

Fafrees FF20 Polar

Fafrees FF20 Folding Electric Fatbike User Manual

Brand: **Fafrees** | Model: **FF20 Polar**

1. IMPORTANT SAFETY INFORMATION

Please read this manual carefully before operating your Fafrees FF20 Electric Fatbike. Failure to follow instructions and safety warnings may result in serious injury or damage to the product.

- Always wear a helmet and appropriate safety gear when riding.
- Ensure all components are securely fastened and in good working order before each ride.
- Do not ride under the influence of alcohol or drugs.
- Familiarize yourself with local traffic laws and regulations.
- Be aware of your surroundings and ride defensively.
- Do not exceed the maximum load capacity of 150 kg.
- **Important:** Note down your bike's frame number. This unique identifier is crucial for identification in case of theft or other issues. The frame number is typically located under the bike's frame.

2. PRODUCT OVERVIEW

The Fafrees FF20 Polar is a versatile folding electric fatbike designed for various terrains and comfortable riding. It features a robust aluminum frame and powerful electric assistance.

Key Features:

- **Dual Battery System:** Equipped with two 48V 10.4Ah batteries, offering an extended range of up to 160 km in PAS mode. The dual battery equalizer optimizes current distribution for increased battery life and mileage.
- **Powerful Hub Motor:** A 65 N.m hub motor provides strong climbing capabilities and efficient power delivery.
- **LCD Color Display:** A high-resolution LCD screen displays essential riding data such as speed, battery level, mileage, and current speed. It includes 5 predefined speed levels, cruise control, and walk assist functions.
- **Comfortable Ride:** Features a 40mm suspension fork, high-volume fat tires, and durable padding to absorb shocks and ensure a smooth ride.
- **CHAOYANG 20x4.0 Fat Tires:** These tires provide increased friction and adaptability to various riding conditions, including flat terrain, snow, sand, mud, and gravel roads.
- **Dual Disc Brakes:** Powerful 160mm front and rear disc brakes with power-off levers ensure effective and safe stopping, even on loose surfaces.

- **Quick Fold Design:** The bike can be folded into an ultra-compact size for easy transport and storage, making it ideal for commuting and travel.
- **Integrated Lighting:** Features a super bright 15W front light and a 5W rear brake light for enhanced visibility and safety during night rides.

Product Dimensions and Weight:

- **Dimensions (L x W x H):** 179 x 68 x 121 cm (unfolded)
- **Net Weight:** 34 kg
- **Maximum Load Capacity:** 150 kg
- **Recommended Rider Height:** 160-200 cm



Figure 2.1: The Fafrees FF20 Folding Electric Fatbike in red, showcasing its robust design and included rear bag.

FF20 Polar Dimensions

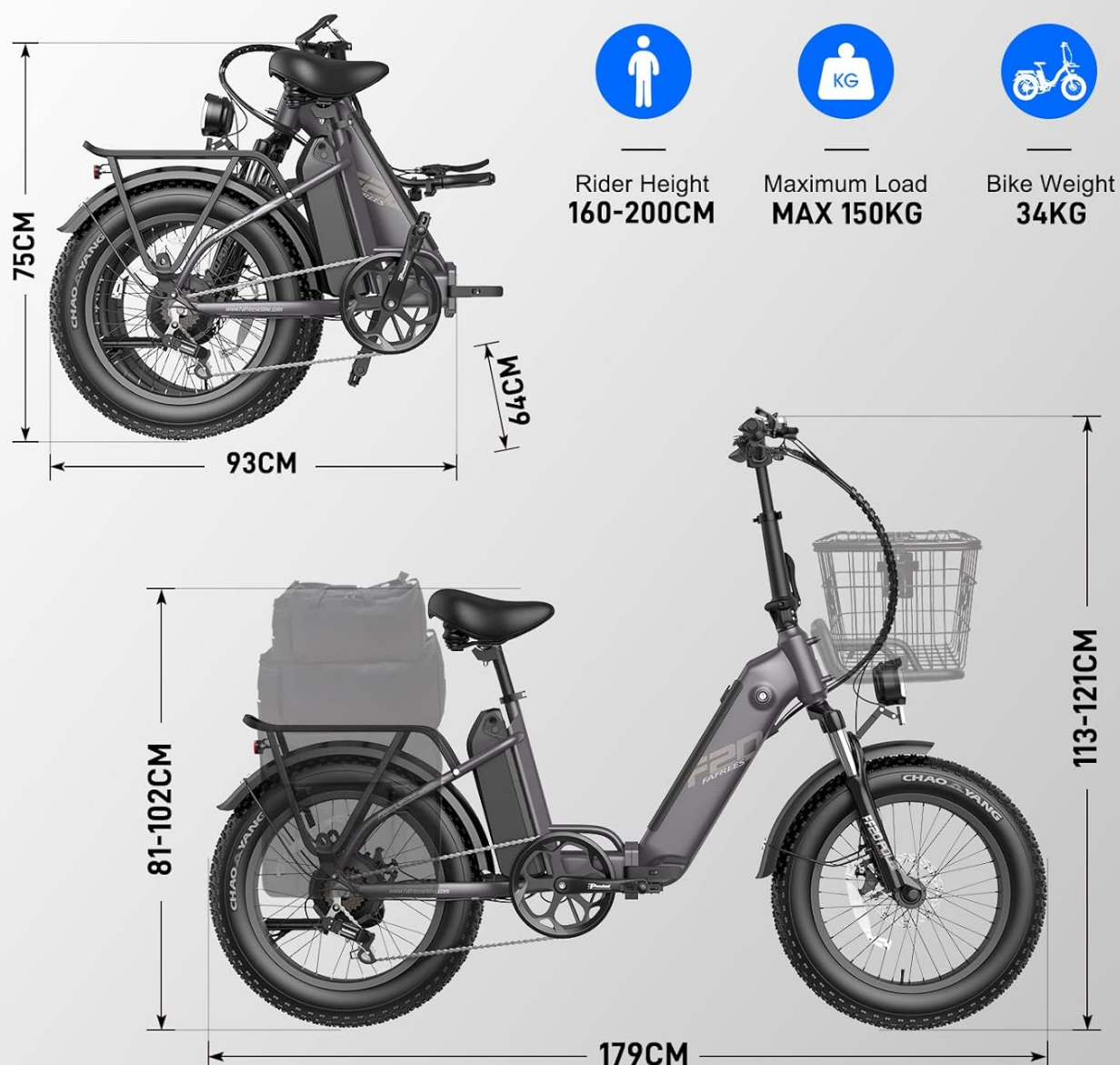


Figure 2.2: Detailed dimensions of the FF20 Polar electric fatbike, including folded and unfolded measurements, rider height, maximum load, and bike weight.

3. SETUP AND ASSEMBLY

Your Fafrees FF20 Polar electric fatbike comes partially assembled. Follow these steps for final assembly and initial setup.

3.1 Unpacking and Initial Inspection

- Carefully remove the bike and all components from the packaging.
- Check for any visible damage during transit. Contact customer support immediately if you find any.
- Verify all included components are present: Fafrees FF20 Polar Electric Bike, Battery Charger, Tool Kit, User Manual.

3.2 Handlebar and Seatpost Installation

- Unfold the bike frame (refer to section 4.4 for folding/unfolding).
- Insert the handlebar stem into the fork tube and tighten the quick-release lever or bolts securely. Ensure the handlebar is aligned with the front wheel.
- Insert the seatpost into the seat tube. Adjust the seat height to a comfortable riding position, ensuring your feet can touch the ground when stopped. Secure the quick-release lever.

3.3 Battery Installation and Charging

The FF20 Polar features a dual battery system. Both batteries should be fully charged before the first use.

- Locate the battery compartments. One battery is typically integrated into the frame, and the other may be externally mounted or in a separate compartment.
- Ensure batteries are securely seated and locked into place if removable.
- Connect the charger to a power outlet and then to the bike's charging port.
- The charging indicator on the charger will show the charging status (e.g., red for charging, green for fully charged).
- Charging time may vary, but typically takes several hours for a full charge.
- Always use the original Fafrees charger provided with your bike.



Figure 3.1: Illustration of the Fafrees FF20's dual 48V 10.4Ah battery system, highlighting the main and second battery locations and their combined capacity for extended range.

3.4 Pre-Ride Checks

- **Tires:** Check tire pressure. The recommended pressure is usually indicated on the tire sidewall.
- **Brakes:** Test both front and rear brakes to ensure they engage properly and stop the bike effectively.
- **Lights:** Verify that the front and rear lights are functioning.
- **Quick Releases:** Ensure all quick-release levers (seatpost, handlebar, folding mechanism) are securely tightened.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off and LCD Display

To power on the bike, press and hold the power button on the LCD display. The display will illuminate, showing various riding parameters.

- **Power Button:** Press and hold to turn the system on/off.
- **Mode/Assist Level Buttons:** Use the '+' and '-' buttons to cycle through the 5 predefined pedal-assist levels (PAS).

Higher levels provide more motor assistance.

- **Display Information:** The LCD shows current speed, battery charge level, trip distance, total distance, and selected assist level.



Figure 4.1: The LCD color display of the Fafrees FF20, showing power, speed, driving mode, range, trip distance, and total distance indicators. Also illustrates cruise control and walk assist functions.

4.2 Riding Modes

- **Pedal Assist System (PAS):** The motor provides assistance as you pedal. There are 5 levels of assistance. The range can be up to 160 km depending on the assist level, terrain, and rider weight.
- **Electric Mode (Throttle):** If equipped, the throttle allows you to ride without pedaling. The range in pure electric mode is typically 95-115 km.
- **Manual Mode:** Ride the bike like a traditional bicycle without any motor assistance.

4.3 Special Functions

- **Cruise Control:** Maintain a fixed speed for 8 seconds, and the bike will automatically enter cruise control mode,

freeing your fingers.

- **Walk Assist Mode:** Press and hold the minus button to activate walk assist, which helps you push the e-bike at a slow speed (e.g., 6 km/h). Do not use this function while riding.

4.4 Folding and Transport

The Fafrees FF20 is designed for quick and easy folding.

1. **Step 1: Fold the Frame:** Locate the folding latch on the main frame and release it. Carefully fold the frame in half.
2. **Step 2: Fold the Handlebar:** Release the quick-release lever on the handlebar stem and fold the handlebar down.
3. Ensure all folding mechanisms are securely latched when unfolded for riding and properly secured when folded for transport.



Figure 4.2: Visual guide demonstrating the two main steps for folding the Fafrees FF20 electric fatbike: folding the frame and folding the handlebar, making it easy to transport.

5. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your Fafrees FF20 Polar electric fatbike.

5.1 Battery Care

- Charge batteries regularly, even if the bike is not in use, to maintain battery health.
- Avoid completely draining the battery before recharging.
- Store the bike and batteries in a cool, dry place, away from direct sunlight and extreme temperatures.
- If storing for an extended period, charge the battery to about 50-70% and check it periodically.

5.2 Tire Maintenance

- Regularly check tire pressure and inflate to the recommended PSI (indicated on the tire sidewall).
- Inspect tires for wear, cuts, or punctures before each ride.



Figure 5.1: Close-up of the CHAOYANG 20x4.0 fat tire, illustrating its robust tread pattern suitable for various terrains including snow, sand, mud, gravel, and flat roads.

5.3 Brake System

- Check brake pads for wear and replace them when necessary.
- Ensure brake levers are responsive and provide adequate stopping power. Adjust cable tension if needed.

5.4 General Cleaning and Lubrication

- Clean the bike regularly with a damp cloth. Avoid using high-pressure washers directly on electrical components.
- Lubricate the chain and other moving parts periodically to ensure smooth operation and prevent rust.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your Fafrees FF20 Polar electric fatbike.

Common Issues and Solutions:

- **Bike not powering on:**
 - Check if the battery is properly installed and charged.
 - Ensure all electrical connections are secure.
- **Motor not assisting:**
 - Verify the pedal-assist level on the LCD display is not set to zero.
 - Check if the brake levers are fully released, as some systems cut motor power when brakes are applied.
 - Ensure the battery has sufficient charge.
- **Brakes feel weak:**
 - Inspect brake pads for wear and replace if necessary.
 - Check brake cable tension and adjust as needed.
- **Unusual noises:**
 - Inspect the chain for proper lubrication and tension.
 - Check for loose components or debris caught in moving parts.

When to Contact Support:

If you encounter a problem that cannot be resolved using the troubleshooting steps above, or if you suspect a serious malfunction, please contact Fafrees customer support.

What to do if there is a problem with the bike?

Please provide a precise description of your problem. If photos or videos are available, it would be preferable for our engineers to offer an effective solution within two working days. You can send us the video link as a photo, as Amazon does not allow sending videos directly.

7. SPECIFICATIONS

Feature	Specification
Brand	Fafrees
Model Number	FF20 Polar
Age Range (Description)	Adult

Feature	Specification
Bike Type	Electric Bike, Fatbike, Folding Electric Bike, Mountain Electric Bike
Color	Red
Wheel Size	20 inches (81.28 cm)
Frame Material	Aluminum Alloy
Suspension Type	Fork Suspension
Brakes	Disc Brakes (160mm F/R rotors)
Number of Speeds	7
Power Source	Electric Motor
Motor Torque	65 N.m
Battery	2 x 48V 10.4Ah (499.2 Wh each)
Max Range (PAS Mode)	95 - 160 km
Max Range (Electric Mode)	95 - 115 km (estimated, based on similar models)
Max Incline Capacity	25°
Max Load Capacity	150 kg
Product Dimensions (L x W x H)	179 x 68 x 121 cm
Net Product Weight	34 kg
Included Components	Battery Charger, Fafrees FF20 Polar Electric Bike, Tool Kit, User Manual
Specific Uses	Gravel, Snow, Trail, Road

8. WARRANTY AND SUPPORT

Fafrees is committed to providing quality products and excellent customer service.

8.1 Return Policy

This product is eligible for returns within **30 days** of receipt, in accordance with the seller's return policy. Please refer to the purchase platform for detailed return instructions.









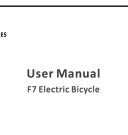

8.2 Customer Support

For any questions, technical assistance, or warranty claims, please contact Fafrees customer service. We aim to respond to all inquiries within 24 business hours.

You can typically find contact information on the Fafrees official website or through the platform where you purchased the product. For Amazon purchases, you can contact the seller "Fafrees Official" via your order details.

Fafrees Official Store: [Visit Fafrees Store on Amazon](#)

Related Documents - FF20 Polar

 <p>FAFREES</p> <p>User Manual FF20 Polar Electric Bicycle</p> <p>Scan to watch assembly video</p>	<p>Fafrees FF20 Polar Electric Bicycle User Manual</p> <p>User manual for the Fafrees FF20 Polar electric bicycle, providing comprehensive guidance on assembly, operation, safety, maintenance, specifications, and troubleshooting.</p>
 <p>FAFREES</p> <p>User Manual FF20 CUV Electric Bike</p> <p>Scan to watch assembly video</p>	<p>FAFREES FF20 CUV Electric Bike User Manual - Safety, Operation, and Specifications</p> <p>Comprehensive user manual for the FAFREES FF20 CUV Electric Bike, covering assembly, safety guidelines, operation, maintenance, and technical specifications. Ensure safe and enjoyable riding.</p>
 <p> FAFREES</p> <p>Smart EV/Moped User Manual (Model: FF20 Polar)</p>	<p>FAFREES FF20 Polar Smart EV/Moped User Manual</p> <p>User manual for the FAFREES FF20 Polar Smart EV/Moped. Covers operation, safety, installation, specifications, and display functions for electric bicycles.</p>
 <p> FAFREES</p> <p>Smart EV/Moped User Manual (Model: F20 Max)</p>	<p>FAFREES F20 Max Smart EV/Moped User Manual</p> <p>This comprehensive user manual provides essential instructions and safety guidelines for operating and maintaining the FAFREES F20 Max Smart EV/Moped. Learn about product features, installation, charging, riding precautions, and maintenance to ensure a safe and optimal user experience.</p>
 <p> FAFREES</p> <p>Smart EV/Moped User Manual (Model: FF20 Polar)</p>	<p>FAFREES FF20 Polar Smart EV/Moped User Manual</p> <p>User manual for the FAFREES FF20 Polar Smart EV/Moped, covering operation, installation, and specifications. Learn how to safely use and maintain your electric moped.</p>
 <p> FAFREES</p> <p>User Manual F7 Electric Bicycle</p>	<p>FAFREES F7 Electric Bicycle User Manual - Setup, Operation & Safety Guide</p> <p>Explore the FAFREES F7 Electric Bicycle with this comprehensive user manual. Learn about safe riding practices, assembly, display functions, troubleshooting, and specifications from FAFREES.</p>

