ELECTRIC VEHICLE AND HYBRID ELECTRIC VEHICLE CHANGES AND NEW CHANGES TO ACRISS CAR CLASSIFICATION

The 4th letter of the **ACRISS Car Classification Matrix** is currently used for **Fuel/Air** and to denote and book **electric and hybrid vehicles** using codes **"E" or "C" for electric vehicles and "H" or "I" for hybrid and hybrid plug-in vehicles** allowing booking engines and systems to filter specifically by fuel type and the all-important trend in electric and hybrid electric vehicles.

ACRISS wanted to avoid creating new codes but looked instead to redefine the existing ones to accommodate some of the variances in both the hybrid electric and electric vehicles.

These existing codes (see below) in our **ACRISS Car Classification Matrix** will continue to be used in conjunction with category and type but we have changed the description in the last few years to remove the "non-air" option not available in electric and hybrid vehicles and replaced this with the **Plug-In option for Hybrid and 2 Electric Vehicle options**.

In 2019 for electric vehicles (BEV) we introduced a battery distance range to help the customer and end user in choosing the right vehicle to rent Electric (Distance < 250mi/400km) and Electric Plus (Distance ≥ 250mi/400km) unfortunately this was not future proofed as many EV were ending up in the higher range as we discovered it will not meet our requirements going forward. We are therefore changing the description and usage once again in 2022/23 but this time ensuring we are future proofing it to meet current and future requirements and trends in electric vehicles. It will also be an initial step towards introducing a features option in the future which will allow car rental companies and users to search cars by additional features such as distance/range and EV equipment. The hybrid and plug in hybrid coding will remain the same as below.

The aim of the new description and usage of the "E" and "C" EV coding is for car rental companies and users to use both types "E" and "C" to allow greater flexibility and help differentiate between their various EV models. It will also be up to the car rental company if they wish to support/use both or just one code for their electric vehicles. It is however important that any system and/or search option/filter in a booking engine accommodate both.

This will be introduced in a phased and gradual approached as new models are introduced.

All system will need to support both fuel type codes until there is a progression towards using "E" for all BEV and we can repurpose the "C" code for another future type of electric vehicle.

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Current Electric Vehicle and Hybrid Electric Vehicle description and usage (2019)

Code	Description
H	Hybrid
I	Hybrid Plug-In
E	Electric (Distance < 250mi/400km) Air
C	Electric Plus (Distance ≥ 250mi/400km) Air

New Electric Vehicle and Hybrid Electric Vehicles descriptions and usage (2023)

Code	Description
H	Hybrid
I	Hybrid Plug-In
E	Electric Vehicle
C	Electric Vehicle

E & C: All Battery Electric Vehicles but not Electric Vehicles combined with other energy sources (Hybrid, Hydrogen, etc). This will also include commercial vehicles/vans.

Further enhancements were introduced to our **car code lists** to accommodate the new Electric and Hybrid trend by adding fuel type codes to each model.

Fuel Type Codes

Fuel code	Fuel Type Definition	4th letter Matrix code
P	Petrol	R, N
D	Diesel	R, N, D, Q
MHEV	Mild hybrid electric vehicle	H
HEV	Hybrid electric vehicle	H
PHEV	Plug-in hybrid vehicle	I
BEV	Battery electric vehicle	E or C

Fuel/Air Code	Description
R & N	Unspecified Fuel/Power
E & C	Electric Vehicle
H & I	Hybrid & Hybrid Plug-In
M & F	Multi Fuel/Power

Updated ACRISS Car Classification Matrix with new EV definitions and usage:

Category		Type		Transmission/Drive		Fuel/Aircon	
M	Mini	**B**	2-3 Door	**M**	Manual Unspecified Drive	**R**	Unspecified Fuel/Power with Air
N	Mini Elite	**C**	2/4 Door	**N**	Manual 4WD	**N**	Unspecified Fuel/Power No Air
E	Economy	**D**	4-5 Door	**C**	Manual AWD	**D**	Diesel Air
H	Economy Elite	**W**	Wagon/Estate	**A**	Auto Unspecified Drive	**Q**	Diesel No Air
C	Compact	**V**	6+ Passenger Van	**B**	Auto 4WD	**H**	Hybrid Air
D	Compact Elite	**L**	Limousine /Sedan	**D**	Auto AWD	**I**	Hybrid Plug-In Air
I	Intermediate	**S**	Sport			**E**	Electric Vehicle
J	Intermediate Elite	**T**	Convertible			**C**	Electric Vehicle
S	Standard	**F**	SUV			**L**	LPG/Compressed Gas Air
R	Standard Elite	**J**	Open Air All Terrain			**S**	LPG/Compressed Gas No Air
F	Fullsize	**X**	Special			**A**	Hydrogen Air
G	Fullsize Elite	**P**	Pick up (single/extended cab) 2 door			**B**	Hydrogen No Air
P	Premium	**Q**	Pick up (double cab) 4 door			**M**	Multi Fuel/Power Air
U	Premium Elite	**Z**	Special Offer Car			**F**	Multi fuel/power No Air
L	Luxury	**E**	Coupe			**V**	Petrol Air
W	Luxury Elite	**M**	Monospace			**Z**	Petrol No Air
O	Oversize	**R**	Recreational Vehicle			**U**	Ethanol Air
X	Special	**H**	Motor Home			**X**	Ethanol No Air
		Y	2 Wheel Vehicle				
		N	Roadster				
		G	Crossover				
		K	Commercial Van/Truck				