



# DRIVE SYSTEMS

**2027**  
CATALOG



**STAR UNION**  
WUXING

# GLOBAL FOOTPRINT



MORE THAN SALES

## Global After-sales Sites 全球售后中心

### Jiande Wuxing Bicycle Co., Ltd. (Group) 建德市五星车业有限公司 (总公司)

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# COMPANY PROFILE

- Established in 1985, entered bicycle industry in 1992.
- Engaged in design, manufacturing and marketing of electric bicycle parts and components since 1997.
- "Star Union" established in 2010 as independent high-end business division with specialized teams for research, marketing and production.
- Two manufacturing bases, four brands, over 1200 employees.
- Products include electric bicycles, mini e-scooters, GB e-bikes, and electric motorcycles.
- Over 300 patented inventions.

- 成立于 1985 年，1992 年进军自行车领域。
- 1997 年专注于电动自行车零部件的设计研发、生产制造与营销。
- 2010 年成立高端事业部，完全独立的研产销团队、全新优化的配套体系，以欧美标准为定位服务于一线品牌。
- 两大制造基地，四大品牌，员工 1200 余人。
- 产品包括电动助力自行车、迷你电动滑板车、国标电动自行车、电动自行车、摩托车。
- 300 多项专利发明。

40+

公司成立至今 40 余年  
40 Years of History

300+

专利数量 300 余项  
More Than 300 Patents

1200

员工人数 1200 余人  
1,200 Employees

140000

占地面积 140000 余平  
Floor Space



# DECLARATION OF CONFORMITY

- Complies with CQC, RoHS, CCC, CE, ECE R149/R148, German road traffic permit regulations.
- Ability to carry out testing services and independent products in accordance with accreditation criteria and capabilities.
- Products include Hall handles, grips, electric controllers, brake levers, meters, headlights, taillights, and motors.
- Some national standard headlights, taillights, and motors have obtained 3C certification.
- Mid-mounted motor, Topology display instruments, headlights, and taillights have obtained CE certification.

- 符合中国质量认证中心 CQC 认证；针对由欧盟实施的《电气电子设备中限制使用某些有害物质指令》RoHS 指令；符合 RoHS 标准的产品有霍尔转把、电控器、液压刹把、仪表、车灯。
- 符合国家强制性安全 CCC 认证；目前部分国标车灯、尾灯、已获得 3C 认证。
- 获得由欧盟指定机构的 CE 认证证书、目前中置电机、Topology 显示仪表、车前灯、尾灯已获得 CE 认证；车灯及反光片产品，符合欧盟指令 前灯 ECE R149、信号灯 R148 认证要求；前灯、尾灯或反光片符合德国道路交通许可规范。





# CONTENT

## DRIVE SYSTEM RECOMMENDATION


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	CC301	↗ 9
	CC501	↗ 11
	MC502	↗ 13

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## COMPONENTS

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	EBIKE FLOW APP	↗ 14
	AFTER-SALES TOOL	↗ 16
	MID DRIVE	↗ 18
	HALL SENSOR THROTTLES	↗ 19
	SWITCHES FOR HMI	↗ 19
	HMI	↗ 20
	HEAD LIGHTS	↗ 22
	TAIL LIGHTS	↗ 22
	CRAINCASE BRACKET	↗ 23
	AFTER-SALES TOOL	↗ 23
	CONNECTOR	↗ 24
	SENSOR	↗ 24
	CHAINWHEEL	↗ 25
	CRANK	↗ 25
	MOTOR COVER	↗ 26
	MOTOR BRACKET	↗ 27

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# DRIVE SYSTEMS FOR EGRAVEL/ FOLDING



## CC301

light weigh 2.3kg and Low noise 55dB


Light travel has keep you from the crowded with eGravel drive system can provide quiet and smooth riding feeling to let you enjoy city life away from crowded cities. Wuxing CC301 drive system specifically designed for this purpose with small size, strong power of 75N.m and only 2.3 kgs weight. Let's enjoy better nice travel of cities.


 75N·m	 2.3kg	 55dB	 eGravel/ eFolding
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## CC301



	<b>CM2503</b> Rated Voltage(DCV) 36 V Rated Power(W) 250 W Max Torque(N.m) 75 N·m Weight(kg) <2.3 Certifications CE / EN15194 / ISO13849 / RoHS
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	<b>DZ49</b> Nominal Voltage DC 36V Display Type 2" TFT Communication CAN Certifications CE / EN15194 / RoHS
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	<b>QD470-4</b> Nominal Voltage DC 12V Power 2W Center Luminance 40LUX Certifications CE / ISO
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### Optional models

SW102/T



QD470/4



QD576



# DRIVE SYSTEMS FOR ECITY



## CC501

### Less than 2.8kg and 55 dB

Determining your tour goal, Wuxing is here with you all the way. As a product with the most adaptability, CC501 drive system output is more active with 100N.m of power for travel. Light design with only 2.8kgs weight make you feel the stretch of the body and peace of mind during the ride. When the ride starts, it's like a journey of your own.



100N·m



2.8kg



55dB



eCity



## CC501



### CM2502

Rated Voltage(DCV)	36 V
Rated Power(W)	250 W
Max Torque(N.m)	100 N.m
Weight(kg)	<2.8
Certifications	CE / EN15194 / ISO13849 / RoHS



### DZ50

NominaL Voltage	DC 36V
Display Type	2" TFT
Communication	CAN
Certifications	CE / RoHS / EN15194



### QD576

NominaL Voltage	DC 12V
Power	2.5W
Center Luminance	40LUX
Certifications	SiVZO / CE / ISO

## Optional models

### DZ41



### QD576



### QD470/4






# DRIVE SYSTEMS FOR EMTB/EFAT/ ECARGO



## MC502

### Max torque 130N.m

Empower your adventures. As a powerful product, the MC502 is better suited for e-MTBs with a mid drive. Even on the steepest slopes, it can maintain prolonged peak torque output, allowing for seamless travel whether you're tackling rugged mountain trails or navigating through challenging forests.

 130N·m	 3.3kg	 55dB	 eMTB / eFAT eCargo
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## MC502



### CM5001



Rated Voltage(DCV)	36V / 48 V
Rated Power(W)	250W / 350W / 500W
Max Torque(N.m)	110N.m / 120N.m / 130N.m
Weight(kg)	<3.3
Certifications	CE / UL2849 / EN15194 / ISO13849 / RoHS

### DS103/2



Nominal Voltage	36V / 48 V
Display Type	3.5" TFT
Communication	CAN
Certifications	RoHS / CE / EN15194

### Optional models

#### SW102/T

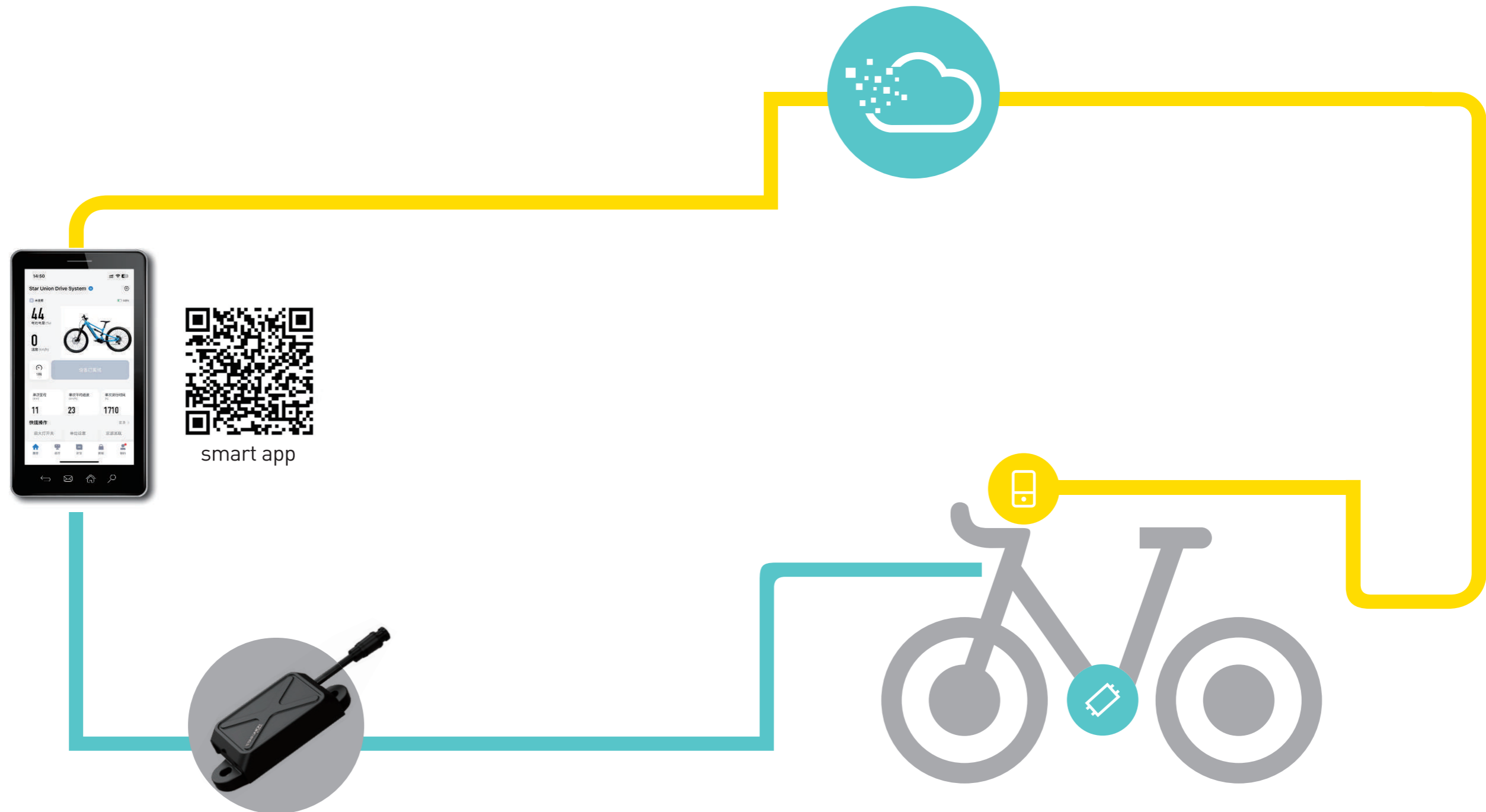


#### DZ45/T



## The smart system eBike Flow app

- This is a Bluetooth box based on the Wuxing drive system. It can connect with the drive system and the phone Bluetooth, and check the ride status in real time.



## The smart system

# After-sales Tool

- Wuxing after-sales service tool is based on Wuxing drive system and self-developed a set of intelligent after-sales service tools.
- It can provide services and solutions for all electric bike equipped with Wuxing drive systems, including checking motors, displays, sensors, control units, as well as battery data.
- The aftermarket tool helps diagnose problems, set parameters and update software to facilitate the subsequent operation of the Wuxing drive system and provide customers with a smooth and reliable ride.



## MID DRIVE



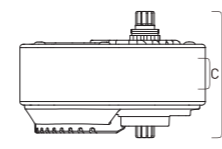
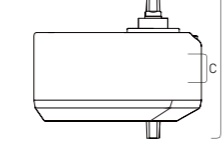
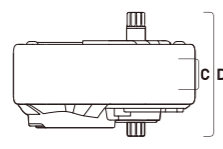
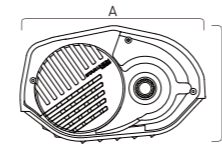
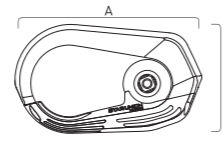
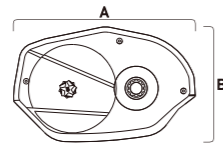
**CM2502**

**CM2503**

**CM5001**

Position	Mid Drive	Mid Drive	Mid Drive
Model No.	CM2502	CM2503	CM5001
Usage*	eCity	eGravel, eFolding	eMTB, eFAT, eCargo

Dimensions/Size



A(mm)	190	164	190
B(mm)	108	90	110
C(mm)	45	39	45
D(mm)	145.2	148	145.2
CL	47.5	47.5	47.5/49

<b>Core Data</b>			
Wheel Size(Inch)	Optional	Optional	Optional
Construction	Gear drive	Gear drive	Gear drive
Rated Voltage(DCV)	36	36	36 / 48
nO(Rpm)	100	120	120 / 130
Rated Power(W)	250	250	250 / 350 / 500
Rated Torque(N.m)	25	22	45
nT(Rpm)	100	110	120
Max Torque(N.m)	100	75	110 / 120 / 130
Efficiency(%)	≥ 80	≥ 80	≥ 80
Color	Black	Black	Black
Weight(kg)	<2.8	<2.3	<3.3
Noise Grade(dB)	<55	<55	<55
Operating Temperature	-20-45°C	-20-45°C	-20-45°C
Pedal Sensor	Speed & Torque Integrated	Speed & Torque Integrated	Speed & Torque Integrated
Shaft Standard	ISIS	JIS	ISIS
Brake	E-Brake	E-Brake	E-Brake
Light Drive Capacity (DCV/W)	12/6(max)	12/6(max)	12/6(max)
Certifications	CE / EN15194 / ISO13849 / RoHS	CE / EN15194 / ISO13849 / RoHS	CE / UL2849 / EN15194 / ISO13849 / RoHS
Tests	Waterproof: IPX6 Salt Spray Test Standard(h): 96 Standard(h): 96		

## HALL SENSOR THROTTLES



**130X/3**

**300X**

Approval	RoHS / REACH	RoHS / REACH
Size	L68mm W44mm H30mm	L68mm W20mm H55mm
Waterproof	IPX5	IPX5
Material	PC/ABS	PA+GF50%
Wiring	3 Pins	3 Pins
Voltage	Working voltage 5v Output voltage 0.8-4.2V	Working voltage 5v Output voltage 0.8-4.2V
Operating Temperature	-20°C ~ 60°C	-20° ~ 60°
Wire Tension	≥130N	≥60N
Rotation Angle	0° ~ 50°	0° ~ 50°
Spin Intensity	≥4N.m	≈5N.m
Durability	100000 mating cycle	100,000 mating cycle

## SWITCHES FOR HMI



**DK428**

**DK430 / DK432**

**DK552/2**

Approval	RoHS	RoHS	RoHS
Size	L33mm W40.5mm H42mm	L33mm W40.5mm H42mm	L50mm W32.5mm H43.6mm
Weight	30g	30g	35g
Waterproof	IPX5	IPX5	IPX5
Material	ABS	ABS	PC+ABS
Handlebar for Holding	φ 22.2mm	φ 22.2mm / φ 31.8mm	φ 22.2mm
Current	2mA	2mA	2mA
Operating Temperature	-20° ~ 70°	-20° ~ 70°	-20° ~ 70°
Wire Tension	≥50N	≥50N	≥50N

# HMI



	SW102/T	DZ45/T	DZ41
<b>SPECIFICATIONS</b>			
Dimensions/ Size	L 70mm W 25mm H 42mm	L 81mm W 28mm H 26mm	L67mm W49mm H49mm
Weight (g)	31g	45g	56g
Material	ABS/PA	ABS	PC/ABS/PA
Operating Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C
<b>Core Data</b>			
Display Type	1.37" TFT	1.37" TFT	LED
Nominal Voltage	DC 24V/36V/48V	DC 24V/36V/48V	DC 36V/48V
Current	12mA/36V	12mA/36V	18mA ~ 25mA /36V
<b>Mounting Parameters</b>			
Communication	CAN	CAN	CAN
Handlebar for Holding	Left Mounted Ø 22.2	Up Tube Embedded	Left Mounted Ø 22.2
<b>Display Information</b>			
Current Speed (km/h)	●	●	●
Maximum Speed (km/h)	●	●	●
Average Speed (km/h)	●	●	●
Duration Single Trip	●	●	×
Distance Single Trip	●	●	●
Total Distance	●	●	●
Reset Distance S.T.	●	●	●
Battery Level	●	●	●
Error Code Display	●	●	●
Walk Boost	●	●	●
USB Charging Port	×	×	×
Clock	×	×	×
Light Sensor	×	×	●
<b>Further Specifications</b>			
Data Port	Bluetooth(Optional)	Bluetooth(Optional)	Bluetooth(Optional)
<b>Tests &amp; Certifications</b>			
Waterproof	IPX5	IPX5	IPX5
Certifications	RoHS / CE / EN15194	RoHS / CE / EN15194	RoHS / CE / EN15194

	DZ50	DS103/2	DZ49
<b>SPECIFICATIONS</b>			
Dimensions/ Size	L45mm W56mm H44mm	L 78mm W 96mm H 53mm	L 85mm W 65mm H 60mm
Weight (g)	73g	100g	73g
Material	PC / ABS	ABS/PA	PC/ABS
Operating Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C
<b>Core Data</b>			
Display Type	2" TFT	3.5" TFT	2" TFT
Nominal Voltage	DC 24-85V	DC 36V/48V	DC 36V/48V
Current	18mA~25mA /36V	30mA/36V	18mA~25mA /36V
<b>Mounting Parameters</b>			
Communication	CAN	CAN	CAN
Handlebar for Holding	Left Mounted Ø 22.2	Mid mounted Ø 22.2/25.4/31.8	Mid mounted Ø 22.2/25.4/31.8
<b>Display Information</b>			
Current Speed (km/h)	●	●	●
Maximum Speed (km/h)	●	●	●
Average Speed (km/h)	●	●	●
Duration Single Trip	×	●	●
Distance Single Trip	●	●	●
Total Distance	×	●	●
Reset Distance S.T.	●	●	●
Battery Level	●	●	●
Error Code Display	●	●	●
Walk Boost	●	●	●
USB Charging Port	×	×	×
Clock	×	●	×
Light Sensor	×	×	●
<b>Further Specifications</b>			
Data Port	Bluetooth(Optional)	Bluetooth(Optional)	Bluetooth(Optional)
<b>Tests &amp; Certifications</b>			
Waterproof	IPX5	IPX5	IPX5
Certifications	RoHS / CE / EN15194	RoHS / CE / EN15194	RoHS / CE / EN15194

## HEAD LIGHTS



**QD576**

**QD252**

**QD470/4**

Approval	ISO	CE / GB / ISO	ISO / CE / STVZO
Size	L60mm W46mm H46mm	L66mm W53mm H54mm	L36mm W36mm H48mm
Weight	47g	90g	40g
Material	PC+ABS	PC+ABS	PC+ABS
Wiring	2 Pins	2Pins / 3Pins	2 Pins
Waterproof	IPX5	IPX4	IPX5
Power	2.5W	2W	2W
Voltage	DC48V / 6-48V	DC 12-48V/12V/36V/48V	DC 6-12V / 6V / 48V
Center Luminance	60LUX	30LUX	40LUX
Light Source	LED	LED	LED
Horn		80±5dB	

## TAIL LIGHTS



**WD216**

**WD558**

Approval	STVZO / ECE / CE	ISO / CE / STVZO
Reflector Standard	ECE / STVZO	CPSC / ISO / Z-mark
Size	L90mm W40mm H16mm	L110mm W36mm H16mm
Weight	46g	43g
Wiring	2 Pins	3 Pins
Assemble Dimension	50mm	50mm / 80mm
Waterproof	IPX4	IPX5
Voltage	DC 6-48V / AC6V	DC 6-60V
Power	0.5W	Position lamp:1.8W Stop lamp:2W
Light Source	LED	COB+LED

## CRAINCASE BRACKET



MODEL No.	<b>XY-A01-135</b>	MODEL No.	<b>FDL01</b>
Core Date		Size	50.3x118.4mm
Inside Diameter	Φ63	Weight	40g
Width	14	Material	PA66+ADC12
Suitability	CM2502 / CM5001	Suitability	CM2502 / CM5001

## AFTER-SALES TOOL



MODEL No	ST01
Size	115x80x30mm
Weight	13g
Communication	CAN
Certifications	CE
Language Support	Chinese / English / French / German / Italian / Japanese / Spanish / Dutch

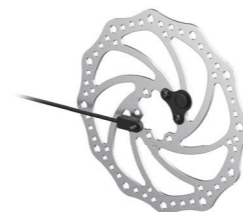
# CONNECTOR

## EB-BUS CABLE



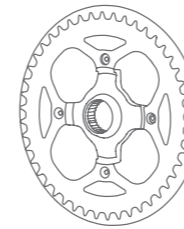
Model No.	IT1-C-AXX	IT1-B-EXX	IT2-C-AXX	IT4-C-AXX
Dimensions				
<b>Type</b>				
A	Female GRN 5 Pins Display	Female 2 Pins Power XT30U-F/XT60U-F	Female GRN 5 Pins Display	Female Red 2 Pins Brake
B	Female BLK 8/9 Pins Motor	Optional	Female YEL 3 Pins Throttle	Female GRN 5 Pins Display
C			Female BLK 8/9 Pins Motor	Female YEL 3 Pins Throttle
D				Female Red 2 Pins Brake
E				Female BLK 8/9 Pins Motor
<b>Core Data</b>				
Suitability	EB-BUS	Power Cable	EB-BUS	EB-BUS
Operating Temperature	-20-45°C	-20-45°C	-20-45°C	-20-45°C
<b>Mounting Parameters</b>				
Connector Size	Ø9.0 & 8.7	15.3*13.5*8[L*W*H]	Ø9.0*2 & 8.7	Ø9.0*4 & 8.7
Tests & Certifications	IP level: IPX6 Certifications: RoHS			

# SENSOR



Model No.	SS-CXX	BS-BXX	SS-01
Dimensions			
<b>Type</b>			
A	Wheel Speed Sensor	Variable speed Sensor	Wheel Speed Sensor
B	Female GRN 5 Pins Motor	Male YEL 3 Pins Motor	Female GRN 5 Pins Motor
Signals (Pulses/Cycle)			
Cup Threads			
Bottom Bracket Width (mm)			
Shaft Standard			
<b>Core Data</b>			
Suitability	EB-BUS	EB-BUS	EB-BUS
Operating Temperature	-20-45°C	-20-45°C	-20-45°C
<b>Mounting Parameters</b>			
Connector Size	Ø8.7	Ø9.0	Ø8.7
Tests & Certifications	IP level: IPX6 Certifications: RoHS		

# CHAINWHEEL



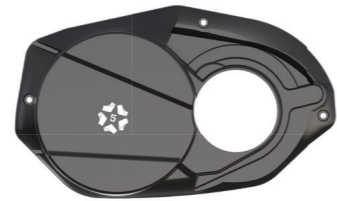
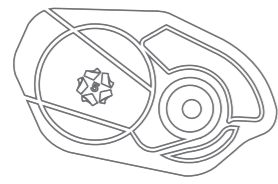
MODEL No.	CP-A01-XX	CP-C01-XX	CP-D01-XX
Suitability	CM2502 / CM5001	CM5001	CM2503
Teeth Number(XX)	34T; 38T; 44T	34T; 38T	44T; 46T; 52T
Chain Line	47.5; 49; 51	60	47
Thickness(X/XX")	Narrow Wide System	Narrow Wide System	Narrow Wide System
Chain Wheel Material	SPCC	SS400	PB4B
Spider Material	6061	6061	SP20A
Guard Material	6061	6061	31GA0
Spider Style	4(φ 104)	4(φ 104)	4(φ 104)

# CRANK

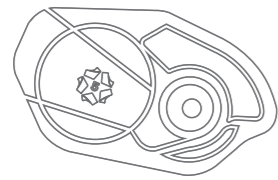


MODEL No.	QB-A01-170	QB-A01-175	QB-D01-170
<b>Core Data</b>			
Shaft Standard	ISIS	ISIS	JIS
Suitability	CM2502 / CM5001	CM2502 / CM5001	CM2503
<b>Size</b>			
A(mm)	170	175	170
B(mm)	22.5/43	22.5	20

## MOTOR COVER

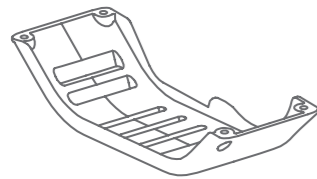


<b>MODEL No.</b>	<b>CM2502-70</b>	<b>CM2503</b>
Core Date		
Material	ABS	Aluminium alloy
Suitability	CM2502	CM2503
Color	Black	Custom



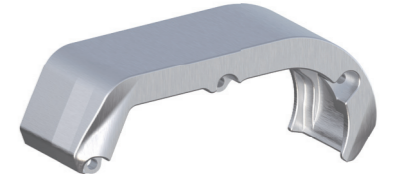
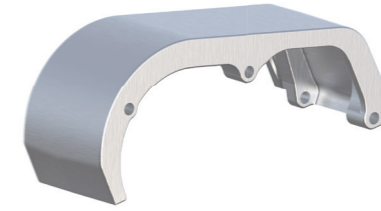
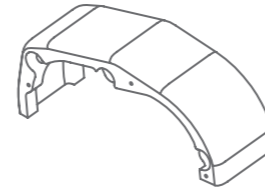
<b>MODEL No.</b>	<b>CM5001-70</b>	<b>CM5001-90</b>
Core Date		
Material	ABS	ABS
Suitability	CM5001	CM5001
Color	Black	Black

## BASH GUARD

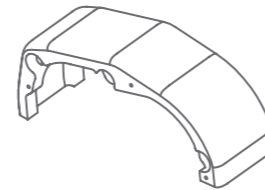


<b>MODEL No.</b>	<b>CM2502</b>	<b>CM5001</b>
Core Date		
Material	ABS	ABS
Suitability	CM2502	CM5001
Color	Black	Black

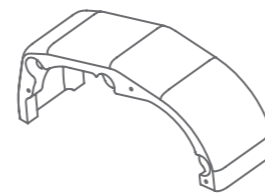
## MOTOR BRACKET



<b>MODEL No.</b>	<b>CM2503 (Folding)</b>	<b>CM2503 (eCity)</b>
Core Date		
Suitability	CM2503	CM2503



<b>MODEL No.</b>	<b>CM5001-90</b>	<b>CM5001-70</b>
Core Date		
Suitability	CM5001	CM5001



<b>MODEL No.</b>	<b>CM2502</b>
Core Date	
Suitability	CM2502



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