

MANUFACTURER
IN-HOUSE
DEVELOPEMENT

MARKET RESEARCH & SOURCING TESTING HOMOLOGATION









LESS TIME

LESS MONEY

LESS MANPOWER

E-Mail: e-mobility@messingschlager.com

OUR E-MOBILITY SOLUTIONS TEAM WILL GLADLY INFORM YOU ABOUT

OUR DIFFERENT CONCEPTS

BASED ON **brose MAHLE SHIMANO** & BAFANG DRIVE TRAINS

HOW WE CAN SUPPORT YOU

DEVELOPING THE ENTIRE BOM OF YOUR BIKE

OUR UNIQUE FULL-SERVICE-OFFERING

CONSULTANCY, PRODUCT MANAGEMENT, SOURCING, LOGISTICS SERVICE & FINANCING



The desire for your own e-bike:

No other trend has dominated the bicycle industry more in recent years than the e-bike! In recent years, sales records have been set all over Europe, which has made the e-bike segment popular across the board strongest bicycle segment in the countries. In Germany alone, the market share in terms of volume is now over 50%. Since 2013, the number of e-bikes has increased more than sevenfold and a further increase is seen as very realistic. The e-bike is both a problem solver and an expression of a new sense of mobility that is simply fun and is environmentally friendly and healthy. With our over 100 years of expertise in the development, procurement and marketing of bicycle components, we have developed a holistic concept that combines the latest technology with a wide range of possible variations and a high degree of individualization.

The Messingschlager E-Mobility Solutions address the specific consumer and market needs of a wide range of target groups international markets and offer the bicycle manufacturer a maximum degree of flexibility in conception, procurement and production. Our e-mobility solutions are based on the legal EU guidelines and regulations for Pedelecs and guarantee our customers legal certainty.

This enables our customers to have one uncomplicated, cost-efficient and above-average fast market entry into the

number 1 growth market in the bicycle industry!

The Messingschlager PartFinder embodies another important component of this concept. The parts range, which will be expanded again for 2025, will make it easier for OEMs, dealers and end users alike to find the right, load-bearing bicycle part for the required purpose. Our recommended bicycle parts are tested and categorized according to the valid ISO 4210/EN 15194 standards up to 120 kg and in some cases up to 160 kg.

The company's many years of experience Messingschlager gives you help, market-oriented answers and important reliability in a time in which the international supply chains are heavily burdened and product availability is characterized by great uncertainty and long lead times.

The e-bike has arrived at the center of society. Experience the dynamics of his product segment and don't miss your chances!

We would be happy to support you!

Your Team Messingschlager

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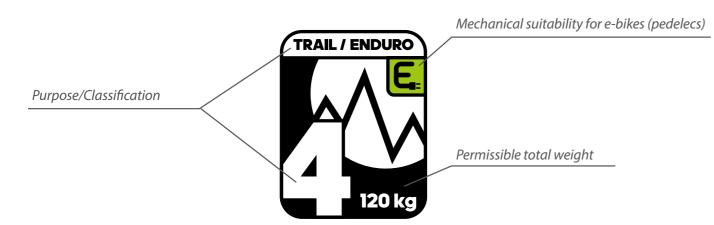
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LEGEND



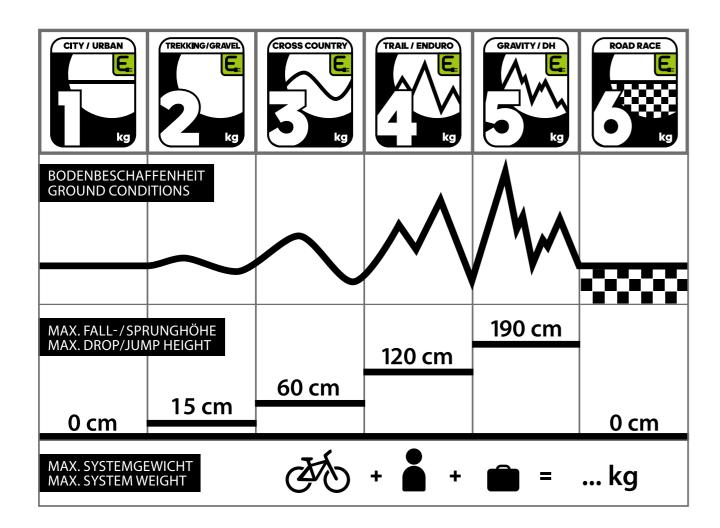
Load-oriented products – Every (e-)bike needs suitable parts

The Messingschlager PartFinder is a classication matrix for bicycles / e-bikes and their accessories. It classies bicycles according to the respective areas of use based on ASTM F2043-13 or DIN EN 17406 (still in the drafting stage). In addition, it provides quality standards and test reports for increased loads or areas of application that go beyond the current ISO4210 / EN15194 standards. These were developed in cooperation with independent, accredited testing institutes.

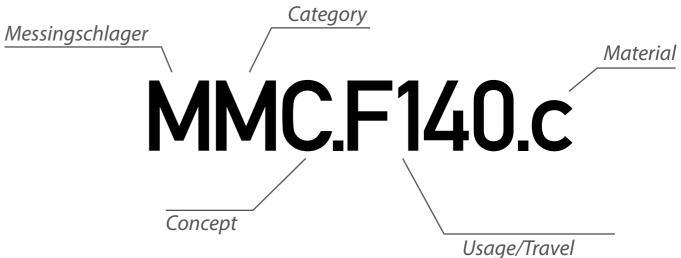


The Messingschlager PartFinder is intended to help dealers and end consumers to nd their way around the extensive range of accessories and to select the right, tested component for their respective needs.

Bicycles and thus the built-in components are developed and constructed for a specic area of application and the loads to be expected here. The forces that act here vary depending on the area of application and system weight (bike + rider + luggage). The right component can be found quickly and easily with the help of the pictograms.







Typologization at Messingschlager

With the emergence of new frame platforms, the need arose to develop a new naming formula and reclassify our product range accordingly. Starting this season, we will be naming our e-bike kits as follows:

- MMC.F170.al / Messingschlager Mountain Concept Full suspension (170 mm) Aluminum frame
- MMC.F150.al / SUV Messingschlager Mountain Concept Full suspension (150 mm) Aluminum frame
- MMC.F140.c / SUV Messingschlager Mountain Concept Full suspension (140 mm) Carbon-Rahmen
- MUC.T.al / Messingschlager Trekking Concept Trekking and SUV-E-Bike Aluminum frame
- MUC.C.al / SUV Messingschlager Urban Concept City and SUV-E-Bike Aluminum frame
- MUC.L.al / Messingschlager Urban Concept Light-E-Bike Aluminum frame
- MRC.G.al / Messingschlager Road Concept Gravel & Allroad-E-Bike Aluminum frame
- MRC.G.c / Messingschlager Road Concept Gravel & Allroad-E-Bike Carbon-Rahmen
- MMC.Y.al / Messingschlager Mountain Concept Youth Aluminum frame

MOTORS













brose

Drive³ Peak



Brose Drive³ Peak

- Best-in-class performance
- Very quiet operation thanks to belt drive
- Natural ride feel 2.0
- · Optimized design and integration
- Leading power-to-weight ratio
- Smooth pedaling above 25 km/h

Brose E-Bike Systeme made in Germany

Different engines for different applications – that's Brose's credo. From modern city and trekking e-bi-kes to performance-oriented e-mountain bikes and powerful e-cargo bikes, everything is possible with Brose's innovative engine systems.

In addition to customization and finely tunable software, a special feature of Brose engines is their manufacturing, as all Brose mid-drive engines are Made in Germany.

The new **Brose Drive³ Peak** - The future flagship of the Brose drive family offers higher performance with even more compact dimensions and an integration-optimized design. At its highest level, the 48-volt platform, Drive³ Peak, delivers 410 percent assistance at a maximum speed of up to 25 km/h.

Maximum torque: 95 Nm | Peak power: 600 Watt | Weight: 2,9 kg



brose

Drive S-Mag



Brose Drive S-Mag

- Specially developed for high-performance applications
- Robust, durable construction Made in Germany
- Very quiet operation thanks to belt drive
- Extremely refined, powerful assistance
- Particularly natural riding feel
- Smooth pedaling over 25 km/h

Brose Drive S-Mag – powerful mid-drive engine

The Brose Drive S-Mag is a powerful mid-drive engine that's integrated into both our City concept for urban use and cycling touring, as well as our sporty concept, which is ideally suited as an e-mountain bike. It provides a solid foundation for modern e-bikes. The absolute unique selling point of this motor series is its unique belt drive, which ensures the motor's unparalleled quietness. Matching features include a remote unit and a 630 Wh battery.

Maximum torque: 90 Nm | Peak power: 600 Watt | Weight: 2,9 kg

MAHLE

MAHLE X20



MAHLE X20

- Completely silent
- Ultra lightweight only 1.4 kg
- Almost invisible
- Smart thinking, torque & cadence sensor compatible
- ANT+ connection with current bike computers
- Up to 130 km range with one battery
- 50 km range extension with range extender

MAHLE - the new benchmark in the SmartBike industry

Compact e-bike motor systems are also part of the innovative motor manufacturer's portfolio. In addition to a mid-drive motor, two hub motors are particularly noteworthy, offering impressive efficiency, consistent assistance, and compact dimensions. These are the **Mahle X20** and **X30**. Both models are used in the sporty MRC.G.c and MRC.G.al concepts – our interpretation of comfortable, stylish, and clever e-gravel bikes.

The small, 1.4 kg **Mahle X20** hub motor is one of the lightest drive systems currently on the market. The entire system (motor, battery, and controller) weighs approximately 3.2 kg and forms an ideal basis for lightweight, sporty e-bikes – the **Mahle X20** is perfect for use in gravel bikes, road bikes, or stylish urban and city e-bikes.

Maximum torque: 55 Nm | Peak power: 250 Watt | Weight: 1,4 kg



BAFANG

BAFANG H600



BAFANG H600

- Robust, durable hub motor
- Almost invisible
- Lightweight 1.7 kg
- Maximum torque 30 Nm
- Good pedalability over 25 km/h
- Ideal for bikes used in urban areas (city, commuter)
- Compact construction form for minimalist design without visible technology integration

BAFANG - the best drive systems for your new riding experience

The manufacturer's portfolio includes a wide range of motors, batteries and components for e-bikes, which are aimed at both OEM manufacturers and end customers.

In addition to modern mid-drive motors, the world's leading manufacturer of hub motors impresses above all with robust, compact and extremely efficient hub motors from Bafang. In order to achieve an interesting price point for stylish light e-bikes, for example, Messingschlager relies on the compact hub motors from the Chinese manufacturer in various concepts. The **Bafang H600** is used here.

This compact hub motor weighs just 1.7 kg and is characterized by its high efficiency, durability, pedalability, homogeneous support, a natural riding feel and a maximum torque of up to 30 Nm. Especially in stylish city or trekking e-bikes, which should not cost, the Bafang motor system is the first choice.

Maximum torque: 30 Nm | Peak power: 250 Watt | Weight: 1,7 kg



SHIMANO EP8

SHIMANO





SHIMANO EP8

- Compact dimensions with low weight
- Elegant integration and look
- More ground clearance for technical trails
- Seamless and direct power always gives you optimum control
- Low noise development
- Reduced pedal resistance for effortless pedaling
- Customize power and battery management with the E-TUBE PROJECT Cyclist app

SHIMANO - Built on a century of cycling history

In addition to gears and brakes, Shimano has also been offering mid-motor systems for e-bikes under the Shimano STEPS (Shimano Total Electric Power System) brand, Shimano has also been offering mid-motor systems for e-bikes since 2010. The top model in the Shimano's motor portfolio is the Shimano EP801. The compact, lightweight mid-motor weighs a slim 2.7 kg, has harmonious support, a robust magnesium housing and can be conveniently maintained and customized from a smartphone via the Shimano E-Tube app. In addition, special software in combination with various electric Di2 gears makes it possible to use Auto-Shift and Free-Shift.

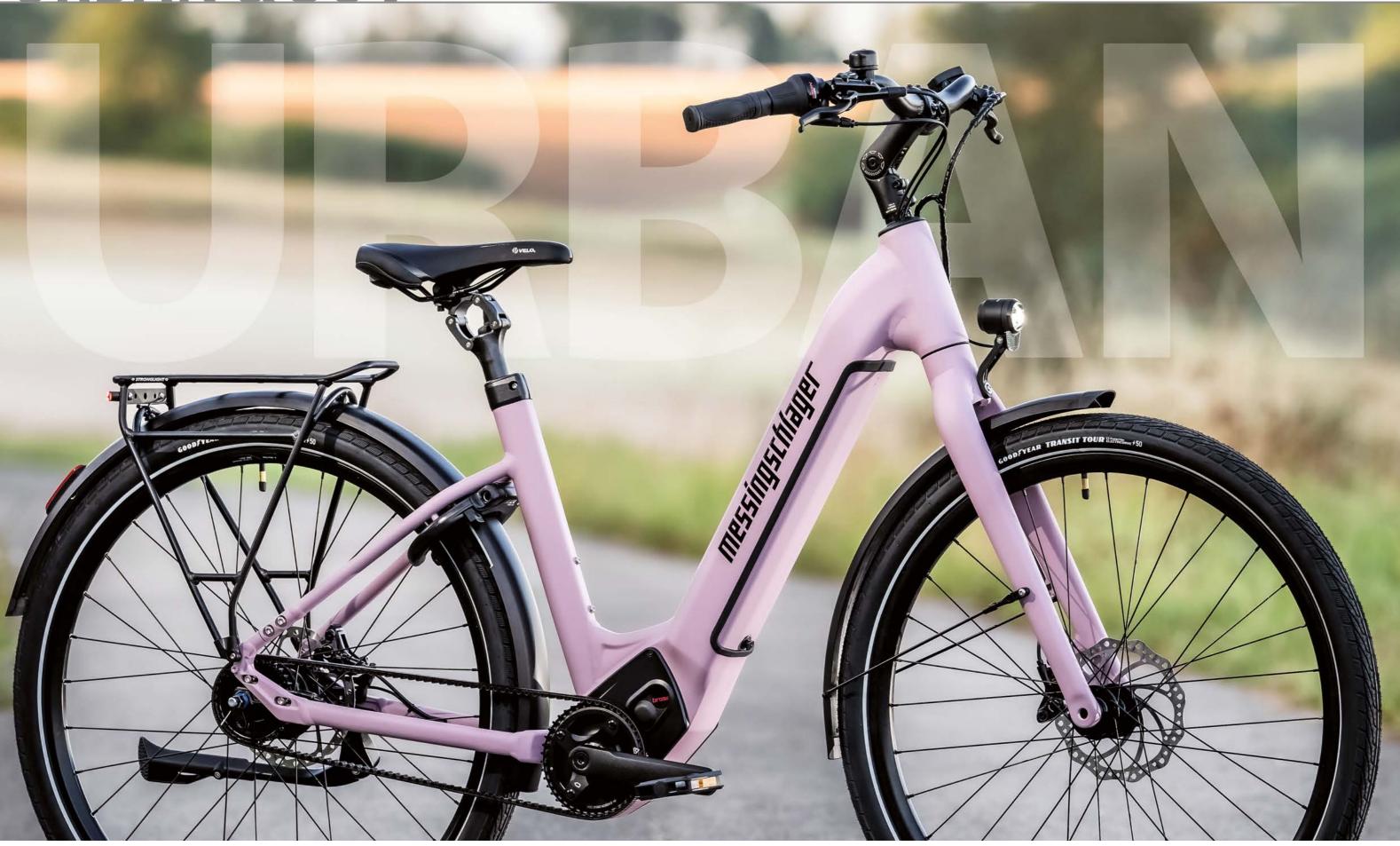
The powerful support of the respective modes makes the **Shimano EP80**1 ideal for use in sporty e-mountain bikes. With a torque of up to 85 Nm, even the steepest climbs lose their lose their terror. The modern design and high efficiency make the **EP801** an endurance endurance runner on all trails.

Maximum torque: 85 Nm | Peak power: 600 Watt | Weight: 2,7 kg



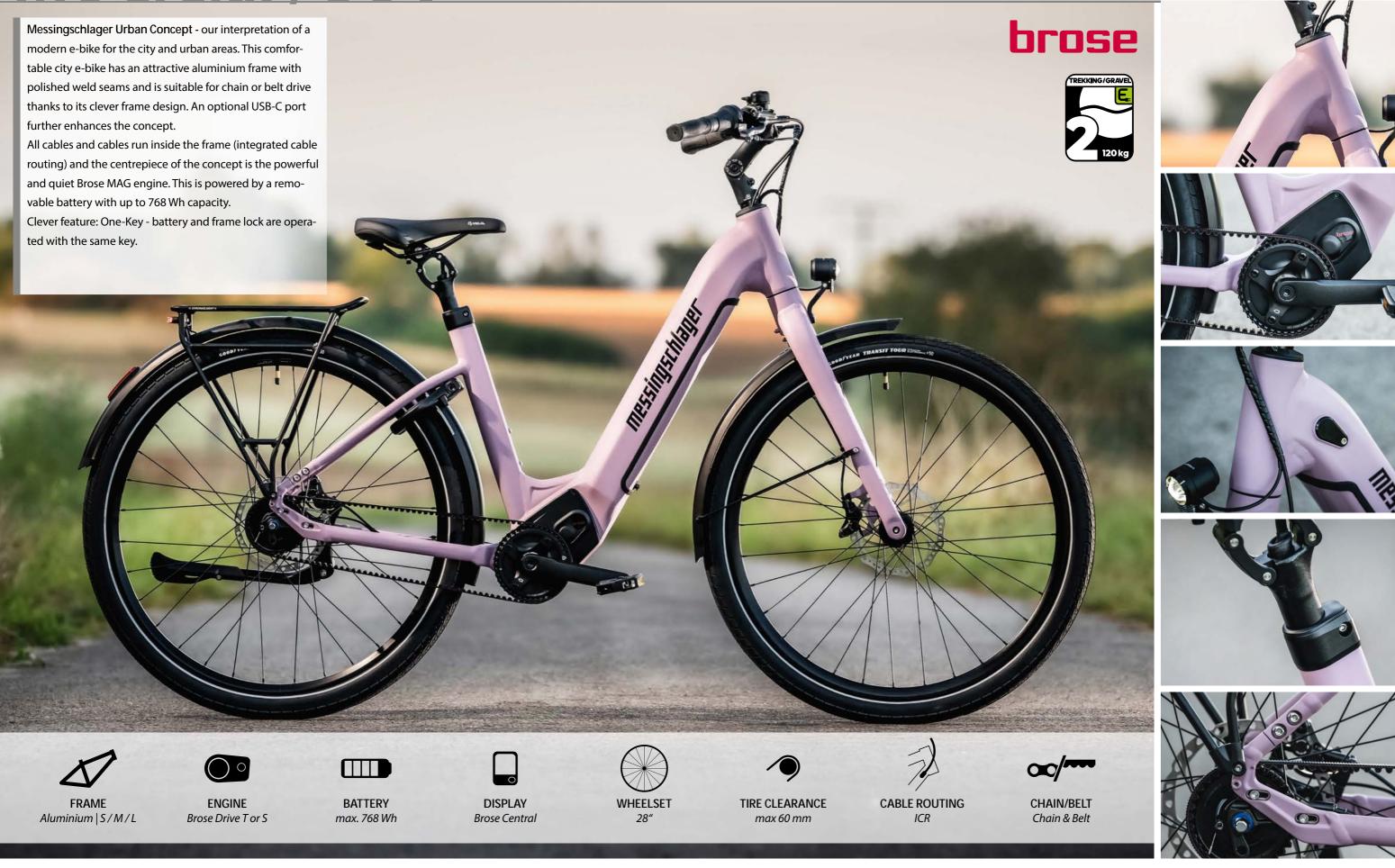
URBAN & SUV





MUC.C.al / SUV





MUC.T.al / SUV





TECHNICAL DATA



MUC.C.al / SUV









HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ ALUMINUM FRAME MIT SMOOTH WELDING Cleaner look through ground welds.
- ✓ ONE•KEY•SYSTEM

 One key for battery and frame lock.
- ✓ CHAIN OR BELT DRIVE

 Both possible through frame opening.
- ✓ INTEGRATED CABLE ROUTING

 Cables and hoses are inside the frame.
- ✓ MAXIMUM TIRE CLEARANCE Tires up to size 60-622 possible.







	S	M	L
seat tube length	440 mm	490 mm	540 mm
horizontal top tube length	613 mm	629 mm	645 mm
steerer tube	142 mm	158 mm	174 mm
chain stays	480 mm	480 mm	480 mm
steerer tubewinkel	69°	69°	69°
seat angle	71°	71°	71°
wheelbase	1136 mm	1153 mm	1169 mm
Reach	393 mm	403 mm	414 mm
Stack	641mm	656 mm	671mm



MUC.T.al/SUV









HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ ALUMINUM FRAME MIT SMOOTH WELDING Cleaner look through ground welds.
- ✓ ONE•KEY•SYSTEM

 One key for battery and frame lock.
- ✓ CHAIN OR BELT DRIVE

 Both possible through frame opening,
- ✓ INTEGRATED CABLE ROUTING

 Cables and hoses are inside the frame.
- ✓ MAXIMUM TIRE CLEARANCE Tires up to size 60-622 possible.







	5	М	L	XL
seat tube length	450 mm	500 mm	550 mm	600 mm
horizontal top tube length	617 mm	625 mm	633 mm	640 mm
steerer tube	142 mm	154 mm	165 mm	174 mm
chain stays	480 mm	480 mm	480 mm	480 mm
steerer tubewinkel	71°	71°	71°	71°
seat angle	73°	73°	73°	73°
wheelbase	1141mm	1150 mm	1158 mm	1165 mm
Reach	418 mm	422 mm	427 mm	432 mm
Stack	652 mm	663 mm	673 mm	682 mm





Men's frame

Trapez

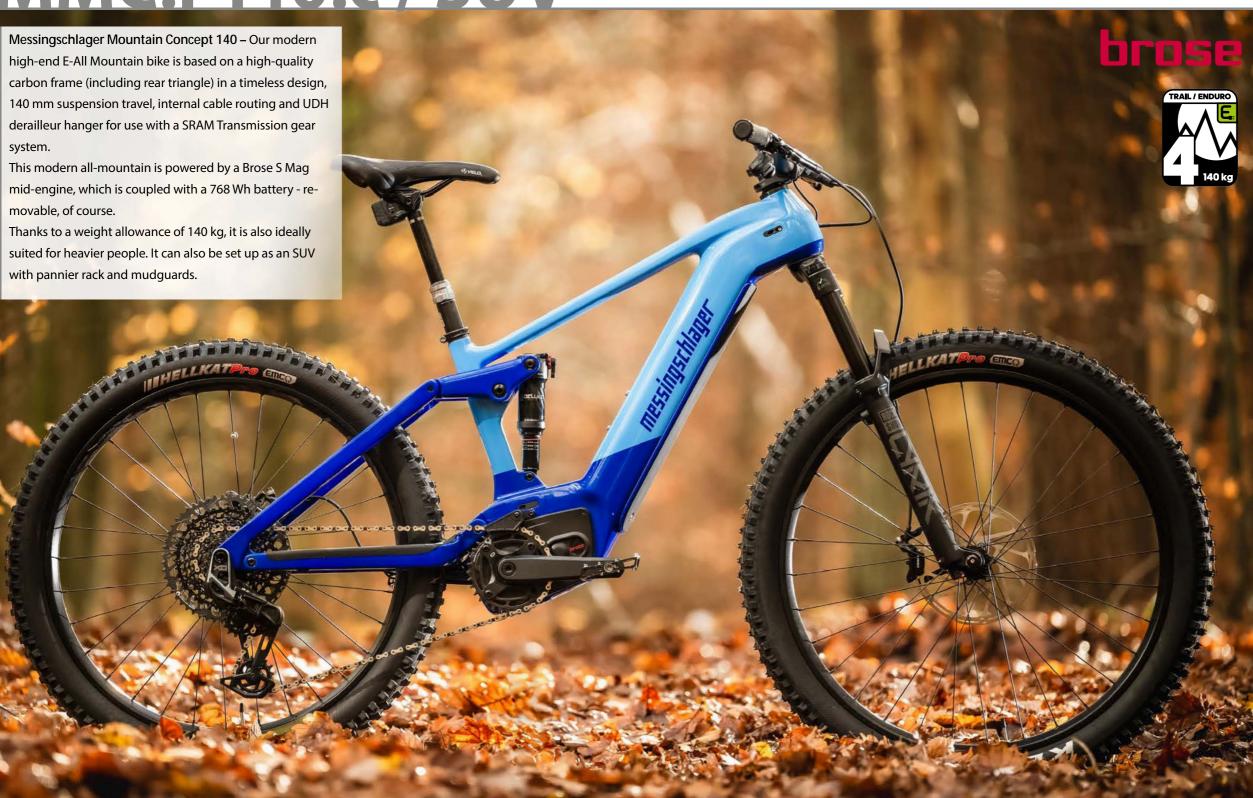
MOUNTAIN





MMC.F140.c/SUV





















ENGINE Brose S MAG



BATTERY max. 768 Wh



DISPLAY
Brose Allround/Remote



WHEELSET 27,5"/29"



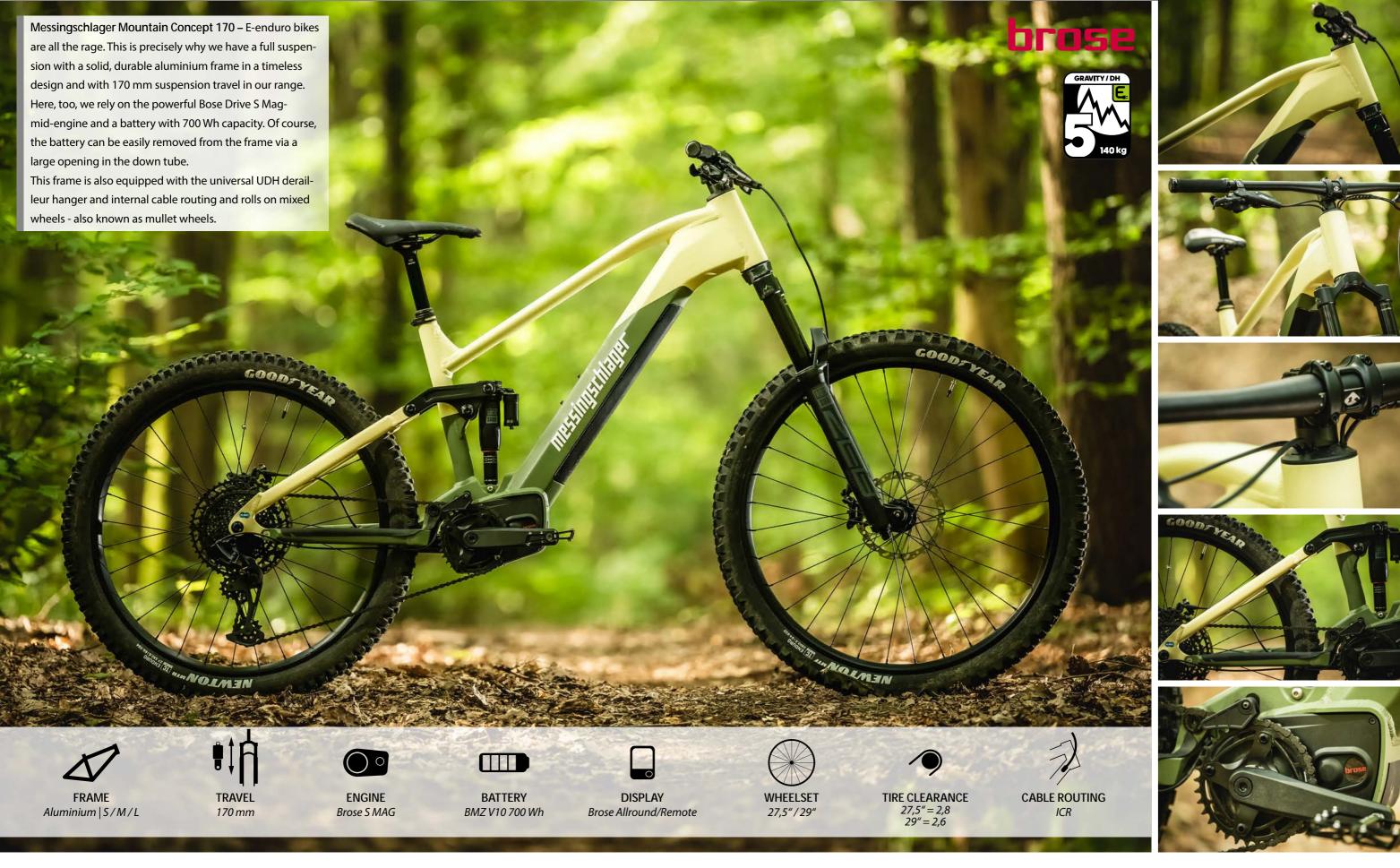
TIRE CLEARANCE 27,5" = 2,6 29" = 2,4



CABLE ROUTING ECR

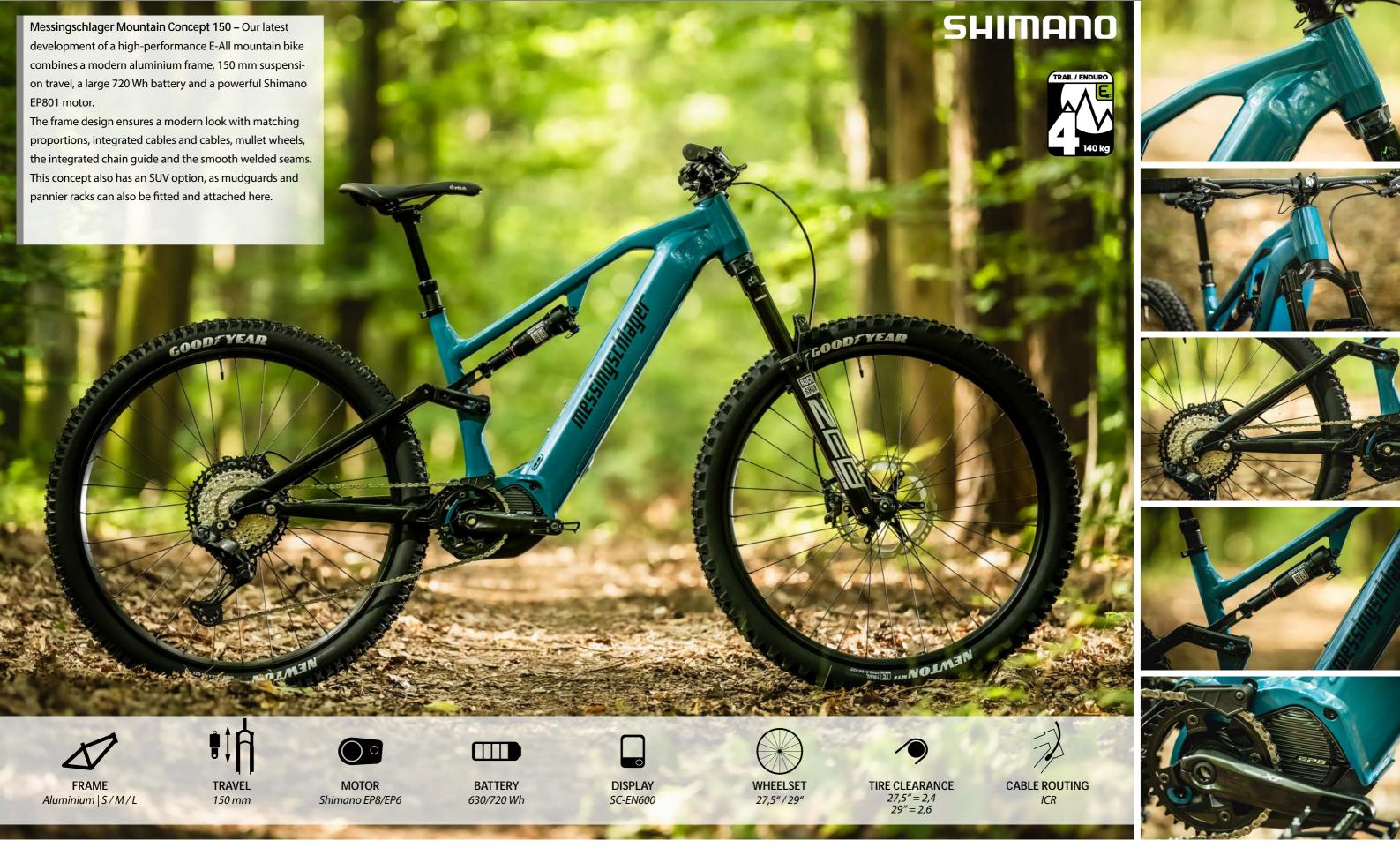
MMC.F170.al





MMC.F150.al/SUV





TECHNICAL DATA



MMC.F140.c & MMC.F140.c SUV









HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ BROSE S MAG & 768•WH•AKKU

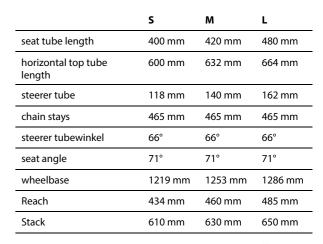
 Powerful engine combined with high-volume battery
- ✓ TRAVEL: 140 MM

 Carbon frame with 140 mm travel.
- ✓ ICR AND ECR CABLE ROUTING POSSIBLE Cable routing inside or outside of the frame.
- ✓ **SRAM UDH DERAILLEUR HANGER** *Universal and modern.*
- ✓ **WEIGHT LIMIT**Frame is approved up to 140 kg Cat. 4.













SUV version
Carriers and fenders
available @ www.messingschlager.com

MMC.F170.al









HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ BROSE S MAG & 700•WH•AKKU

 Powerful engine combined with a BMZ V10 battery.
- ✓ TRAVEL: 170 MM

 Aluminum frame with 170 mm travel.
- ✓ INTEGRATED CABLE ROUTING

 All cables and hoses are inside the frame
- ✓ **SRAM UDH DERAILLEUR HANGER** *Universal and modern.*
- ✓ **WEIGHT LIMIT**Frame is approved up to 140 kg Cat. 5.







	S	М	L
seat tube length	400 mm	420 mm	460 mm
horizontal top tube length	590 mm	622 mm	654 mm
steerer tube	135 mm	145 mm	155 mm
chain stays	462 mm	462 mm	462 mm
steerer tubewinkel	65,9°	65,9°	65,9°
seat angle	76,9°	76,9°	76,9°
wheelbase	1246 mm	1280 mm	1314 mm
Reach	438 mm	468 mm	498 mm
Stack	660 mm	670 mm	679 mm



TECHNICAL DATA



MMC.F150.al & MMC.F150.al SUV







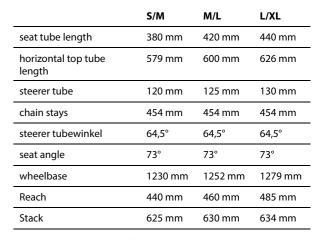


HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ SHIMANO EP801 & 630/720 WH•AKKU powerful motor combined with high-volume battery
- ✓ TRAVEL: 150 MM

 Aluminum frame with 150 mm travel.
- ✓ INTEGRATED CABLE ROUTING
 All cables and hoses are inside the frame
- ✓ **SRAM UDH DERAILLEUR HANGER**Universal and modern.
- ✓ **SUV•OPTION**Optional fenders and carrier.







Men's frame



SUV version Carriers and fenders available @ www.messingschlager.com



GRAVEL & ALLROUND





MRC.G.c





MRC.G.al





TECHNICAL DATA



MRC.G.c





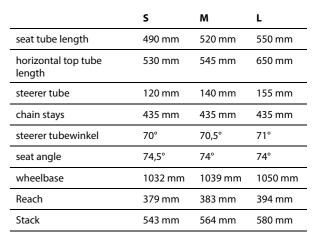




HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ CARBON FRAME Lightweight & timelessly stylish, integrated HMI (display).
- ✓ MAHLE X20•MOTOR Compact, unobtrusive hub motor in the rear wheel.
- ✓ INTEGRATED CABLE ROUTING All cables and hoses are inside the frame.
- √ 250•WH•AKKU Compact battery is permanently installed in the down tube.
- **✓** RANGE EXTENDER Capacity of the additional battery: 168 Wh.











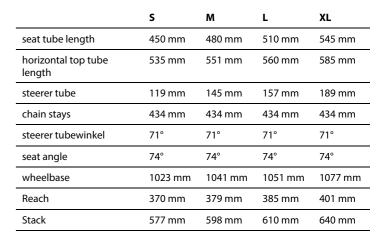




HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- **✓** ALUMINUM FRAME Cleaner look thanks to ground welds.
- **✓** MAHLE X30•MOTOR Compact, unobtrusive hub motor in the rear wheel.
- ✓ ICR AND ECR CABEL ROUTING POSSIBLE All cables and hoses are inside or outside the frame.
- √ 250•WH•AKKU A compact battery is permanently installed in the down tube.
- **✓** RANGE EXTENDER Capacity of the additional battery: 168 Wh.











Carrier and fenders available @ www.messingschlager.com

LIGHT URBAN





MUC.L.al















Bafang H600

BATTERY vollintegrierte 360 Wh

DISPLAY DP C240

WHEELSET 28"x700c

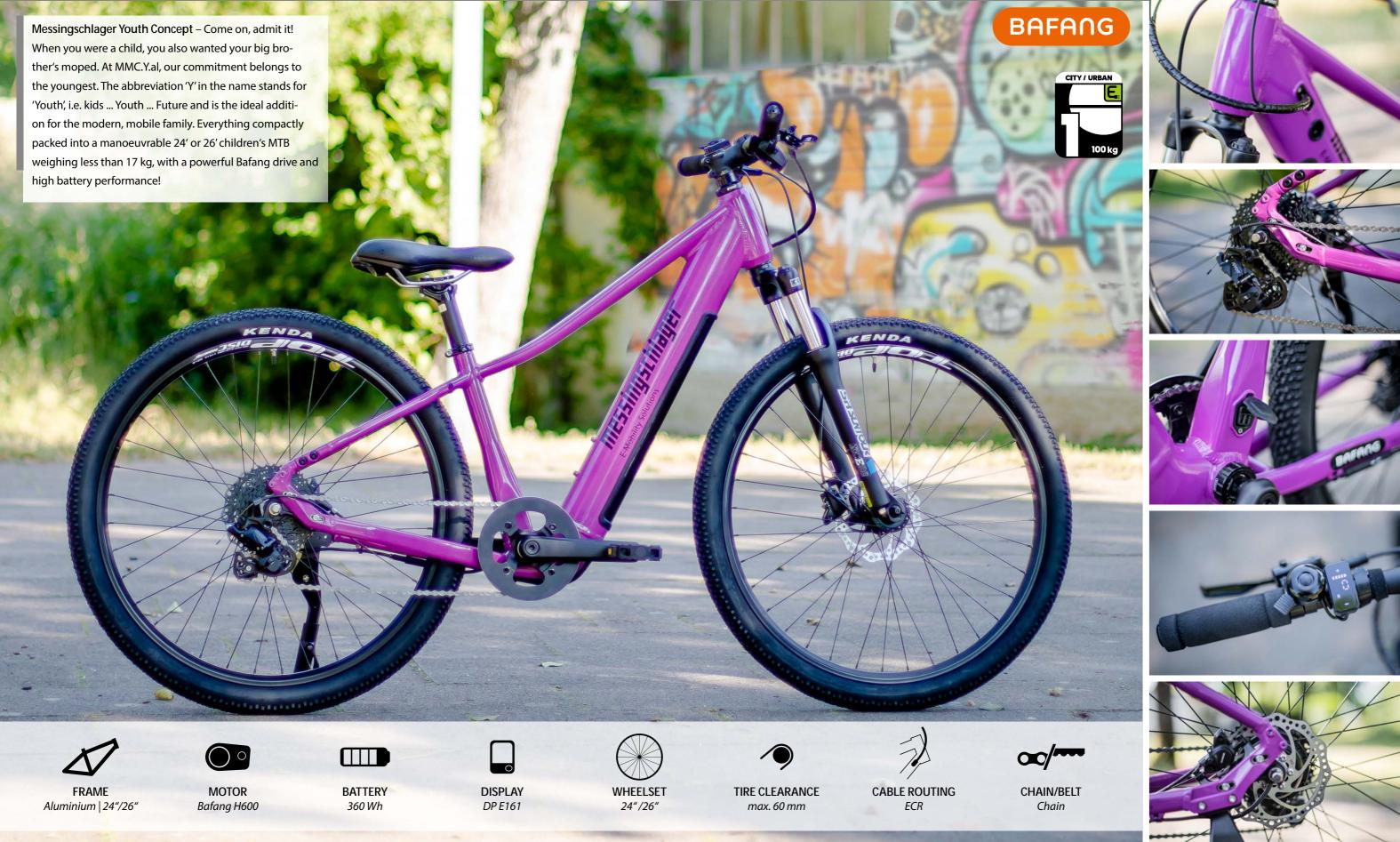
TIRE CLEARANCE

CABLE ROUTING semi ICR

CHAIN/BELT Chain & Belt

MMC.Y.al





TECHNICAL DATA



MUC.L.al









HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ ALUMINUM FRAME Cleaner look thanks to ground welds.
- ✓ OPTIONAL MEN'S FRAME DIAMOND FRAME For a sportive look
- ✓ CHAIN OR BELT DRIVE

 Both possible through frame opening.
- ✓ EXTERNAL CABLE ROUTING

 All cables and hoses are outside the frame.
- ✓ MAXIMUM TIRE CLEARANCE Maximum tire size 60-700c.





WAVE seat tube length 460 mm 520 mm 580 mm horizontal top 565 mm 627 mm tube length steerer tube 185 mm 205 mm 445 mm chain stays 445 mm 445 mm steerer tube angle 69° seat angle 73° 73° 73° 1071 mm 1103 mm 1135 mm 430 mm Reach 380 mm 405 mm Stack 606 mm 625 mm 644 mm

URBAN	S	М	L	XL
seat tube length	460 mm	500 mm	540 mm	580 mm
horizontal top tube length	560 mm	570 mm	580 mm	590 mm
steerer tube	150 mm	160 mm	170 mm	180 mm
chain stays	445 mm	445 mm	445 mm	445 mm
steerer tube angle	69°	69°	69°	69°
seat angle	73°	73°	73°	73°
wheelbase	1065 mm	1075 mm	1086 mm	1097 mm
Reach	379 mm	386 mm	393 mm	402 mm
Stack	592 mm	601 mm	611 mm	620 mm

MMC.Y.al









HIGHLIGHTS / FRAME SHAPES / GEOMETRY

- ✓ **ALUMINUM FRAME**Cleaner look thanks to ground welds.
- ✓ CHAIN OR BELT DRIVE

 Both possible through frame opening.
- ✓ SPECIAL COMPONENTS FOR KIDS

 Grip reach for shift-/brake lever, kids' saddle
- ✓ EXTERNAL CABLE ROUTING

 All cables and hoses are outside the frame.
- ✓ MAXIMUM TIRE CLEARANCE Tire size up to 24"/26" possible.





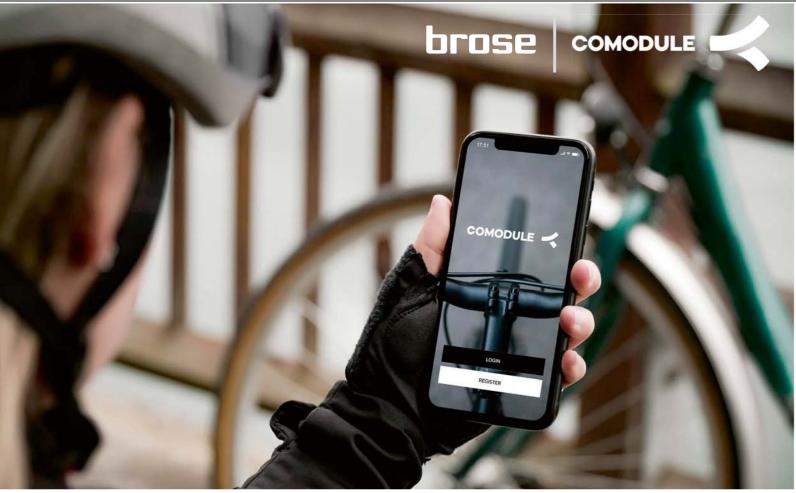


24"	26"
320 mm	350 mm
510 mm	540 mm
130 mm	130 mm
410 mm	420 mm
70,5°	69°
73°	73°
972 mm	1016 mm
338 mm	357 mm
543 mm	595 mm
	320 mm 510 mm 130 mm 410 mm 70,5° 73° 972 mm 338 mm



IOT TRACKING





SHIMANO

brose

COMODULE



System_



App Connection



Service Plattform – Backend



All bike data at a glance

One app for everything

Bike computer, GPS, anti-theft device, mobile phone and fitness tracker – all in one device! The Comodule app makes it possible and ensures a clean handlebar cockpit.

Data reading made easy

Fast provision of information is essential for repairs or service work. Comodule can evaluate and export all engine data quickly and easily.

Everything under control at all times

The rider can call up all the important information in just a few simple steps. The clear, customizable menu structure does not confront anyone with unsolvable tasks.n.

Big Data für Brose E-Bikes

Networking and IoT are the most important trends in the digital future - why shouldn't high-tech products such as e-bikes benefit from them? Comodule opens up completely new possibilities for both riders and service companies.

With the Comodule 'Bonnie & Clyde' module integrated into the frame, all Brose e-bikes can be connected via the specially developed app. Comodule records all ride data. What does this mean in practice?

For the rider, navigation with tracking of all riding data is the top priority, which can be displayed in a customised dashboard. The integrated GPS tracking also enables 'Find my Bike' live localisation if the bike has been stolen. The alarm is triggered by an integrated motion alarm via push message.

The automatic recording of all ride and engine data, such as temperature and power output, supports workshops in troubleshooting and can be used anonymously in fleet management.

This means that drivers and technicians can maximise comfort, safety and information with Comodule.

brose

245024 IOT MODUL >BONNIE & CLYDE

- · GPS Tracking-Modul
- direkte Anbindung am Motorsystem
- personalisierbares Dashboard
- Aufzeichnung aller Routen und Export zu Strava
- In-App Fahrzeugprofil
- Live Standort und Bewegungsalarm per Pushnachricht

IOT MODULE >BONNIE & CLYDE

- · GPS tracking module
- direct connection to engine system
- customizable dashboard
- recording of all routes and export to Strava
- · in-app vehicle profile
- live location and motion alert via push notification



SHIMANO

245027 IOT MODUL >BONNIE & CLYDE

- · GPS Tracking-Modul
- · direkte Anbindung am Motorsystem
- personalisierbares Dashboard
 Aufzeichnung aller Routen und Expo
- Aufzeichnung aller Routen und Export zu Strava
- In-App Fahrzeugprofil
- Live Standort und Bewegungsalarm per Pushnachricht

IOT MODULE >BONNIE & CLYDE

- GPS tracking module
- direct connection to engine system
- customizable dashboard
- recording of all routes and export to Strava
- in-app vehicle profile
- live location and motion alert via push notification



SERVICE



We place great emphasis on service

A product is only as good as its service. We strive every day to ensure lasting customer satisfaction. Our e-mobility service center is characterized by rapid response times and competent contact persons. Messingschlager offers comprehensive services for OEM customers and dealers. Our service and test center can be reached via a toll-free hotline. We keep all important spare parts in stock,

which can be delivered to you within a few business days. We have service satellites in various countries to enable us to respond even faster on-site with service, spare parts, and batteries. This also ensures that dealers can be trained internationally. We also offer regular workshops for manufacturers and specialist dealers to share our system expertise. This provides the opportunity to quickly identify

and resolve sources of errors. To ensure we can respond promptly to service calls, we also carry all the tools necessary

Services

- Documentation of work steps for effective and time-saving installation
- Installation training regarding cable routing and system connection
- · Installation training for EOL (End of Line) testing and installation of the appropriate, customer-specific firmware
- OEM hotline at the e-mobility service center
- Stocking of all critical original spare parts and prompt delivery
- General training regarding the system and all necessary diagnostic solutions for all components (motor, display, battery)
- Quick response in case of questions
- · Provision of all tools required by the OEM
- Web-based OEM & specialist dealer service tool

CONTACT

To ensure that we can process your e-bike system service claims even faster and more conveniently, please note the follo-

For questions or complaints regarding our Premium E-Bike Solutions, please contact our E-Mobility Service Center by email or phone.

E-Mail: e-mobility@messingschlager.com

Hotline: +49 9544 / 9444 - 45

Our E-Mobility Team is available Monday to Thursday from 8:00 a.m. to 4:00 p.m., and Friday from 8:00 a.m. to 1:00 p.m. Further information about our offerings and services can be found on our website:

www.messingschlager.com/de/ebike



e-mobility@messingschlager.com www.messingschlager.com/de/ebike



