controlling of escalator·····

1. Requirement

Escalator system is controlled by using FAB, which is dragged via three phase asynchronies for 11KW. It can go up and down (each other interconversion). Also it requires safe emergency function, detection function and floodlight.

2. FAB Solution

When pressing the up button, the system is activated with star startup For 2.5 seconds and the up contactor, running contactor, protective Contactor and lighting contactor are triggered. Here if pressing the emergency switch, lighting contactor is turned off delay 2 seconds and the above other outputs are turned off immediately.

When pressing the down button, the down contactor is activated and the up contactor is turned off, others are as above.

When pressing the service switch escalator is in detecting status, regardless of pressing up or down contactor, escalator only runs with star startup mode and can't run with angle running mode, others are as above.

3. Components used

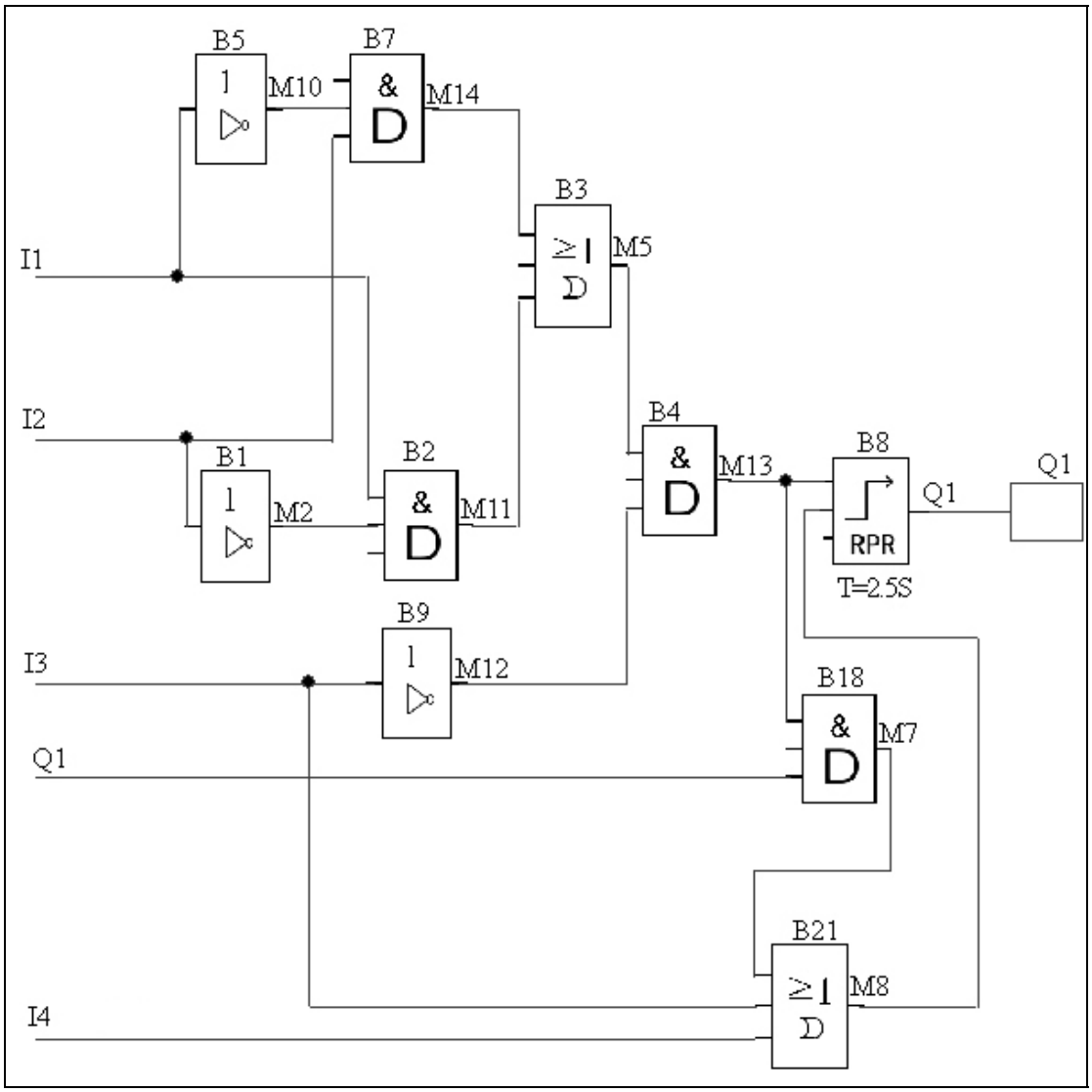
Input	Output
I1 Up button(NO contact)	Q1 Angle running contactor for motor
I2 Down button(NO contact)	Q2 Star startup contactor for motor
I3 Service switch(NO contact)	Q3 Up contactor
I4 Emergency/reset switch(NO contact)	Q4 Down contactor
	Q5 Running contactor
	Q6 Protective contactor
	Q7 Lighting contactor

4. Advantages and Specialties

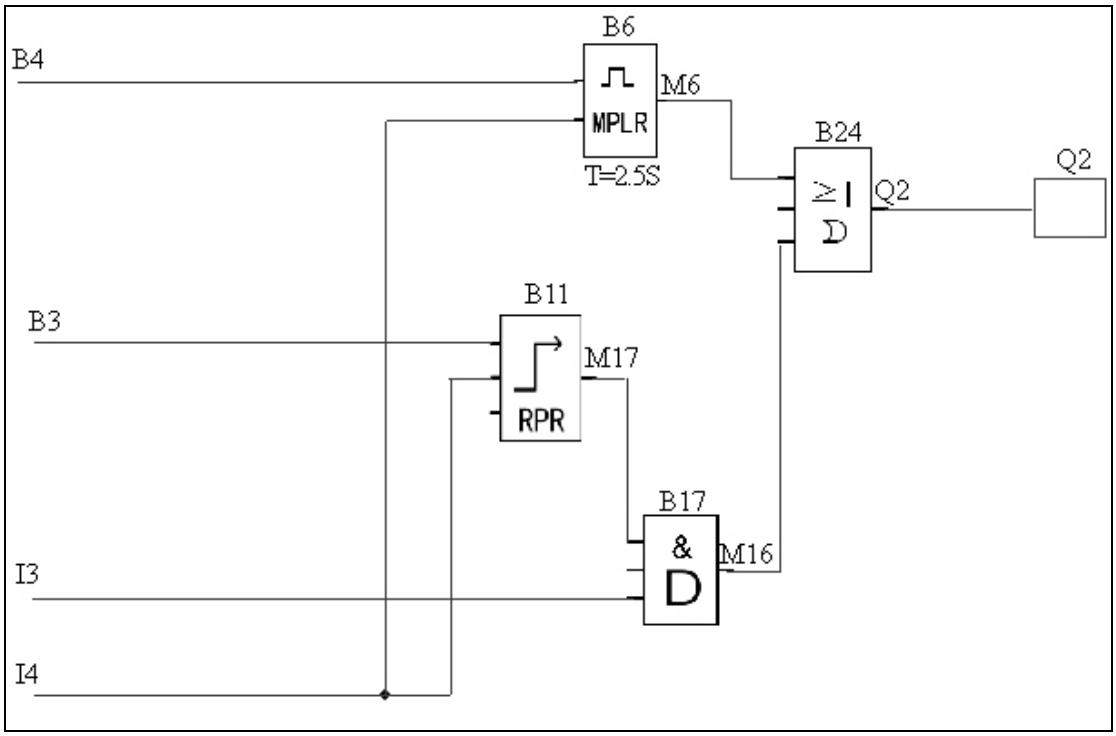
Fewer components are necessary than the traditional solutions. It resolves many problems as complicated control, promiscuous routing, difficult detection etc.

5. Software Circuit Diagram

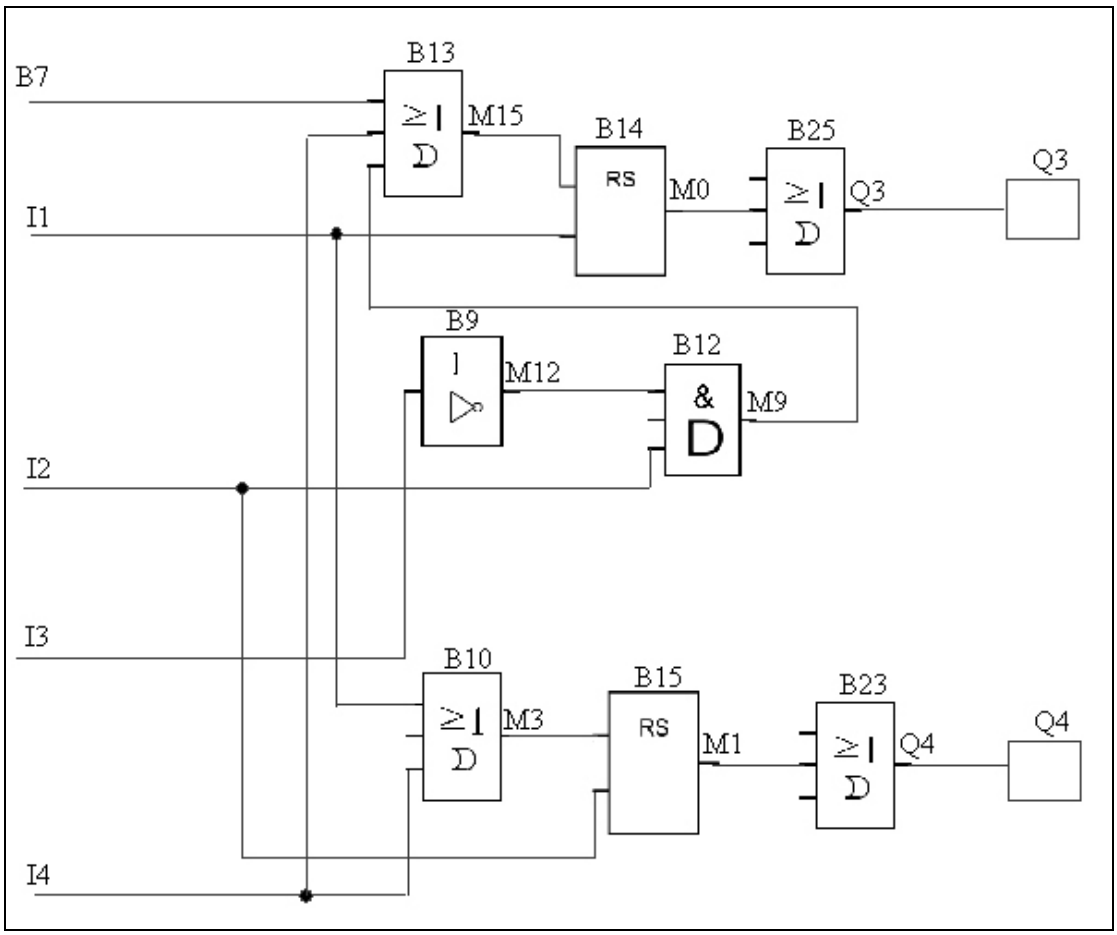
Part I·····



Part II·····



Part III·····


B7
B13
≥1
D
M15
B14
RS
M0
B25
≥1
D
Q3
Q3
I1
B9
1
M12
B12
&
D
M9
I2
I3
B10
≥1
D
M3
B15
RS
M1
B23
≥1
D
Q4
Q4
I4

Part IV·····