)**

An electric vehicle, also called an electric drive vehicle, uses one or more electric motors or traction motors for propulsion. EVs can be Battery Electric Vehicles (BEV) or Plug-in Hybrid Electric Vehicles (PHEV).

### 2.10 Battery Electric Vehicle (BEV)

A battery electric vehicle (BEV), battery-only electric vehicle, full electric vehicle, or all-electric vehicle is a type of electric vehicle (EV) that uses chemical energy stored in rechargeable battery packs. BEVs use electric motors and motor controllers instead of internal combustion engines (ICEs) for propulsion.

### 2.11 Plug-in Battery Electric Vehicle (PHEV)

A plug-in hybrid electric vehicle (PHEV) is a hybrid electric vehicle that is equipped with an internal combustion engine along with an electric motor that can be recharged by plugging it in to an external source of electric power as well by its on-board engine and generator.

An extended range electric vehicle (EREV) is a subcategory of PHEVs where the electric motor is utilized for propulsion and the internal combustion engine is used to supply additional electric power when needed.

### 2.12 Fuel Economy Equivalency (FEe)

Fuel Economy Equivalency (FEe) is a measure of the average distance traveled per liter of gasoline equivalent. FEe is used to compare energy consumption EVs with the energy consumption of conventional ICE rated in kilometer per liter.

*Note: to calculate Fuel Economy Equivalency (FEe) refer to SASO 2864*

## 3- FUEL ECONOMY LABEL LIMITS

The label fuel economy limits were established to ensure alignment of the incoming fleet with the Kingdom's fuel economy standard.

This section details the fuel economy limits for both passenger cars and light trucks and is valid for models years 2027, and beyond until updated by SASO.

### 3.1 The label shall have seven (7) brackets as follows:

#### 3.1.1 Excellent +: This bracket refers to:

- Passenger Cars that have a fuel economy equal to or greater than 20.9 km/l.
- Light Trucks that have a fuel economy equal to or greater than 17.4 km/l.

#### 3.1.2 Excellent: This bracket refers to:

- Passenger Cars that have a fuel economy equal to or greater than 17.8 km/l and less than 20.9 km/l.
- Light Trucks that have a fuel economy equal to or greater than 14.3 km/l and less than 17.4 km/l.

#### 3.1.3 Very Good: This bracket refers to:

- Passenger Cars that have a fuel economy equal to or greater than 14.7 km/l and less than 17.8 km/l.
- Light Trucks that have a fuel economy equal to or greater than 12.1 km/l and less than 14.3 km/l.

**3.1.4 Good:** This bracket refers to:

- Passenger Cars that have a fuel economy equal to or greater than 14.2 km/l and less than 14.7 km/l.
- Light Trucks that have a fuel economy equal to or greater than 11.6 km/l and less than 12.1 km/l.

**3.1.5 Average:** This bracket refers to:

- Passenger Cars that have a fuel economy equal to or greater than 13.6 km/l and less than 14.2 km/l.
- Light Trucks that have a fuel economy equal to or greater than 11.1 km/l and less than 11.6 km/l.

**3.1.6 Poor:** This bracket refers to:

- Passenger Cars that have a fuel economy equal to or greater than 13 km/l and less than 13.6 km/l.
- Light Trucks that have a fuel economy equal to or greater than 10.5 km/l and less than 11.1 km/l.

**3.1.7 Very Poor:** This bracket refers to:

- Passenger Cars that have a fuel economy less than 13 km/l.
- Light Trucks that have a fuel economy less than 10.5 km/l.

**Table – 1: Passenger Car Label Fuel Economy Levels.**

Bracket	Grade	Fuel Economy	
		Lower Limit	Upper Limit
1	Excellent +	20.9	+
2	Excellent	17.8	20.8
3	Very Good	14.7	17.7
4	Good	14.2	14.6
5	Average	13.6	14.1
6	Poor	13	13.5
7	Very Poor	-	12.9

**Table – 2: Light Truck Label Fuel Economy Levels.**

Bracket	Grade	Fuel Economy	
		Lower Limit	Upper Limit
1	Excellent +	17.4	+
2	Excellent	14.3	17.3
3	Very Good	12.1	14.2
4	Good	11.6	12
5	Average	11.1	11.5
6	Poor	10.5	11
7	Very Poor	-	10.4

**3.2** The label limits detailed in item 3.1. will be valid for MY 2027 and beyond until updated by SASO. SASO reserves the right to update the limits of fuel economy label at any time.

**3.3** SASO shall provide the Auto Manufacturers, Traders and Dealers with the updated label limits within a period not less than six months prior to the proposed date of implementation.

**4- LABELING IMPLEMENTATION AND PLACEMENT**

The following shall be met by all new light duty vehicles with model year of 2027 and onwards, imported, produced or sold in the Kingdom of Saudi Arabia.

**4.1** Vehicle Manufacturers, Importers and Showroom Operators shall ensure that the fuel economy label is clearly put on the rear left-hand side window of the vehicle from inside and is not visually obstructed in any way. In cases where it cannot be installed on the rear left hand window from inside (e.g. single cab trucks and sports vehicles), the label shall be installed on the front left-hand side window from inside.

**4.2** Vehicle Manufacturers, Importers and Showroom Operators shall abide by the guidelines of this Standard when printing the labels.

**4.3** Vehicle Manufacturers, Importers and Showroom Operators shall specify the following information on the label: Auto manufacturer name, model year, vehicle type, engine size in liters, transmission type, drive line type, body style type, fuel economy in kilometer per liter

and fuel type (i.e. Gasoline 95, Gasoline 91 or Diesel). Auto Manufacturers, Traders and Dealers shall, also, mark the fuel economy bracket that the vehicle meets using a color dependent on the fuel level arrow (e.g if the fuel economy is very good then the color of the arrow should be green) with the number inside in a white color font as shown in the label sample in Figures (1), (6) and (8).

**4.4** Vehicle Importers/manufacturers and Showroom Operators shall report the fuel economy values on the label in accordance with MTA issued by GSO. If the vehicle does not have an MTA issued by GSO, then the fuel economy values reported on the label should be the same as the results of the tests conducted in a SASO certified laboratory. If the vehicle does not have an MTA issued by GSO nor was tested in a certified laboratory, the fuel economy shown on the label will be provided from the SASO Fuel Economy database.

Battery electric vehicles (BEV) and plug-in electric vehicles (PHEV), which are placed in Saudi's market, whether manufactured inside the Kingdom of Saudi Arabia or imported from abroad must report the fuel economy equivalency values on the label per SASO Certificate of Conformity for Electric Vehicles

**4.5** Showroom Operators shall ensure that their sales staff is educated on fuel economy ratings and will have to explain their implications to vehicle buyers.

**4.6** Ministry of Commerce, or whomever it chooses to delegate, reserves the right to ban any vehicle's entry to the country or sales in cases where the label is not visible on the vehicle, the label is not compliant with the design and information designated in this Standard, the wrong information is reported on the label, or there is any deviations from the Standard requirements.

## **5- LABEL DESIGN AND APPEARANCE**

**5.1** Labels must be printed on a white self-adhesive using the colors specified in this section.

**5.2** The label dimensions shall be in accordance with Figure (3).

**5.3** The fuel economy brackets shall be color-coded as detailed below and illustrated in Figure (3).

**5.3.1** "Excellent+" Bracket: Very Dark Green color.

**5.3.2** "Excellent" Bracket: Dark Green color.

**5.3.3** "Very Good" Bracket: Green color.

**5.3.4** "Good" Bracket: Light Green color.

**5.3.5** "Average" Bracket: Yellow color.

**5.3.6** "Poor" Bracket: Orange color.

**5.3.7** "Very Poor" Bracket: Red color.

**5.4** The fields (A), (B), (C), (D), (E), (F), (G), (H), (I), (J), (K), (L) and (M) of figures 4 ,5 and 7 shall comply with the following requirements (field M for PHEV only):

**5.4.1** Field (A): Shall include the auto manufacturer name and vehicle commercial name.

**5.4.2** Field (B): Shall include the vehicle Model Year.

**5.4.3** Field (C): Shall include the vehicle engine size in liters or battery capacity in kWh for BEV or both engine size in L and battery capacity in kWh for PHEV

**5.4.4** Field (D): Shall include the drive line (i.e. front wheel drive, all-wheel drive, etc.).

**5.4.5** Field (E): Shall include the transmission (i.e. Automatic, Manual, etc.).

**5.4.6** Field (F): Shall include the vehicle type (i.e. Passenger Car or Light Truck).

**5.4.7** Field (G): Shall include the body style (i.e. Sedan, SUV, Coupe, Hatchback, etc.)

**5.4.8** Field (H): Shall contain a color dependent on the fuel level arrow (e.g if the fuel economy is very good then the color of the arrow should be green) with the number inside in a white color font pointing at the fuel economy bracket that corresponds to the vehicle's declared fuel economy on the MTA (or fuel economy equivalency FEe for BEV, PHEV on SASO conformity certificate).

The arrow shall include the fuel economy value declared on the MTA or SASO conformity certificate) to one decimal point (e.g. 12.2).

**5.4.9** Field (I): Shall include the QR Code.

**5.4.10** Field (J): Shall include the vehicle's type of fuel; i.e. (Gasoline 91, Gasoline 95, Diesel, etc.) . For BEV it is not applicable.

**5.4.11** Field (K): Shall include the fuel economy.

**5.4.12** Field (L): Shall include the label application number.

**5.4.13** Field (M): Shall include the vehicle's electric motor power consumption for PHEV only.

## **6 – Label issuing process:**

**6.1** For those willing to obtain the fuel economy label, the issuing process shall only be done through the portal dedicated to the labels that will contain a QR code.

Figure (1): Example of Fuel Economy Label

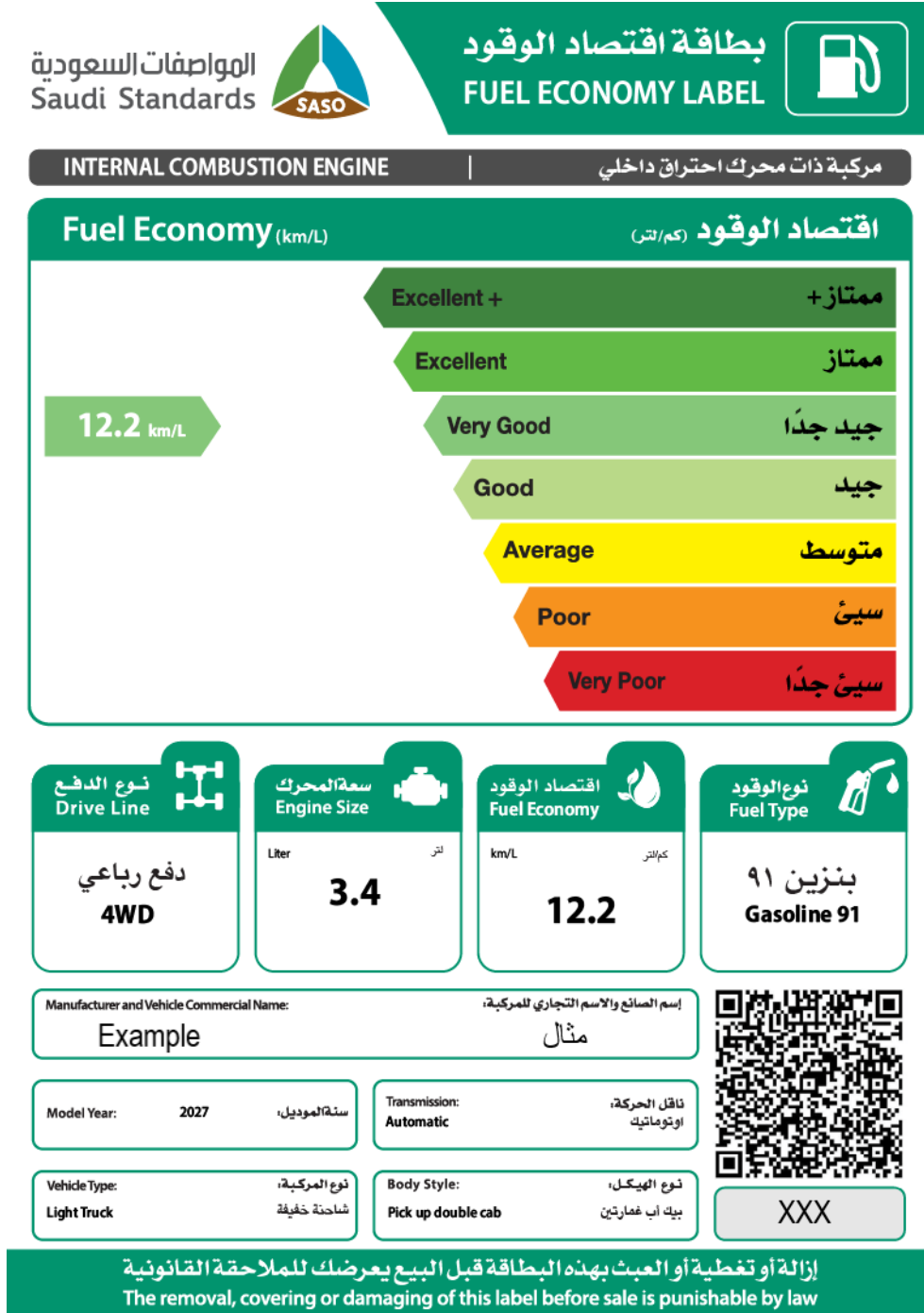


Figure (2): Fuel Economy Label Sample

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ساسة

بطاقة اقتصاد الوقود  
FUEL ECONOMY LABEL

INTERNAL COMBUSTION ENGINE | مركبة ذات محرك احتراق داخلي

Fuel Economy (km/L) | اقتصاد الوقود (كم/لتر)

Excellent +	ممتاز +
Excellent	ممتاز
Very Good	جيد جداً
Good	جيد
Average	متوسط
Poor	سيئ
Very Poor	سيئ جداً

نوع الدفع Drive Line	سعة المحرك Engine Size	اقتصاد الوقود Fuel Economy	نوع الوقود Fuel Type
	Liter لتر	km/L كم/لتر	

Manufacturer and Vehicle Commercial Name: | اسم الصانع والاسم التجاري للمركبة:

Model Year: | سنة الموديل:

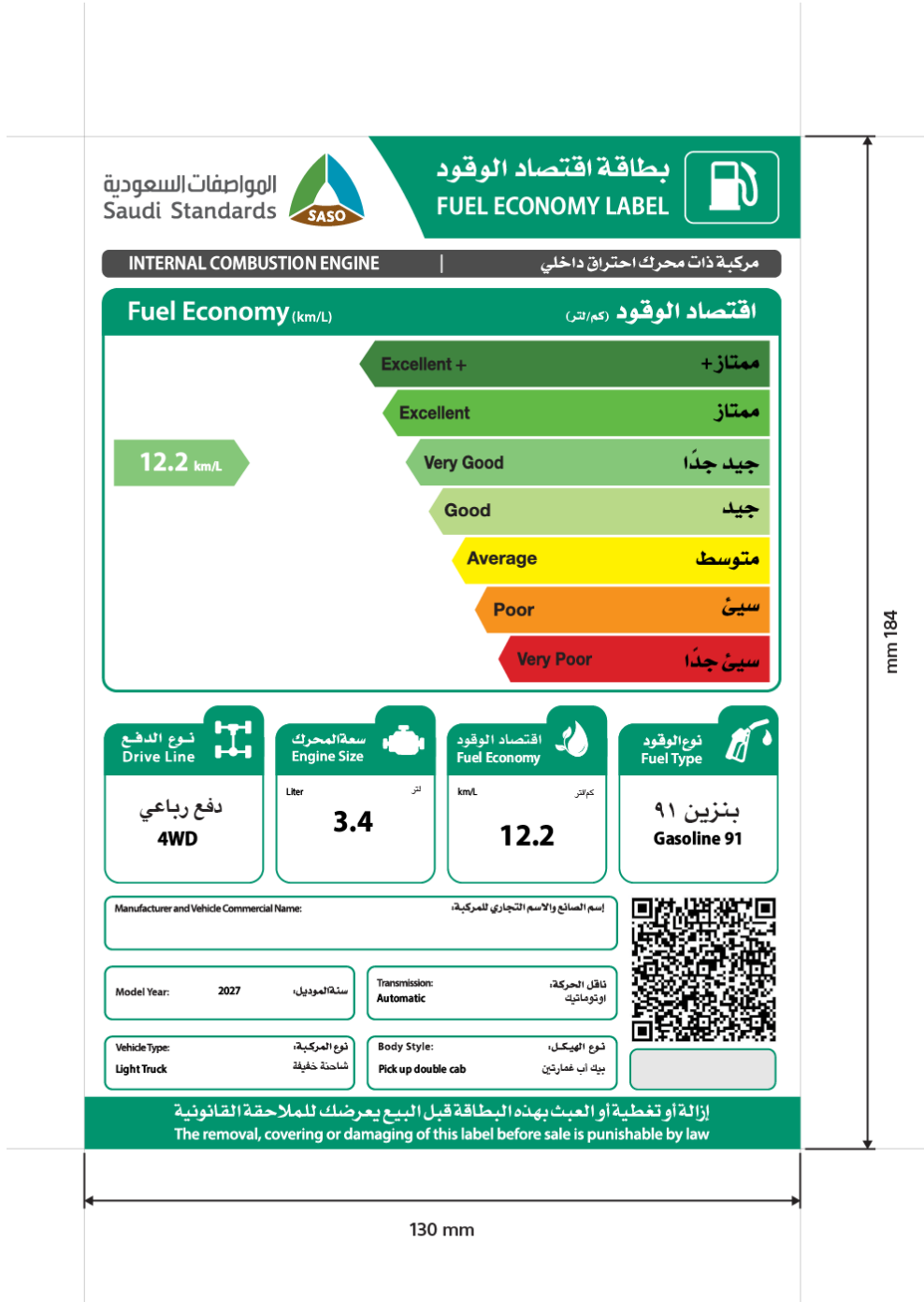
Transmission: | ناقل الحركة:

Vehicle Type: | نوع المركبة:

Body Style: | نوع الهيكل:

إزالة أو تغطية أو العبث بهذه البطاقة قبل البيع يعرضك للملاحقة القانونية  
The removal, covering or damaging of this label before sale is punishable by law

Figure (3): Dimensions and Colors of the Fuel Economy Label



Dimensions in mm

Figure (4): Clarification of Information Fields for the Fuel Economy Label

الهواصفات السعودية  
Saudi Standards

SASO

بطاقة اقتصاد الوقود  
FUEL ECONOMY LABEL

INTERNAL COMBUSTION ENGINE | مركبة ذات محرك احتراق داخلي

Fuel Economy (km/L) | اقتصاد الوقود (كم/لتر)

Excellent +	ممتاز +
Excellent	ممتاز
Very Good	جيد جداً
Good	جيد
Average	متوسط
Poor	سيئ
Very Poor	سيئ جداً

H ح

نوع الدفع Drive Line	سعة المحرك Engine Size	اقتصاد الوقود Fuel Economy	نوع الوقود Fuel Type
D د	C ج	K ك	J ي

Manufacturer and Vehicle Commercial Name: | اسم الصانع والاسم التجاري للمركبة:

A أ

ط ا

Model Year:   سنة الموديل:	Transmission:   ناقل الحركة:
B ب	E هـ

Vehicle Type:   نوع المركبة:	Body Style:   نوع الهيكل:
F و	G ز

L ل

إزالة أو تغطية أو العبث بهذه البطاقة قبل البيع يعرضك للملاحقة القانونية  
The removal, covering or damaging of this label before sale is punishable by law

Figure (5): Clarification of Information Fields for the BEV Fuel Economy Label

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SASO

بطاقة اقتصاد الوقود  
FUEL ECONOMY LABEL

BATTERY ELECTRIC VEHICLE | مركبة كهربائية تعمل بواسطة البطارية

Fuel Economy (km/Le) | اقتصاد الوقود (كم/لتر مكافئ)

H ح	Excellent +	ممتاز +
	Excellent	ممتاز
	Very Good	جيد جداً
	Good	جيد
	Average	متوسط
	Poor	سيئ
	Very Poor	سيئ جداً

نوع الدفع Drive Line	سعة البطارية Battery Capacity	اقتصاد الوقود Fuel Economy	نوع الوقود Fuel Type
D د	kWh كيلو واط ساعة	km/Le كلماتر مكافئ	لا ينطبق Not Applicable
A أ Manufacturer and Vehicle Commercial Name: إسم الصانع والاسم التجاري للمركبة:		ط ا	
B ب Model Year: سنة الموديل:	E هـ Transmission: ناقل الحركة:	ط ا	
F و Vehicle Type: نوع المركبة:	G ز Body Style: نوع الهيكل:	L ل	

إزالة أو تغطية أو العبث بهذه البطاقة قبل البيع يعرضك للملاحقة القانونية  
The removal, covering or damaging of this label before sale is punishable by law

Figure (6): Example of BEV Fuel Economy Label

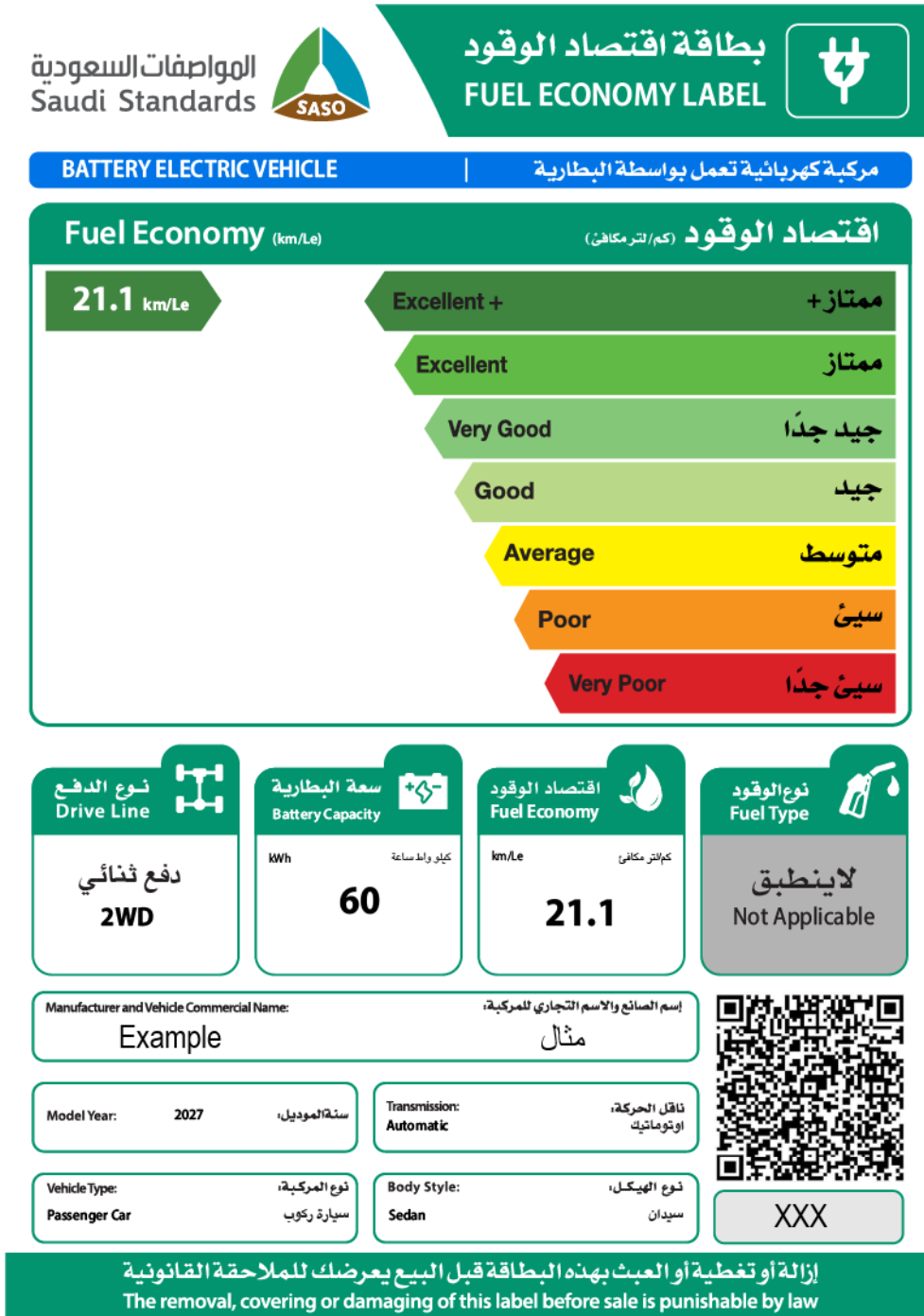


Figure (7): Clarification of Information Fields for the PHEV Fuel Economy Label

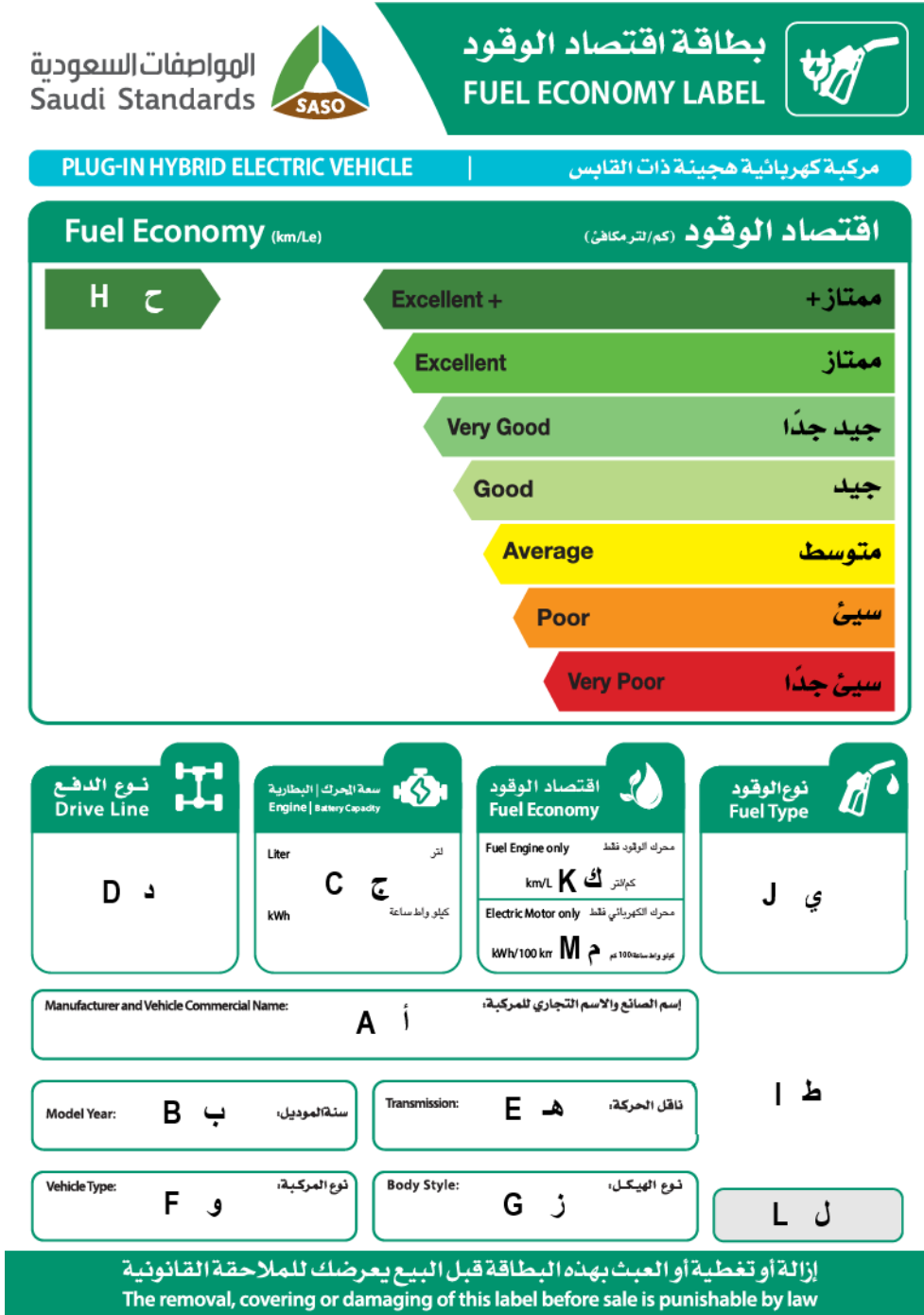


Figure (8): Example of PHEV Fuel Economy Label

