



YFP3 系列直联式风机水泵用  
三相异步电动机  
YFP3 SERIES INDUCTION MOTOR  
FOR DIRECT CONNECTED FANS  
AND PUMPS

# 使用说明书

## Operation Manual

安徽皖南电机股份有限公司  
Anhui Wannan Electric Machine Co.,Ltd

衷心感谢您选购、使用皖南电机。

在使用电动机之前，请扫码仔细阅读本说明书，以便您正确的使用和维护。



**警告：**搬运电动机时，应小心谨慎，强烈的摔、碰、震会严重损坏轴承。吊运时一定要将电动机吊攀旋紧后方可吊运。

## 检 查

1. 仔细检查电动机外观是否损伤，核对电动机铭牌数据，如型号、额定功率、电压、频率等与实际要求是否相符。
2. 轻轻转动电机转轴，转动应轻快、灵活（注：装有骨架式橡胶油封的 IP55 电动机，转动时相对较紧）。
3. 检查零部件的装配应良好，紧固件应无松动。
4. 打开接线盒，用 500V 兆欧表测量电动机绕组的绝缘电阻，所测值应不低于 5 兆欧。对有防露要求的电动机，在运行前应对加热带通以额定电压并保持 30 分钟，以确保电机内无凝露。

**注意：**检查过程中，若有疑问，应向专业技术人员请教或与我们联系。

## 安 装

电动机的安装应由技术人员完成，严格按照电动机的安装型式来进行安装。如果底脚要加垫片，应保证在电动机底脚安装紧固过程中不被挤出。电动机允许采用联轴器、正齿轮及皮带轮传动。

联接电动机的电源线不宜过细、过长（否则，电源线压降过大，使电动机起动困难）。按接线图，将电源线与电动机牢固联接，同时接好接地线，在接通电源前，还应测量输入电压是否正确，然后接通电源，检查旋转转速，旋转方向是否正确。



### 警告：

1. 电源电压的波动不得超过额定电压的 95% ~ 105%。
2. 严格按图接线。
3. 必须接好接地线。
4. 在通电前应取下轴伸上的轴套和平键，保持身体、衣物远离电动机运转部分。
5. 空载运行足够长的时间（一般在 30 ~ 40 分钟），以确保不会产生异常情况。

## 运行与维护

1. 电动机使用的环境最高温度为 40℃，最低温度为 -15℃，海拔不超过 1000m。
2. 电动机允许满压或降压起动，但应注意，满压起动时起动电流为额定电流的 3.3 ~ 8 倍。降压起动时，因转矩与电压的平方成正比，电压下降时转矩也随之降低。故当静负荷相当大时只能用满压起动。
3. 电动机不得用于含有易燃性气体、化学腐蚀性气体或其它有害气体的环境中（特殊环境用电动机除外）。

4. 电动机必须保持清洁，进风口及风道必须畅通无阻。

5. 电动机在运行中若发现异常，如怪声、过热、焦味或轴承发热等，应立即停机检查，待故障排除后方可使用。

6. 电动机在运行过程中应保证润滑良好，一般在电机运行 5000 小时左右，即应更换润滑脂（封闭轴承在使用寿命期内不必更换润滑脂）。在运行中若发现轴承过热时，应停机检查轴承润滑脂是否太多。油脂添加量以加到轴承容腔的 1/3~1/2 左右为宜。润滑脂推荐采用 2 号锂基润滑脂小型电动机专用润滑脂。

7. 电动机所选轴承型号如下表所示，在运行过程中所承受的轴向力应不大于下表的规定。

| 机座号               | 轴向力 (kg) | 轴承型号 (前 / 后) |
|-------------------|----------|--------------|
| YFP3-80-2/4、6、8   | 75/95    | 6204/7204×2  |
| YFP3-90-2/4、6、8   | 80/100   | 6205/7205×2  |
| YFP3--2/4、6、8     | 110/130  | 6206/7206×2  |
| YFP3-112-2/4、6、8  | 110/130  | 6206/7206×2  |
| YFP3-P132-2/4、6、8 | 180/230  | 6208/7208×2  |
| YFP3-160-2/4、6、8  | 190/240  | 6309/7209×2  |
| YFP3-180-2/4、6、8  | 400/500  | 6311/7311×2  |
| YFP3-200-2/4、6、8  | 500/600  | 6312/7312×2  |
| YFP3-225-2/4、6、8  | 500/600  | 6313/7312×2  |
| YFP3-250-2        | 550      | 6313/7313×2  |
| YFP3-250-4、6、8    | 700      | 6314/7313×2  |
| YFP3-280-2        | 650      | 6314/7314×2  |
| YFP3-280-4、6、8    | 800      | 6317/7314×2  |
| YFP3-315-2        | 800      | 6317/7317×2  |
| YFP3-315-4、6、8、10 | 1200     | 6319/7319×2  |
| YFP3-355-2        | 900      | 6319/7319×2  |
| YFP3-355-4、6、8、10 | 1500     | 6322/7322×2  |

8. 为保证电动机的正常运行，应根据实际使用情况对电动机进行定期检查，并需每年检修一次。

9. 电动机在仓库中搁置不用时，应妥善包装、存放，并保持通风干燥，以免电机受潮，锈蚀。如果贮存的环境中有冷凝现象，应定期排水，（且在重新使用前对加热带通以额定电压并保持 30 分钟）。

**注意：**不要在电动机运行时添加润滑脂。过多的润滑脂会溢出，并可能附着到定子绕组上，使其绝缘寿命降低，同时使轴承工作温度升高（轴承工作温度不超过 90℃）。

**警告：**



1. 严禁缺相运行。
2. 反复多次起机会导致电机过热，甚至烧毁电机（特别是连续带负载直接起动）。
3. 防止过载，过载会导致过热，过热将缩短绝缘寿命，降低电动机的可靠性。

We are truly grateful for your purchasing of Wannan Motors. Before using the motor, please scan the QR code to read the manual so as to use and maintain the motor in a right way.



**Warn!** IBe careful when handing motor! Strong falling, bumping or shaking will damage bearing and other components. Make sure the eyebolt is tightened before lifting up the motor.

## I Inspection

1. Inspect the appearance of the motor carefully and ensure it is in good order. Check and ensure the model, voltage, power, frequency on motor nameplate is consistent with actual requirement.
2. Rotate the motor shaft gently to see whether its rotation flexible and quick or not. (Note: The motor with framework rubber oil seal of IP55 protection rotates relatively harder).
3. Ensure that all parts have been connected correctly and tightly.
4. Open the terminal box cover and measure the insulation resistance of the stator winding with 500V Meg-ohmmeter, the resistance value should be no less than  $5M\Omega$

**Notice:** If you have any question during the inspection, please consult a professional technician or contact us.

## II Installation

Motor should be installed by technician. For the motor with feet, all the feet should be fixed to sound and flat plane. If spacer need to be placed on the baseboard, and the spacer need to be guaranteed not to be squeezed out during installation. Spring coupling, gear box, pulley can be used for transmission

Power wires shall be neither too thin nor too long. Otherwise it will make large line voltage drop and make the motor difficulty to start. Connect the power cable with motor as connection diagram. Wire the ground line. Check and measure the input voltage before power on. Check the rotation direction、 speed after connecting to power line.



### **Warn!**

1. Supply voltage fluctuation should not exceed the range 95% ~105% of the rated voltage.
2. Wire strictly as connection diagram
3. Earth wire must be grounded safely.
4. Remove shaft sleeve and flat key before power on, and keep person and clothes far from the rotation part.
5. Sufficient long no-load operation test (generally 30~40 min) is needed.

### III Maintenance

1. The highest ambient temperature for application is 40°C , the lowest is -15°C ,altitude exceeds not 1000m above sea level.

2. Motor can be started at full voltage or reduced voltage. Starting current is 3.3-8.0 times rated current if it starts with full voltage. As torque is proportional to voltage square, the torque will be reduced when the motor is started at reduced voltage. So if the static load is fairly large, the motor can be only started with full voltage.

3. Motor can not be used in the circumstance where contains inflammable gas, corrosive gas and other harmful gases (except for the special-purpose motor).

4. Keep the motor clean and in good ventilation.

5. Stop the motor immediately if the abnormal problems occur like strange sounds, overheat, burning smell or bearing overheating. Restart the motor till all the problems have been solved.

6. Good lubrication should be ensured during operation. The grease should be replaced every 5000-hour running (Grease need not to be changed in the life cycle of sealing bearing). If bearing is found to be overheating, motor should be stopped immediately to see whether there is too much grease in it. It's proper to fill 1/3~1/2 capacity of the bearing chamber with lubrication grease. No.2 Lithium-base lubricating grease is recommended

7. Motors bearing type and allowable maximum axial force are listed in table below

| Frame Size        | Axial force (kg) | Bearing (DE/NDE) |
|-------------------|------------------|------------------|
| YFP3-80-2/4、6、8   | 75/95            | 6204/7204×2      |
| YFP3-90-2/4、6、8   | 80/100           | 6205/7205×2      |
| YFP3--2/4、6、8     | 110/130          | 6206/7206×2      |
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8. Motor should to be inspected regularly according to its actual condition, overhaul at least once a year.

9. When the motor need to be laid-out, it must be properly packed and stored. Keep good ventilation and dry to avoid dampness and corrosion.

**Note:** Don't add grease during operation, since excessive grease will spill over to stator winding and shorten the life of insulation, at the same time will raise bearing temperature (bearing working temperature should be no higher than 90°C when the ambient temperature is under 40°C ).



**Warn!**

1. Non-full phase operation is prohibited.
2. Repeated starting may result in motor overheat or even burn the motor(especially direct start with load)
3. Prevent overload. Overload may cause overheat, and overheat may shorten its insulation life cycle and reduce its reliability.

## 敬告用户：

请您按照本使用说明书的规定，正确地使用和储存电动机，我们将为您提供优质、快捷的服务。

在电动机使用过程中，您如有什么疑惑请与我们联系，我们将及时给予您满意的解答；您有什么良好的建议请向我们提出，以便我们改进，为您提供优质、快捷的服务。

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## Dear user,

Please use and store the motor right following the instruction of the manual. We will make our effort to provide you with high-quality and prompt service. Contact us if you had any questions in application, and we will offer you timely and effective resolution; let us know if you had any advices or suggestions, with which we can improve ourselves and make service better. Anhui Wannan Motor Co., Ltd. reserves the right of final interpretation of the user manual. No copy, disclosing or using of the content of this user manual to third parties prior to written permission from Anhui Wannan Motor Co., Ltd.

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本说明书内容如有变动，恕不另行通知。

**Content in the manual may be changed without prior notice.**