International University of Ecuador

School of Mechatronics Engineering

Industrial Automation Lab's report practice No. 1

CADeSIMU Software and circuits implementation.

Authors:
Sebastian Osorio
Pablo Guacho

2022-2023

CADeSIMU software and circuits implementation*

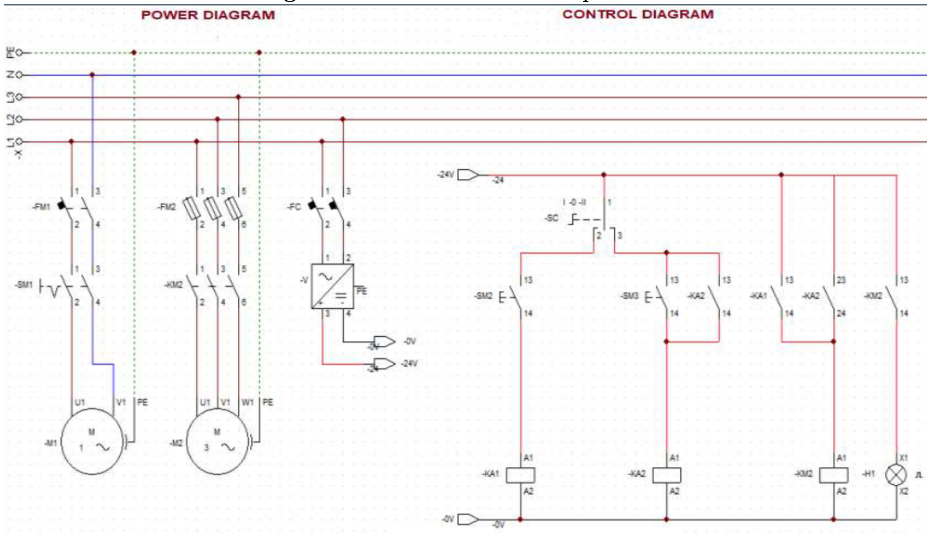
Sebastian Osorio[1][0000−0003−0106−5482] and Pablo Guacho[1][0000−0003−0106−5482]

International University of Ecuador, Quito Av. Jorge Fernández and Av. Simón Bolívar 170201, Ecuador uide@uide.edu.ec https://www.uide.edu.ec/

1 CADeSIMU

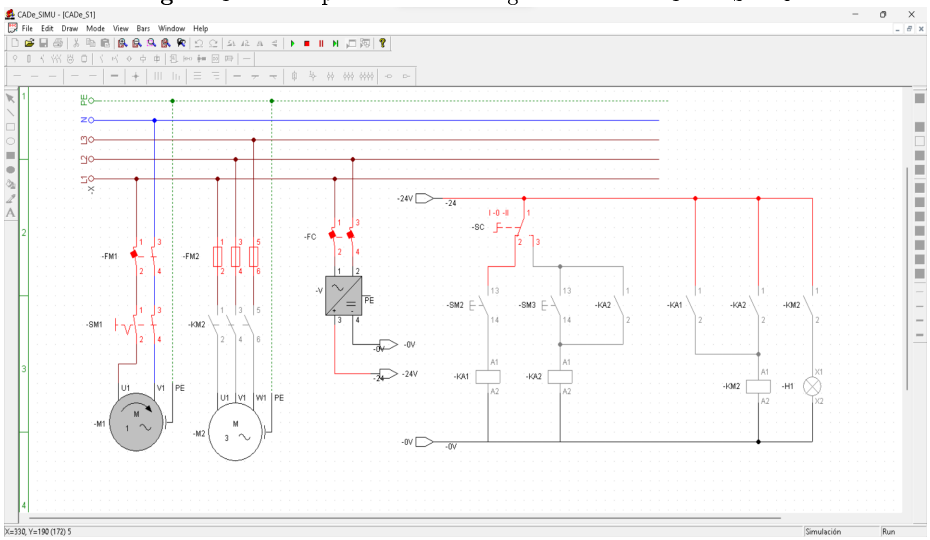
- Using CADeSIMU software, implement the following circuit.Fig 1
- Place the correct referencing, numbering, labeling, location in the circuit to be simulated. Explain how the circuit would work.
- Submit: Electric diagram implemented in CADeSIMU software in pdf format, CADeSIMU program in cad format.
- Make a summary table, indicating: nomenclature, symbols and a real image of each of the elements present in the scheme or diagram.
- Comment on the importance of labeling the terminals of the elements, contacts, coils, terminal blocks and connection cables in a control panel and electrical diagrams under the standard indicated in the previous literal.

Fig. 1. Circuit meant to be replicated.



* UIDE

Fig. 2. Circuit replicated and being simulated in CADeSIMU



1.1 Summary of the circuit components

Table 1: Components summary.

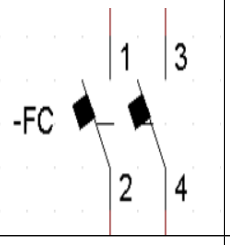
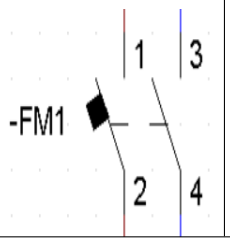
No	Name	Nomenclature	Symbol	Real Image
1	Automatic Switch II	-		AutomaticSwitchII
2	Automatic Switch IN	-		AutomaticSwitchIN

Table 1 continued from previous page

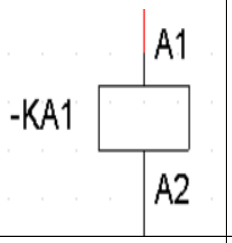
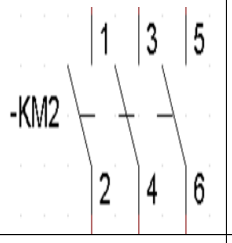
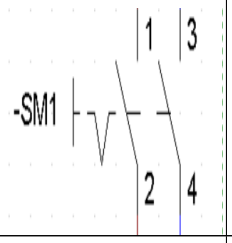
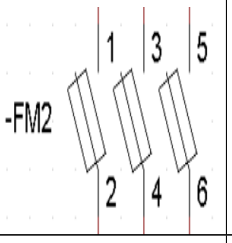
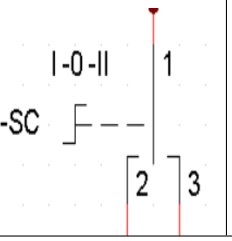
No	Name	Nomenclature	Symbol	Real Image
3	Coil contactor relay	-		CoilContactorRelay
4	Contactor III	-		ContactorIII
5	Double Interruptor	-		doubleInterruptor
6	Fuse III	-		FuseIII
7	I O II Switch	-		I_0_II_Switch

Table 1 continued from previous page

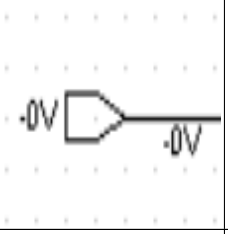
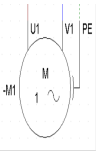
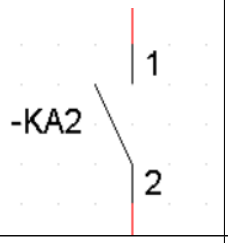
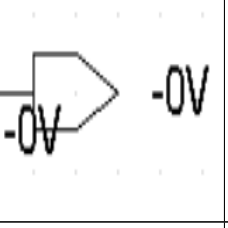
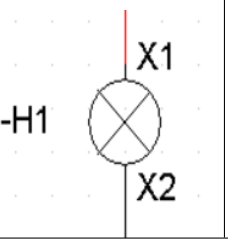
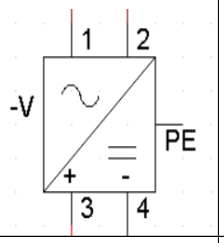
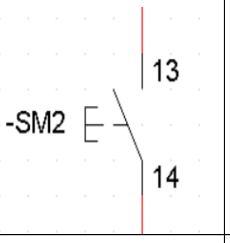
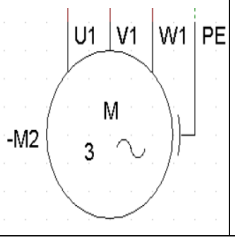
No	Name	Nomenclature	Symbol	Real Image
8	Input Conector	-		inputConection
9	Mono-Phase Motor	-		monoPhaseMotor
10	N-O Contact	-		NO_Contact
11	Output Conector	-		outputConector
12	Pilot Signal	-		PilotSignal

Table 1 continued from previous page

No	Name	Nomenclature	Symbol	Real Image
13	Power supply	-		powerSupply
14	Push button	-		pushbutton
15	Three phase motor	-		ThreePhaseMotor

2 Conclusions and recommendations

Building a circuit using CADeSIMU software allows us to simulate any circuit and see if it works properly. However, it is important that the labeling of the terminals of: the elements, contacts, coils, terminal blocks and connection cables are used correctly hence it helps to comprehend these diagrams.