Certificate of Quality

DATE:

CHECKED BY:

QUALIFIED FOR SHIPMENT

Design and R&D



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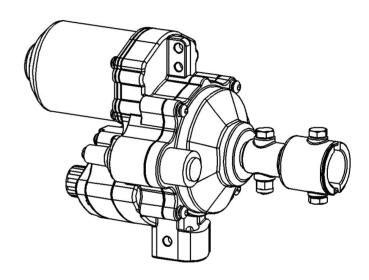
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Version: D120S-EN01

KINGZO®

GMD120-S

Electric Film Reeler Manual



Manufacturer: Beijing Fenglong Greenhouse Technology Co., Ltd.

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Introduction:

We are grateful for our customers' continuous support and trust over the years. We will continue with our service and good quality in the years to come.

Beijing Fenglong is a high-tech company with high R&D invests, 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 executes strict quality control and follow-up systems. Fenglong obtains ISO9001, ISO14001 and OHSA18001 certificates, ensuring all the products are qualified with possibility to track down.

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 GMD 120-S installed 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.

8. Wiring Distribution Table

24V120W (GMD120-S)					
Installation Distance					
	30m	50m	75m	100m	150m
Control Mode					
Each circuit controls 1 set	2*1mm²	2*1.5mm²	2*2.5mm²	2*4mm²	2*6mm²
Each circuit controls 2 sets	2*2.5mm ²	2*2.5mm²	2*4mm²	2*6mm²	2*10mm ²
Each circuit controls 3 sets	2*4mm²	2*4mm²	2*6mm²	2*10mm ²	2*10mm ²
Each circuit controls 4 sets	2*4mm²	2*6mm²	2*10mm ²	2*10mm ²	2*16mm²
Each circuit controls 5 sets	2*6mm²	2*10mm²	2*10mm ²	2*16mm²	2*25mm²
Notice: Wire is the standard copper one.					

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The product is subject to design and performance modification, it could be a little different from this Manual. But it will not affect your usage. This Manual is also subject to modification without further notice. Please read this Manual carefully before using the product.

1、SAFTY TIPS

- 1.1 The life of this electric film reeler would be extended by proper operation and maintenance, please kindly operate according to this manual strictly.
- 1.2 This product needs DC24V input currency. Specialist or electrician is needed to connect the power. Please don't connect \ AC220V or any other unspecified power, or there would be damage or fires.
- 1.3 When the rolling pipe is rolling to high position with the plastics, please don't loosen this product with the pipe. Or the rolling pipe will fall down fast and there would be possibility to hit person or to cause damage to the product.
- 1.4 Cut off the electricity when there is lightning or the motor could be damaged.
- 1.5 The rolling pipe could be at the same line with the electric film reeler shaft. The curve of the pipe should not be too big, or the motor could be damaged by overload.
- 1.6 Please check and fasten the bolts connecting the electric film reeler and its accessories; loose bolts will cause danger.
- 1.7 If the product didn't work, please don't uninstall the part inside; you should stop operating and contact the distributors or the company.
- 1.8 Please don't put the product into water and store it in moist environment; the product could be damaged or cause danger to operators. If the products have water leaking inside, please stop operating and send it back to the factory for repair.
- 1.9 Please don't toss or throw the products, it should be prevented from outside force.

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

7.GMD120-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	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 youreceive 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.

- 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 reeleris 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 motor'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

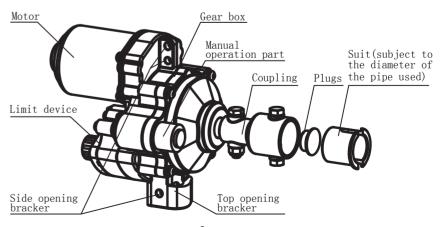
- 1.10 The user should keep the site clean and swipe the leaves or snow on the plastics to avoid overload damage.
- 1.11 After the adjust is finished, the user should fasten the bolts or there might be damage or accidents.
- 1.12 Don't use the product over the maximum currency.
- 1.13 In the transportation or in installation please prevent the products from falling; tossing the cable is prohibited.
- 1.14 Please note the mounting position of power cord, to prevent it winding or broken
- 1.15 Please do not switch it frequently, so as not to damage the motor.
- 1.16 We are not responsible for the damage due to ignorance of our instruction manual.

2 FEATURES & PARAMETERS

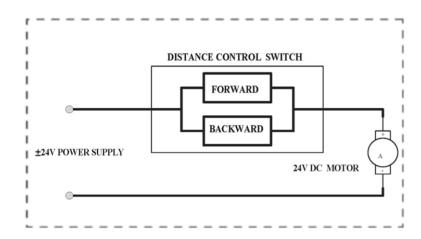
2.1 Features

This product is compact and performances well. It is easy to install and operate. The range limit is adjustable. It has reverse self-locking function.

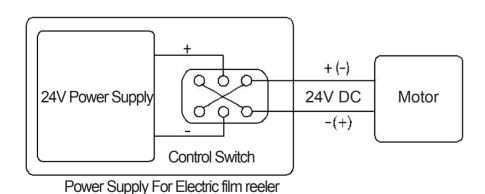
2.2 Basic components illustration



2.3. Circuit principles

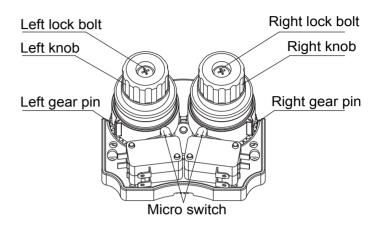


Connecting Diagram



4. LIMIT RANGE ADJUSTING

4.1 Limit illustration

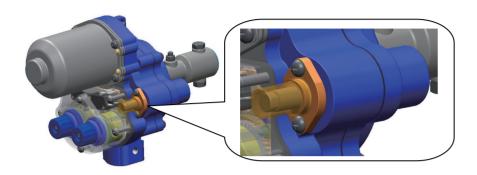


Before limit adjust, please loosen"left or right fasten bolts" After limit adjust, please fasteb"left or right fasten bolts"

CAUTION: After the limit adjust is finished, please fasten the bolts. Or the limit will not be accurate and there would be dange 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 motor run, confirm the status of the rolling pipe, is it rolling up or rolling down.
- 4.2.3 When the electric film reeler 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 electric film reeler doesn't stop running, then the other knob is used to control the required rolling.

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 releas -ing shaft, after the operation, please put the cap on.

2.4 Parameters

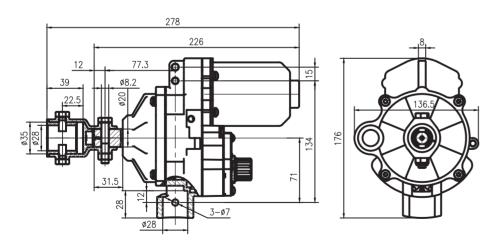
Model	GMD120-S		
Power	120W		
Torque	120N • m		
Current	≤8A		
Voltage	DC24V ± 3V		
C., 1	60N • m	3.0 r/min	
Speed	120N • m	2.4 r/min	
Rolling tube	$3/4$ " (OD: Φ 27) or 1" (OD: Φ 33.5)		
Recommended	1" Rolling tube		
Load	100m(L)x1.5m(H)	$75\mathrm{m}\left(\mathrm{L}\right) imes4\mathrm{m}\left(\mathrm{H}\right)$	
Maximum range (output shaft)	38 Rounds		
Protection degree	IP55		

3. INSTALLATION INSTRUCTIONS

- 3.1 First please fasten the pipe and this product with the bolts. Then fix the film into the pipe by the film hoop, please keep the pipe and the output shaft of this product on the same line; then start the motor and operate the opening and closing the films.
- 3.2 Two types of pipe could be used for this motor, the diameter is $\phi 27$, $\phi 33.5$. When the $\phi 27$ pipe is used, the suit is needed, the $\phi 33.5$ pipe doesn't need it.
- 3.3 The pipe for top opening is φ 27.

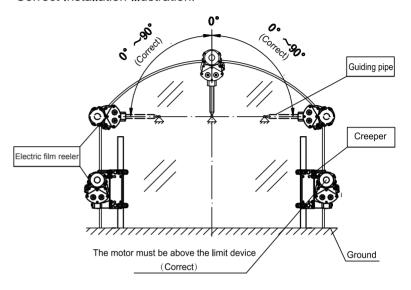
- 3.4.1 Please operate this product according to the "correct installation diagram".
- 3.4.2 Correct installation could guarantee the performance of the products.
- 3.4.3 After the installation, the electric film reeler should be above the limit switch at any position of the rolling.
- 3.4.4 After the 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



3.4 Installation diagram.

Correct Installation Illustration:



Incorrect Installation Illustration:

