Pro-Tech TOOLS

Electric motor 230V/380V



Instructions for use

Translation of the original instructions

Preparation of equipment

1. After opening the engine packaging, check the engine for damage or dampness.
2. Carefully remove the dust and anti-corrosion coating on the engine.
3. Check that the information on the motor type plate matches the requirements.
4. Check the unit for deformation, damage and loose components and try turning the engine by hand to check for flexibility.
5. Measure the insulation resistance with a 500 V megohmmeter - its value should not be less than 0.5 M Ω. If it not, perform a dry treatment of the stator winding at a temperature below 120 °C.

Engine settings

1. the motor can use the clutch, spur gear and pulley for transmission, but for the two-phase motor with more than 4kW and the four-phase motor with more than 11kW, the pulley is not suitable for transmission. The fan ends of a two-phase motor can only be driven by a clutch.
2. if the pulley is designed to transmit power, the center axis of the motor should be parallel to the load axis and vertically aligned with the belt axis. When the clutch is adapted for transmission, the motor axis should coincide with the load axis.
3. the engine should be set to fully utilise its power.
4. The engine should be adjusted to ensure good engine ventilation.

Engine operation

1. The motor should be well grounded. Grounding is located on the right and bottom side of the terminal box. If necessary, the lower motor feet or flange bolt set can be grounded.
2. There are six wire terminals on the motor wiring board, which are labeled as follows;

Phase no.	A	B	C
Part 1	U1	V1	W1
Part 2	U2	V2	W2

3. The power cord used must conform to the specifications listed on the nameplate.
4. An overheating protection device is usually required for the motor. The overheat protection device should be in accordance with the motor electrical specifications found on the nameplate.
5. If the difference between the frequency of power delivered and the nameplate data is greater than 1% or the voltage difference is greater than 5%, the motor will not deliver the correct rated power continuously and at the same level. If continuous operation of the motor is required, it is important to note that the motor must not be overloaded in this situation.
6. When the motor is running with or without load, there should be no abnormal noise and no vibration. The bearing temperature should be below 95 °C.

Engine repair and maintenance

1. The operating environment should be dry, the engine surface should be clean and the air intake should be protected from dust, mud and other debris.
2. When you find that the protection device is still running, you need to check the error is due to a motor fault, overload or too low a setpoint for the protection device. The motor can only be restarted after the fault has been corrected.
3. Proper lubrication is required during engine operation. After approximately 5,000 hours of engine operation under normal conditions, the lubricant should be topped up or replaced (lubrication is not required in the case of a sealed bearing). If overheating of the bearing or deterioration of the lubricant is detected during operation, the lubricant must be replaced. Before replacing the lubricant, first remove the old lubricant and thoroughly clean the bearing and bearing housing with gasoline, then add a suitable lubricant to the space between the inner and outer ring of the bearing.
4. As the bearing wears, vibration and noise increase. At this point, the radial clearance of the bearing should be checked. If its value reaches the following value, the bearing should be replaced.

Bearing internal dimensions (mm) 20-30; 35-50; 55-80; 80-120
Wear clearance mm) 0,10; 0,15; ,20; ,30

5. After disassembling the motor, the rotor can be removed from the axial or non-axial end. If it is not necessary to disconnect the fan, it be advisable to remove the rotor from the non-axial end, but when removing the rotor from the stator winding, take care not to damage the stator winding or insulation.
6. When replacing the stator winding, be sure to note the shape, size, number of turns, and wire diameter of the primary winding. If this information is lost, contact the manufacturer. If the factory winding is replaced incorrectly, one or more motor functions may be seriously impaired or even damaged.

SINGLE-PHASE TWO-VALVE CAPACITOR MOTORS YL

YL series single-phase two-valve asynchronous motor is designed and manufactured in accordance with national standards, newly developed by our company, featuring low noise, compact size, light weight, easy maintenance, etc. These motors are widely used in air compressors, pumps, fans, refrigeration equipment, medical equipment, small appliances, etc., especially in situations where only single-phase power supply is available.

SINGLE-PHASE ASYNCHRONOUS MOTOR YL

The YL series of asynchronous capacitor motors is a single-phase motor. Main features: small size, high efficiency, high starting torque, high power factor, safety and reliability in , simple design and easy maintenance. The performance of this motor is comparable asynchronous three-phase motors. The rated frequency of the motor is 50 Hz and the rated voltage is 220 V. The motors of this series are fully enclosed and fan cooled. They have insulation class B and IP44 protection. IC411 cooling. The mounting dimensions of the motors are in accordance with IEC standards. IMB3m IMB5, IMB35, IMB14, IMBV1, IM9HV3, IMV5, IMV6, IMV18, IMV19, IMV36.
YL series motors are suitable for use in machines and equipment operating at full load.

Y-SERIES ASYNCHRONOUS THREE-PHASE MOTOR

The Y-Series motor is a totally enclosed, fan-cooled, three-phase motor. It has been manufactured in accordance with the relevant IEC and DIN42673 standards. Y-series motors are characterized by exceptional efficiency, lower wear, high starting torque, low noise and vibration, reliable operation and easy maintenance. Y-Series motors are widely used in many locations where flammable or explosive compounds and gases are not present. Motors of this type can be used for machine tools, pumps, fans, conveying equipment, mixers, agricultural machinery and more.