FC62 - <offline>

"FC_LIFTER_AZ"

Name: Family: Author: Version: 0.1 Block version: 2 10/07/2022 03:59:56 PM Time stamp Code:

09/13/2022 12:45:37 PM

Interface:

Lengths (block/logic/data): 00610 00460 00006

| Name | Data Type | Address | Comment |
|-------------|-----------|---------|---------|
| IN | | 0.0 | |
| OUT | | 0.0 | |
| IN_OUT | | 0.0 | |
| TEMP | | 0.0 | |
| val_tmp | Int | 0.0 | |
| abs_val_tmp | Int | 2.0 | |
| RETURN | | 0.0 | |
| RET_VAL | | 0.0 | |

Block: FC62

L1_A - table axis for load unload parts

L2_Z - table axis moving up/down

3 fixed speeds from inverter:

For L1_Z: S1 - 10Hz S2 - 30Hz For L1_A: S1+S2 - 5Hz

Network: 1



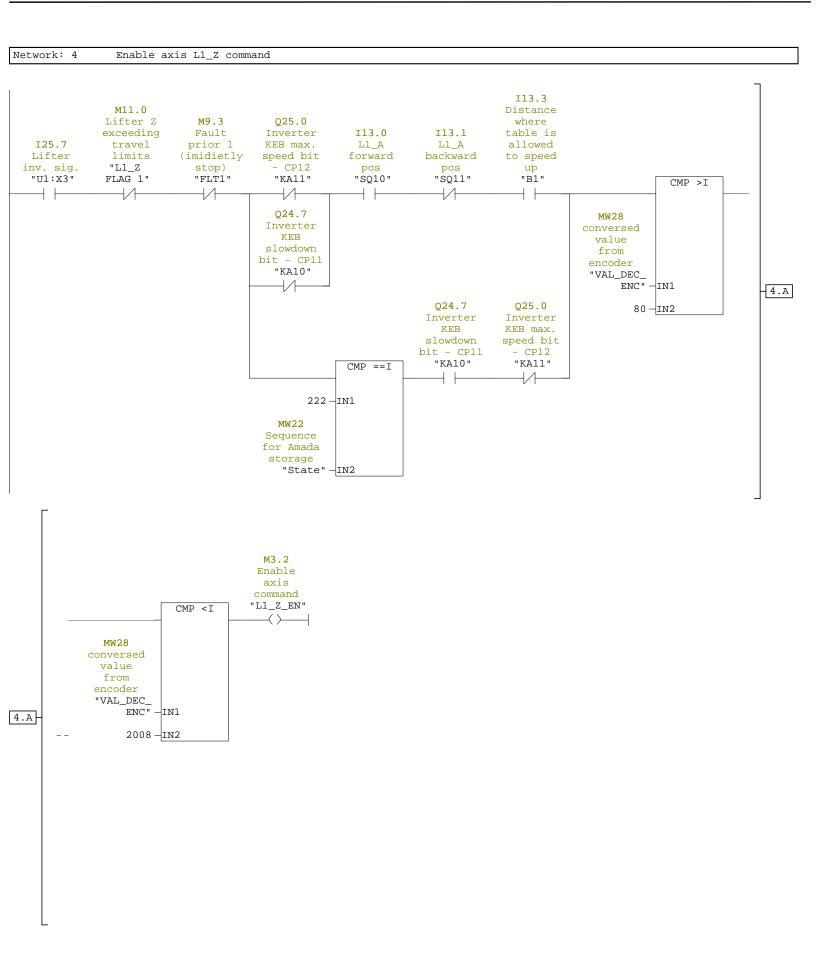
| Network: 2 | ====Lifter L1 motor command===== |
|------------|----------------------------------|
| | |

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Network: 3 Enable axis L1_B command M10.2 M10.2 Allowed Allowed Q25.0 Q24.7 approach approach M3.2 pos Inverter Inverter pos M11.1 125.7 Enable un/load KEB un/load Enable KEB max. Lifter speed bit M0.0 slowdown axis adapter adapter axis "L1_A_ AppPos" inv. sig. ${\tt command}$ - CP12 bit - CP11 "L1_A_ "AlwaysFAL command "U1:X3" "L1_Z_EN" "KA11" "KA10" AppPos" SE" "L1_A_EN" 1/1-4 + +() M10.3 Allowed pos for un/load adapter "L1_A_Pos"

+

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```
Network: 5
```

```
Network: 6 L1_Z motor on up - KA9
```

```
м3.3
                                          Q24.5
               Set
              memory
                                        Lifter 1
                                                                     Q24.6
 M3.2
               for
                                         Z down
                                                                   Lifter 1
                                                                    Z up
Enable
             running
                                        motor ON
                                                                   motor ON
                                          - KA8
  axis
             L1_Z up
                                         "L1_Z_
command
            "L1_Z_Up_
                                                                    - KA9
"L1_Z_EN"
              mem"
                                         Down"
                                                                   "L1_Z_Up"
                                                      CMP <=I
                                                                     \prec > \longrightarrow
                           CMP ==I
                                          MW28
                                        conversed
                                          value
                     11 -|IN1
                                          from
                                         encoder
               MW22
                                         "VAL_DEC_
                                             ENC" -IN1
             Sequence
             for Amada
                                              2003 -IN2
             storage
                "State" -IN2
```

Network: 7 TIMEOUT Z AXIS - not moving

```
M3.3
                                     DB126.DBX1
  Set
                                       .1
-1- *
 memory
  for
               T10
                                     Fault 10 *
 running
                                        "DB_
L1_Z up
             "T_L1_Z_
                                      FAULTS".
               BF"
"L1_Z_Up_
 mem"
                                       FLT10
              S_ODTS
                                        (s)—
                    Q
   S5T#1S-TV
                   BI -
                  BCD
           –R
```

Network: 8

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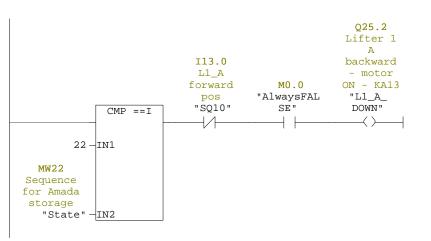
```
M3.4
                                                                  Q24.5
               Set
                                        Q24.6
              memory
                                                                Lifter 1
 M3.2
               for
                                      Lifter 1
                                                                  Z down
                                        Z up
                                                                 motor ON
Enable
             running
                                      motor ON
 axis
            L1_Z down
                                                                  - KA8
command
             "L1_Z_
                                        - KA9
                                                                 "L1_Z_
"L1_Z_EN"
           Down_mem"
                                      "L1_Z_Up"
                                                                  Down"
                                                    CMP >=I
                                                                   <>>
                          CMP ==I
                                         MW28
                                      conversed
                                        value
                     1-IN1
                                        from
                                       encoder
              MW22
                                       "VAL_DEC_
                                            ENC" -IN1
            Sequence
            for Amada
             storage
                                              85 -IN2
               "State"—IN2
```

L1_Z motor on down - KA8

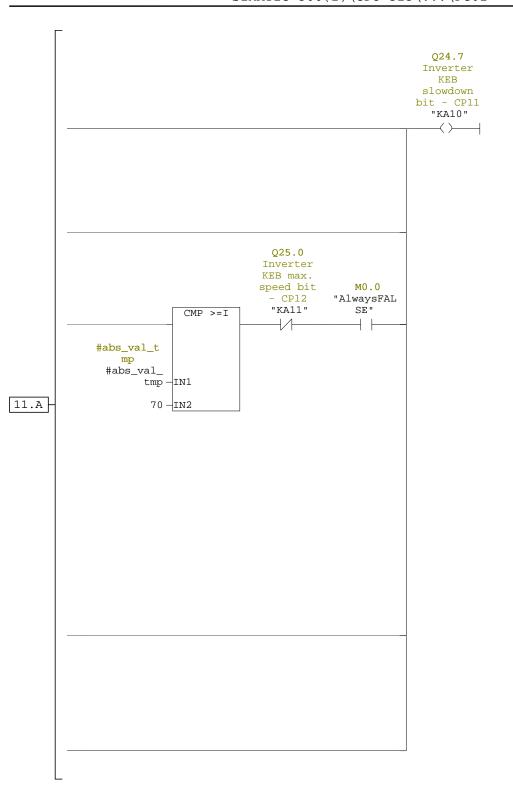
Network: 9 motor L1_A

```
Q25.1
 I13.1
                                       Lifter 1
 L1_A
                                       A forward
backward
               M0.0
                                        - motor
           "AlwaysFAL
                                       ON - KA12
  pos
 "SQ11"
               SE"
                                       "L1_A_FWD"
  1/1-
                                          <>---
```

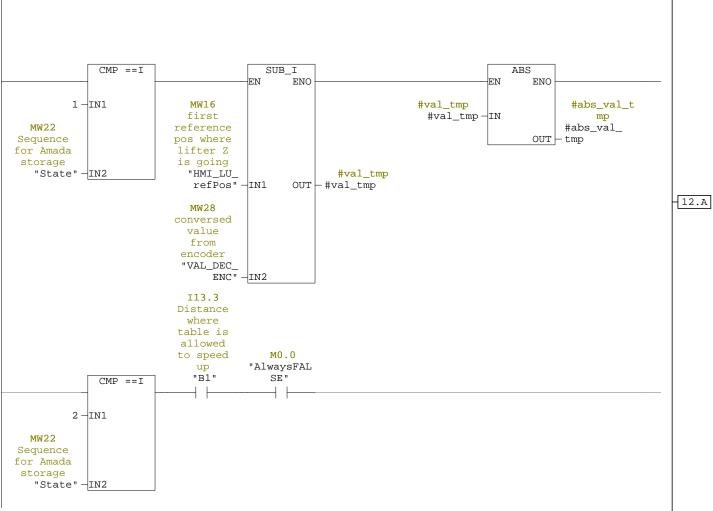
Network: 10 mot L1_A bwd ?



Network: 11 Inverter KEB slowdown bit - CP11 M3.6 M3.5 Set L1_Z Set L1_Z axis axis slow normal speed speed "L1_S1_ "L1_S2_ set" set" 4/1 \dashv \vdash M3.6 Set L1_Z axis normal speed "L1_S2_ set" CMP ==I SUB_I ABS EN ΕN ENO ENO 1-IN1 MW16 #val_tmp #abs_val_t first #val_tmp -IN mp MW22 #abs_val_ reference Sequence pos where OUT - tmp for Amada lifter Z 11.A is going storage "State" -IN2 "HMI_LU_ #val_tmp refPos"-IN1 OUT - #val_tmp MW28 conversed value from encoder "VAL_DEC_ ENC" -IN2 I13.3 Distance Q25.0 where table is Inverter allowed KEB max. speed bit MO.0 to speed - CP12 "AlwaysFAL up "B1" "KA11" SE" CMP ==I 1/1-I13.3 2 -IN1 Distance where MW22 table is Sequence allowed for Amada to speed M0.0 storage "AlwaysFAL up "State" -IN2 "B1" SE"



Network: 12 Inverter KEB speed type 1 bit - CP12 M3.6 Set L1_Z M3.5 axis Set L1_Z normal axis slow speed speed "L1_S1_ "L1_S2_ set" set"



```
Q25.0
Inverter
KEB max.
                                                                                 speed bit
                                                                                   - CP12
"KA11"
                                                                                    \leftarrow
                                                   Q24.7
                                                  Inverter
                                                     KEB
                                                 slowdown
                                                                    M0.0
                                                               "AlwaysFAL
SE"
                                                bit - CP11
"KA10"
                                  CMP <=I
                 #abs_val_t
                     mp
                   #abs_val_
                          tmp -IN1
                           70 -IN2
12.A
```