



HISPANO SUIZA CARMEN BOULOGNE

*A sports-focused, tailormade evolution of the Carmen
that reflects the brand's racing heritage*

- The motorsport-inspired Carmen Boulogne pays homage to Hispano Suiza's competition heritage
- The Carmen Boulogne boasts 820kW (1,114PS), a 290km/h (180mph) top speed and a 0-100km/h time of under 2.6 seconds
- Fully carbon fibre sub-chassis achieves weight of just 1,630kg. Optimised suspension and carbon fibre enhancements save 60kg vs Carmen
- The infinitely-customisable Carmen Boulogne embodies the sporting spirit of Hispano Suiza alongside a strong family legacy

Barcelona, 3 March 2020 – The motorsport-inspired Carmen Boulogne pays homage to Hispano Suiza's competition heritage. Building on its sibling's substantial credentials, the Carmen Boulogne boasts 820kW (1,114PS) up by 70kW (95PS); more speed 290km/h (180mph) up by 40km/h (25mph) and a 0-100km/h time of under 2.6 seconds.

Utilising the Carmen's expertly engineered chassis and powertrain technology, the Carmen Boulogne delivers a blend of exhilarating power, exceptional luxury and elegant design.

Born of the brand's 'Unique Tailormade' department in Barcelona, the infinitely-customisable Carmen Boulogne embodies the sporting spirit of Hispano Suiza alongside a strong family legacy.

The new sportier variant of the Carmen is the next stage in the evolution of the resurgent Spanish luxury car brand. Designed, developed and manufactured in Barcelona, the fully-electric Carmen Boulogne shares its sibling's classically-inspired design, but applies sportier styling and showcases the extent of customisation available to the five customers who will own one of the hyper-exclusive models.

Combining its enhanced, fully-electric 820kW (1,114PS) powertrain with a bespoke super-stiff carbon fibre monocoque, stiffer double-wishbone front and rear suspension, and torque vectoring, the Carmen Boulogne delivers exceptional dynamics, with a

focus on thrilling performance. With such prodigious power, and a kerb weight of 1,630kg, the new variant has world-class performance capabilities: 100km/h is reached in under 2.6 seconds, while the top speed is 290km/h.

The car's exquisitely-precise carbon fibre bodywork is proudly displayed beneath a clearcoat varnish, which emphasises its aggressive sportiness while retaining the Carmen's timeless elegance. Inside, the Carmen Boulogne variant is distinguished from its sibling through the use of suede or black Alcantara across the bulkhead and door panels.

The car's design, engineering and production has been undertaken in Barcelona by a skilled team of highly-experienced experts from Hispano Suiza and QEV Technologies – a company that specialises in electric powertrain development and motorsport engineering.

The Hispano Suiza Carmen Boulogne will cost from €1.65m (plus taxes). The five special edition Boulogne variants join 14 Carmen or Carmen customised models to complete the total 19-unit production run, with the first customer taking delivery in 2022. Prospective customers can now register their interest to purchase one of the hyper-exclusive models.

A product of the brand's 'Unique Tailormade' operation, the Boulogne features design enhancements that reference Hispano Suiza's racing vehicles from the 1920s, while building on the Carmen's exhilarating performance and exceptional luxury.

The Boulogne moniker dates back to 1921 and the George Boillot Cup, in which Hispano Suiza competed with a performance-focused version of the company's H6 Coupé. The endurance race saw competitors battle for victory for more than 3.5 hours, on the roads around the French town of Boulogne.

Hispano Suiza achieved three consecutive race wins, with drivers André Dubonnet (1921), Paul Bablot (1922) and Léonce Garnier (1923) driving specially-modified versions of the Hispano Suiza H6.

Purposeful sports styling, builds on Carmen's contemporary reimagination of a classic shape Hispano Suiza

The Carmen's styling is deliberately provocative, intended to generate an emotive reaction, and to be instantly recognisable. The Carmen Boulogne extends this theme, adding a layer of menacing mystique through its exposed carbon fibre – deeply polished beneath a lustrous clearcoat.

Emphasising its enhanced performance capabilities, the new model features copper-coloured livery that highlights the car's aerodynamic form. It makes use of the original model's large air inlets that flank the grille, sitting above a 'floating' front splitter, which channels air under the car.

The Carmen Boulogne carries the same semi-circular combination headlamps and aggressive 'frown' as its sibling, but is clearly differentiated by its dominating copper-coloured grille.

Visual theatre is a key element of the Hispano Suiza DNA. Before even entering the car, the driver and passenger are provided with a dramatic performance as the scissor doors rise and pivot in one smooth, elegant movement. With the doors closed, the Carmen's distinctive aerodynamic teardrop profile is revealed. Here, a key styling element that differentiates the Boulogne variant appears where the concave bodyside scoop ends, just as the dramatic rear haunch takes over – the rear wheel is exposed rather than being shrouded.

This unobscured view of the 20-inch rear wheels serves to emphasise the new model's sports focus while also enhancing cooling of the carbon ceramic brakes (discs: AP Racing 380mm x 34mm; calipers: AP Racing Radi-CAL - 6 pistons). Newly-styled wheels are proudly displayed with 10 curved trapezoidal shapes set around the outer rim and a series of concentric circles framing the central Hispano Suiza emblem. With front and rear wheels on show, the Carmen Boulogne is visually more balanced than its Grand Tourer sibling, and benefits from a more menacing stance – a characteristic emphasised by its black carbon fibre bodywork.

Viewed from the rear, the taught haunches that arch over the covered rear wheels also feature copper-coloured detailing. They taper slightly, flanking a dramatic narrowing of the roofline and rear screen that ends in a distinctive, sharp, rear-facing point – the trailing tail of the teardrop.

The circular rear combination lamps feature the signature Hispano Suiza stork graphic within the rear-light cluster. When seen from an angle, the indicator pulses along the length of the rear-lamp cones creating an arresting visual spectacle.

The performance focus of the Carmen Boulogne capitalises on the car's low drag coefficient (Cd 0.325), lower than the Porsche 918 Spyder (0.34), Koenigsegg Agera

R (0.37) and Ferrari F12 (0.33). In accelerating to its top speed of 290km/h, it makes full use of its streamlined form, combined with the front splitter, flat floor and rear diffuser that work in unison to reduce lift.

Exquisite and luxurious interior blends modern technologies with contemporary design cues

The passenger cabin of the Carmen Boulogne is a more contemporary take on Hispano Suiza's blend of premium quality materials and classic design cues. The Carmen's refined and luxurious wood trim is replaced by suede or black Alcantara, while chrome trim is changed for anodised metal in a striking Orange Tulipwood colour.

Awaiting the occupants inside the car is a combination of the finest leather and Alcantara that is used to trim the heated, 3D / 6 motion power-adjustable carbon fibre composite seats, as well as the door panels and roof lining. All upholstery is hand-trimmed and hand-sewn in-house at Hispano Suiza's Barcelona assembly facility, helping ensure that the driver and passenger are cosseted within an authentically sumptuous environment.

Such is the focus on the ultimate ownership experience, each Carmen Boulogne is almost infinitely customisable via the brand's 'Unique Tailormade' department. Buyers can pick the specific shade of leather, the set-up of the interior mood lighting, and can even specify a custom-perfumed interior, developed with the buyer to ensure the car is aligned perfectly with their preferences.

The artisan craftsmanship that is apparent throughout the interior retains a direct lineage to the brand's history. For example, the dash reflects the characteristics of the Carmen Boulogne's predecessors, with anodised Orange Tulipwood-coloured metalwork perforated by authentic toggle switchgear for reassuring mechanical tactility. The clockface at the centre of the dash features a Swiss mechanism with design and development by a Spanish watch maker. It echoes the position and status of the timepieces that featured in the brand's earlier cars. Similarly, the triangular gear selector is a direct reference to the art deco steel triangle that featured on the dash of Hispano Suiza's in the company's historic models.

While the style is unashamedly retrospective, the technologies employed deliver the best experience possible for occupants. Ambient LED lighting strips are hidden along the door panels and in the footwells to ensure that the interior is a welcoming and inviting space.

The steering wheel spokes feature smartphone and multimedia controls, while a highly-intuitive user interface sits at the centre of the driver-focused infotainment console. A high-definition, 10.1-inch touchscreen display allows owners make infotainment selections and configure vehicle settings with ease. The screen is also where video output from the rear parking camera is presented. High-fidelity audio is

delivered by six premium speakers and a subwoofer, providing a unique 360-degree audio experience.

A dedicated Hispano Suiza mobile app enables owners to remotely set cabin temperature, operate the lights, and set the alarm, as well as monitoring the battery charge status.

Advanced electric powertrain delivers motorsport-inspired performance

Achieving enhanced performance, to elevate the Carmen Boulogne to even greater heights, was the primary focus for the Hispano Suiza technical team. Inspired by the brand's race-winning successes of the 1920s, the engineers set out to boost the Carmen's exceptional power even further.

Building on the Carmen's substantial credentials, the Carmen Boulogne boasts 820kW (1,114PS) up by 70kW (95PS) on its sibling. With a longer-ratio gearbox, a new silicon carbide transistor, and stiffer suspension, the performance variant has a higher top speed 290km/h (180mph) up by 40km/h (25mph), and boasts a 0-100km/h time of under 2.6 seconds.

The Carmen Boulogne is powered by two 410kW permanent-magnet synchronous motors (PMSM), one for each rear wheel. Each motor's significant torque is controlled through sophisticated torque vectoring systems developed in-house. From 0-6,500rpm, the motors are capable of 1,600Nm maximum torque, enabling the car's blistering acceleration and seemingly endless pulling power.

The high-energy battery pack is T-shaped, running as a central spine of the car and behind the seats. It also serves as a tuned mass damper (TMD), providing stability and reducing structural vibration.

The Lithium Ion polymer battery pack boasts an available capacity of 80kWh. High-efficiency mechanical and electric components give a total energy loss from the battery to the ground of less than 10%, maximising vehicle range, which is targeted to exceed 400km.

The battery pack – made up of 700 cells – was designed and produced entirely in-house, including a complete temperature control system to ensure the cells can operate optimally. The battery monitoring system ensures stable charge and discharge performance and delivers the required safety strategies.

The new model also features >80kW DC Fast Charging capability, requiring just 30 minutes to charge from 30-80% via a CCS2 Fast Charger. It also features CHAdeMO and GB/T charging options.

The battery and electric powertrain components are liquid-cooled via three front radiators: one under the hood at the front of the car for battery cooling, and one each side, inboard of the front wheel arches, for cooling powertrain components. The three front air intakes provide airflow to help cool the electric drivetrain system and battery. The location, size and diffuser-style shape of these intakes, together with split planes, distribute the air in the radiator's core to achieve the optimal balance of drag and high air flow across the radiators. The outlets in the hood that expel air from the front radiator, and those in the front wheel arches that expel air from the side radiators, have been carefully designed and located to minimise drag.

Battery heat expulsion is controlled by the front central radiator and condenser. The battery thermal management system uses a passive heat exchanger (radiator) and an active cooling system, which shares its refrigeration cycle with the passenger cabin's air conditioning. Also, a PTC (Positive Temperature Coefficient) heater warms the battery in cold conditions.

The car's Electronic Control Unit (ECU) software manages all vehicle power and control strategies, continuously interrogating myriad data streams and instruction actuators to control vehicle behaviour. These strategies are all developed and tested in-house by Hispano Suiza software engineers. A complex network feeds a huge amount of data to the ECU at a rate of up to 1,000 samples per second.

Data is also fed via the cloud to the Hispano Suiza back office infrastructure to ensure that vehicle status and condition is monitored by Hispano Suiza in real time to ensure ultimate reliability. This 4G functionality also enables eCall emergency services as required.

Hispano Suiza's production partner – QEV Technologies – has extensive experience in developing electric vehicle powertrain technology, specifically for teams participating in FIA Formula E and FIA Electric Production Car Series (EPCS). As such, QEV Technologies brings unprecedented levels of engineering know-how to the Carmen Boulogne's electric powertrain, contributing to its exceptional performance, efficiency, reliability and safety.

Bespoke carbon fibre monocoque chassis

The Hispano Suiza Carmen is one of the most carbon fibre intense cars in the world. Carbon fibre composites are employed extensively throughout the vehicle, and account for the vast proportion of vehicle structures.

Even in this, the most elementary structure of the Carmen, Hispano Suiza has created a unique work of art: the hand-laid carbon fibre deployed for the monocoque chassis is specifically oriented in a mirrored opposing weave pattern. This results in a forward-facing directional arrow shape down the centre-line of the car from back to front.

Uniquely, in the Carmen Boulogne, this detailed and beautiful carbon fibre craftsmanship is proudly displayed beneath the car's clearcoat varnish.

Carbon fibre composite is also used for the crash protection structures that absorb and dissipate impact energy to protect the monocoque at the front and rear. Unusually, the rear subframe is also constructed in carbon fibre and is bolted to the primary chassis structure.

The monocoque chassis weighs only 195kg and exhibits exceptionally high rigidity to provide a torsional stiffness rating of 50,000Nm/deg. This not only contributes to a stronger and safer passenger cell, but also benefits the car's dynamic performance. The Carmen's stiffness-to-mass ratio (256Nm/deg per kg) out-performs any other hypercar: for comparison, the Lamborghini Aventador's stiffness-to-mass ratio is 237Nm/deg per kg.

Through extensive development of the Carmen during the past year, the Boulogne boasts a weight of just 1,630kg, a saving of 60kg versus its sibling. The enhancements have been achieved through a newly optimised suspension (-25kg); a new sub-chassis (-15kg); chassis lay-up optimisation (-15kg); new CNC parts and carbon fibre roof (-6kg). The 11 carbon fibre body panels are also incredibly lightweight, tipping the scales at just 64.5kg – including the front splitter and rear diffuser.

Even the seat structures and interior upholstery-support panels are carbon fibre composites. Furthermore, composites are also deployed as electric insulation materials and as part of the car's NVH management, as a sound and vibration dampening substance.

Inspired by the brand's performance-focused past, the Carmen Boulogne's blistering straight-line speed is married with driver-focused dynamic capabilities thanks to the highly experienced team. It has developed and integrated a range of advanced chassis systems to achieve the dynamic goals for the car. Not only will the Carmen Boulogne exhibit exceptional handling, but the characteristics and behaviour of the car should be predictable and easy to drive. Carmen Boulogne is a racing-inspired car for the road that embraces and harnesses the most advanced motorsport-inspired technologies and techniques to engage and bring joy to the driver.

Double wishbone suspension is fitted at the front and rear, which is paired with adaptive damping control and variable roll stiffness distribution technologies to deliver precise and responsive handling, while retaining a refined and comfortable ride. Notably, the suspension set-up of the Carmen Boulogne has been stiffened slightly to account for the car's sportier nature.

True torque vectoring manages the distribution of the two motors' torque to each rear wheel, according to driver inputs and levels of grip available. This provides a series of

benefits, particularly in dynamic response during the most spirited driving, greater high-speed stability, and improved safety on low-grip surfaces.

Additional active safety technologies include anti-lock braking (ABS), traction control (TCS) and electronic stability control (ESP) systems. Meanwhile, the Carmen's brakes are powerful carbon-ceramic composite units from AP Racing. The 380x34mm front and rear ceramic discs work with the six-piston Radi-CAL calipers to ensure the Carmen Boulogne can shed speed rapidly and consistently.

A proud Spanish spirit and strong family legacy

Hispano Suiza was responsible for the design and manufacture of more than 12,000 luxury performance cars and 50,000 aeroplane engines between 1904 and 1946. Even before he joined Hispano Suiza as its Technical Director, Marc Birkigt experimented with cutting edge technologies in the new era of the automobile, leading a team that built one of Spain's first electric car prototypes in 1899.

Some of the innovations that he later went on to develop helped Hispano Suiza cars to be considered among the world's finest and most advanced. Indeed, many media and high-profile automotive enthusiasts considered the brand's cars among the best in the world. Even three decades after Hispano Suiza stopped making cars, other luxury brands were still using automotive technology licenced from Hispano Suiza.

Hispano Suiza is a fourth-generation family business. Its president, Miguel Suqué Mateu is the great-grandson of the brand's founder, Damián Mateu. It is believed that Hispano Suiza is unique in nurturing an unbroken family lineage in the reintroduction of an automotive brand born in the first era of the automobile. The company is intensely proud of its Spanish roots – its headquarters, technical centre, and manufacturing facility are all based in Barcelona, and more than three-quarters of the Carmen's components are sourced in Spain.

Through the President, the Mateu family retains an intimate relationship with the reborn Hispano Suiza operation, influencing the brand's direction, management, and planning, plus the design and specification of the new Carmen Boulogne.

Grup Peralada

Grup Peralada was established in 1904 and has been owned and managed by the Suqué Mateu family since it was founded. The group of businesses has continued to grow and represents the pinnacle of luxury in gastronomy and entertainment. Its highlights include a three-time Michelin star restaurant – Castell Peralada – in north-east Spain, where it also owns 12 award-winning wineries, an 18-hole golf course and hotel and offers the world's first wine-spa health treatments. It also hosts the annual Peralada International Music Festival, celebrating the arts, opera and ballet. It operates 21 restaurants, eight casinos and six five-star hotels across Europe and Latin America.

Technical specification: Hispano Suiza Carmen Boulogne

General	
Body type	2 doors, 2 seats, Grand Tourer
Top speed	290km/h
Cd	0.325
Mileage (NEDC)	≥400km
Energy consumption	<24.0kWh/100km
Gradeability	≥30°
Turning radius	12.5m
Length	4733mm
Width	2040mm
Height @ 100mm	1242mm
Wheelbase	2800mm
Kerb weight	1630kg
GVW front load ratio	40%
0-100km/h acceleration	<2.6s
Driving modes	(Sport, Eco, Comfort)
Motor and transmission	
Type	PMSM
Cooling	Liquid cooled
Controller	SiC Mosfet
Layout	2 x rear (410kW)
Maximum power	820kW (1114PS)
Maximum torque	1,600Nm from 0-6500rpm
Torque vectoring	•
Battery	
Type	Lithium Ion
Available capacity	Base 80kWh (upgradeable)
Charge protocol	CCS2
AC charging power	22kW
DC charging power	>80kW
Charging time (AC)	<6h
Charging time (DC)	<0.5h (30~80%)
Chassis, suspension and brakes	
Drive type	Rear Wheel Drive
Front suspension	Double-wishbone
Rear suspension	Double-wishbone
Monocoque CFRP	•
Electronic parking brake (EPB)	•
Brake disc – carbon ceramic (front & rear)	AP Racing 380mm x 34mm

Brake calipers (front & rear)	AP Racing Radi-CAL - 6 pistons
iBooster	•
Brake by wire	•
Electric Power Steering (EPS)	•
Tyre Pressure Monitoring System (TPMS)	•
Wheels and tyres	
Front tyre	265/30 R19
Rear tyre	305/30 R20
Driving safety assistance system	
ABS	•
TCS	•
Hill-start assist	•
ESP	•
Airbag	
Front airbag: driver and passenger	•
Parking assistance system	
Reversing radar	•
Front parking radar	•
Rear parking camera	•
Convenience	
Interior lightning delay	•
Headlights auto delay	•
Steering	
Leather steering wheel	•
Multi-function steering wheel	•
A/C	
Auto A/C	•
Remote A/C	•
Air filtration system	•
Key	
Remote key app	•
Automatic door opening	•
Keyless entry	•
Start / Stop	Auto
Seats	
Racing seats	2
Leather seats	•
Heated seats	•
3D / 6-motion electric driver seat	•
3D / 6-motion electric passenger seat	•

Lumbar support	•
Dashboard	
Leather / carbon fibre / suede / Alcantara	•
LCD display	•
Instrument panel screen	•
Entertainment	
Touch screen	•
10.1-inch LCD screen	•
Multimedia system	•
USB interface / charger	1
Wireless charger	•
Premium speakers	6
Bluetooth	•
Hi-tech specification and telematics	
Vehicle remote control (mobile app)	•
Vehicle status remote supervision	•
GPS	•
4G	•
Alarm	•
Lights	
LED high beam	•
LED low beam	•
Auto high beam	•
LED daytime running lights	•
High-mount brake lamp	•
Interior accent lighting	•
Adaptive front lighting system	•
Windows	
Electric windows	•
Anti-pinch electric window	•
Windshield defrosting system	•
Windshield demisting system	•
UV & insulated glass	•
Doors	
Scissor doors	•
Central locking	•
Automatic latch	•
Door close alarm	•
Safety belt	
Seat belt	3 points

Seat belt warning – driver	•
Seat belt warning – passenger	•
Mirror	
Rear view mirror	•
Auto folding wing mirror	•
Wing mirror heating	•
Anti-glare rear view mirror	•
Sun visor & vanity mirror	•

- Ends -

Notes to editors

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