DFY-6 Manual

Main function and technique index

The product is a multifunction detection and protection instrument, and it has the functions of calculagraph, count, voltage display, over\owe voltage protection, deficient phase protection, phase sequence protection. It adopts the MCU with strong function and non-easy storage technique. It has LCD with Chinese, intuitionistic and easy to operate. It can record running time, start times, error time, error times and so on, displays current power supply voltage, and can cut off the power supply to protect the controller when over and owe voltage, deficient phase, wrong phase occur.

It can be applied to detect and protect all kinds of elevators, hoists, travelling cranes, machine tools and other instruments which start frequently, and accumulate start times and running time correctly. Converting the accumulative time and times can estimates the abrasion state of instruments, meanwhile, it can detect the power supply, cut off the power supply when the power supply is abnormal, and record the error times and accumulative time. It is in order to supply the science gist, ensure the instruments running normally and enhance the instruments supervision.

Main function：

1. **Calculagraph and count:** Record the times of equipment start and the accumulative running time.
2. **Voltage display:** Display the current power supply voltage.
3. **Over load and owe voltage protection:** Cut off the power supply when the value of the voltage is too high or too low, the value can be set.
4. **Deficient phase protection:** Cut off the power supply when deficient phase occurs.
5. **Phase sequence protection:** Cut off the power supply when the phase sequence is error.
6. **Error record**： Record the times of error occurring and the accumulative time when error above occurs.

Main technique index：

- Max count capability：999999
- Max calculagraph capability：9999 hours 59 minutes
- Max count speed：5 per second
- Accumulative calculagraph error：≤0.01%
- Data keeping time：10 years
- Power supply：Three-phase 200V～450V AC
- Voltage display range：150～500V
- Voltage measuring precision：±1%
- Input signal：AC/DC 80V~400V Voltage signal
- Output contact capability：2A/250VAC
- Operating environment：temperature -5°C ~+45°C，humidity ≤85%
- Fix method：Embedded fix size 45x45x90mm
  Slideway lock fix

Operating Guide

Ⅰ Display

Generally, the middle of the LCD displays the current power supply voltage, above displays the value of calculagraph and times, you can press the “sel” key to display the “running times”, “running time”, “error times”, “error time” and so on.

Ⅱ Set the value of over voltage and owe voltage

Press the “sel” key and hold it for 2 seconds, the LCD displays “setting” and “over voltage”, and then you can press the key “▲” or “▼” to change the setting value of over voltage (“▲”adds 1V，“▼”minuses 1V，press and hold them over 0.5 seconds can add or minus rapidly) ; You can press the “sel” key again to set the value of owe voltage with the same way, and finally press the “sel” key again to exit the setting state.

Ⅲ Alarm

When the over and owe voltage, deficient phase, wrong phase occur, the LCD will display the “over voltage”, “owe voltage”, “deficient phase”, “wrong phase”, here the output contact is opened, and the controller record the error for 1 time and accumulate the error time.

Ⅳ Parameter set

The controller can adjust some internal parameter to meet all kinds of need. The parameter is supplied for special technologist, and common users don’t need to know. Please don’t change the internal parameter of the

controller casually, lest lead to the abnormity of the controller. Use the code to enter the state of parameter setting, the code is “up-down-up-down-up-up-down”，Press the key”▲”,”▼” continuously in the state of showing current temperature, and the time alternation can not be over 1 second，if the code is right, you can enter the state of parameter setting, here the nixietube shows “Fxx”，there into xx is a number，it means parameter code. Use ”▲” or ”▼” to select the parameter code，Pressing the “sel” key can make it to show the value of the parameter after select the parameter, here you use”▲” or ”▼” to set the parameter, then press the “sel” key to return to the state of showing parameter code after finishing setting.

Internal parameter code is showing below:

Sort	Code	Parameter Name	Range	Factory Setting	Unit	Remark
Voltage Setting	F11	The setting value of over voltage	380 -- 600	437	V	For example, over voltage alarm occurs when ≥437V, and resume when ≤435V; owe voltage alarm occurs when ≤304V, and resume when ≥306V
	F12	The setting value of owe voltage	100 -- 380	304	V	
	F13	Over voltage and owe voltage resume difference	1 -- 20	2	V	
Action Time	F21	Over voltage and owe voltage action time	0.1 -- 20	5.0	sec	All kinds of error can do nothing until they are keeping for the setting time.
	F22	Deficient phase action time	0.1 -- 20	3.0	sec	
	F23	Wrong phase action time	0.1 -- 20	1.0	sec	
Function	F80	Display the phase difference of CA and AB				
	F90	Reset				
	F91	The value of calculagraph and times reset				
	F00	Exit				

Wiring Diagram：