Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Quiz 4 (Build):\_\_\_\_\_\_\_\_

**See the document below for Reference:**

https://grace.bluegrass.kctcs.edu/~mbinzer0001/shared\_files/EET272\_Motor\_Controlls\_II/Folder\_Labs/PLC\_Lab4post-Quiz4\_VFD\_FRMS.pdf

***Below is a list of the VFD Setting you will need to change to make this work:***

|  |  |  |  |
| --- | --- | --- | --- |
|  | ***Parameter*** | ***Setting*** | ***Function*** |
|  | ***B084*** | ***02*** | ***Then “3-Finger Salute” to Reset the Drive Parameters*** |
|  | ***A001*** | ***01*** | ***Use External Trim-Pot to set the Motor Speed*** |
|  | ***A002*** | ***01*** | ***Use External controls to control operation*** |
|  | ***A051*** | ***01*** | ***Enable DC injection Braking*** |
|  | ***A054*** | ***80*** | ***Set DC injection power to 80%*** |
|  | ***C001*** | ***20*** | ***Multi-Function Input 1 Selection to STA (3-Wire Start)*** |
|  | ***C002*** | ***21*** | ***MFI 2 Selection to STP (3-Wire Stop)*** |
|  | ***C003*** | ***22*** | ***MFI 3 Selection to F/R (3-Wire For/Rev)*** |
|  | ***C004*** | ***07*** | ***MFI 4 Selection to DB (External DC Injection Break)*** |
|  | ***C005*** | ***12*** | ***MFI 5 Selection to EXT (External- Trip Friction Brake)*** |
|  | ***C015*** | ***01*** | ***MFI 5 Operation Selection to NC (Trip to act on a low voltage)*** |
|  | ***C021*** | ***00*** | ***MF Output Terminal P1 selection: RUN (Signal during Run)*** |
|  | ***F002*** | ***5.00*** | ***Set Forward Ramp-up time to 5 seconds*** |
|  | ***F003*** | ***8.00*** | ***Set Reverse Ramp-up time to 8 seconds*** |

***Wiring issues:***

**\_\_\_\_We will use an external Pot to control the speed of the motor. This POT is on the DC Drive modules and has the terminals Z1, Z2, and an arrow (↑) for the “Wiper.” Connect Z1 to FS using YELLOW WIRE, Connect the Wiper to FV using BLUE WIRE and connect FC to PC and Z2 using BLACK WIRE.**

**\_\_\_Wire the Friction Break as in Lab 1-5.**

**\_\_\_Use Black wire for the PC, FC/Z2 connections**

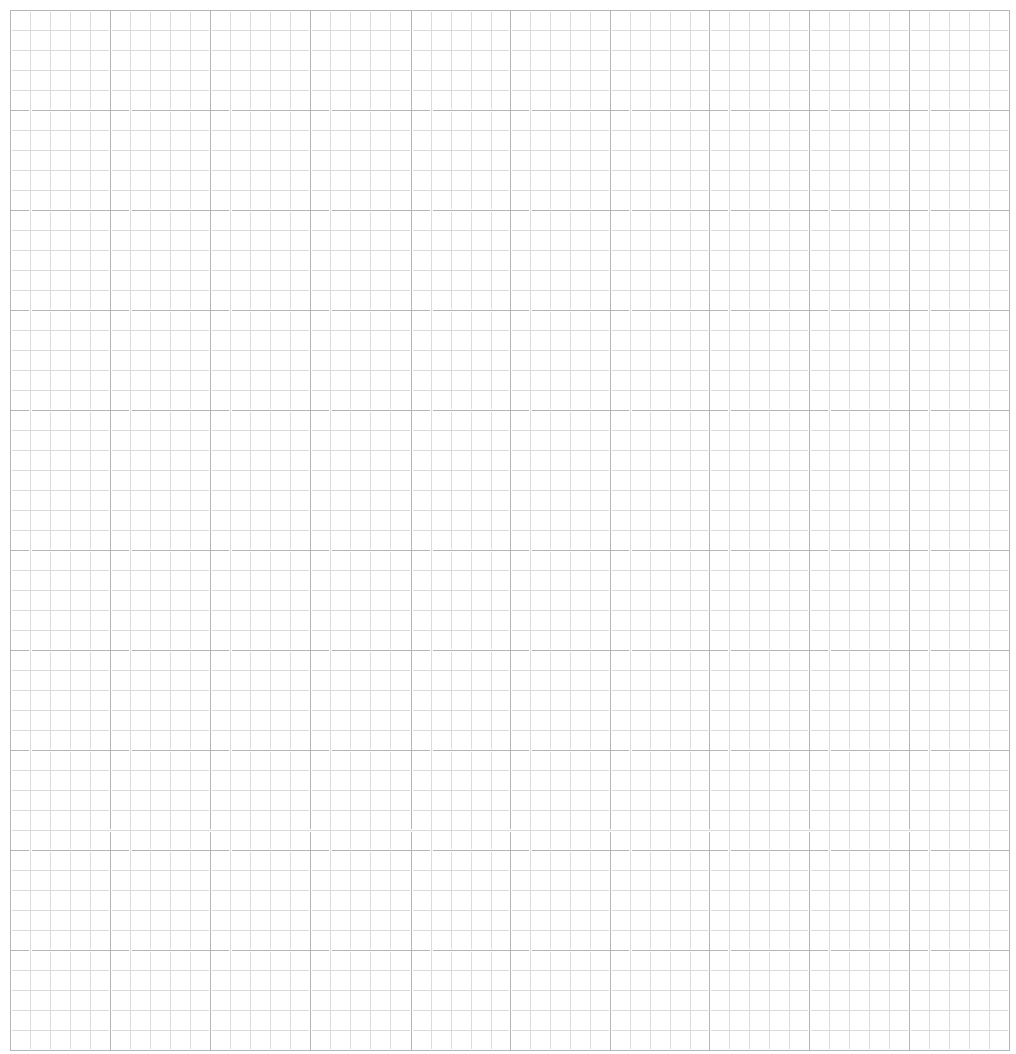
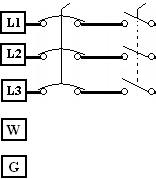
**\_\_\_Use RED WIRE for any connection to P24V**

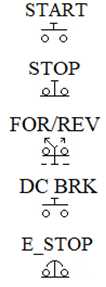
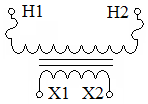
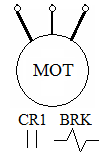
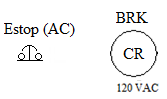
**\_\_\_Use BLUE WIRE for P1 to Run Light and all “S” Connection (S1, S2…).**

**\_\_\_Use the Green Light for the Run Light.**

***Instructor Approval:***

|  |  |  |  |
| --- | --- | --- | --- |
| ***Layout is organized*** | ***Wire Colors are correct*** | ***Circuit Operates as it should*** | ***B084 System Reset Completed*** |

******

******