Changzhou Xionghua Tongtai Automation Equipment Co., Ltd

User's Guide

Jumping Fountain Jet Controller

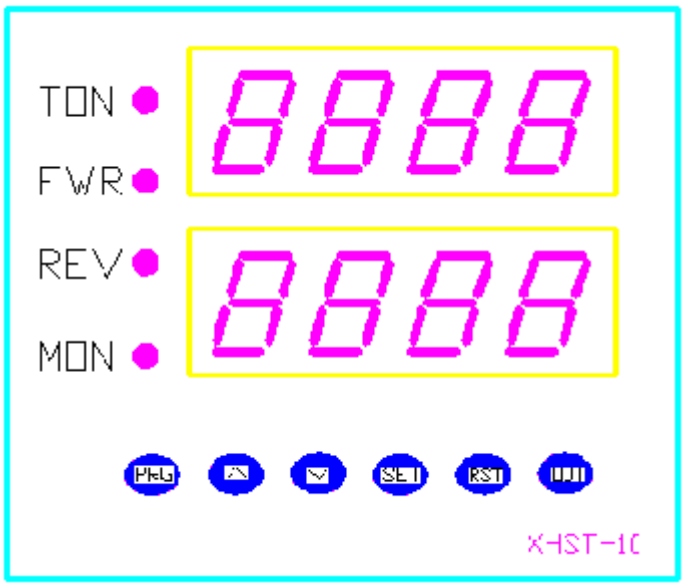
XHTQ-10

XHTQ-10 intelligent jumping fountain controller

Feature

Intelligent jumping fountain controller connects to 2 stepper motor drivers. The controller will form vital water output. The length and output speed of water segments can be controlled to form jumping fountains. The controller is easy to operate, and easy to modify.

The description of the panel and terminal



1：panel instruction

a.upper 4-digit ：

When the controller is working,the 4-digit show the program number

When the controller is at setting,the 4-digit show the parameter code

b. lower 4-digit:

When the controller is working, it show the time

When the controller is at setting, it show parameter value

c、Light TON and FEW indicate operating state of 1# and 2# motor

d. REV and MON indicate the output state of the motor(forward and reverse) indicator output state

e.[PRG]: press and hold PRG for 3 seconds ：enter or exit program mode.

f. [∧]和[∨]: up/down value or select code

g.[《/SET]: confirm the setting/ move the setting cursor

Press the button and hold, the cursor will move between the upper and lower display

Press the button to confirm the function mode or the value.

h. [RST/OUT]:support manually starting 1# and 2# motor

2： Terminal Function

a. L、N ： supply power AC220V，50Hz

b. X0、COM : connect the two terminal, the procedure will automatically run

X1、COM: after connecting X1 and COM, X2,X3 and COM will be useful to manually control 1# and 2# motor

c. 12V : 12V voltage output to the motor drivers

d. Y0、Y1：connect with 1# motor driver

Y2、Y3: connect with 2# motor driver

Function Code Table

Function code		Function Name	Information	Range	Factory set	Unit
LP-u		motor working speed	Adapt to any speed of the step driver	0-9999	1000	Hz
LP-n		rotation angle	From starting position to end position (the position of the barrier chip retaining water) Step angle * setting value = rotation angle	1-2000	20	pulse
LP-b		pulse number of rectification	Rectify the deviation when the barrier chip return to the starting position every time	0-9999	2	pulse
LP-bb		starting zero pulse	When the controller is power-on for the first time, it can fix the zero position of the barrier chip	0-9999	20	pulse
Stps		the numbers of water patterns	The number of the water pattern changes	60	6	nos
1# Setting	T 0	working time	The working time of the 1# program	0-999.9	20	1s
	C 0	Starting-time	the holding time of 1# program at starting position	0-999.9	3.0	0.1s
	P 0	End-time	the holding time of 1# program at end position	0-999.9	3.0	0.1s
	F 0	Output selection	wording point selection of 1# program	0-3F	3F	
2# Setting	T 1	working time	the working time of the 2# program	0-999.9	10	1s
	C 1	Starting-time	the holding time of 2# program at starting position	0-999.9	3.0	0.1s
	P 1	End-time	the holding time of 2# program at end position	0-999.9	2.0	0.1s
	F 1	Output selection	wording point selection of 2# program	0-3F	2A	

Function Information

1、motor working speed LP-u

It is the operation speed of the barrier-chip(blade) in the process of cutting the water column. It has a great relationship with the motor step-speed and the subdivs of the driver.

2、rotation angle LP-n

It is the angle of the barrier-chip(blade) rotating. The setting depends on the size of the blade and the position of the motor shaft.one controller give the same angles to the motors, so the all motors need be

same(the jumping jets need be same, if there is one big jet and one small jet, then you need two controllers but not just one controller for the two jet).

3、pulse number of rectification LP-b

When the blade returns to the starting position, to avoid the motor losing step during operating(more steps will lose for a long time), we set the pulse number of rectification.

4、starting zero pulse LP-bb

The position of the blade is uncertain when it is power-off,so to make sure the blade can return to the starting position when it is power-on, we set the starting zero pulse

5、the numbers of water patterns Stps

Set the quantity of the water patterns

6、working time

The working time of one water pattern. It will be integer multiple of starting-time and end-time

7、Starting-time

Starting-time is how long the blade will stay at the starting position and it is longer than 0.5s

8、End-time

End-time is how long the blade will stay at the end position and it is longer than 0.5s

9、Output selection

Output selection is how many jumping jet will be controlled

the rights and interests protecting function

code	function	range	unit	remark
T 59	Enter the password	0—9999	—	Enter 4321,then set the dates, after setting, change the password
T 60	Set the halt time	0—9999	hour	the value in excess of 6000. the timing halt function will be invalid
C 60	Actual working time	0-999.9	hour	Actual time means that stop working after halt time but the manual function in useful

the steps of date setting

step	operation	display	remark
			Status display when power on
1	PRG Press and hold for 3s	Lp-u	Motor working speed
2	SET Press and hold for 1.5s	1000	Set the motor working speed
3	∧ and ∨ 》/SET	0500	Set the motor working speed
4	SET Press and hold for 1.5s	Lp-u	Save the setting
5	∧ and ∨ 》/SET	Lp-n	Select the function code and the valve need to be changed

Installation

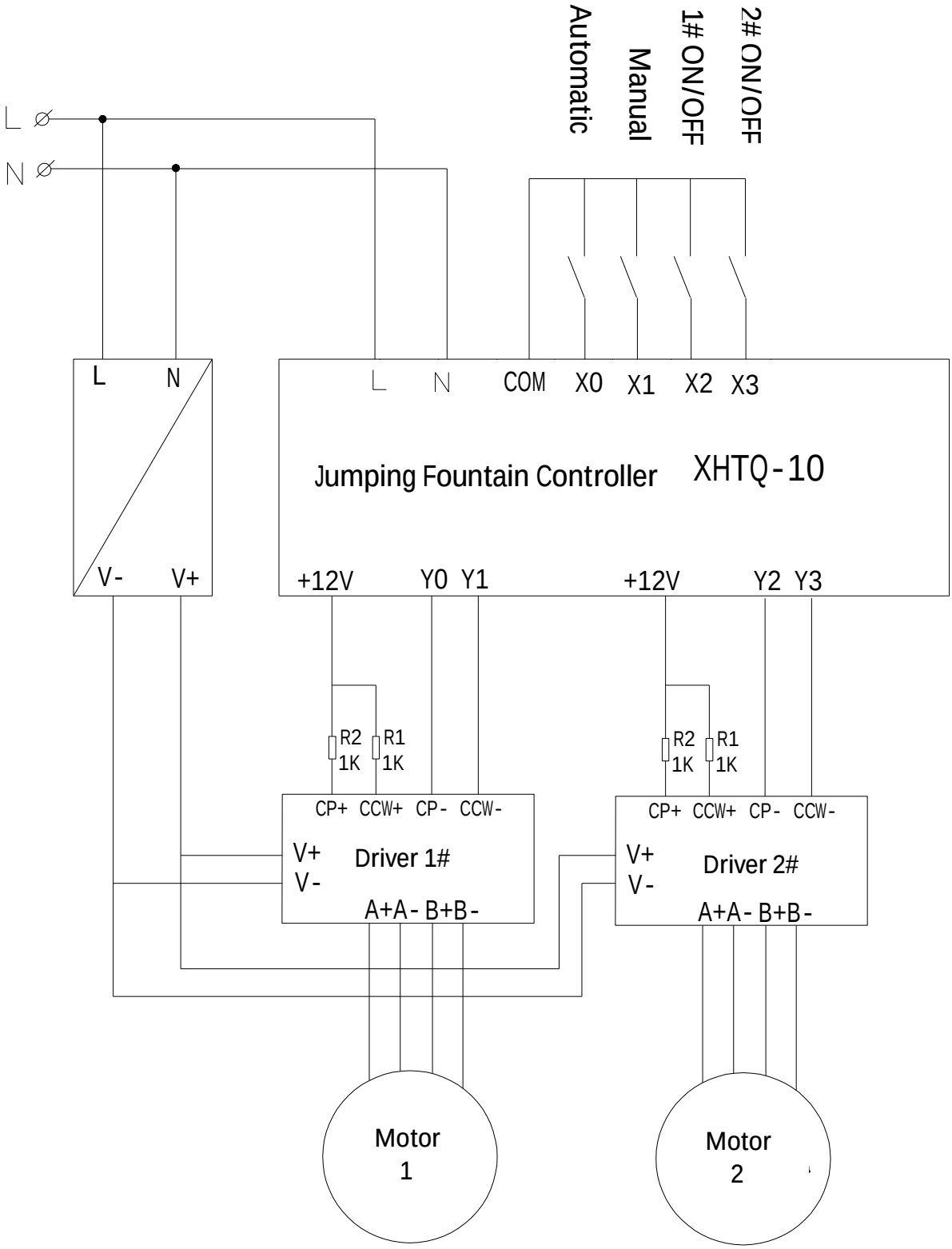
XHST-10

External size 72*72*130

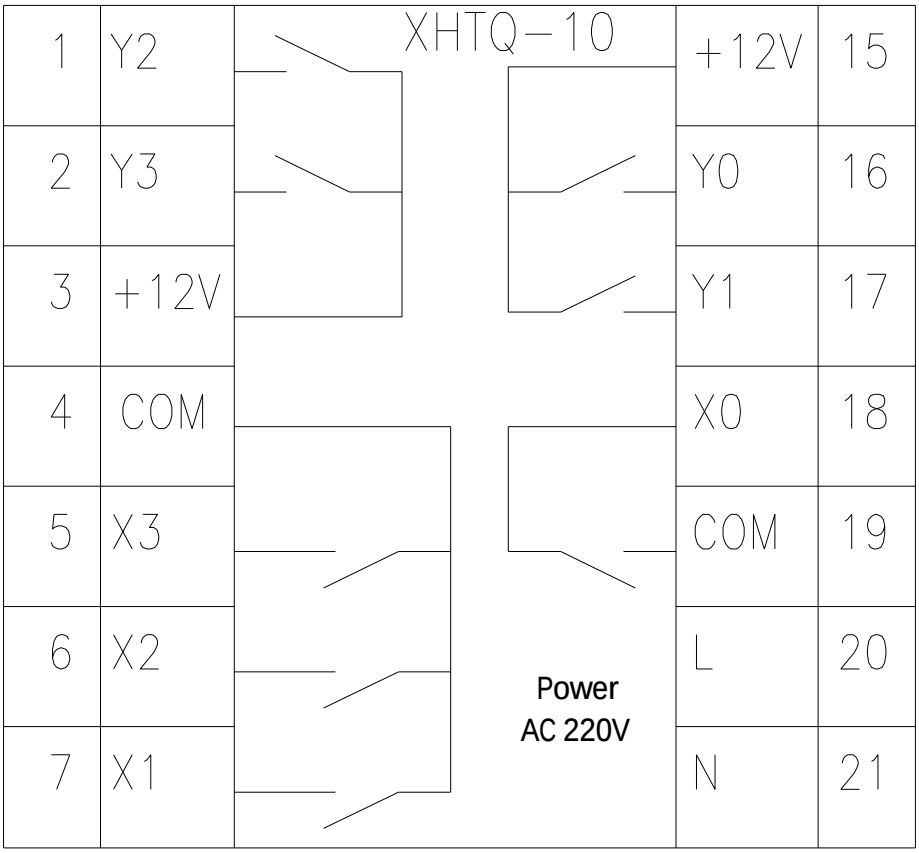
Installation type : mount on the panel of the cabinet

Perforate size : 69*69

Typical Diagram



Terminal


XHTQ-10
1
Y2
2
Y3
3
+12V
4
COM
5
X3
6
X2
7
X1
+12V
15
Y0
16
Y1
17
X0
18
COM
19
L
20
N
21
Power
AC 220V