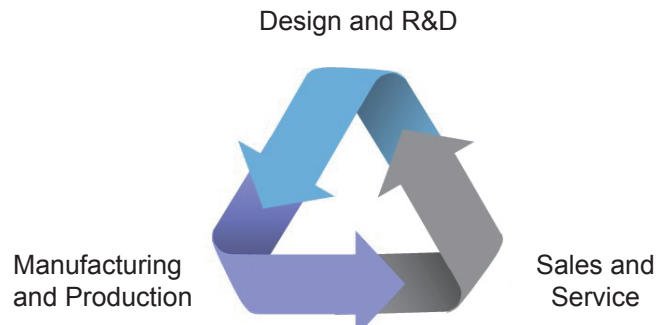


Certificate of Quality

DATE:
CHECKED BY:
QUALIFIED FOR SHIPMENT



Beijing Fenglong Greenhouse Technology Co., Ltd.

Address : No.12 South Street, Zhongguancun, Haidian

District, Beijing 100081, China

ZIP : 100081

Tel : +86-10-62149667

Fax : +86-10-82108614

Website : www.bflc.com.cn

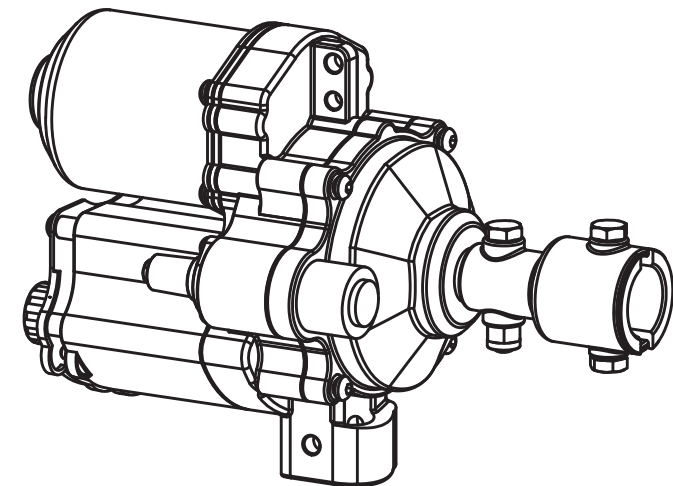
E-mail : market@bflc.cn

Version : A120S-EN01

KINGZO®

GMA120-S

Electric Film Reeler Manual



Manufacturer: Beijing Fenglong Greenhouse Technology Co., Ltd.

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CERTIFICATE OF PRODUCT QUALITY

Dear Customer:

Fenglong has obtained ISO 9001 certificates, with inspection, all the specifications of KINGZO meet the requirements of product's standard.

Fenglong solemnly promises to guarantee 3 years for GMA 120-S nstalled and used in correct way. Free maintenance or replacement will be given if quality problem happen during the warranty periods.

Exception clauses:

- 1、 Operated not as the Product Instruction.
- 2、 Damage caused by improper use, maintenance, improper care and human factors .
- 3、 Damage or malfunction caused by non - authorized unit or user to disassemble and maintain.
- 4、 Damage caused by force majeure factors.
- 5、 Other purpose except ventilation and shading.

Introduction:

We are grateful for your continuous trust and support over the decades. We will do our best to continue the all-round service and quality products.

Beijing Fenglong is a high-tech company with high R&D investment, supplying equipments ranging from modern greenhouses to livestock houses. Fenglong has been leading the trends of mecho-electro products in Chinese facility agriculture.

Fenglong established and follows strict quality control and follow-up systems. Fenglong obtains ISO9001, ISO14001 and OHSA18001 certificates, ensuring all the products are qualified with possibility to track them down.

8.Wiring Distribution Table

220V120W (GMA120-S)				
Installation Distance Control Mode	50m	75m	100m	150m
Each circuit controls 1 set	4*0.5mm ²	4*0.5mm ²	4*0.5mm ²	4*0.5mm ²
Each circuit controls 2 sets	4*0.5mm ²	4*0.5mm ²	4*0.75mm ²	4*1mm ²
Each circuit controls 3 sets	4*0.5mm ²	4*0.75mm ²	4*1mm ²	4*1.5mm ²
Each circuit controls 4 sets	4*0.75mm ²	4*1mm ²	4*1.5mm ²	4*2.5mm ²
Each circuit controls 5 sets	4*0.75mm ²	4*1mm ²	4*1.5mm ²	4*2.5mm ²
Each circuit controls 6 sets	4*1mm ²	4*1.5mm ²	4*2.5mm ²	4*2.5mm ²
Each circuit controls 7 sets	4*1.5mm ²	4*1.5mm ²	4*2.5mm ²	4*4mm ²
Each circuit controls 8 sets	4*1.5mm ²	4*2.5mm ²	4*4mm ²	4*4mm ²
Each circuit controls 9 sets	4*1.5mm ²	4*2.5mm ²	4*4mm ²	4*4mm ²
Each circuit controls 10 sets	4*1.5mm ²	4*2.5mm ²	4*4mm ²	4*4mm ²
Notice: Wire is the standard copper one.				

No.	Problem	Analysis
1	Motor doesn't rotate	No power connection
		The left and the right knob touch the micro switch at the same time.
2	Limit not accurate	Lock bolts loose
		Inner parts damage
3	Noise	Incorrect installation
		Overload

7.GMA120-S PACKING LIST

No	PART NAME	QTY	MARK
1	Electric Film Reeler body	1	
2	Coupling	1	
3	Suit	1	
4	Plugs	1	
5	Self-locking nut M8	1	
6	Hexagon bolt M8×12	2	
7	Hexagon bolt M8×45	1	
8	Self-locking nut M6	1	
9	Hexagon bolt M6×50	1	
10	Hexagon Socket Screw	1	
11	Wiring Diagram	1	
12	Assemble instruction	1	

- 1.The packing list only contain the standard accessories and documents, it doesn't include the other accessories you choose. If you have ordered other accessories, please check it when you receive the order. The production date is on this packing list.
- 2.To insure your interest and rights please keep this packing list for future service.

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The products are subject to design and performance updates, so it might be a little different from this manual book. But it will not affect your usage; The book is also subject to modification without further notice. Please read this book before use.

1.Cautions and dangerous.

- 1.1 Proper using and maintenance will help to extend the life of Electric film reeler. please operate in accordance with this instruction Manual.
- 1.2 Input Voltage of this product is AC220V, Please connect the wire under guidance of the professional.
- 1.3 Do not use voltage over AC220V, the maximum voltage fluctuations should not exceed $\pm 10\%$. The installation must be equipped with reliable grounding cable, the grounding cable and the neutral cable are prohibited to have any connection with each other.
- 1.4 Please keep the children far away from the working area, in case of accident or electrocution
- 1.5 Please off the power before installing and repairing the product, in case of electrocution.
- 1.6 Do not put the product in the water or in the wet environment for a long time, and if you find the water inside the motor, pls stop using it and return it back to our factory for testing.
- 1.7 please do not throw, drag and drop the motor, or make other dangerous actions, to avoid the impact of the product.
- 1.8 When it is thundering, please turn off the power, in case of damage caused by lightning.
- 1.9 The customer should keep the working area clean, clear the snow, leaves, in case of damage of overloading.
- 1.10 If the connecting wire need to be lengthened, please make sure that the connector is safe and reliable, in case of fire and dangerous.

- 4.2.4 When the electric film reeler is rolling up the plastics, the pipe arrives at the required position, at this time rotate the knob which controls the rolling status and make the gear pin touch the micro switch(with click sound), hold on and fasten the lock bolt by a cross head screw-driver.
- 4.2.5 When the electric film reeler is rolling down the plastics, the pipe arrives at the required position, at this time rotate the knob which controls the rolling status and make the gear pin touch the micro switch(with click sound) , hold on and fasten the lock bolt by a cross head screw-driver.
- 4.2.6 The above steps would set up the electric film reeler's limit range. Turn on the power and check if the range setup is correct. If it is not correct, please review the manual carefully and do the setup again.

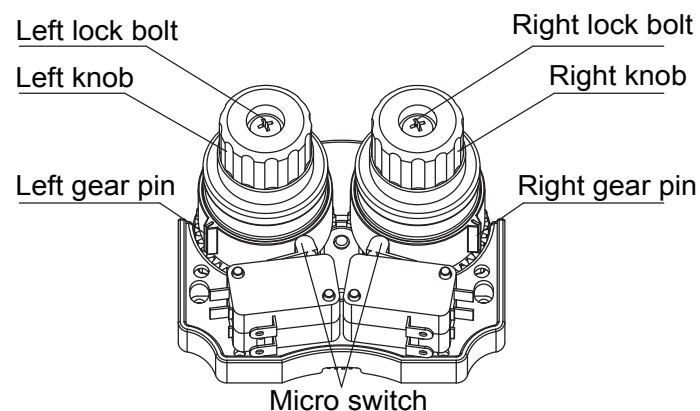
5. Maintenance

- 5.1 Check the bolts on each connection regularly. Replace the bolts which is deformed or snapped.
- 5.2 No need to refill the gear oil during the life duration of this product.
- 5.3 This product could be used for greenhouse rolling ventilation and curtaining system. For other usage, please consult our company first.

6. Common problems and solutions

4、Limit range adjusting

4.1 Limit illustration



Before limit adjust, please loosen "left or right fasten bolts"
After limit adjust, please fasten "left or right fasten bolts"

CAUTION: After the limit adjust is finished, please fasten the bolts. Or the limit will not be accurate and there would be danger of power shock.

4.2 Limit switch adjusting

4.2.1 Loosen the left and right lock bolts by a cross head screw-driver, at the same make sure the gear pins don't touch the micro switch.

4.2.2 Turn on the power, and make the electric film reeler run, confirm the status of the rolling pipe, is it rolling up or rolling down.

4.2.3 When the motor is rolling up the plastics, rotate any of the knobs slowly, and make the gear pin touch the micro switch (with click sound) , if the motor stops running, it means this knob is used for the rolling you need; if the motor doesn't stop running, then the other knob is used to control the required rolling.

1.11 Please check the bolt and nuts regularly, in case of looseness from the motor.

1.12 The electric film reeler must keep in a direct line with the roll up tubing, and the bending degree should not be too large, or this will cause the damage of overloading.

1.13 Please note the mounting position of power cord, to prevent it winding or broken.

1.14 Please do not switch it frequently, so as not to damage the electric film reeler.

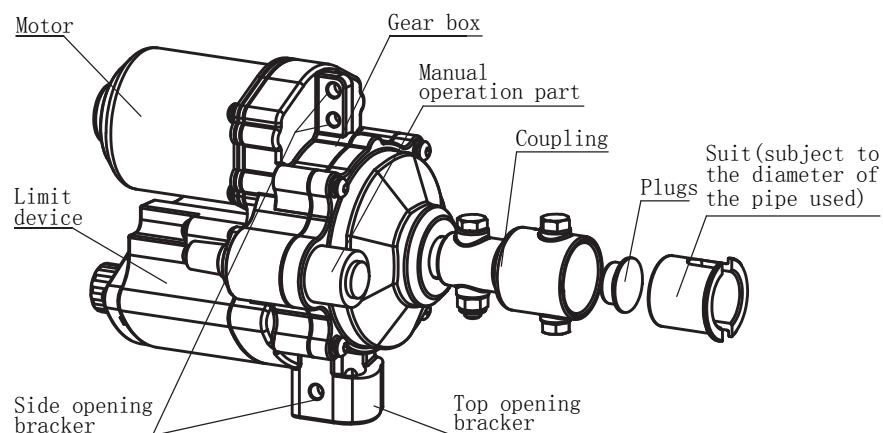
1.15 If the user does not operate the motor according to the Manual and Cautions, Our company will not undertake all the consequences that arise.

2、Product Features and Performance data

2.1 Product Features

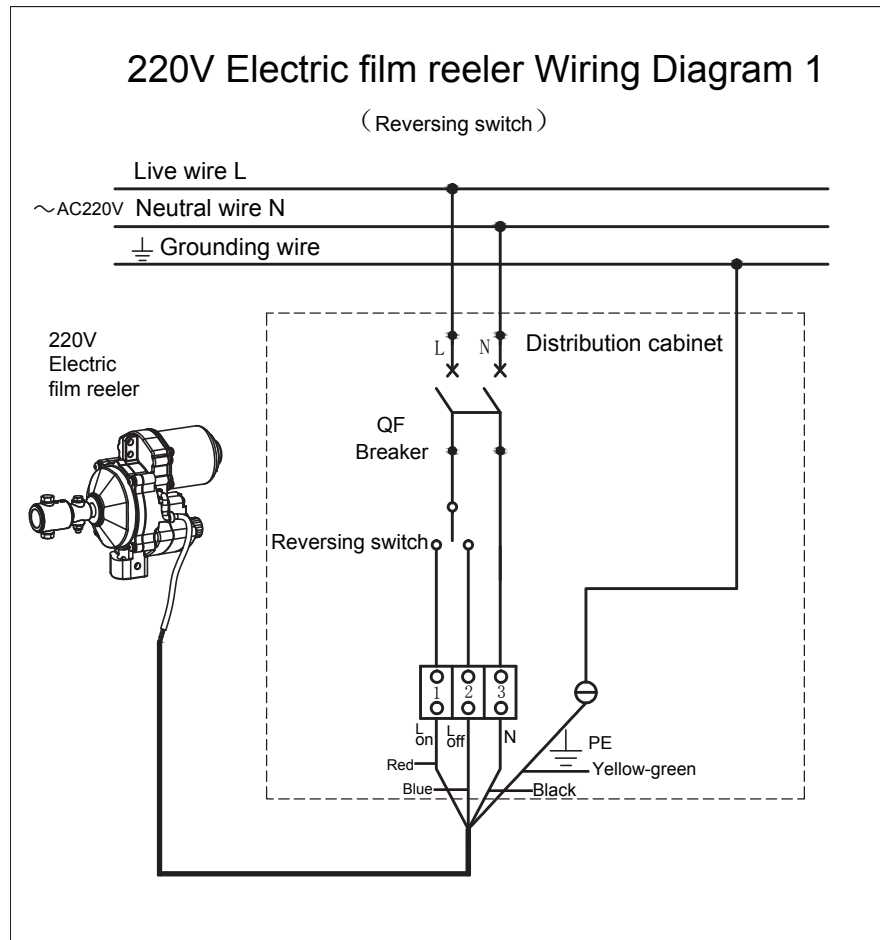
This product is compact in structure, reliable in performance, convenient in installation and operation, adjustable reversing switch, with reversing-lock function;

2.2 Outside Drawing

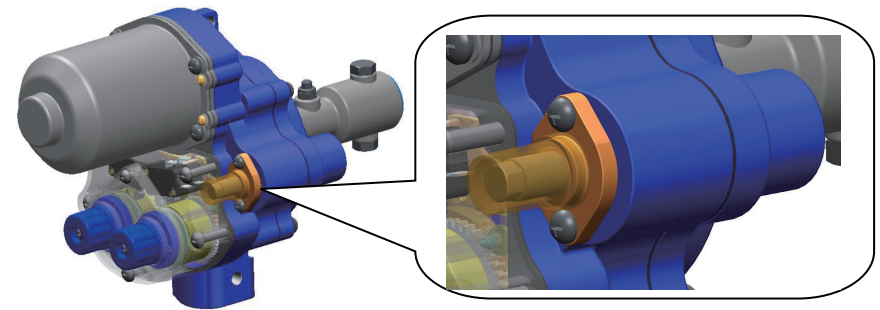


2.3. Circuit diagram

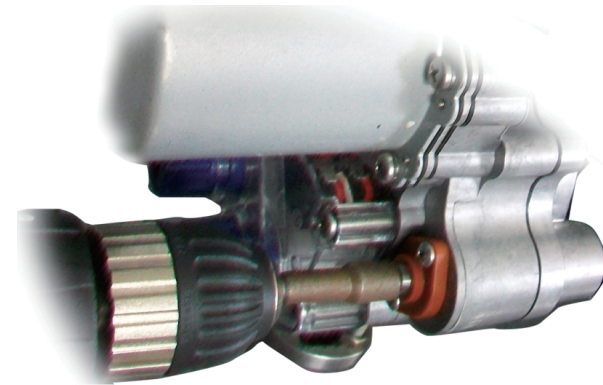
Distribution principle: AC220V currency supplies power through the circuit breaker, the commutator switch controls the operations of opening, closing and stop. When the AC220V power is connected with open L and N, the winch rotates in a positive direction. When the AC220V power is connected with closed L and N, the winch rotates in a reverse direction.



Manual operation area



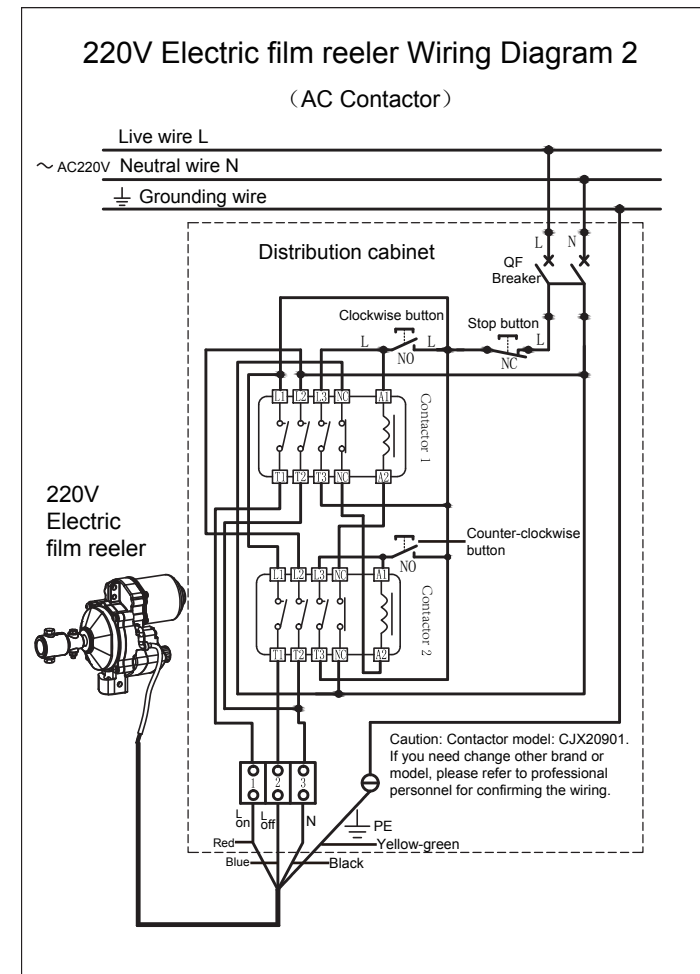
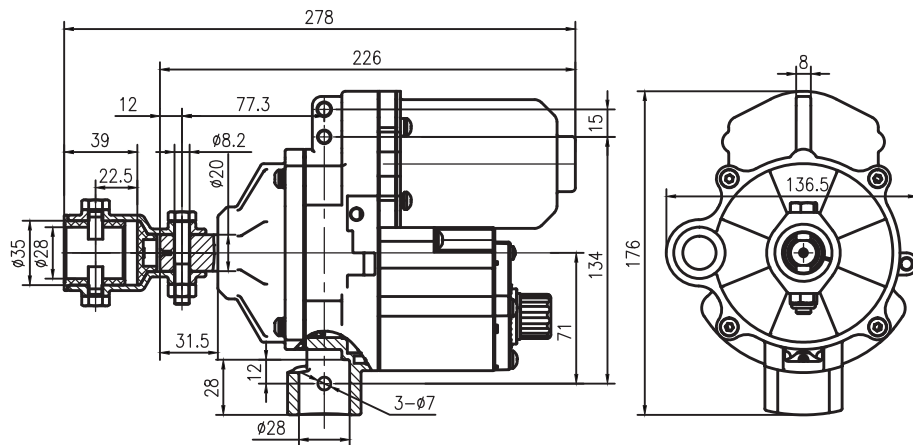
Manual operation illustration



When there is power failure, please take off the cap for the manual operation, use an electrical drill to operate on the releasing shaft, after the operation, please put the cap on.

- 3.4.1 Please operate according to the “correct installation”.
- 3.4.2 Correct installation could guarantee the performance of the products.
- 3.4.3 After the installation, the motor should be above the limit switch at any position of the rolling.
- 3.4.4 After the installation, the cable should be connect into the control box, then turn on the power, adjust the limit switch the proper position, and then fasten the lock bolts.
- 3.4.5 If there is power failure during the operation of the products, and you would like to lower down the rolling pipe urgently, you could hold the pipe first and loosen the connection between the pipe and the motor, then lower the pipe slowly.

3.5 Installation dimension



WARNING:

1. All power distribution devices must be selected and installed by professionals;
2. In order to use the electricity safely, the terminal box of the winch should be connected with the grounding cable reliably.
3. After the cables are connected, the water clog in the terminal box and the lid of the water proof box should be sealed tightly to prevent rain from entering.
4. Using of more than 5 units in parallel is prohibited!

2.4 Parameters

Model	GMA120-S	
Power	120W	
Torque	120N • m	
Current	≤0.9A	
Voltage	AC220V ± 20V	
Speed	60N • m	3.1 r/min
	120N • m	2.5 r/min
Rolling tube (Roofing/Side)	3/4" (OD: Φ27) or 1" (OD: Φ33.5)	
Rolling range (Recommendation)	1" Rolling tube	
	100m (L) × 1.5m (H)	75m (L) × 4m (H)
Guide tube (Roofing)	3/4" (OD: Φ27)	
Maximum range (output shaft)	38 Rounds	
Protection degree	IP55	

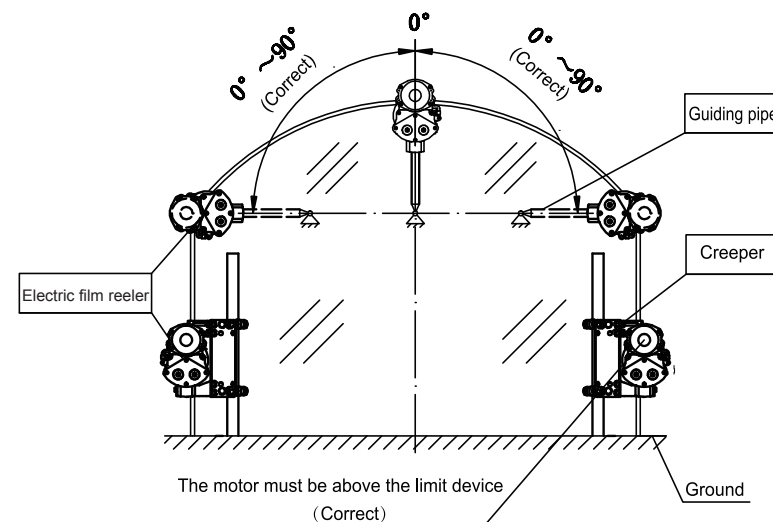
3、Installation instructions

- 3.1 First connect the electric film reeler and the rolling pipe with bolts; then fix the plastics on the pipe with film hoops, please make sure the pipe are on the same level with the electric film reeler. After this work, you could close or open the plastics.
- 3.2 The electric film reeler can fit 2 models of rolling pipes; the outside diameter is 33.5mm and 27mm. When you choose 27mm pipe, you need the suit, when you choose 33.5mm pipe, there is no need to use the suit.
- 3.3 When the product is used on the top of the greenhouse, the

guiding pipe diameter should be 27mm.

3.4 Installation diagram.

Correct Installation Illustration:



Incorrect Installation Illustration :

