



**DDairyequipment**

Kuhl Down!

# Circulation fan 2.6 product manual

**DDairyequipment**



# catalogue

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**Thank you for choosing!**

**DDairyequipment products! DDairyequipment quality policy:  
actively listen to customer needs; carefully build product quality;  
sincerely provide satisfactory service; always remember that  
customer service is the only reason for our existence. Read this  
manual carefully before installing or using the equipment!**



## 1. product description

Ruifeng 2.6 series positive pressure fan, is a large air volume, effectively achieve environmental cooling direct transmission large fan. The fan adopts a more energy-saving and efficient permanent magnet brushless motor, which improves the overall efficiency of 10% compared with the ordinary direct connection fan. Ruifeng 2.6 series positive pressure fan has large air volume, strong wind speed, low noise, low energy consumption, and can be used with spray system and temperature control system at the same time. Ruifeng 2.6 series positive pressure fan is made of anti-corrosion resistant materials, which is installed on the fan bracket, strong and durable. With adjustable guide plate components, ensure that fresh and clean air directly covers the use site in a large area. High performance and reliable quality, effectively solve the use of the scenario cooling problem.

## 2. Safety note description

The 72-inch 2.6 draft fan is a ventilation device specially developed and designed for dairy farming. However, if it is not operated and used correctly, it will cause a dangerous situation. Therefore, please strictly follow the following safety instructions:

1. Children and non-professionals should stay away from the installation site. The blades may cause damage to their fingers and other parts of the body.
2. Please check the fan use manual carefully before installation. Users who use the frequency converter and temperature controller, also need to check the frequency converter and temperature controller instructions.
3. When operating the fan, frequency converter and temperature controller, safety precautions:

(1) Equipment testing before installation:

When the equipment component is missing or damaged parts, please do not install, forced installation will cause damage to the





equipment.

(2) When installing:

The fan installation belongs to the high-altitude work, please do the safety protection work of the installation personnel.

(3) When wiring

✧ The instructions of this manual must be followed and installed by professional electrical engineers, otherwise an unexpected danger will occur!

✧ Please sure the power supply is powered off, otherwise there is a risk of electric shock!

✧ Please properly ground according to the standard lead line, otherwise there is a danger of electric shock!

✧ Communication line (thermostat or gateway to dedicated drive 485 communication line) must use the shield line.

(4) Before the power:

✧ Note to check for the presence of a short circuit in the peripheral circuit connected to the electrical equipment; whether the connected circuit is fastened. Otherwise, the fan will be damaged!

✧ The thermostat or gateway must be connected before it turns on. Otherwise, it may cause an electric shock!

(5) After the power:

✧ Adjust the parameters of the frequency converter and the temperature controller according to the operating instructions.

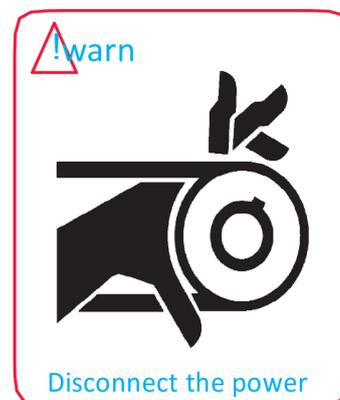
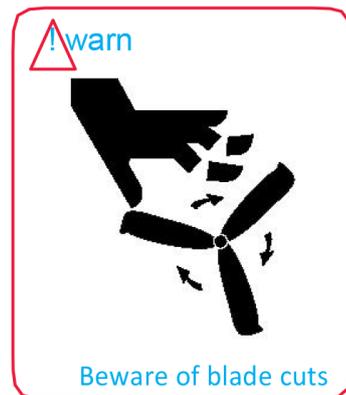
(6) in service:

✧ Do not contact the fan with any part of the body.

(7) Maintenance:

✧ Do not repair and maintain the equipment with live equipment. Otherwise, there is a danger of electric shock!

✧ When maintaining and maintaining the fan, it must be operated after 2 minutes of power failure, otherwise the residual charge on the capacitor will cause harm to





people!

- ✧ Personnel without professional training should not repair and maintain the fan and control unit, otherwise it will cause personal injury or equipment damage!

### **3. Product features**

- ◆ Corrosion-resistant, high-strength polyethylene shell.
- ◆ Adopt energy-saving and efficient permanent magnet brushless motor.
- ◆ All alloy fan blades to ensure the strength of the fan blades while providing strong and uniform air flow.
- ◆ The diversion plate designed according to the fluid mechanics major can adjust the Angle of the wind direction according to the need, so that the fresh air can cover a larger and farther area.
- ◆ Maintaining the lowest speed in winter can enhance the air circulation in the house, effectively reduce the air humidity, contribute to the balanced distribution of heat in the house, and maintain the optimal environmental temperature and humidity in the house.



## 4. technical parameter

Class	Parameters / Description
specifications and models	YKA072BDECGSWMB6
name	Animal husbandry special fan / 72-inch draft fan 2.6
hull	High strength plastic shell, corrosion resistant, never rust
Install reserved parts	Reserve 4 hanging ring bolts
source	3Φ/380V/50Hz
Theoretical maximum air volume	120193m <sup>3</sup> /h
wind speed	6.2 m/s-6 meters away from the fan, 4.5 m/s-12 meters away from the fan
Fan leaf diameter	72 Inch
Fan leaf material	High-strength aluminum alloy plate / thickness of 4mm
Fan leaf performance	Fan blades are stable, with good balance and low noise
any power-generating or power-driven machine	EC permanent magnet synchronous motor
Fan speed	345r/min
The rated current of the fan	3.7A
interiorinput power	2000W
levels of protection	IP55
noise	≤70dB

6-lane quality testing procedures

① Wind motor balance detection, ② noise detection, ③ vibration and rotation concentric performance detection; 4 ④ blade speed detection, ⑤ air volume de ⑥ machine efficiency detection



## 5. Installation requirements

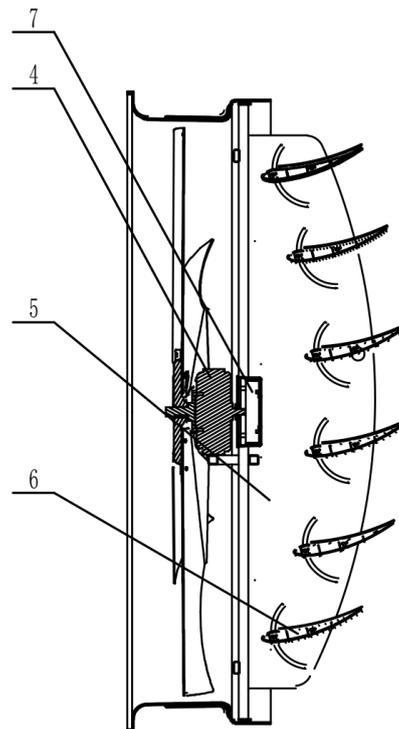
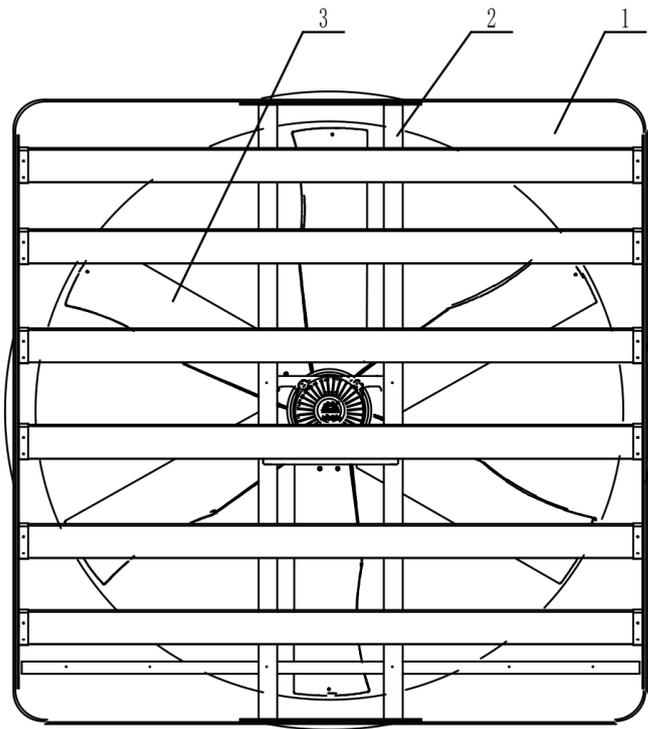
### Before installation, consider the following:

- ✓ The fan should be installed in the indoor environment, do not expose the fan to rain, snow and harsh environment.
- ✓ It is strictly prohibited to place the equipment in the flammable and explosive gas.
- ✓ Lifting and lifting equipment shall avoid equipment falling or damage.
- ✓ The installation position must be correct, and no additional load can be added to the equipment.
- ✓ Installation and maintenance of electrical parts must be carried out by professional (qualified) personnel and inspected regularly.
- ✓ The three-phase power on the site must be stable, the power is unstable or phase deficiency, easy to burn the motor.
- ✓ Check that the base mount is firmly secured.
- ✓ Check whether the wiring mode is correct.
- ✓ Check whether the power supply system and power parameters completely match the fan nameplate.
- ✓ Ensure that the fan rotates smoothly without jamming, abnormal sound and other faults.
- ✓ Check whether the motor vibration is too large, and whether there is any abnormal phenomenon such as overall shaking and shaking.
- ✓ Check to ensure that there are no screws and other solid foreign bodies to be sucked into the fan.



## 6. Installation instructions

### 1.Main component composition



1 and Figure Figure 2

Figure Figure

number	part name	quantity
1	High-strength polyethylene housing	1
2	Fan installation bracket	1
3	High-strength aluminum alloy fan blades	6
4	EC permanent magnet synchronous motor	1
5	Guide plate installation board	2
6	deflector	6
7	Dedicated Drive (485 Communication IoT)	1

**Note: Diversion plate, guide plate mounting plate and installation fastening accessories are separately packaged (diversion plate: 6 pieces; guide plate mounting plate: 2 pieces; Fasteners: 36 M8 \* 25mm bolts, 12 M8 nuts, 24 M8 flat pads, 12 M8 elastic pads, 24 enlarged spacers M8)**

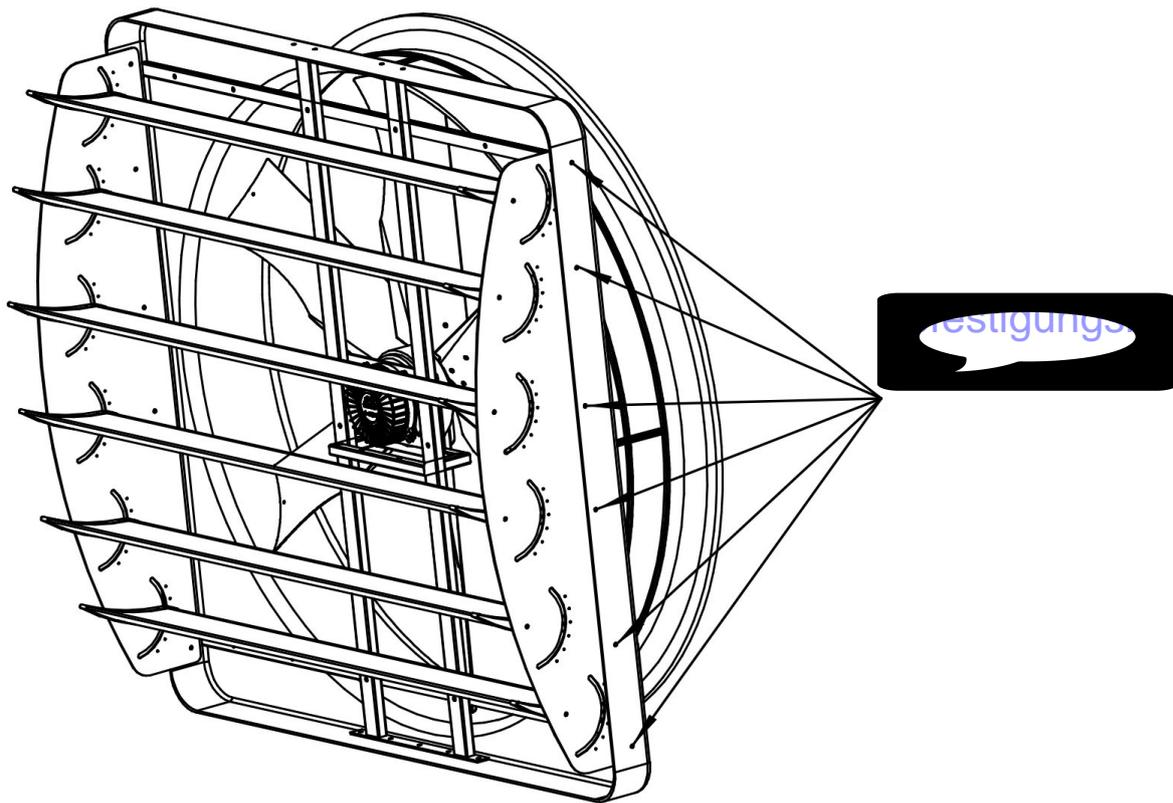


## 2. Operating instructions for fan

The operation of the fan is divided into the following two types by the control modes:

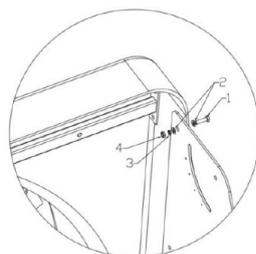
1. Without the thermostat and Internet of Things gateway, after power on, the fan starts and gradually increases the speed until full speed rotation; when stopped, it is opposite to start.
2. There are Internet of things gateway and temperature controller, which receive different output signals of 0-10V, and the fan automatically adjust the output frequency, so as to achieve the purpose of controlling the speed of the fan according to the ambient temperature. In addition, those connected to the Internet of Things and the gateway can directly close the fan manually through the mobile APP.

## 3. Instructions for the guide plate installation



**Figure 3**

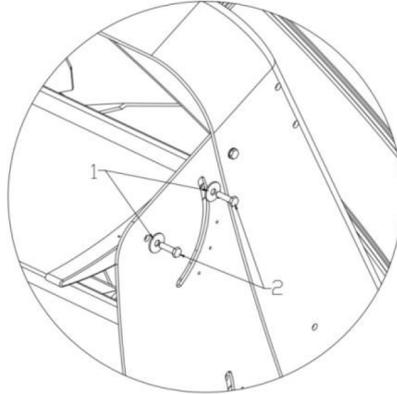
1. First lock the two guide plate mounting plates on the six mounting holes of the fan housing (see Figure 3 above)



**Figure 4**



2. Fasteners shall be locked as per (Figure 4) (① M8 \* 25mm bolt; ② M8 flat pad;  
③ M8 elastic pad; ④ M8 nut)



**Figure 5**

3. Install the guide plate as in (Figure 5) from top to bottom on the guide plate mounting plate (①M8 \* 30 \* 2 round insert; ② M8 \* 25mm bolt)

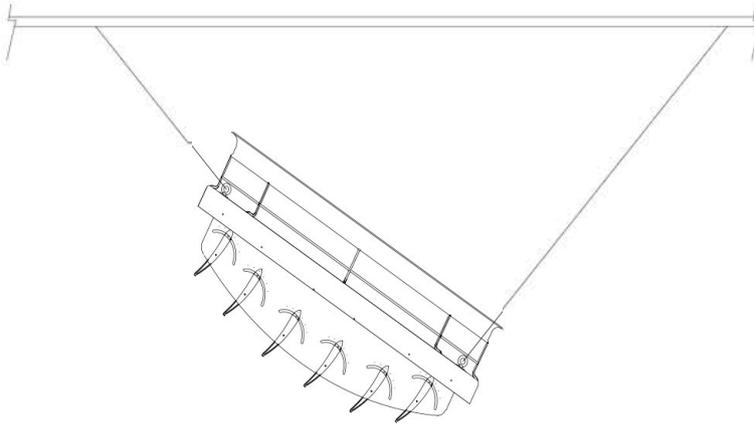
#### **4.Fan installation instructions**

Hoist Ruifeng 2.6 series fan, lift the lifting ring with 8mm or 8mm stainless steel chain through the fan, and hang the fan on the roof steel beam. See Figure 6 for the lifting method, the length of the chain (wire rope) is cut according to the actual method, and the chain (wire rope) should be tight after lifting. The installation shall meet the following requirements:

- a) Ensure the installation height, and the recommended installation height is in 3m~3.5m;
- b) Ensure the appropriate installation distance (Figure 7, Figure 8);
- c) Ensure that the tilt Angle of the fan is between 30 ° and 45 ° (Figure 9);
- d) When the anchor chain is hoisted, the last guard pipe uses a snakeskin pipe, and the Angle between the anchor chain and the roof steel beam is between 30 ° and 45 °.

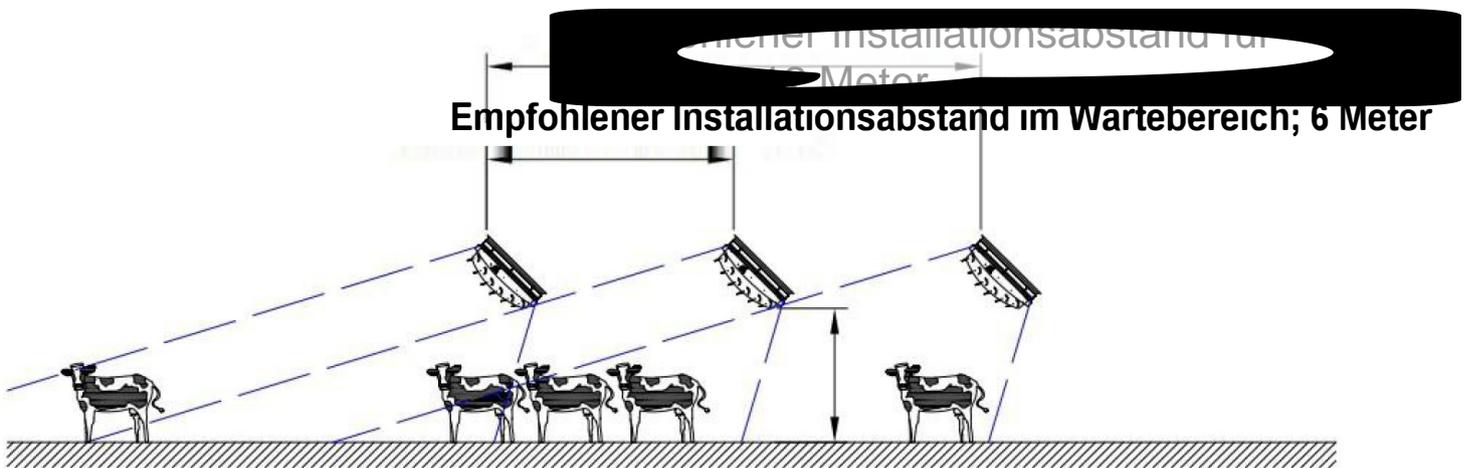


**Deckenaufhängung**



**Figure 6**

Empfohlener Installationsabstand im Wartebereich; 6 Meter

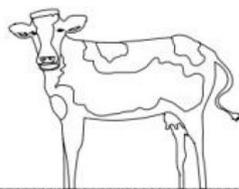
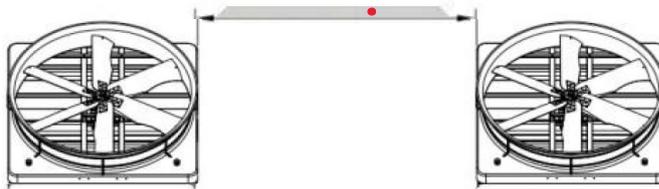


**Boden:**

Die Installationshöhe des Ventilators sollte mindestens 3 Meter über dem Boden betragen. **Figure 7**

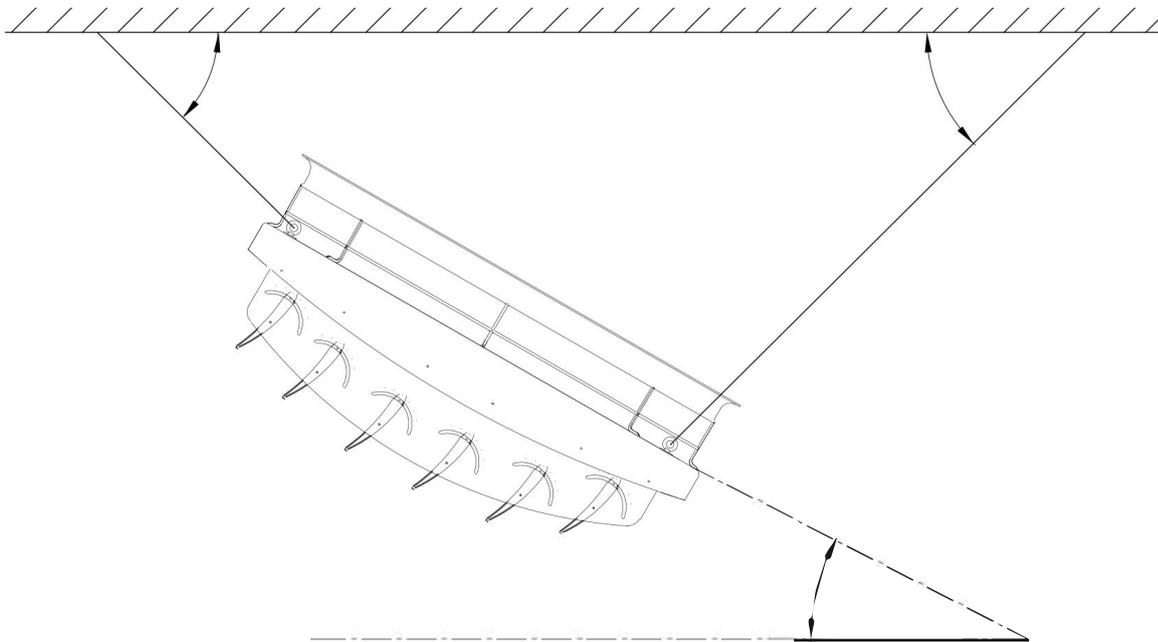
Die empfohlene Installationshöhe beträgt 3 bis 3,5 Meter

Empfohlener Installationsabstand  $\geq 3$  Meter



**Boden**

**Figure 8**

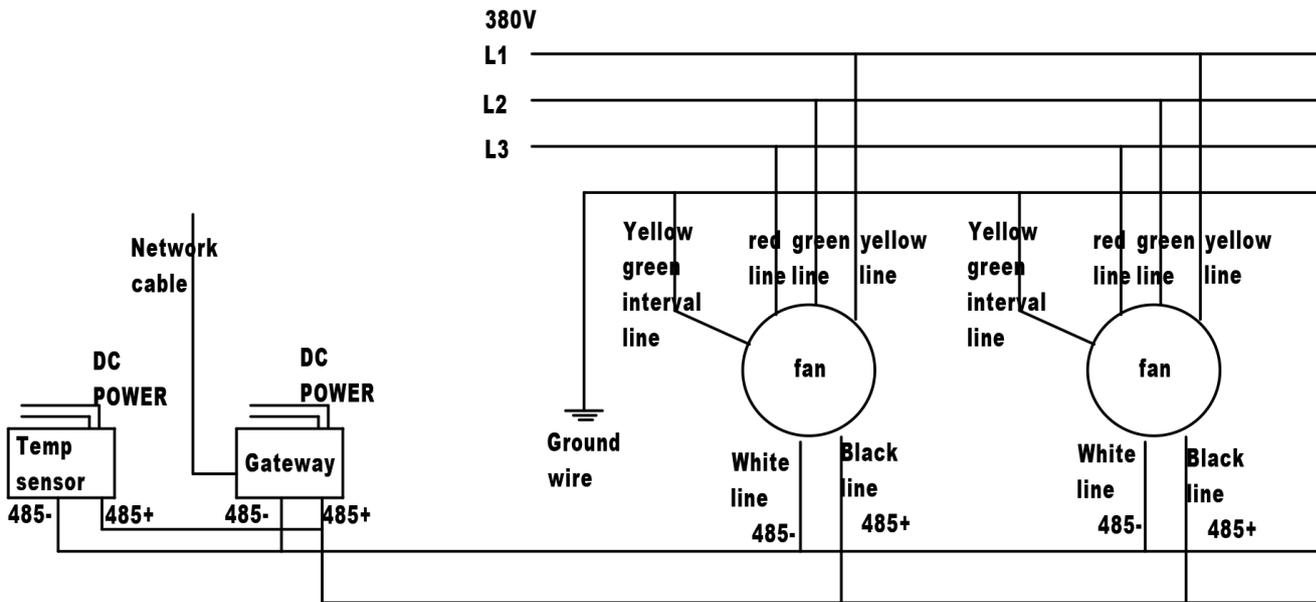


Empfohlener  
Einbauwinkel  
30° ~ 45°

**Figure 9**

## 5.electrical installation

1. The product uses 380V voltage, 50Hz current;
2. Each fan must be separately equipped with a D-type 16A circuit breaker with leakage protection;
3. The power cord adopts 6mm<sup>2</sup> four-core (with yellow and green grounding) sheath flexible cord;
4. For the users who use the Internet of Things and the temperature controller at the same time and realize the automatic temperature control, please strictly implement the electrical wiring standards and specifications according to Figure 10.



**A gateway can connect up to 10 fans**

Figure ten

## 6. Fan debugging

1. Power up the fan, observe whether the fan operates according to the setting procedure of the frequency converter, whether the fan operation state is stable, whether there is abnormal sound, and whether the fan blade turning is correct. If there is a problem, it should be adjusted in time. After the problem is completely handled, put it into normal use.
2. There are Internet of things and thermostat, and the 0-10V output signal of the temperature controller controls the start of the inverter and the output frequency of the inverter, so as to achieve the purpose of controlling the speed of the fan according to the ambient temperature. Check whether the speed of the fan has also increased after the temperature of the cowshed has increased.

## 7. Note for fan transportation, installation and commissioning

1. The fan must be stored indoors, and must be placed according to the upward mark on the fan, the fan puts the fan at most one layer, and the fan is forbidden to fall to the ground (if it is forbidden to contact the motor to the ground, it is easy to deform);
2. In the process of placing, moving, installation and contact of the fan, we must ensure that the blade of the fan is not affected by external force to avoid blade deformation and



damage;

3. The ground wire of the power cord arranged in the barn must be firmly connected to the fan shell, and often check whether the ground wire of the power supply is well connected to the fan shell.
4. Before the fan is energized, the control switch of all fans must be turned off, and the debugging work must be opened alone, commissioning one fan, open one fan, complete one, and close one fan;

## **7. Repair and maintenance**

### **Special attention!**

Before any maintenance and maintenance of the fan, be sure to disconnect the power supply to ensure the safety of relevant operators, otherwise it may cause a serious threat to life safety. Maintenance of the equipment must be carried out by professionally trained personnel!

- ✓ Clean the dust on the fan regularly and brush the dust on the fan leaves. Too much dust may lead to the shaking of the fan and affect the service life of the fan. Note: When cleaning and maintaining the fan, sprinkle or spray water on the fan bearing, transmission belt and fan motor rigorously.
- ✓ Keep the capacity of the power supply facilities sufficient, the voltage is stable, and it is strictly prohibited to run in phase absence. The power supply lines must be special lines, and temporary lines are not allowed to use power supply.

## **8. After-sales service and quality assurance policy**

### **➤ Product warranty certificate (three guarantees of certificate)**

Dear users, thank you for choosing DDairyequipment series products! DDairyequipment provides three guarantees and quality assurance.

1. The user shall immediately confirm the outer package and product quantity on the day of receipt of the damaged, please negotiate to the carrier on the spot and notify DDairyequipment; the user shall conduct a comprehensive acceptance of the product type, specification, appearance quality within 5 working days after receiving the goods, and mail or fax the certificate to DDairyequipment
2. Under normal operation conditions, if the product has quality problems and without self-



repair, the user will enjoy free

warranty (including) within 12 months from the date of receiving the goods.

3. DDairyequipment quality policy: actively listen to customer needs; carefully build product quality;

sincerely provide satisfactory service; always remember that customer service is the only reason for our existence.

4. After the product warranty expires, DDairyequipment or the authorized special distributor

will continue to provide paid after-sales service. Users enjoy free DDairyequipment

telephone technical support.

5. The right of interpretation of this clause is owned by DDairyequipment

6. Three guarantees of voucher receipt

## **9. Product list**

Ruifeng 2.6 series fan \* 1 Product description manual \* 1

**Please read this manual carefully**

**Due to incorrect installation or disassembly, or in a bad, beyond the product suitable environment or overload operation.**