How to troubleshoot my contactor if it does not open ?

I- Type of publication

- [ ] Typical application
- [ ] Best know Method (BKM)
- [x] Troubleshooting guide
- [ ] Level 2 use
- [ ] Internal use
- [x] Customer

II- Product

- Product range : Contactor

- Product family : TeSys K,D,F,CCV

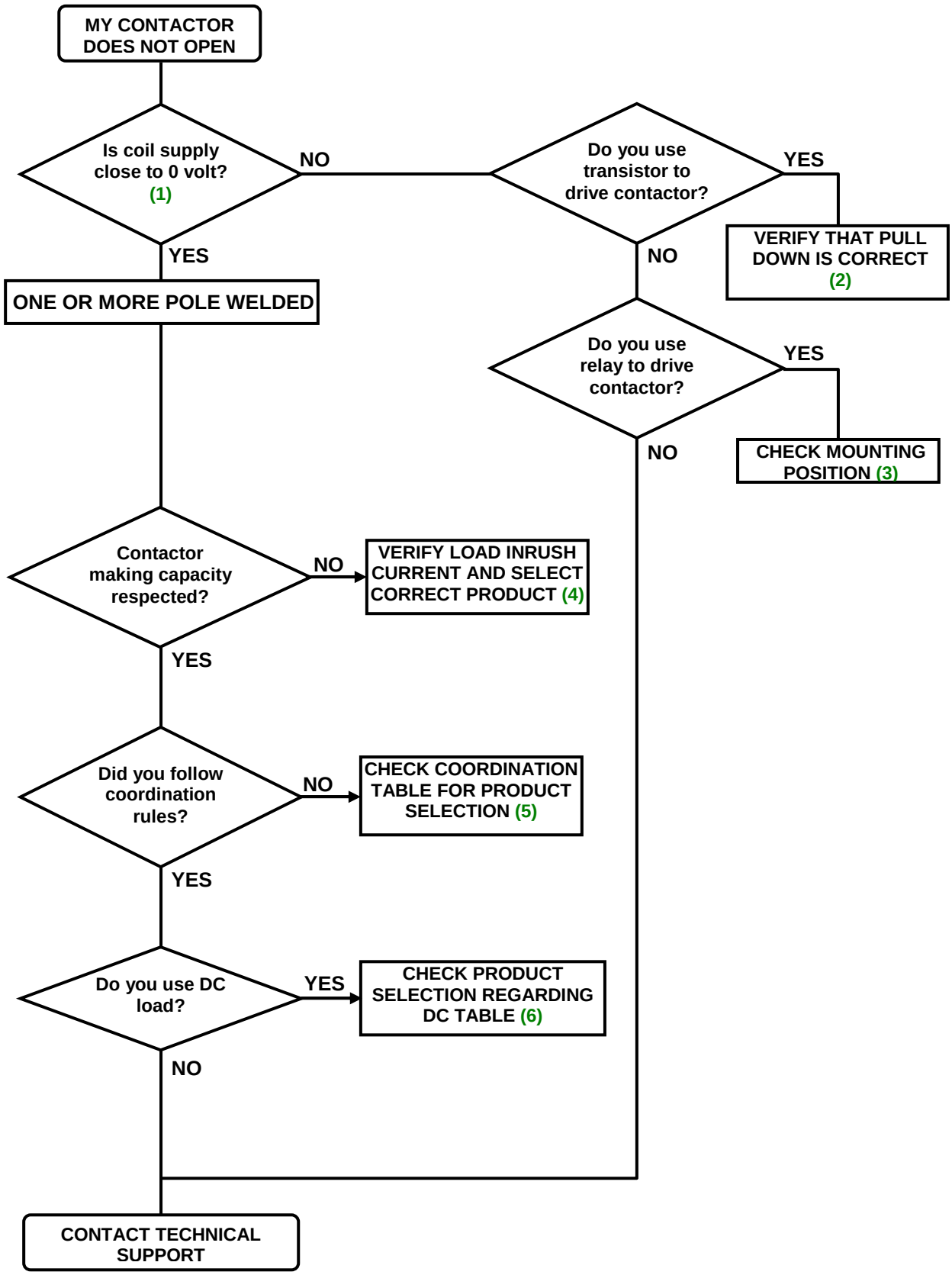
III- Introduction

Use this troubleshooting guide in this case: contactor successfully closed but on stop order (remove voltage on coil) the power is still applied, even partially, to the load.

Tools required :

- A controller to check voltage
- A screw driver

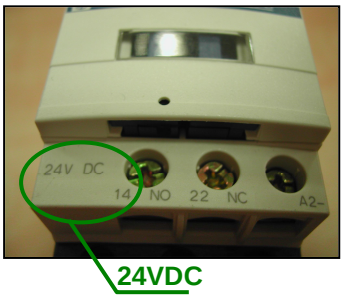
IV- Description



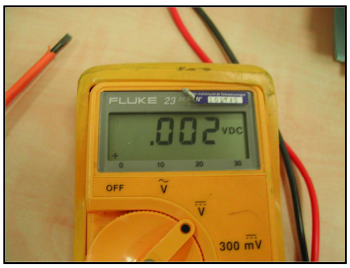
(1) Coil supply is close to 0 volt

Check coil voltage:

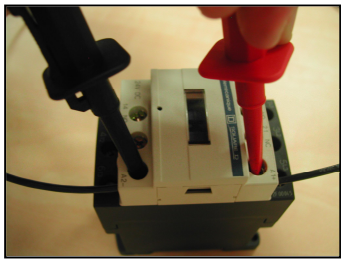
a) Look after your coil range:



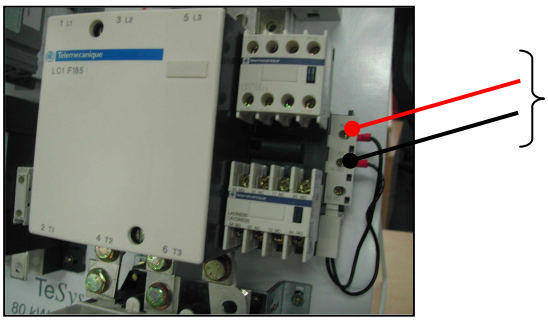
c) Measure:



b) Put your probe on coil terminal A1 A2:



Note: you can make the same job for a TeSysF but the multi meter is not connected on the same points:

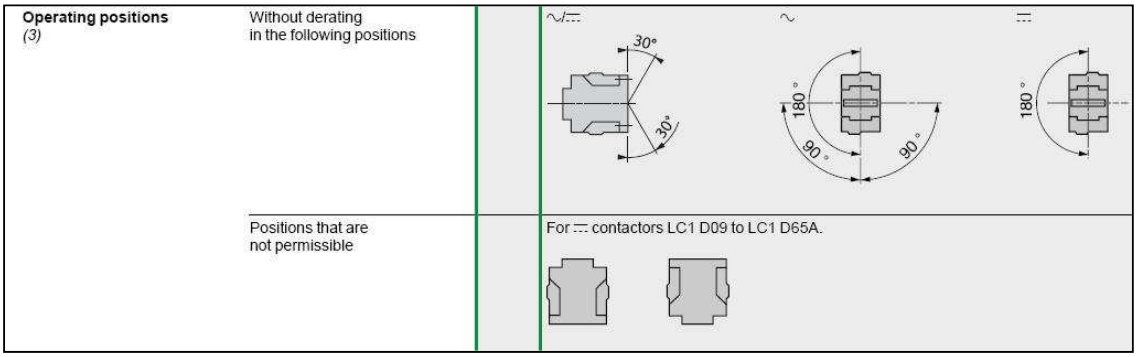


(2) Verify that pull down is correct

You should not have a residual voltage on your coil. In this case, you may not open completely the contactor even if the voltage is lower then the minimum “operating voltage“ value.

(3) Check mounting position

You should be in the correct position see pictures bellow



(4) Verify load inrush current and select correct product

You will have to verify that inrush current level does not exceed the making capacity of your contactor. For this you will have to refer to technical information of your contactor.

(5) Check coordination table and product selection

You will have to verify that your contactor is correctly sized in regards of your application and coordination level you want. For this you will have to refer to technical information provided by coordination table.

(6) Check product selection regarding DC table

You will have to verify that current level does not exceed the breaking capacity of your contactor in DC application. For this you will have to refer to technical information provided in DC table.