

Continuous capacity utilization of 3 loads.....

1. Requirements

A group of 3 similar loads is switched on by using of SR. Two loads of them must always be operation at the same time. To ensure equal abrasion of 3 loads, they must be alternately switched on and off.

Each load has an interrupt output, which is connected to a package interrupt. Provided one of them has faults and instant is switched off, and the other two loads are in operation.

2. SR Solution

The procedure for continuous capacity utilization of 3 loads is as follows: first loads 1 and 2 (QA0 and QA1) are in operation, then loads 2 and 3 (QA1 and QA2), then loads 1 and 3 (QA0 and QA2). This procedure is continuously repeated (beginning with QA0 and QA1). The loads are in operation for the set times (e.g. 3 seconds). The procedure is started by an inverted latching relay. When the voltage is recovered the system starts independently (initial condition). If a fault occurs with load 1 it is switched off via interrupt input 1 and loads 2 and 3 is switched on simultaneously. The fault is indicated via the group interrupt QA3. When the fault has been modified and the confirmed button has pressed, SR return to the initial condition, the procedure start again beginning with QA0 and QA1.

If loads 2 and 3 have a fault, the solution is as stated above.

3. Components used

Input	Output
IA0 Interrupt input of load 1 (NO contact)	QA0 Load 1
IA1 Interrupt input of load 2 (NO contact)	QA1 Load 2
IA2 Interrupt input of load 3 (NO contact)	QA2 Load 3
IA3 interrupt confirmed button (NO contact)	QA3 Output of group interrupt

4. Advantages and Specialties

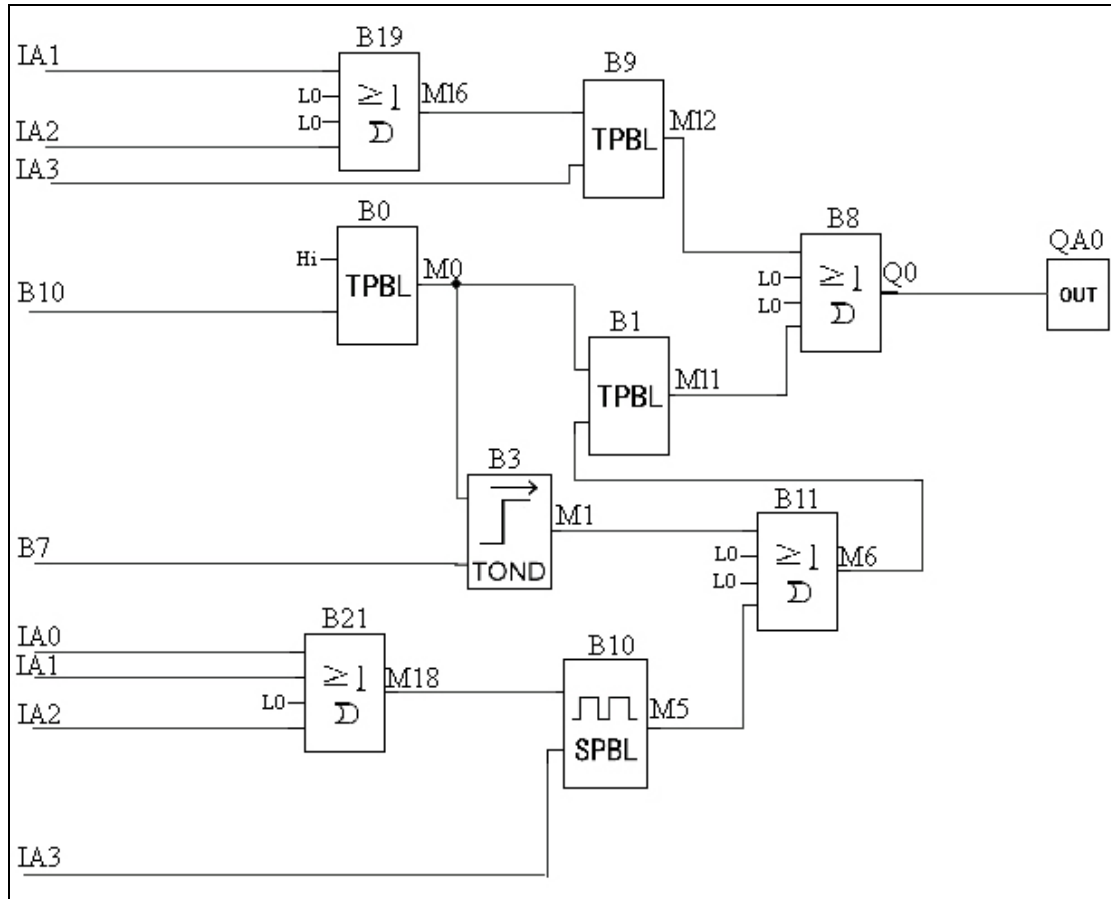
The solution can be used for any loads.

The operating times of the loads can be changed as desired.

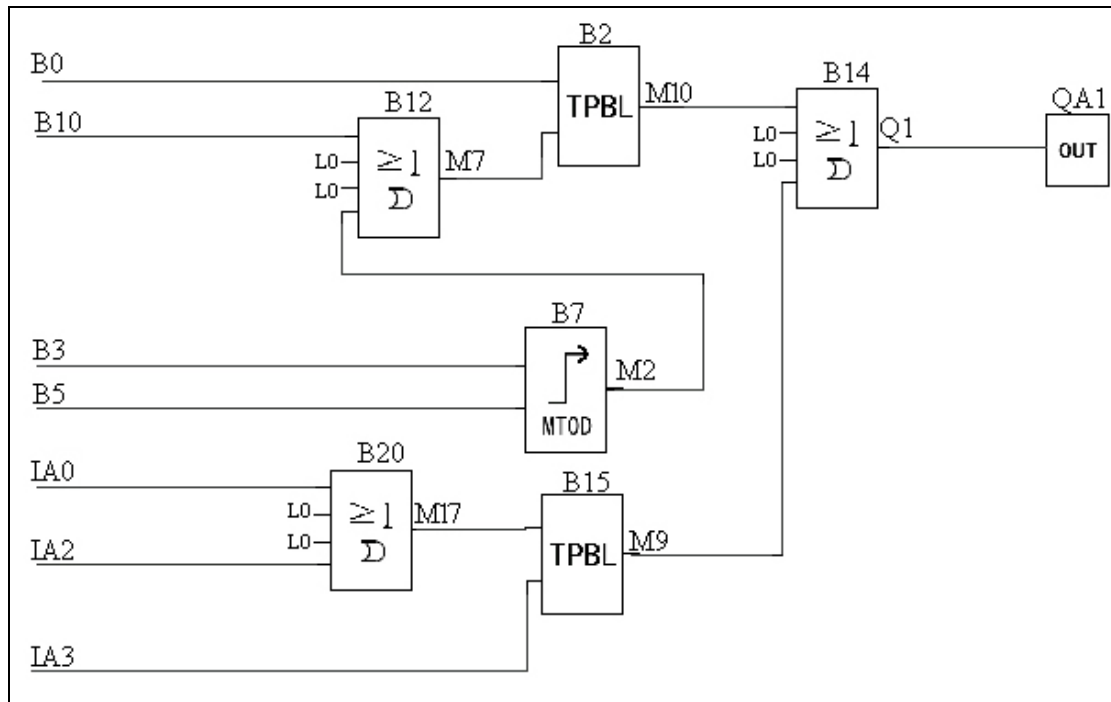
Fewer components are necessary than the traditional solutions.

5. Software Circuit Diagram

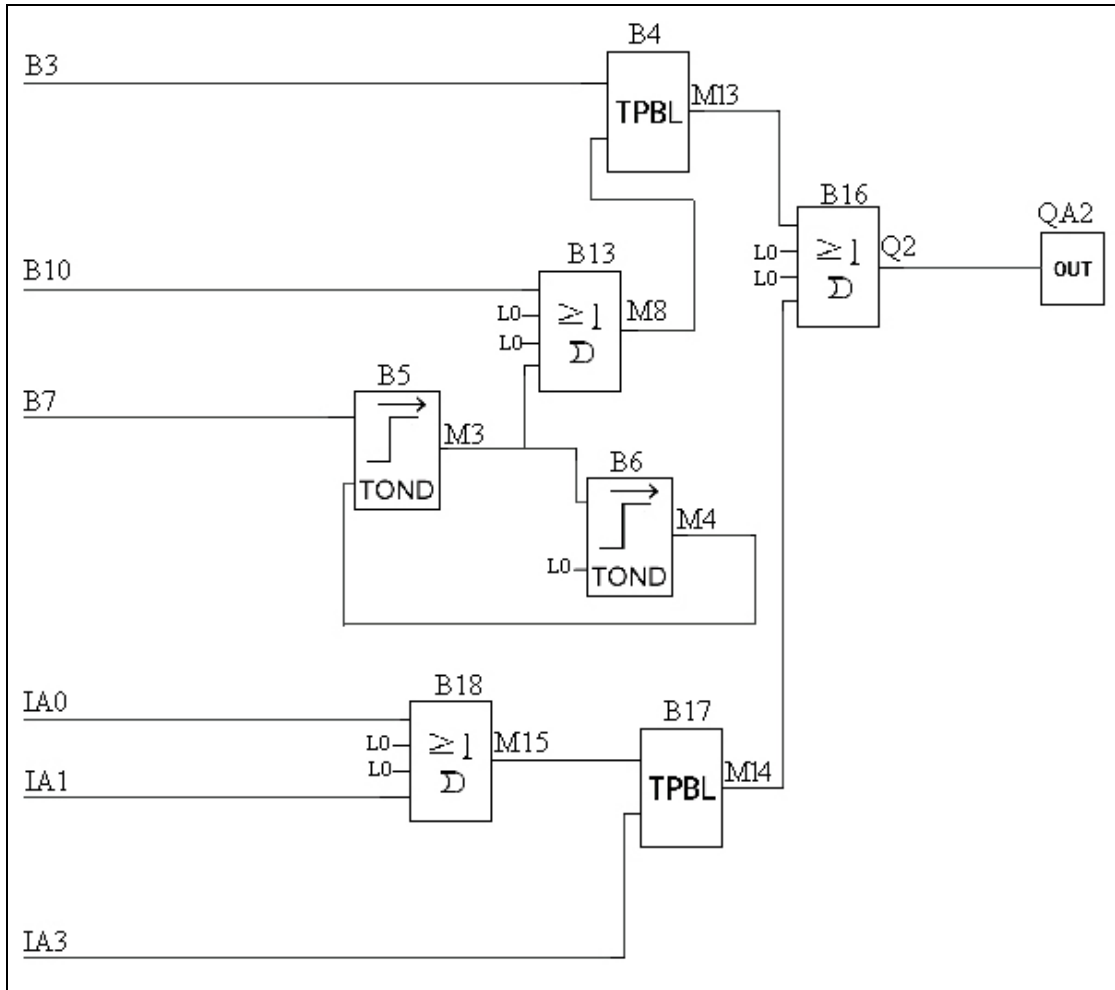
Part I



Part II.....



Part III.....



Part IV.....

