

# The new BMW C 650 Sport. The new BMW C 650 GT. Table of contents.



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# 1. The new BMW C 650 Sport. The new BMW C 650 GT. (Short version)



With the new BMW C 650 Sport and C 650 GT, BMW Motorrad continues its series of premium vehicles in the maxi scooter segment. Perfect for the city and urban environment, they combine practicality and cost-efficiency with maximum riding fun and touring comfort. In addition to this, they also provide enjoyment for riders with sporty ambitions on winding country roads as well as riding fun on lengthier tours, too.

## **The new C 650 Sport and C 650 GT – dynamic maxi scooters for sports, touring and urban cruising.**

The differing conceptual emphasis of each of the two BMW maxi scooters enables a broader target group to be addressed than previously: the C 650 Sport is geared towards riders with a sporty bent while the C 650 GT sets its sights on those who attach greater importance to comfort and touring capability.

The new C 650 Sport and the new C 650 GT now go further towards addressing these aspirations. With an extensively modified drivetrain, more comfortable suspension settings and a completely revised design for the C 650 Sport, they combine more markedly than before the excellent ride qualities of a motorcycle with the specific agility and comfort offered by the maxi scooter concept.

## **Optimised drivetrain set-up and new exhaust system for a more active riding experience.**

The 2-cylinder in-line engine with a capacity of 647 cc once again ensures dynamic propulsion in the new maxi scooters C 650 Sport and C 650 GT. The rated output in both models is 44 kW (60 hp) at 7 500 rpm. A variant is also available with 35 kW (48 hp) at 7 000 rpm. Engine mapping was redefined for use in the new C 650 Sport and the new C 650 GT with a view to satisfying the requirements of the EU4 pollutant class. What is more, a new silencer gives the vehicles a more dynamic look as well as providing a particularly full sound and enabling adherence to the new ECE R41-04 noise test regulations.

A new CVT transmission set-up in conjunction with new clutch linings enables optimised clutch engagement and therefore a significantly more dynamic set-off response. This was achieved by changing the transmission ratio spread of the CVT as well as by fine-tuning the centrifugal force weights.

### **New suspension and damper set-up for increased comfort.**

The suspension construction of the new C 650 Sport and C 650 GT continues to use a torsionally stiff hybrid composite structure consisting of a tubular steel bridge frame and a die-cast aluminium unit in the area of the swinging arm bearing. Retaining the existing spring travel of 115 millimetres in each case, it was possible to create a more comfortable suspension set-up. As a result, the C 650 Sport and C 650 GT offer a perfect compromise between sporty flair and comfort.

### **ABS and ASC as standard for maximum safety when braking and accelerating. Side View Assist option for the C 650 GT.**

Based on the "Safety 360°" principle, the optimum design of the brake system in conjunction with the standard BMW Motorrad ABS Bosch 9.1MB ensures the very highest level of active riding safety. Another safety bonus is the ASC (Automatic Stability Control), which is now also on board ex works as standard. Additional comfort is also offered by a feature that is a world first for two-wheel vehicles: the first motorcycle rider assistance system Side View Assist (SVA). This new option for the C 650 GT supports the rider when changing lane, for instance, by monitoring the blind spot – especially useful in an urban environment.

### **Completely new dynamic design for the C 650 Sport and detailed stylistic fine-tuning for the C 650 GT.**

The new edition of the two models particularly features a more modern, dynamic and future-oriented design for the C 650 Sport. This integrates it seamlessly in the BMW Motorrad design philosophy. By contrast the C 650 GT – positioned in the Comfort subsegment – has been fine-tuned with new rear side trim panels and a new rear light unit. Both models have also been fitted with newly designed instrument dials as well as new handlebar trim. Other new features include the revised kinematics of the centre stand and the automatic daytime riding light function.

### **The attractive paint finishes of the new C 650 Sport and C 650 GT.**

The C 650 Sport and C 650 GT are each offered in three colour variants. The Valencia Orange metallic matt of the C 650 Sport highlights its athletic character and in conjunction with the contrast surfaces gives it a dynamic, modern appearance. By contrast, Lightwhite non-metallic makes the new C 650 Sport look technical, compact and light. In Blackstorm metallic the new C 650 Sport appeals to a more classically oriented clientele. In the C 650 GT, Blackstorm metallic highlights the elegant character of the vehicle, while Frozen Bronze metallic in conjunction with a contrasting tone creates a harmonious paint finish that clearly emphasises the styling of the new

C 650 GT. Lightwhite non-metallic highlights the dynamic side of the C 650 GT. This colour gives it a particularly light and agile look.

**An overview of the new features in the C 650 Sport and C 650 GT:**

- New CVT set-up in conjunction with revised clutch linings for more dynamic clutch engagement and a more spontaneous set-off response.
- New suspension and damping set-up for an ideal compromise between sport and comfort.
- In addition to ABS, now also ASC as standard for maximum safety when accelerating.
- Completely new, dynamic design for the C 650 Sport.
- Detailed stylistic fine-tuning for the C 650 GT.
- New silencer for a fuller sound and more dynamic appearance.
- New instrument dial design.
- New handlebar trim elements with chrome applications.
- New, higher-quality surfaces (graining effects).
- Automatic daytime riding light.
- Revised kinematics of the centre stand for easier use.
- New rider assistance system Side View Assist (SVA) for the C 650 GT.
- New paint finishes for the C 650 Sport: Valencia Orange metallic matt, Lightwhite non-metallic and Blackstorm metallic.
- New paint finishes for the C 650 GT: Blackstorm metallic, Frozen Bronze metallic and Lightwhite non-metallic.

## 2. Vehicle technology and design.



### **Powerful 2-cylinder in-line engine with new set-up, optimised CVT and new exhaust system.**

In the new C 650 Sport and the new C 650 GT, the 2-cylinder in-line engine with a capacity of 647 cc once again ensures dynamic propulsion. The rated output in both models is 44 kW (60 hp) at 7 500 rpm. The maximum torque of 63 Nm is available at 6 000 rpm. The maximum engine speed is 8 500 rpm. Both models are also available in an output variant with 35 kW (48 hp) at 7 000 rpm and 54 Nm at 4 250 rpm.

In order to achieve a low mounting position and therefore a low centre of gravity, the engine has a cylinder bank that is tilted forward by 70 degrees. The characteristic sound and low level of vibration are due to the 90-degree crankpin offset, 270-degree ignition spacing and two counterbalance shafts powered by spur gears.

The sophisticated cooling concept to BMW Motorrad standards ensures optimum thermal balance in the 2-cylinder in-line engine. Here, coolant flows transversely through the cylinder head, entering at the front of the cylinder head on the hot exhaust side. The intensive cooling effect rapidly dissipates the heat precisely at the point of maximum thermal stress, thereby ensuring excellent temperature compensation. The aluminium radiator with plastic water containers and integrated thermostat has the same high-performance radiator network as is used in BMW motorcycles. Due to its high degree of efficiency and excellent air intake and through-flow, a relatively small surface is sufficient for operationally reliable heat dissipation in all conditions.

Carburation of the 4-valve engine with two overhead camshafts is taken care of by an electronic fuel injection system. Meanwhile oil is supplied by a dry sump system with a dual oil pump, and an efficient cooling concept ensures optimum thermal balance in the 2-cylinder engine. Engine mapping was redefined for use in the new C 650 Sport and the new C 650 GT with a view to satisfying the requirements of the EU4 pollutant class.

Power transmission is by means of a directly integrated CVT (Continuously Variable Transmission) which underwent extensive adaptations for use in the new C 650 Sport and the new C 650 GT. As a result, a new

CVT set-up in conjunction with an optimised clutch provides a more spontaneous set-off response at traffic lights, for example.

Softer springs and optimised clutch linings are used in the centrifugal clutch.

In addition to increased roller weights, the transmission ratio spread of the CVT has been increased from 2.42 to 2.95. The long CVT ratio is now 0.82 instead of 1.00. The gear reduction ratio between the CVT output shaft and driven shaft has been shortened from 2.72 to 3.28.

In addition to a more spontaneous set-off response, this also makes for an increased top speed (180 rather than 175 km/h).

The new exhaust system is made of stainless steel as before, but does not have a front silencer in the new C 650 Sport or the new C 650 GT. Fitted only with a rear silencer, it now offers a particularly full and sonorous sound.

### **New suspension and damping set-up for increased comfort in the C 650 Sport and C 650 GT.**

The suspension construction of the new C 650 Sport and the new C 650 GT continues to use a torsionally rigid hybrid composite structure consisting of a tubular steel bridge frame and a die-cast aluminium unit in the area of the swinging arm bearing. In addition, the 2-cylinder in-line engine acts as a self-supporting element, thereby ensuring a highly rigid structure that results in a stable and directionally precise riding response.

The mounting of the light alloy cast single-sided swinging arm with coaxial pivot point also addresses the desire for maximum ride stability. In this way the new C 650 Sport and the new C 650 GT combine solid directional stability at high speeds on the motorway with easy manoeuvrability in city traffic as well as transparent feedback for the rider – just as in a motorcycle.

The spring elements go further than previously towards meeting sophisticated demands in terms of sporty flair and comfort. For example, the spring rate of the upside-down fork with its generously sized fork tube diameter of 40 millimetres was reset as was that of the spring strut, horizontally mounted on the left for optimised accessibility of the adjustment mechanism.

A reduction of the spring rate by ten per cent now ensures a more fine-tuned response across the entire range without negatively impacting on vehicle stability. Retaining the previous spring travel of 115 millimetres each, it was

possible to achieve an ideal compromise between ambitious sports-style riding on the one hand and comfortable travel on the other.

Meanwhile the 15-inch wheels ensure maximum ride stability as well as excellent agility and handling. At the front, the C 650 Sport and C 650 GT both have a 5-spoke die-cast light alloy wheel sized 3.5 × 15 inches. The tyre size is 120/70 R 15. The dimension of the rear wheel is 4.5 × 15 inches and it is fitted with a tyre size of 160/60 R 15.

In the centre stand, the kinematics and position of the setting pin were revised for increased ease and convenience. As a result, 30 per cent less physical effort is required.

### **ABS and ASC as standard for maximum safety when braking and accelerating.**

In the best BMW Motorrad tradition, the optimum design of the brake system in conjunction with BMW Motorrad ABS as standard ensures the very highest level of active riding safety. At the front, a twin disc brake system with a diameter of 270 millimetres and comprising two 2-piston floating calipers ensures ideal deceleration as required. At the rear this function is performed by a single-disc system also with a diameter of 270 millimetres and 2-piston floating caliper.

In order to achieve a stable pressure point and optimum controllability, all brake lines are steel-wrapped. For the purpose of adaptation to individual rider needs in terms of ergonomics, the grip width of both brake levers can be adjusted to five different levels.

The extremely small and light 2-channel Bosch 9.1MB ABS enables independent regulation of the two brake circuits for the front and rear brake, so controlled and reliable braking is possible even in adverse road conditions or in dangerous situations.

Another safety bonus – especially on slippery road surfaces (i.e. where there is a low friction coefficient) – is now provided by Automatic Stability Control ASC as a standard ex works feature. Drive slip is detected in the engine management based on the ABS wheel signals. If necessary engine torque is reduced by adjustment of the ignition timing and fading out the injection and/or ignition.

### **Parking brake activated automatically via side stand.**

BMW Motorrad was able to develop a particularly innovative solution for the parking brake, which is a compulsory feature for scooters. While the brake

normally has to be activated by the rider using a separate lever, in the C 650 Sport and C 650 GT this happens automatically when the side stand is folded down. Here, a second mechanically operated brake caliper is activated at the rear by means of a cable pull, ensuring the vehicle is entirely prevented from being able to roll away. This makes for absolutely secure parking.

### **Multifunctional instrument cluster with wide-ranging information functions.**

The electrical system of the new C 650 Sport and the new C 650 GT is also based on the well-established vehicle electrical system to be found in BMW Motorrad models. It is a CAN (Controller Area Network) bus system. A power socket is installed in the left-hand storage compartment as standard. This can be used to charge a mobile phone during travel, for example, while it is connected to the BMW Motorrad Communication System in the rider's helmet via Bluetooth at the same time.

The instrument cluster on the maxi scooter provides a wide range of information. It has a large, easily readable LCD screen with integrated engine speed display and an analog speedometer with a newly designed scale for perfect reading. In addition, all indicator lights have been integrated in the instrument cluster. In developing the instrument cluster, particular importance was attached to excellent readability as well as to the avoidance of reflections in the display. The lighting of the analog speedometer and LCD display is orange-coloured for easy readability. When the daytime riding light is switched on, the speedometer lighting is deactivated.

The automatic daytime riding light is a new feature. Switching between daytime riding light and low beam including front parking light can be automatic. If the ambient brightness drops below a certain level, the low beam is automatically switched on (e.g. in tunnels). As soon as sufficient ambient brightness is detected, the daytime riding light is activated again. When the daytime riding light is active, the daytime riding light symbol appears in the multifunction display.

Another comfort feature is the automatic turn indicator reset function. Here, the turn indicators are automatically deactivated after a period of at least ten seconds or a distance of 210 metres.

In addition to the fuel level display with eight bar symbols, the instrument cluster provides information on distances covered as standard. It also displays data drawn from the on-board computer such as mileage after reaching a fuel level of four litres, date and time, average fuel consumption and speed, outside temperature and service information.

In the upper section of the display, warning messages are shown in the form of text and symbols, for example if a bulb fails. The operating condition of the heated grips and seat heating available as an ex works option is also shown on the display.

### **LED lighting, optional LED daytime riding light and Way Home function.**

As in the predecessor models, the two maxi scooters C 650 Sport and C 650 GT are fitted as standard with a rear light and storage compartment lighting featuring LED technology. The particular benefits of LEDs include a high level of reliability, a long service life, a high light yield and low power consumption.

The front light of the C 650 Sport comprises one headlamp each for low and high beam and two position lights (alternatively a combination of parking light and optional daytime riding light).

The C 650 GT also has two headlamps, but here the position lighting and the optional daytime riding light is provided by three centrally positioned optical fibre elements with LED technology. There is a so-called Way Home function for the position lights and storage compartment lighting: this means that they remain on after the vehicle has been parked.

### **New rider assistance system Side View Assist (SVA) for the C 650 GT for detecting other road users in the blind spot.**

In city traffic and in the urban environment in particular, high volumes of traffic often lead to critical situations since road users sometimes fail to see each other.

Based on the "Safety 360°" principle, the new option Side View Assist (SVA) for the C 650 GT now offers a significant increase in comfort in that it issues a warning when other road users are detected in the so-called blind spot.

Localisation is by means of four ultrasound sensors installed in the front trim and the number plate carrier of the new C 650 GT. Within a speed range of 25 to 80 km/h, SVA informs the rider if there are other vehicles at a distance of up to five metres away travelling at a maximum differential speed of 10 km/h. The information or notice is provided by means of warning triangles which light up in the mirror base units of the C 650 GT.

This system is only designed to assist the rider: it is not a substitute for looking in the rear mirror or looking over one's shoulder and under no circumstances releases the rider from their responsibility and obligations.

### **Completely new dynamic design for the C 650 Sport and detailed stylistic fine-tuning for the C 650 GT.**

Even when the models were originally launched, the design of the BMW C 650 Sport and the C 650 GT set the benchmark in the maxi scooter segment. In visual terms the two BMW Motorrad maxi scooters are clearly distinct from their competitors – one with its sporty, dynamic styling, the other luxurious and elegant.

The new edition of the two models particularly gives the C 650 Sport a more modern, dynamic and future-oriented touch, thereby integrating it seamlessly in the BMW Motorrad design philosophy. Meanwhile the C 650 GT has been fine-tuned with new rear side trim panels, a new rear light unit and new handlebar trim.

### **Visual and technical orientation of the new C 650 Sport and the new C 650 GT towards BMW motorcycles.**

The BMW Motorrad kinship of the two new maxi scooters is clearly reflected in both their technology and their visual appearance. A generously sized upside-down fork and twin disc brake are the dominant features of the front, for example. Meanwhile the rear is dominated by a single-sided swinging arm, dynamically designed in a style that is typical of BMW motorcycles and featuring a large, hollow wheel axle. The characteristic division of the front silhouette into two halves – the so-called split face – is another design feature that is strikingly typical of BMW Motorrad models.

In both vehicles the handlebar protectors exhibit a new styling with high-gloss central section and chrome applications, while all grained surfaces within the rider's field of vision have been given a new structure. What is more, the mounting of the rear mirrors has been optimised in the C 650 GT so as to ensure the rider has a good rear view in all conditions.

### **More dynamic, sportier appearance for the C 650 Sport.**

The new C 650 Sport features completely redesigned body parts and a new paint finish. This fresh design interprets the appearance of the maxi scooter in a way that expresses maximum dynamic performance. The effect of closed geometry in the front section puts a visual emphasis on the front wheel. By contrast, the rear section is filigree in character with detailed styling, creating proportions that further push the sense of movement and dynamism towards the front wheel. Here the surfaces are more streamlined, conveying sporty flair and agility. Winglets are suggested in the seat area that underscore this sporty character, while double tapered surfaces indicate striking athletic style.

### **Genetic styling connection with the BMW Motorrad supersports bikes from all perspectives.**

Based on the genes of the BMW Motorrad supersports bikes, a DNA line starting from the high rear runs deep into the front wheel, finishing in the athletic styling of the front section. The low-reaching front section and the high rear give the new C 650 Sport a definite forward thrust from the side view, and the dynamic line rising to the rear makes a sporty statement within the tautly styled silhouette. Every line and every surface of the C 650 Sport was deliberately reworked. Striking surface styling and precise lines give the side a sense of slenderness and speed. The even sportier and more dynamic appearance of the C 650 Sport is massively enhanced by the new rear silencer mounted on the right-hand side, promising power and riding dynamics. Even more markedly than in the C 650 GT, the easily visible spring of the spring strut finished in white lends an unmistakable technical and dynamic emphasis to the C 650 Sport.

Form and function are perfectly blended in the lower side trim panels, also known as bash plates. These elements provide wind and weather protection for the rider while also acting as a fairing component at the same time. Details such as stainless steel inserts in the footboards round off this area with a touch of exclusivity.

### **Sporty flair, dynamic performance and agility as the central styling statements of the new C 650 Sport.**

In the front view, too, the new C 650 Sport instantly exhibits its BMW Motorrad kinship. The slim silhouette with a pronounced V shape conveys manoeuvrability and agility. At the same time, the pattern of painted surfaces and trim parts emphasises the striking shoulders, injecting power and sculpture into the front section.

The heavily tilted, symmetrical headlamps give the new C 650 Sport a focused, resolute look. The dynamically contoured light outlets have deliberately been positioned deeply so as to make the front seem low and sporty. The interplay between the painted exterior surfaces and the central front trim section in the contrasting finish of Slate dark, enhanced by the differing surface textures, also generates a fascinating contrast. The front wheel cover perpetuates the split face, its striking geometry emphasising the streamlined dynamism suggested by the bisection.

The slender silhouette of the rear view expresses the agility and manoeuvrability of the new C 650 Sport. The twin-pipe silencer emphasises the power and riding dynamics of the new maxi scooter while also making authentic reference to the 2-cylinder engine. The new C 650 Sport

underscores its modern, dynamic character with its rear carrier design. Robust in structure, it acts as a number plate holder and also features a luggage bridge mounted on the grab handles that acts as a fixture for an optional topcase.

### **High-quality workplace for the rider focusing on material quality and functionality.**

The new C 650 Sport presents the rider with generously sized surfaces, some with a paint finish, and high-quality materials. The design of the rider workplace deliberately conveys the impression of a fully-fledged interior. The clear styling of the display elements ensures excellent readability and the circular instrument with its newly designed dial has a clear, refined graphic that is reminiscent of an exclusive wristwatch. The fresh style of the shapes and surfaces also means that details such as the fuel filler flap, grab handles and seat seams have been revised.

### **Generous storage including BMW flexcase in the C 650 Sport.**

Although the rear section of the C 650 Sport is considerably more slender and sporty in style, the BMW Motorrad developers were able to integrate a storage concept with sufficient space for two helmets in this model. The so-called BMW flexcase was developed for this purpose. This comprises a flap in the rear base which can be opened to provide a downward extension of the storage space. This versatility is enabled by the use of a highly rigid but pliable material based on Kevlar that creates a flexible yet dirt-resistant and waterproof connection between the flap and the rear base. Globally unique to date, this BMW Motorrad patented storage solution allows two helmets to be stored when the maxi scooter is parked. During travel the BMW flexcase is folded in, thereby preserving the slim, sporty silhouette. A safety switch prevents the engine being started when the BMW flexcase is open.

Meanwhile in the C 650 GT, the generous storage space including a large compartment (approx. 60 litres) under the seat emphasises the vehicle's high level of suitability for touring and long-distance riding. The storage compartment at the rear of the C 650 GT has interior lighting and space for two helmets.

Both models offer additional storage space at the front of the step-through frame in the form of two glove compartments, of which the one on the left-hand side has a lock function. It is locked automatically as soon as the vehicle is parked and locked. The newly designed storage compartment release levers in the C 650 Sport now feature a higher-quality chrome surface. Other carefully conceived solutions such as heated handlebar grips (ex works option)

and an adjustable windshield (electrically adjustable in the C 650 GT) ensure a high level of comfort and everyday practicality.

The differences between the C 650 Sport and C 650 GT are also reflected in their ergonomics. In line with its dynamic aspirations, the C 650 Sport has a seat height of 800 millimetres, ensuring a sporty, front-wheel-oriented seating position in conjunction with the flat positioning of the handlebars. In the C 650 GT the seat height is 805 millimetres. In combination with the higher handlebars, this results in a touring-style rider posture that is both upright and very relaxed.



## 3. Equipment program.

### **Optional equipment and optional accessories for comprehensive customisation.**

The familiar extensive BMW Motorrad individualisation program is available for the new C 650 Sport and the new C 650 GT.

Optional equipment is supplied directly ex works and is integrated in the production process. Optional accessories are installed by the BMW Motorrad dealer or by customers themselves. These are features which can be retrofitted, too.

### **Optional equipment.**

- Alarm system (DWA).
- Power reduction 35 kW.

### **Optional equipment packages.**

#### **Highline package for the C 650 Sport:**

- Heated grips.
- Seat heating.
- Tyre pressure control (RDC).
- LED daytime riding light.
- LED turn indicators.

#### **Highline package for the C 650 GT:**

- Heated grips.
- Seat heating.
- Tyre pressure control (RDC).

#### **Safety package for the C 650 GT:**

- Daytime riding light.
- Side View Assist (SVA).

## **Optional accessories.**

### **Storage program.**

- Topcase, 35 litres.
- Luggage bridge.
- Liner for topcase.
- Centre tunnel liner, 12 litres.
- Luggage compartment partition net.

### **Comfort and design.**

- Windshield, tinted (C 650 Sport only).
- Sport windshield, clear/tinted (C 650 Sport only).
- Sport seat incl. seat heating (C 650 Sport only).
- Exclusive seat incl. seat heating (C 650 GT only).
- Rain cover for seat.
- Wind deflector.
- Scooter cape (textile protection from wind, rain and cold for the rider).
- Mirror, aspherical (C 650 GT only).
- Backrest for passenger.
- Chrome elements comprising passenger footrests, handlebar weights, footboard inserts.

### **Navigation and communication.**

- BMW Motorrad Navigator V.
- Holder for BMW Motorrad Navigator V.
- BMW Motorrad Communication System.
- Smartphone cradle.
- Mobile phone insert for storage compartment.
- BMW USB charger.

### **Safety and electrical system.**

- Alarm system (DWA).
- LED turn indicators (C 650 Sport only).
- Crash pads.
- Motorcycle lock.
- Additional power socket.

To match the new maxi scooters, BMW Motorrad has also expanded its range of rider equipment to include attractive products for urban mobility.

## 4. Paint finishes.



The C 650 Sport and C 650 GT are each offered in three different colour variants.

The Valencia Orange metallic matt of the C 650 Sport highlights its compact, sporty character and in conjunction with the contrast surfaces gives it a dynamic, modern appearance.

By contrast, Lightwhite non-metallic in combination with the matt contrast surfaces makes the new C 650 Sport look very technical, compact and light.

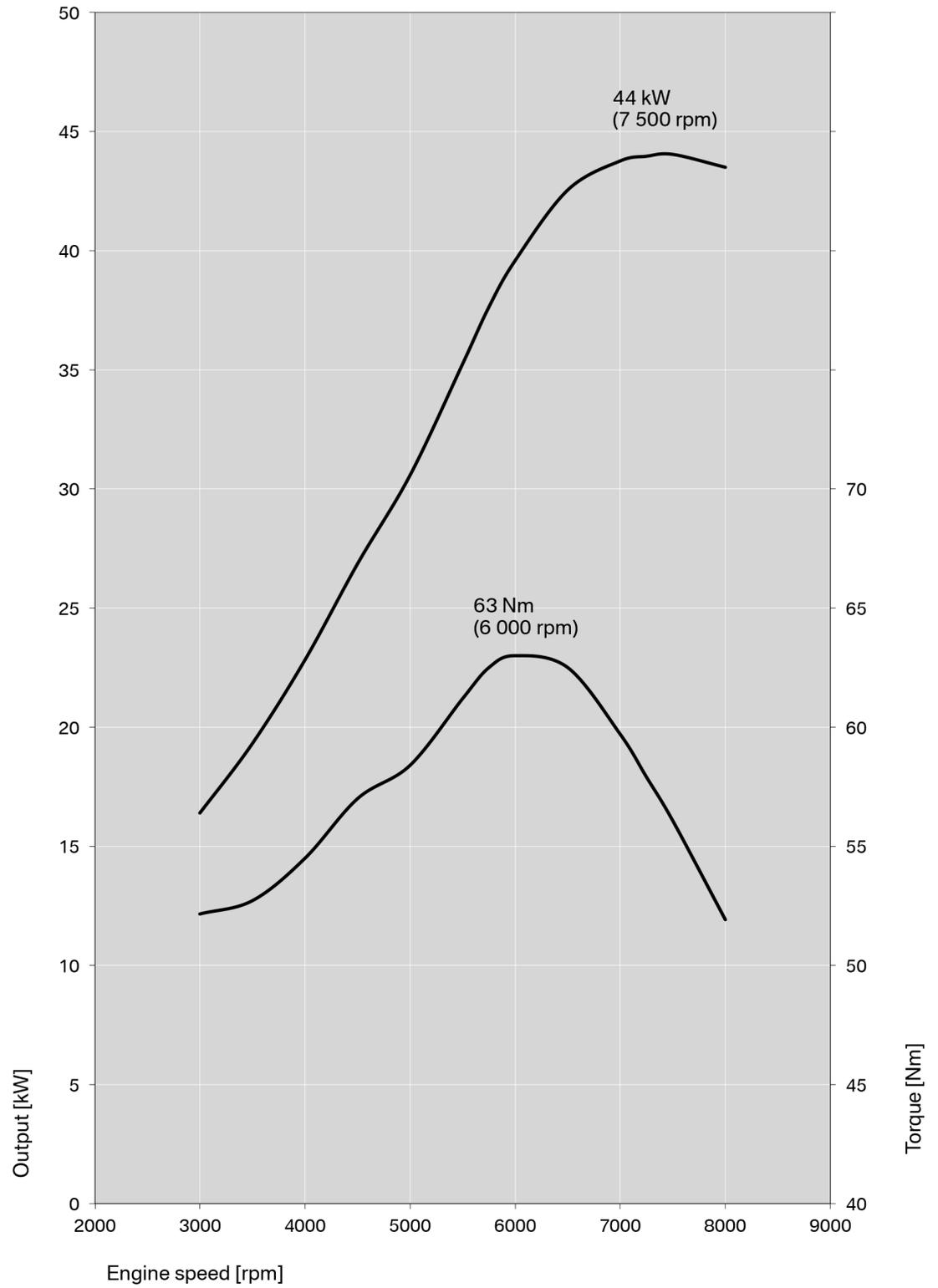
In Blackstorm metallic combined with the contrast surfaces, the new C 650 Sport appeals to a more classically oriented clientele.

In the C 650 GT, Blackstorm metallic in conjunction with the fluid styling and contrast surfaces highlights the vehicle's elegant character.

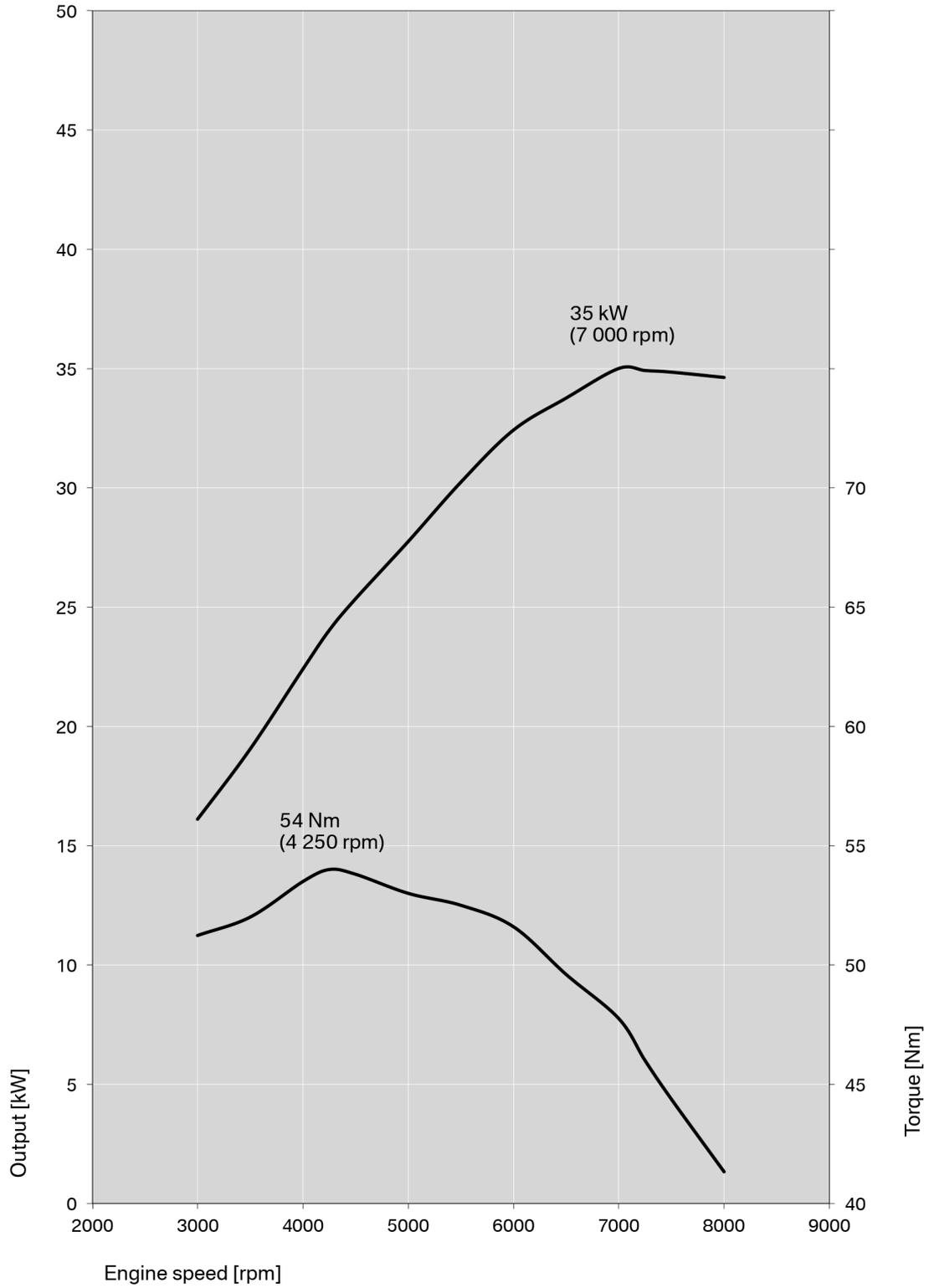
Frozen Bronze metallic in conjunction with a contrasting tone creates a harmonious paint finish that clearly emphasises the styling of the new C 650 GT.

Lightwhite non-metallic highlights the dynamic side of the new C 650 GT. This colour gives it a particularly light and agile look.

## 5. Engine output and torque. 44 kW variant.



# 35 kW variant.



## 6. Technical specifications.



		BMW C 650 Sport	BMW C 650 GT
<b>Engine</b>			
Capacity	cc	647	
Bore/stroke	mm	79/66	
Output	kW/bhp	44/60	
at engine speed	rpm	7 500	
Torque	Nm	63	
at engine speed	rpm	6 000	
Type	Water-cooled 2-cylinder 4-stroke in-line engine, four valves per cylinder with bucket tappets, two overhead camshafts, dry sump lubrication		
Compression/fuel		11.6/1	
Valve control	DOHC (double overhead camshaft)		
Valves per cylinder		4	
Ø intake/outlet	mm	31.5/27.1	
Throttle valve diameter	mm	38	
Carburation		BMS-E2	
<b>Electrical system</b>			
Alternator	W	508	
Battery	V/Ah	12/14	
Headlight	High beam/low beam: 12 V/55W Halogen H7		
Rear light	LED brake light/rear light		
Starter	kW	0.6	
<b>Power transmission - gearbox</b>			
Clutch	Radial centrifugal clutch		
Gearbox	Continuously variable CVT belt transmission		
Primary ratio		1.06	
Rear wheel drive	Chain in oil bath		
Rear wheel drive gear ratio		3.28	
<b>Suspension</b>			
Frame construction type	Tubular steel frame, self-bearing drive unit, tubular steel rear frame		
Front wheel suspension	Upside-down fork ø 40 mm		
Rear wheel suspension	Single-sided die cast swinging arm		
Spring travel, front/rear	mm	115/115	
Wheel castor	mm	92	
Wheelbase	mm	1 591	
Steering head angle	°	64.6	

		<b>BMW C 650 Sport</b>	<b>BMW C 650 GT</b>
Brakes	front	Rigid twin disc brake, diameter 270 mm, 2-piston floating caliper	
	rear	Rigid twin disc brake, diameter 270 mm, 2-piston floating caliper	
ABS		BMW Motorrad ABS	
Wheels		Die-cast aluminium wheels	
	front	3.50 × 15"	
	rear	4.50 × 15"	
Tyres	front	120/70 ZR15	
	rear	160/60 ZR15	
<b>Dimensions and weights</b>			
Total length	mm	2 180	2 235
Total width with/without mirrors	mm	877/775	916/805
Seat height (without rider)	mm	800 (standard) 780 (option)	805 (standard) 785 (option)
DIN unladen weight, road ready	kg	249	261
Permitted total weight	kg	445	445
Fuel tank capacity	l	15.5	
Reserve	l	3.0	
<b>Performance figures</b>			
Fuel consumption			
Fuel consumption over 100 km according to WMTC	l	4.6	
Acceleration			
0–100 km/h	s	7.1	7.5
Top speed	km/h	180	