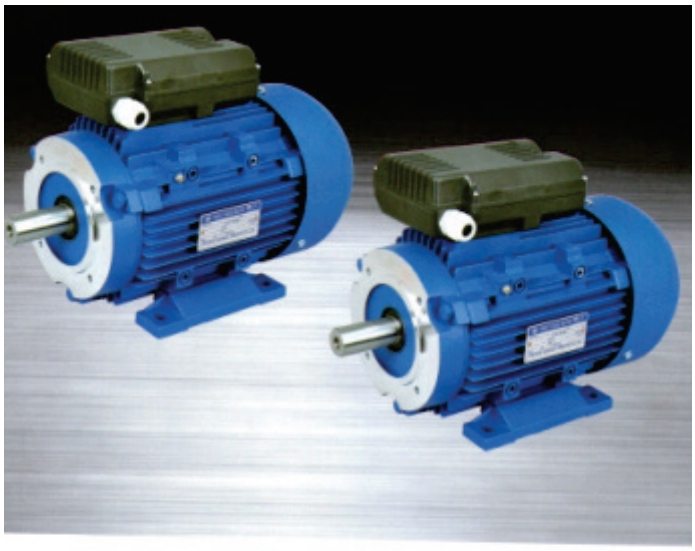
# YL 系列单相异步电动机

## YL Series Single Phase Asynchronous Motors



# 使用说明书

# OPERATION INSTRUCTIONS

## BEVI MACHINERY AND ELECTRONIC EQUIPMENT TRADING （SHANGHAI）CO., LTD.

First of all thank you very much for selecting the single- phase asynchronous motors supplied by BEVI. Before run the motors, please read the Operation Instructions carefully, which tell you how to operate and maintain the motors so as to serve you better. Please contact BEVI without any hesitation if you have any queries.

首先感谢您选用 BEVI 的单相异步电动机。使用前请认真阅读使用说明书进行使用和维护指导。若有疑问，请立即与 BEVI 联系。

## I. Descriptions 概述

YL Series Single Phase Asynchronous Motors are designed with two capacitors, one for start and the other for run. Such motors have the remarkable features of small size, high capacity, strong starting torque, high power factor and efficiency, safe and reliable running, simple construction and easy maintenance.

YL 系列单相异步电动机设计带有双电容器，一个用于起动，另一个用于运行。电动机具有显著的特征，如体积小、容量大、起动转矩高、功率因数大、高效率、运行安全可靠、结构简单、维修方便。

Type Designation 型号示例

YL90L-2

YL: Single phase asynchronous motor with double capacitor 单相异步双电容电动机

90: Frame Size 90 机座号 90

L: Code of frame length, long frame 机座长度代号，长机座

2: Number of poles, 2 poles 极数，2 极

## II. Transportation and Storage of the Motors 运输及储存

Transportation: Motors should not be piled up too high which will affect the ventilation and might damage the package in the lowest. During storage and transportation, motors shall not be put downwards.

Storage: The motors should be stored in a dry and well-ventilated place indoors.

运输过程中电机不能堆放太高以免影响通风及避免损坏最下面的包装，运输和储存期间应避免电机倒放，电动机就储存在室内干燥通风良好的场所。

## III. Preparatory works before operation 使用前的准备

3.1 Check the insulation resistance: Before the motor put into operation the insulation resistance between its winding and that of the windings respect to ground with a megger of 500V. The rate of the resistance shall be greater than 500 ohm.

检查绝缘电阻：使用前应使用 500V 的兆欧表检查电动机绕组间及绕组对地的绝缘电阻，绝缘电阻值不应低于 500 欧姆。

3.2 Check the line voltage: connect the line voltage in accordance with the

value indicated on the nameplate of the motors.
检查线电压：按铭牌显示电压接线。

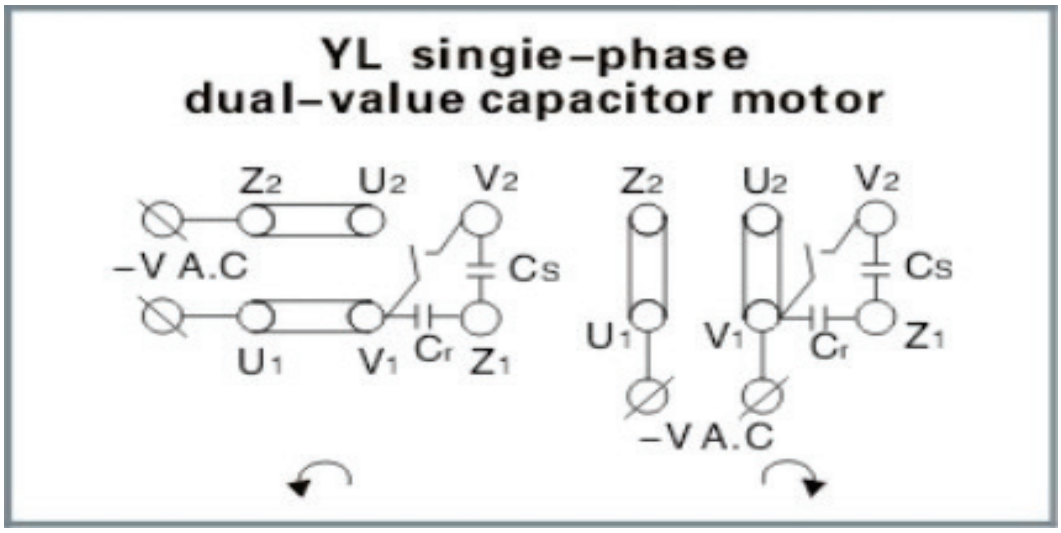
3.3 Inspection of the switch: The specification and capacity of the control switch used in the motor should comply with the requirements indicated on the name plate of the motor .(Such as current capacity size of fuse ,etc)
检查开关：电动机所用控制开头应符合电动机铭牌上的规定，如熔丝的载流量等。

3.4 Inspect the application atmosphere: The atmosphere should be free from any other corrosive gasses, water drips, iron chips or cotton fibers. There should be enough space for ventilation and heat transmission.
检查使用环境：使用场所应无腐蚀性气体，无滴水、铁发悄或纤维，应有足够的空间进行通风和散热。

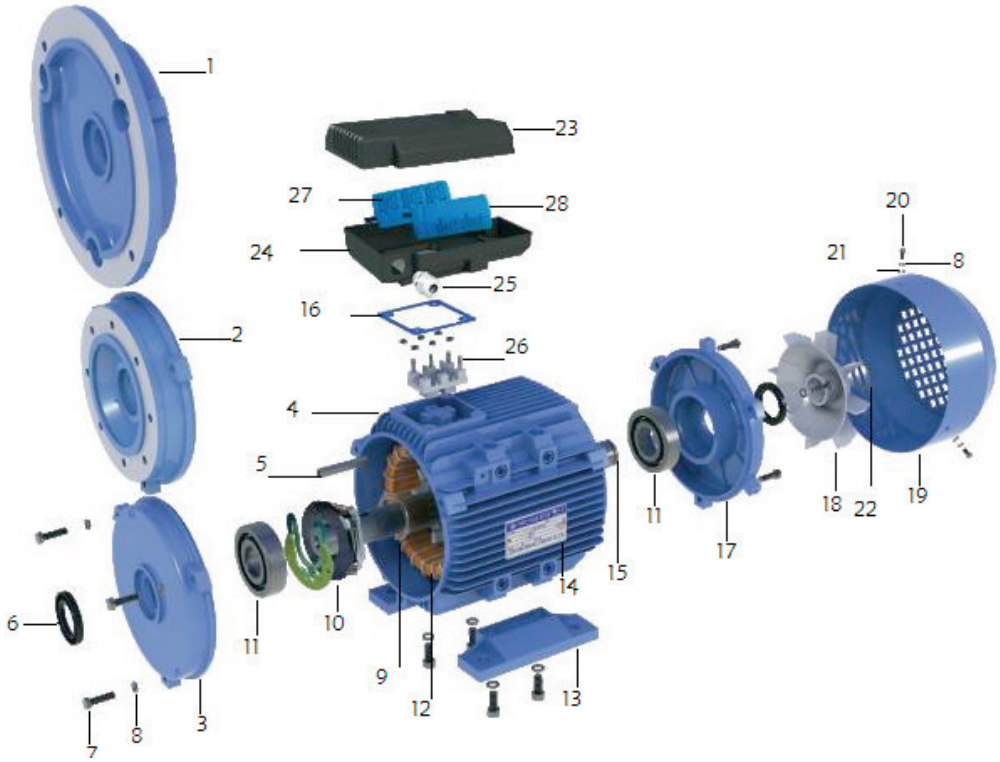
3.5 Check ground connection: The frame of the motor should be grounded to insure safety .
检查电机外壳确保已经接地。

3.6 Check rotation: Before installation rotate the shaft extension slowly with hand to make sure the smooth rotation. After installation, check and make sure the driving belt or the coupler is mounted with good flexibility
检查旋转：安装前用手轻转轴伸确保转动正常，安装后检查确保传动带或联轴器安装正确。

3.7 Wiring: Check the wiring connections before operation. The motor can be started only when the wiring connections are made in accordance with the wiring diagram given on the connecting box. The rotation direction can be changed by change the wiring connection shown in the wiring diagram.
接线：电动机投入使用前应检查接线，电机只能在按照接线盒中的接线图接线正确后方可起动，电动机也旋转方向可以通过改变接线而变化。



# Construction 结构图

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|---|---|
| 1 B5 Flange B5 法兰 | 15 Rotor 转子 |
| 2 B14 Flange B14 法兰 | 16 Gasket 垫圈 |
| 3 DE Endshield 轴伸端端盖 | 17 NDE Endshield 非轴伸端端盖 |
| 4 Frame 机座 | 18 Fan 风扇 |
| 5 Key 键 | 19 Fan Cover 风扇罩 |
| 6 Oil Seal (V Seal) 油封（V 形环） | 20 Screw 螺钉 |
| 7 Bolt 螺栓 | 21 Washer 垫片 |
| 8 Spring Washer 波形垫圈 | 22 Fan Clamp 风扇卡簧 |
| 9 Circlip 卡簧 | 23 Terminal Cover 接线盒盖 |
| 10 Centrifugal Switch 离心开关 | 24 Terminal Bracket 接线盒座 |
| 11 Bearing 轴承 | 25 Cable Gland 电缆管接头 |
| 12 Stator 定子 | 26 Terminal Board 接线板 |
| 13 Feet 底脚 | 27 Running Capacitor 运转电容器 |
| 14 Nameplate 铭牌 | 28 Starting Capacitor 起动电容器 |

## IV.Maintenance of the motor 电动机维护

4.1 The motor must be operated according to the ratings on the nameplate and never be overload. Cleaning and inspection should be cared and it must be prevented from moistening and from foreign matters entering into motor.
电动机必须按照铭牌规定的额定值运行，不得过载。小心清理和检查电机，避免潮气和外部异物进入电机内部。

4.2 The motors adopt sealed bearing without regreasing. The bearing house temperature shall not be over 95℃ when the motor is running.
电动机采用封闭式轴承，不需要再润滑，电动机运行时轴承室表面温度不得超过 95℃。

4.3 When the motor is started and attains to a certain speed the switch will give a crisp sound of click and cut off the power supply of the starting capacitor then the motor runs with the other capacitor. When the motor fails to start or fails to reach the certain speed but accompanies with shock and shriek instead of the crisp click, cut off the power supply immediately and carefully inspect the centrifugal switch and the capacitors .
当电机启动转速达到一定转速，发出清脆声离心开关将与起动电容断开， 电动机呈电容运转状态，当电机未能启动或未能达到预定转速，电机振动和发生异响，应立即切断电源，检查离心开关和电容器。

4.4 Periodical inspection should be taken. Normal maintenance should be done at a quarterly base and overhaul shall be done at a yearly base. Dust and dirt must be cleaned away from the external body, and the wiring diagram and nameplate should be kept clean all the time.
应对电动机进行周期性的检验，通常三个月一小修，一年大修一次。电动机外壳上不应堆积有灰尘或脏物，接线图和铭牌要经常保持清洁。

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