

**ATTENTION:**  
THIS CIRCUIT IS SET UP FOR PUMP CONTROL

**CAUTION:**  
MAXIMUM TWO STARTS PER HOUR WITH A  
MINIMUM OF FIVE MINUTES BETWEEN STARTS.

- LEGEND**
- [A] WIRE CONNECTIONS FOR PHASE A
  - [B] WIRE CONNECTIONS FOR PHASE B
  - [C] CONNECTIONS SHOWN FOR PHASE C
  - [G] CONNECT TO GROUND ONLY IF POWER SYSTEM IS GROUNDED
  - [CL] CURRENT LOOP CONDUCTORS PASS THROUGH THE C.T.'S  
ON THE CURRENT LOOP GATE DRIVER BOARDS (CLGD)
  - CUSTOMER WIRING
  - SS SURGE SUPPRESSOR
  - REMOVE JUMPER WHEN CONNECTING REMOTE EQUIPMENT
  - ① LOW VOLTAGE DOOR MOUNTED DEVICE
  - ▲ REMOTE EQUIPMENT

**⚠ DANGER**



HIGH VOLTAGE  
LIVE CAPACITOR  
IN CIRCUIT

BEFORE TOUCHING  
ANYTHING OPEN THE  
ISOLATING SWITCH,  
WAIT 5 MINUTES, THEN  
SHORT-CIRCUIT THE  
CAPACITOR TERMINALS.

FAILURE TO SHORT-  
CIRCUIT THE CAPACITOR  
TERMINALS CAN RESULT  
IN SEVERE INJURY  
OR DEATH.

**⚠ DANGER**



STORAGE CAPACITOR  
INSIDE  
IN CIRCUIT

THE CONTROLLER PROVIDES  
FOR A MOTOR  
DE-ENERGIZATION DELAY OF  
UP TO 2 SECONDS DURING AN  
UNDER VOLTAGE CONDITION.  
DE-ENERGIZE ALL CONTROL  
POWER SOURCES AND WAIT  
ONE MINUTE BEFORE  
SERVICING THE EQUIPMENT.  
FAILURE TO DE-ENERGIZE  
POWER CAN RESULT IN  
SEVERE INJURY OR DEATH

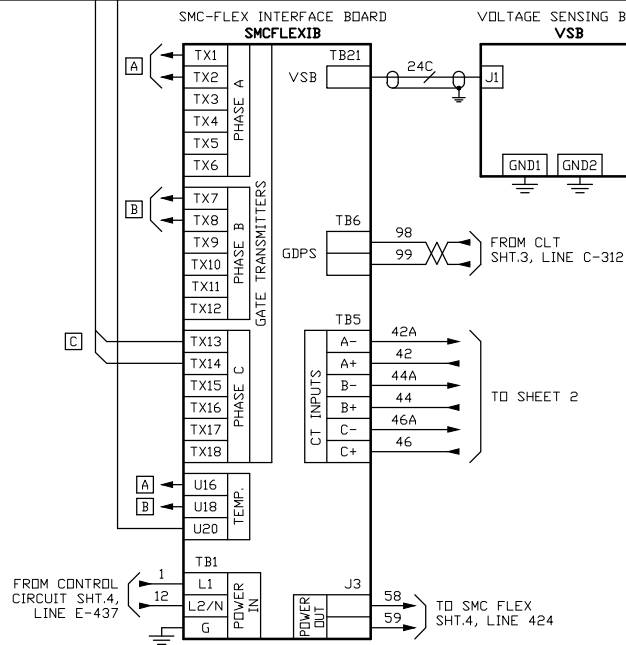


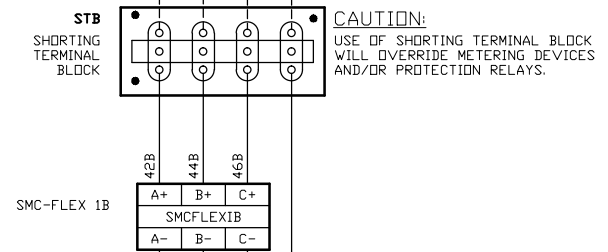
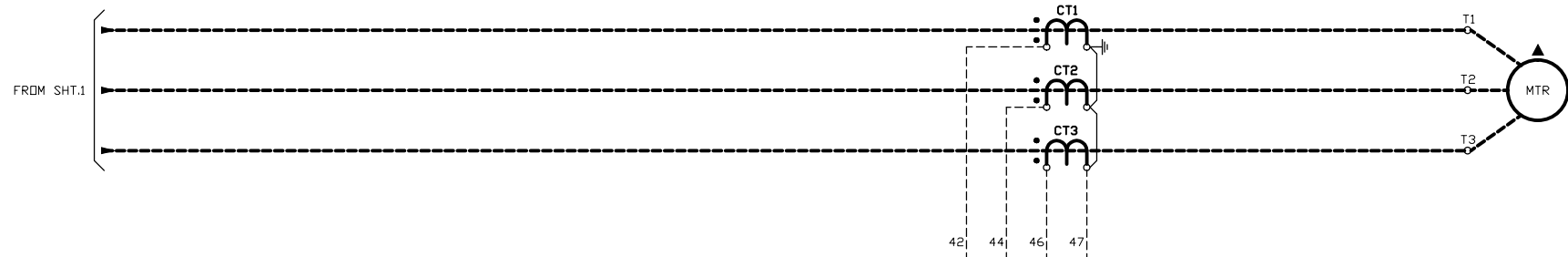
**DANGER**  
MORE THAN ONE  
LIVE CIRCUIT

**NOTES**

- REFER TO DIMENSION DRAWING FOR COMPONENT  
SIZING NOT SHOWN ON THIS DRAWING.

∞ #12 AWG TYPE TEW TINNED CONTROL WIRE





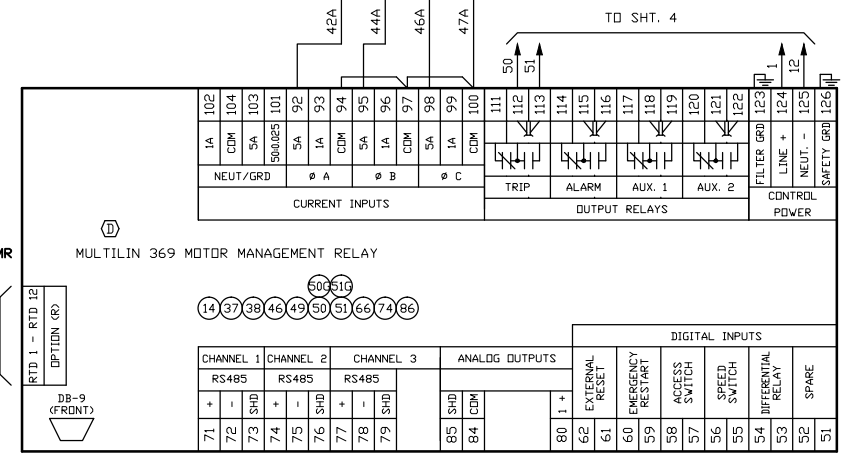
**CAUTION:**  
USE OF SHORTING TERMINAL BLOCK  
WILL OVERRIDE METERING DEVICES  
AND/OR PROTECTION RELAYS.

**⚠ DANGER**  
MORE THAN ONE  
LIVE CIRCUIT

**⚠ DANGER**  
**⚡**  
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LIVE CAPACITOR  
IN CIRCUIT  
  
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INSIDE  
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**MMR**  
TO SHT.4  
M-402

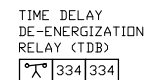
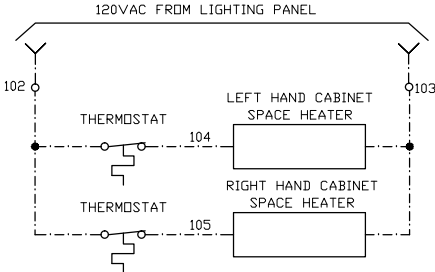


**MULTILIN NOTES**  
OUTPUT RELAY CONTACTS SHOWN WITHOUT CONTROL  
POWER APPLIED. THE FOLLOWING FACTORY INSTALLED  
CONTACT POWER-UP STATES ARE IN EFFECT:  
  
TRIP - FAIL SAFE  
ALARM - NON FAIL SAFE  
AUX.1 - NON FAIL SAFE  
AUX.2 - FAIL SAFE  
  
MULTILIN 369 RELAY TO BE PROGRAMMED BY THE  
CUSTOMER BEFORE START-UP.

**ATTENTION:** THIS CIRCUIT IS SET UP FOR SOFT START OR  
CURRENT LIMIT STARTING.  
  
**CAUTION:** MAXIMUM TWO STARTS PER HOUR WITH A  
MINIMUM OF FIVE MINUTES BETWEEN STARTS.

- LEGEND**
- ▲ REMOTE EQUIPMENT
  - CUSTOMER WIRING
  - ⓓ LOW VOLTAGE DOOR MOUNTED DEVICE
  - SS SURGE SUPPRESSOR
  - REMOVE JUMPER WHEN CONNECTING REMOTE EQUIPMENT
  - ⊗ #12 AWG TYPE TEW TINNED CONTROL WIRE

**NOTES**  
1) REFER TO DIMENSION DRAWING FOR COMPONENT SIZING NOT  
SHOWN ON THIS DRAWING.



**⚠ DANGER**

**⚡**

**STORAGE CAPACITOR  
INSIDE  
IN CIRCUIT**

THE CONTROLLER PROVIDES  
FOR A MOTOR  
DE-ENERGIZATION DELAY OF  
1 TO 2 SECONDS DURING AN  
UNDER VOLTAGE CONDITION.  
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POWER SOURCES AND WAIT  
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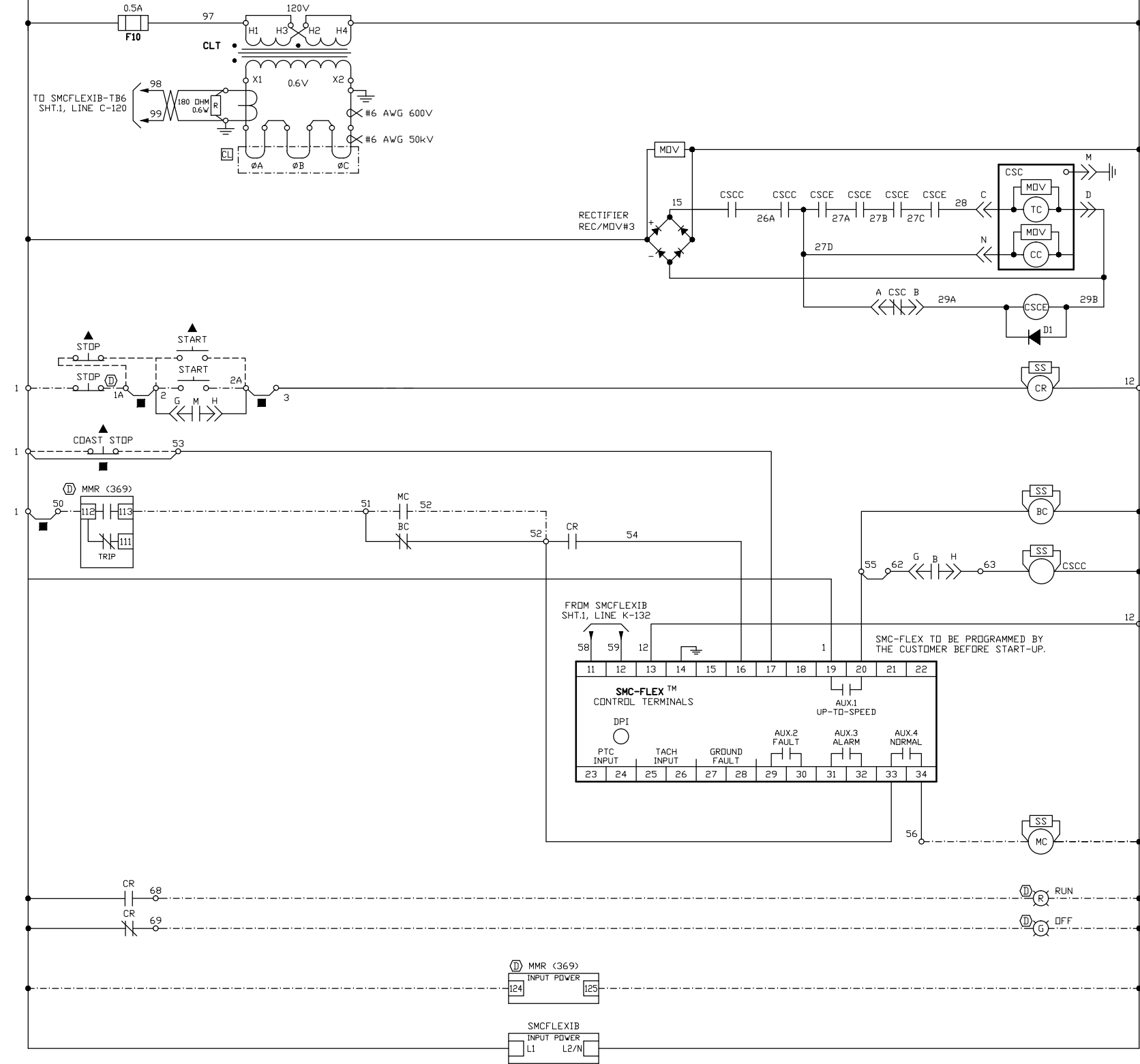
**WARNING:** THE CONTROLLER PROVIDES FOR A MOTOR  
DE-ENERGIZATION DELAY OF UP TO 2 SECONDS  
DURING AN UNDERVOLTAGE CONDITION.  
ALWAYS DISCONNECT THE POWER BEFORE  
ATTEMPTING SERVICE EQUIPMENT.

1 IF TIME DELAY UNDERVOLTAGE DE-ENERGIZATION IS NOT REQUIRED  
REMOVE THE JUMPER FROM TERMINALS G AND E AND PLACE  
BETWEEN TERMINALS E AND F. ALSO REMOVE THE JUMPER FROM S AND N  
AND PLACE BETWEEN TERMINALS N AND P.

- ▲ REMOTE EQUIPMENT
- === CUSTOMER WIRING
- (D) LOW VOLTAGE DOOR MOUNTED DEVICE
- SS SURGE SUPPRESSOR
- REMOVE JUMPER WHEN CONNECTING REMOTE EQUIPMENT
- ▽ TERMINAL BLOCKS LOCATED ON  
ALLEN-BRADLEY TIME DELAY  
UNDERVOLTAGE DE-ENERGIZATION PANEL
- MOV METAL OXIDE VARISTOR
- ∞ #12 AWG TYPE TEW CONTROL WIRE

NOTE: REFER TO DIMENSION DRAWING FOR COMPONENT SIZING -  
POWER BUS RATING, GROUND BUS SIZE, POWER FUSE RATING, ETC.

FROM SHT3.  
LINE D-336



FROM SHT 3.  
LINE K-340

CAPACITOR  
SWITCHING  
CONTACTOR (CSC)

4+ 415 416  
4+ 413 417 418

CC-CLOSING COIL  
HC-HOLDING COIL

ECONOMIZING  
CONTACTOR (CSEC)

4+ 410 410  
4+ 410 410

CONTROL RELAY (CR)

4+ 420 433  
4+ 434

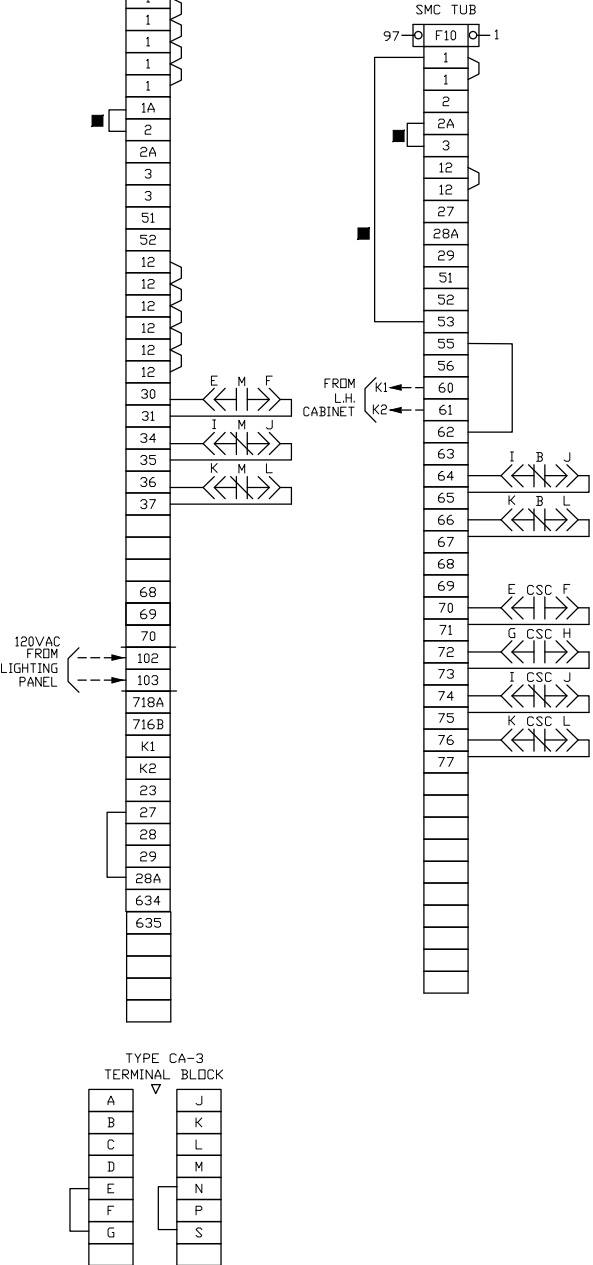
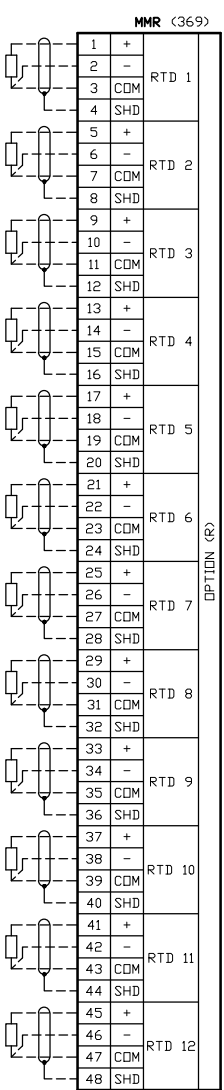
BYPASS CONTACTOR  
PILOT RELAY (BC)

4+ 329 329  
4+ 421

CAPACITOR SWITCHING  
PILOT RELAY (CSCC)

4+ 409 409

CONTACTOR



⚠  
DANGER  
MORE THAN ONE  
LIVE CIRCUIT

⚠ DANGER  
HIGH VOLTAGE  
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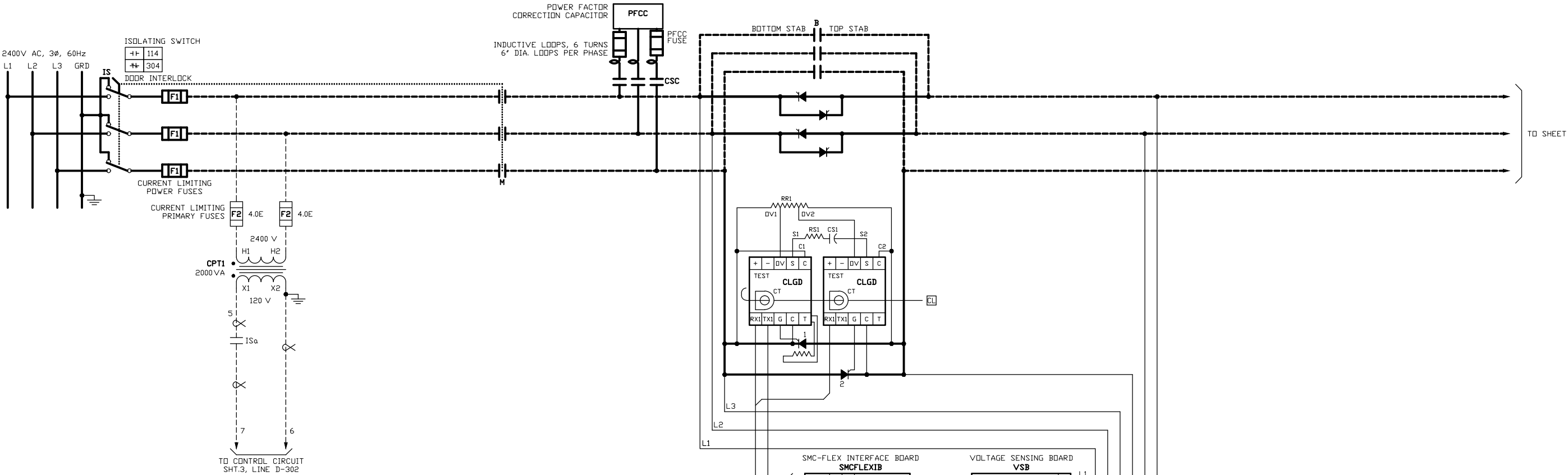
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LIVE CAPACITOR  
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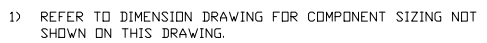
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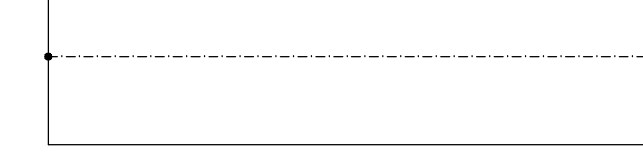
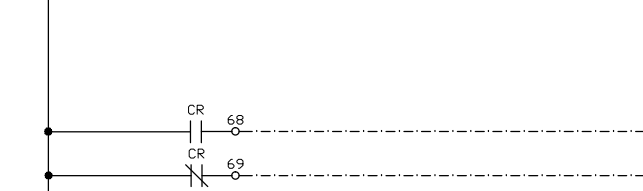
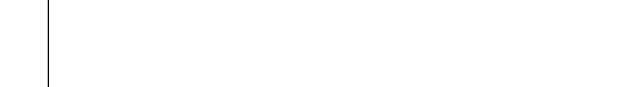
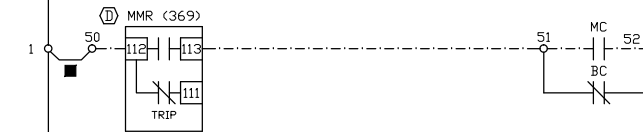
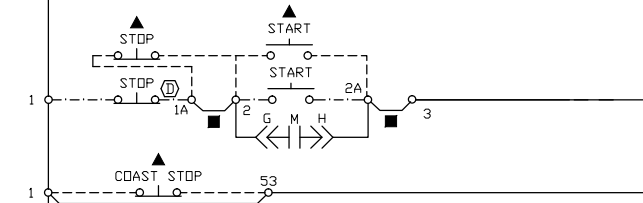
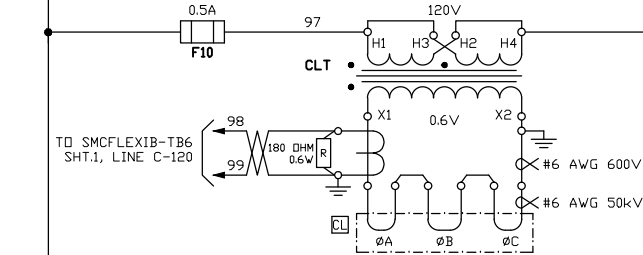
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MORE THAN ONE  
LIVE CIRCUIT

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FROM SHT3.  
LINE D-336



RECTIFIER  
REC/MOV#3

MOV

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