

LJKY-3FK Series

Three-phase motor torque control instrument (board)

Use Manual



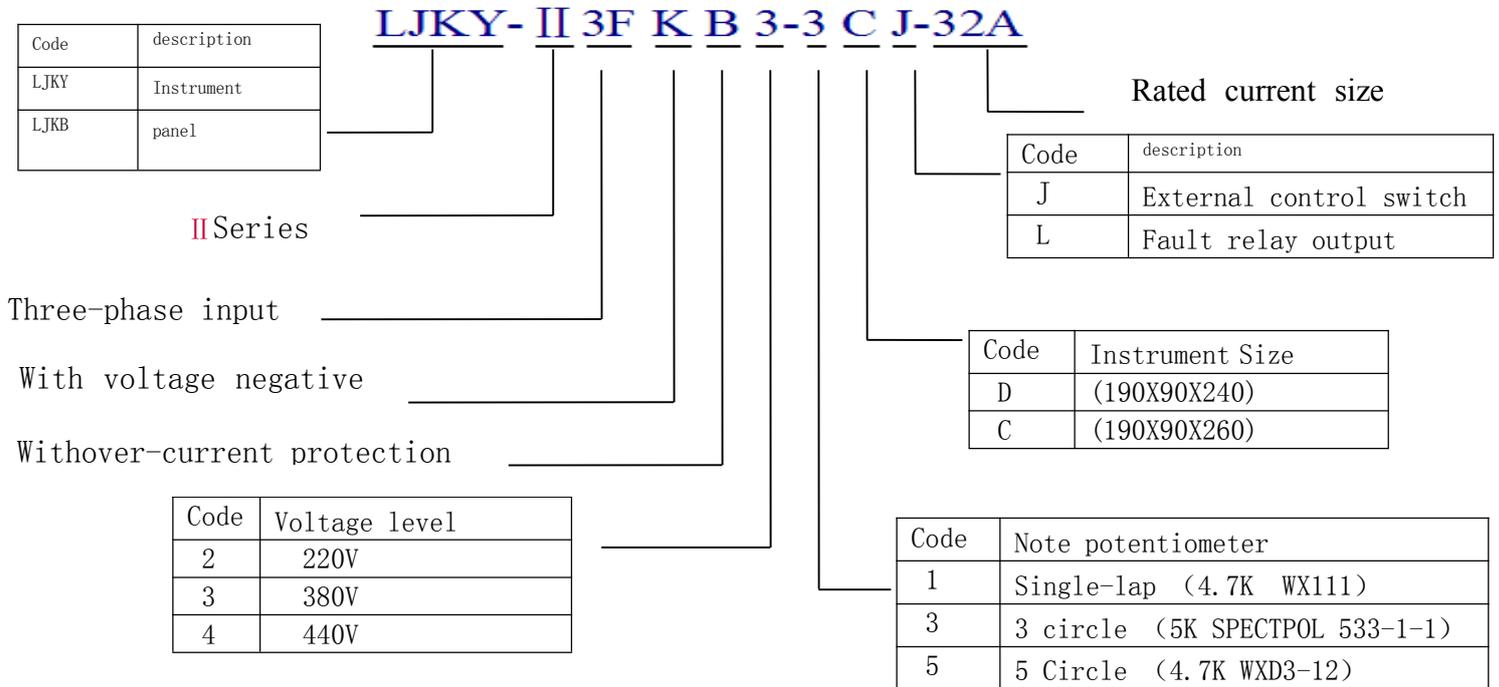
Thanks to the use of factory LJKY-3FK Series Torque Motor Controller (board).

The use of the controller (board), please read this statement, the correct understanding of the methods of operation.

One、 Model examples

Moment in the controller (board) have a sticker affixed to the top, the record torque control instrument (board) models, specifications and so on.

To LJKY- II 3FKB3-3CJ-32A model as an example



Two、 About

As we all know, three-phase asynchronous motor torque is a soft mechanical properties and wide speed range of special motors. When the load increases, the motor speed to automatically follow the lower, and the torque output increase, with load balance.

Torque Motor Controller (board) is a new type of electronic regulator (open, closed-loop) control devices, mainly characterized by changes in the rate of on-line, managed to keep the tension to the extent permitted by applicable to the product at the time of winding tension Basically unchanged, with the performance of motor winding performance to match the coordination, integration of mechanical and electrical torque motor ideal complementary device. Controller (board) silicon used for motor stepless speed, voltage regulator to make a smooth, good start with a small size, light weight, high efficiency, easy installation, long service life.

Three、 Parameters

- 1, rated voltage: Three-phase 380V \pm 10%;
- 2, frequency: 50Hz or 60Hz.
- 3, the output voltage range: 0V (60V) ~ 365V.
- 4, the maximum current output: 5A ~ 100A.
- 5, three-phase output voltage deviation: \pm 5%.
- 6, torque than the regulation: 10:1.
- 7, automatic input signal DC0 ~ 5V

Four、 the installation of Information

- 1, users in the use of this product, we should read the prospectus carefully.
- 2, do not install the high-temperature, high humidity environment.
- 3, do not install in the timber of flammable materials.
- 4, do not install the machines in high-vibration equipment.
- 5, do not have installed on the oil mist, dust, a flammable gas, metal Fenxie environm

Five working principles and characteristics

Three-phase motor torque control instrument (board) main circuit using two-way imports of silicon, silicon can be controlled to change the size of the opening angle, we can make the motor or other load voltage from 0 to 365V adjustable in a row (starting motor voltage 60V), It achieved a speed regulator in a balanced manner, to meet the different requirements of the production process.

SCR in the control circuit used in the three-phase synchronous integrated module, and the type LJKY-3FKB In addition to the original LJKY-3FK have the type of negative feedback voltage, soft-start link, but also adds over-current cut-off and working conditions Relative lack of protection and short circuit protection circuit and so on, to improve the accuracy of the speed limit starting current, stable and reliable work, and temperature compensation for stable performance. To improve the motor torque in the low-voltage performance at the time of start-up, so that low-speed torque motor in the state of greater moment to expand the use of torque motors.

VI controller (board) of the opening, the size (unit: mm)

(W:wide D:Dimensions H:high i:Instrument b:board)

Model		LJKY-II 3FK(B)			LJKY-III3FK(B)			LJKY-IV3FK(B)		
		D	W	H	D	W	H	D	W	H
8A、20A	i	190	90	240						
	b	162	175	90						
32A、40A	i	190	90	260	280	340	100			
	b	162	175	90	240	310	140			
40A、50A、 60A、80A	i							360	350	140
	b							240	310	140
100A、120A	i							360	350	140
	b							240	350	140

Seven 、 method of operation

wiring:

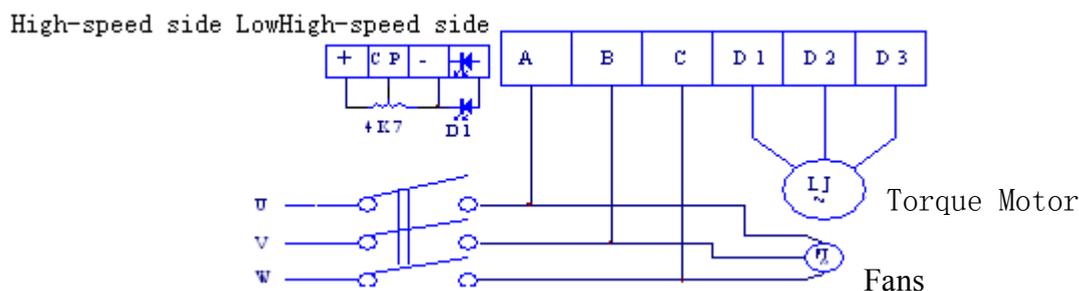
The three-phase AC power by the three-automatic switch (the electrical current to block the 130%) access Torque Motor Controller (board) enter the A, B, C, controller (board) the output of D1, D2, D3 next moment The electric post W1, V1, U1, must comply with the motor torque-Y, Δ -connection (electrical wiring in the light of that), Y-torque motor of the public point (that is, the focal point) without power from zero-line, such as Fig. Please access the cooling fan input.

Note: (1) in strict accordance with the cable wiring diagram, error not to take damage.

(2) welding wire must be well-chip wiring, and access to the controller (board) and the motor, the screw and nut tightened up, or have a bad "flash", easy to burn controller (board), as well as SCR.

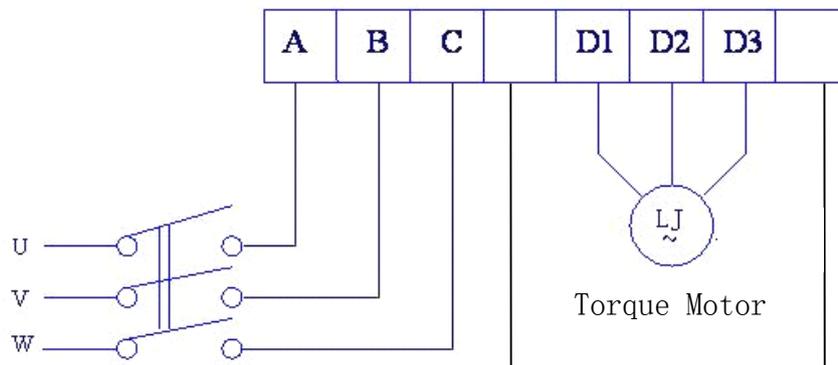
(3) of the original factory production LJKY-3F-panel was now LJKY-3FK (B)-type alternative. LJKY-3F-panel potentiometer + for the low end - for high-speed side; and LJKY-3FK (B) +-based control panel for high-speed potentiometer end - for the low side.

(4) remote control and external control, such as potentiometers control cable, please use the three core shielding line, or else susceptible to external electromagnetic interference, resulting in the phenomenon of out of control.



LJKY-3FK (B)-torque electric panel wiring diagram

(5) to implement motor torque constant tension closed-loop automatic control, the constant tension controller, such as analog output 0 ~ 5V control of the connection: the output signal received positive adjustment CP end of the output signal low-speed access negative (-) terminal



L fault relay output or an external switch to control K
LJKY-3FK (B)-torque motor control instrument wiring diagram

- Note: (1) II with J Series models in the moment when the only instrument to control external switch K closed in order to work properly, with the electric charge Step down.**
(2) II model of the moment with L controller to work, often in open relays, but there are failures such as over-current, closed relay output.

steps:

- (1) speed rotary knob to zero.
- (2) connected to the power of the total, opened instrument control (board) switches. (Bright light)
- (3) clockwise adjustment potentiometer speed control knob, the electrical voltage from low to high speed from slow to fast, so that the work required to achieve the speed through the Miriam control voltage meter can see the changes in voltage.
- (4) If the motor does not move, to cut off power, or any change output output of two lines can be normal operation.
- (5) If the constant tension closed-loop speed automatic and not in response to the speed, on-board adjustment W4 (4K7) potential, so that it matches the normal work.

Eight simple troubleshooting method

- 1, the electrical work does not sound normal speed imbalance.
 - (1) check the electrical wiring inside the box connection with Y-type, Δ -connection.
 - (2) If you previously used the factory LJKY-the-line torque motor control device, and then use LJKY-series 3FK (B)-torque motor controller, the motor must remove the focal point of zero line.
 - (3) check whether the power supply in line with the requirements of rated voltage.
- 2, controller (board) no-load test, as the motor and controller have a negative feedback principle, there is an increase in virtual voltage normal phenomenon, there is no need to adjust, into the post-load will be lost.
- 3, controller (board) was correct wiring, no electricity output voltage may be larger transportation projects in shock, caused by internal lines disconnected, dropped, and so on, can be directly linked with the factory.