

IT.	REVISION RN-IB2135	1	RN-IB3902	9	WIRE FIG. G1 SHT.18, G3 SHT.19 AND G4 SHT.20 THE FOLLOWING NOTE WAS NOT ON BOTTOM OF FIGURE. "MANUALLY OPERATED BREAKERS CANNOT BE CLOSED BY COMPUTER COMMUNICATION UNLESS FIG. "B0" IS PROVIDED"	D. TATASEO 7-7-00 G. SMITH	RN-IB-4276	10	SHT.18 & 19- NP PLUG #1 WAS #6, AND #2 WAS #7, ON COMMUNICATIONS PLUG- NP2 WAS NP7 & NP1 WAS NP6. SH. 23, 24 & 25- IN P5 OVAL- ADDED NUMBERS 1 & 2. S.RIBARCHAK 3/17/03 G. SMITH L.KAPPLES				
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TWO PLACE DEC. ±.02 THREE PLACE DEC. ±.005 ANGLES ±1/2" ONE PLACE MM ±0.5 TWO PLACE MM ±0.13 VOLTAGE ±5% RESISTANCE ±10% AMPERAGE ±2% FORCE ±10% TORQUE ±10% SPEED ±10% TIME ±1% TEMPERATURE ±3°C ±5°F * STATISTICAL SAMPLING DIMENSION			DFTR. B. AGLIETTI	DATE 9-26-94	THE INFORMATION ON THIS DRAWING IS THE PROPERTY OF EATON CORPORATION. IT IS DISCLOSED IN CONFIDENCE AND IS NOT TO BE REPRODUCED, USED OR DISCLOSED EXCEPT FOR THE PURPOSE FOR WHICH FURNISHED.								
			APPD. S. BUDOL	DATE									
			APPD. A. MCGUFFIE	DATE	CUTLER-HAMMER TECHNOLOGY AND QUALITY CENTER PITTSBURGH,PA.								
			ENG. REF. 508B508, 800A600										
			NEXT REF.		TITLE TYPE DSII CIRCUIT BREAKER INTERNAL WIRING								
TOOL REF.													
DSPEC.		SIZE A	CAD DIRECTORY MANAGED BY CMS	DWG. NO. 1A33600									
			SCALE NTS	PARTS LIST 1A33600	PRODUCT CODE 666X	SHEET NO. 1 OF 25							

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LEGEND

EQUIP. SHOWN OUTSIDE OF BKR BROKEN LINE
OUTLINE ON SCHEMES, IS NOT SUP. W/BKR

DIAGRAM DETAILS ARE SHOWN FOR
DRAWOUT BKRS. FOR FIXED BKRS USE
CORRESPONDING T. BLK POINTS INSTEAD
OF DRAWOUT SECONDARY CONTACTS.

ACTR = ACTUATOR, SOL-STATE BKR TR
LCS = LATCH CHECK SWITCH
LO = LOCK OUT
LS = LIMIT SW FOR CLOSING SPR
MOT = MOTOR FOR SPR CHARGING
OTS = OVERCURRENT TRIP SWITCH
PB = PUSHBUTTON
SEN = SENSOR
SH TR = SHUNT TRIP
SR = SPRING RELEASE
UV = UNDERVOLTAGE
Y = ANTI-PUMP RELAY
TB=TERMINAL BLOCK
NP=NEGATIVE POWER

OPERATION OF PWR OPER. MECH STD

- 1 - WHEN BKR OPENS MOT IS ENERGIZED
THRU LS & "b" CONT
- 2 - MOT RUNS & CHARGES CLSPG
- 3 - WHEN CL SPG ARE FULLY CHARGED
LS CONTACTS REVERSE
- 4 - CLOSING CS-C CONT ENERGIZES SR COIL
THRU Y, LS & "b" CONT
- 5 - WHEN BKR CLOSES "b" OPENS & Y COIL IS
ENERG. IN SER WITH SR COIL
- 6 - Y CONT OPENS TO OPEN SR COIL CKT
& PREVENT PUMPING SHOULD BKR OPEN
WHILE CS-C IS HELD CLOSED. Y COIL
HAS VERY LOW DROP OUT VOLTAGE.

SPECIAL

SAME AS FOR STD ABOVE EXCEPT MOTOR RUNNING
DEPENDS ONLY ON LS CONTACT

ENG REF 800A600
508B508

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

1A33600

REV.
10



SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
2 OF 25

SECONDARIES

VIEWED FROM FRONT OF BREAKER

OTS
3
OR
UV F1UV LCS (ATR ALARMS) OTS
RESET

AUXILIARY SWITCH NO 2

NO NO NO NC NC NC

25	26	27	28	29	30	31	32	33	34	35	36
----	----	----	----	----	----	----	----	----	----	----	----

(5) 30 TO 34

37	38	39	40	41	42	43	44	45	46	47	48
----	----	----	----	----	----	----	----	----	----	----	----

(2) 37 TO 48

(4A) 1 TO 8				(4B) 1 TO 12							
1	2	3	4	5	6	7	8	9	10	11	12

F0
OR
F1
A6

SR COM
MOT
SR
ATR
POWER
(ONLY)

MOT (G)

OTS 1 & 2

13	14	15	16	17	18	19	20	21	22	23	24
----	----	----	----	----	----	----	----	----	----	----	----

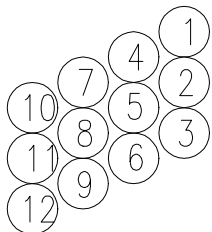
NO NO ST
AUX SW 1

(1) 13 TO 24

GF NC NC

AUX SW 1

ZONE INTERLOCK
COMMUNICATION
PLUG



ZONE INTERLOCK

- 1 - Z1 DG
- 2 - Z2 SOUT
- 3 - Z3 SIN
- 4 - Z4 GOUT
- 5 - Z5 GIN

COMMUNICATIONS

- (3A) Z1-Z5, C6, C7, C10, C11, C12
- (3B) Z1-Z5, C6-C10, C11, C12

- 6 - C6 COM1
- 7 - C7 COM2
- 8 - C8
- 9 - C9
- 10 - C10 SHIELD
- 11 - C11 NPOW
- 12 - C12 COM CLOSE

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

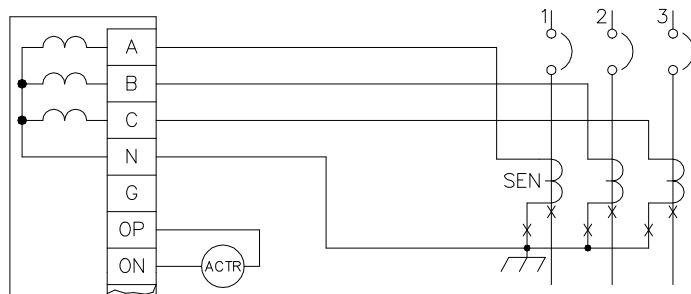
DWG. NO.

1A33600

REV.
10

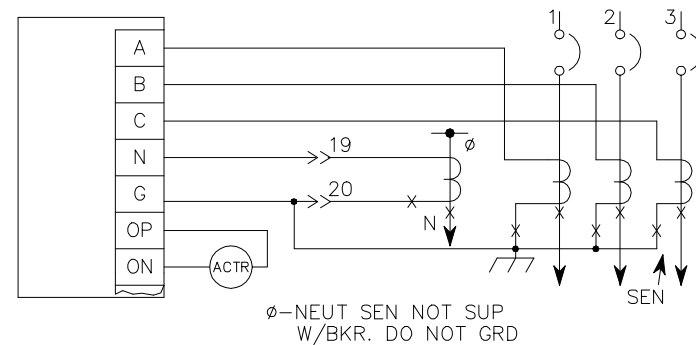
SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
3 OF 25



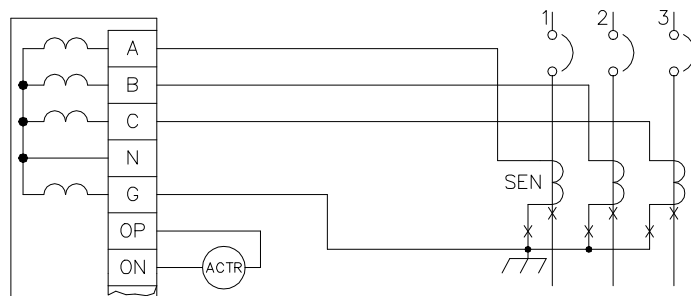
STANDARD SERIES TRIP (NO GND)

A0



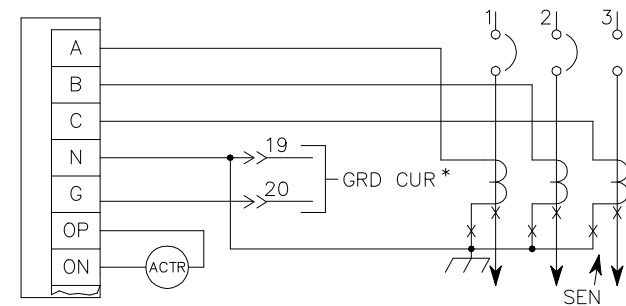
SERIES TRIP W/GND W/NEUTRAL

A2



SERIES TRIP W/GRD W/O NEUTRAL

A1



SERIES TRIP EXT GND CURRENT

A3

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

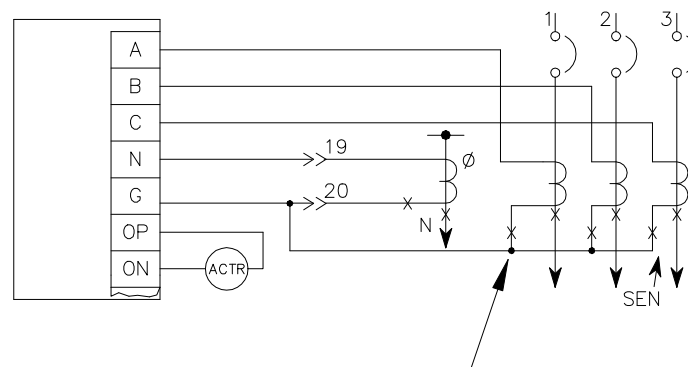
DWG. NO.

1A33600

REV.
10

SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
4 OF 25



OMIT STD. SENSOR FRAME
GND, CONN.

∅ – NEUTRAL SENSOR
NOT PROVIDED WITH
BREAKER

A2 W/O SENSOR GROUND

A4

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

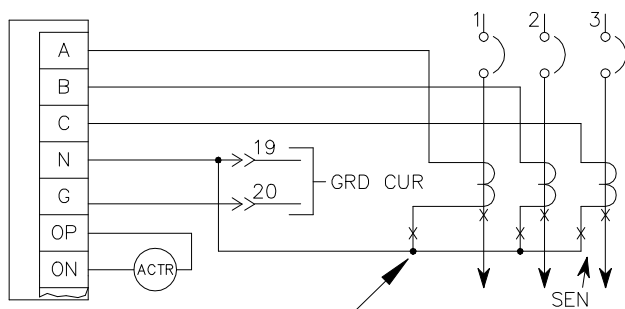
1A33600

REV.
10

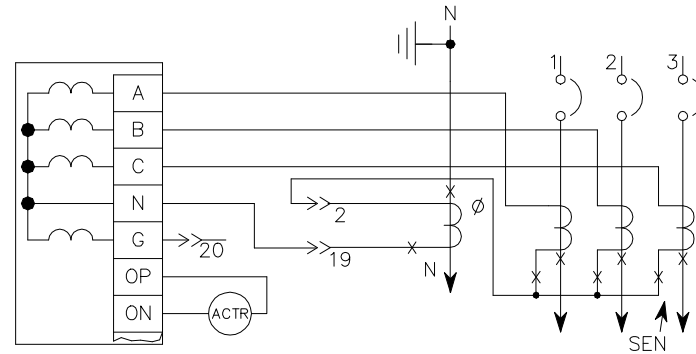


SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
5 OF 25



OMIT STD. SENSOR FRAME
GND, CONN.



Ø - NEUTRAL SENSOR
NOT PROVIDED WITH
BREAKER

A3 W/O SENSOR GROUND

A5

SERIES TRIP - SPECIAL

A6

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

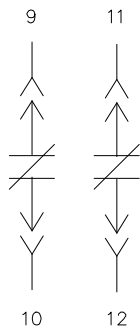
DWG. NO.

1A33600

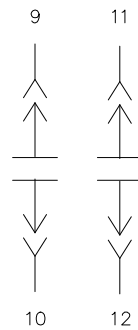
REV.
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SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

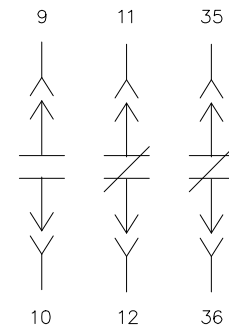
SHEET NO.
6 OF 25



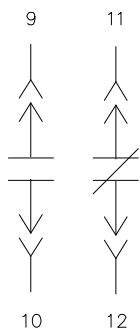
2 NC CONTACTS STANDARD OTS | C0



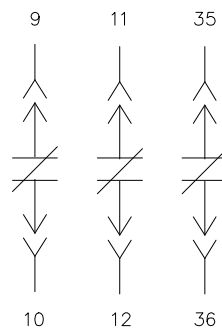
2 NO CONTACTS STANDARD OTS | C2



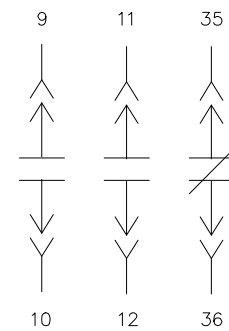
1 NO, 2 NC SPECIAL OTS | C4



1 NO, 1 NC CONTACTS STANDARD OTS | C1



3 NC CONTACTS SPECIAL OTS | C3



2 NO, 1 NC SPECIAL OTS | C5

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

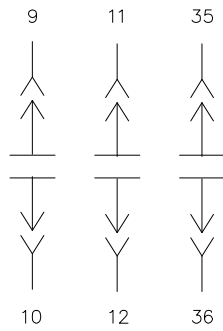
DWG. NO. 1A33600

REV.
10



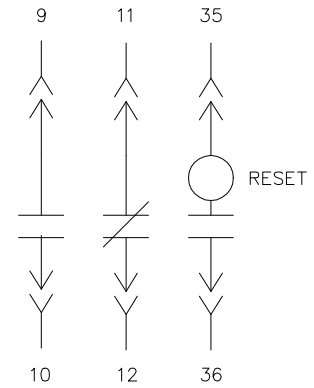
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DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
8 OF 25



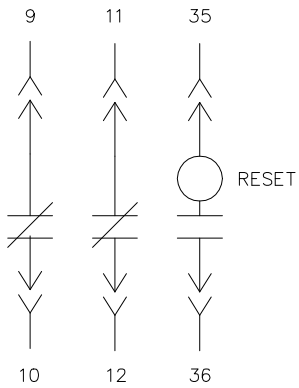
3 NO SPECIAL OTS

C6



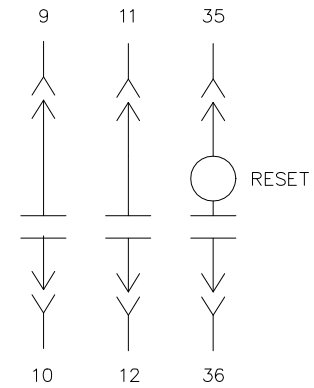
1 NO, 1 NC WITH RESET OTS

C8



2 NC WITH RESET OTS

C7



2 NO WITH RESET OTS

C9

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

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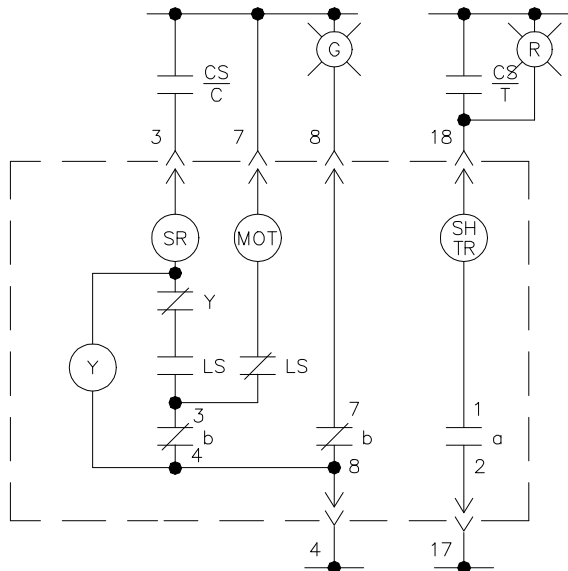
1A33600

REV.
10



SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

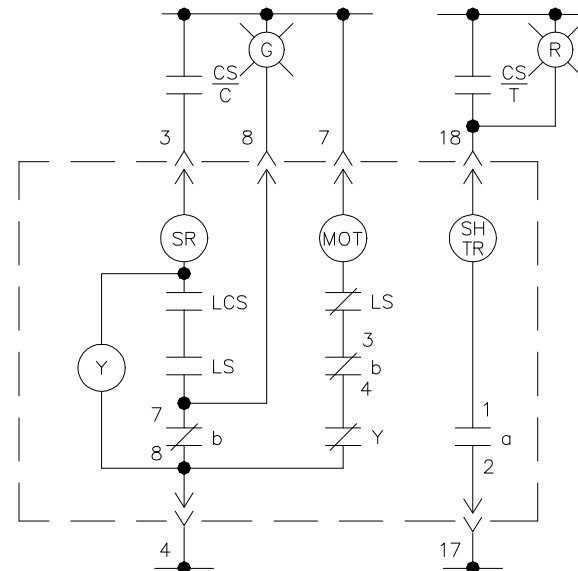
SHEET NO.
9 OF 25



NOTE : SHUNT TRIP IS WIRED PER FIGURE B1

PWR OPER MECH STD

D0



NOTE : SHUNT TRIP IS WIRED PER FIGURE B1

PWR OPER MECH STD W/LCS

D1

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

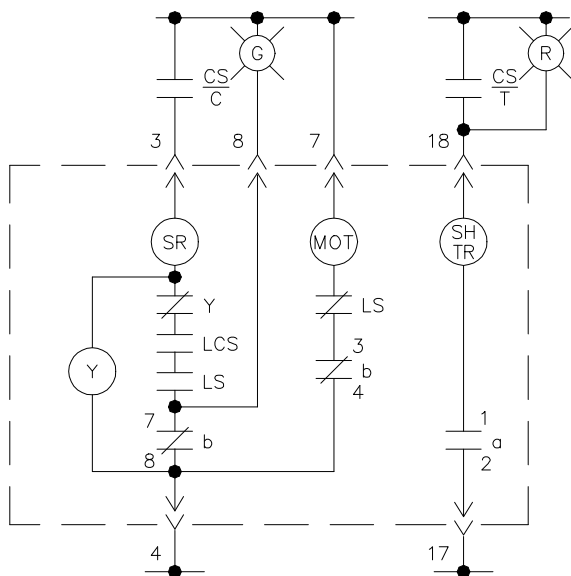
1A33600

REV.
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SUBTITLE
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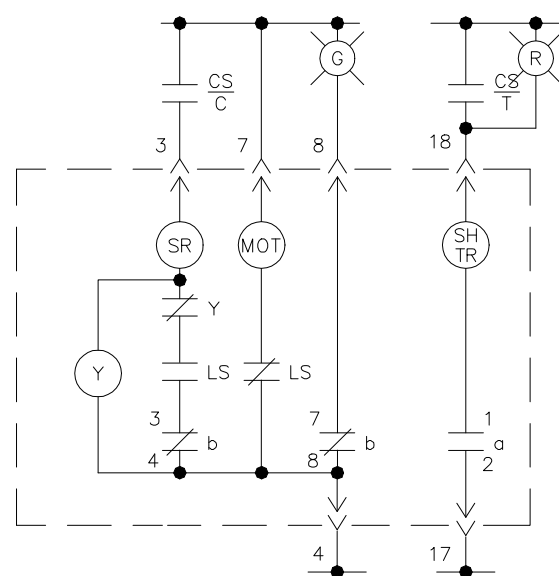
SHEET NO.
10 OF 25



NOTE : SHUNT TRIP IS WIRED PER FIGURE B1

PWR OPER MECH W/LCS WITH Y CONT.

D2



NOTE : SHUNT TRIP IS WIRED PER FIGURE B1

PWR OPER MECH SPECIAL

D3

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

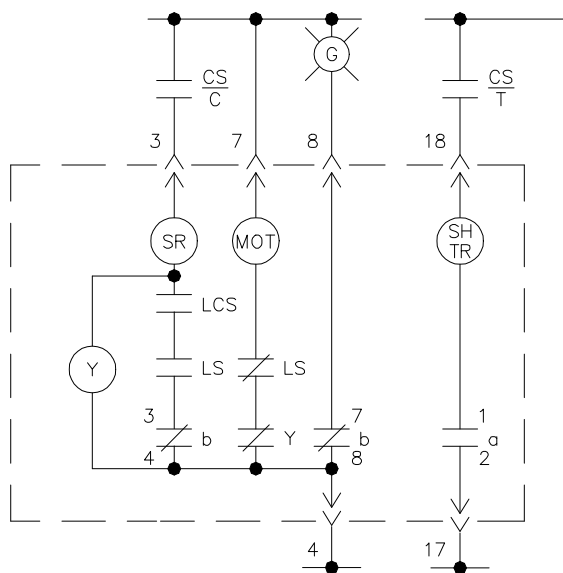
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1A33600

REV.
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SUBTITLE
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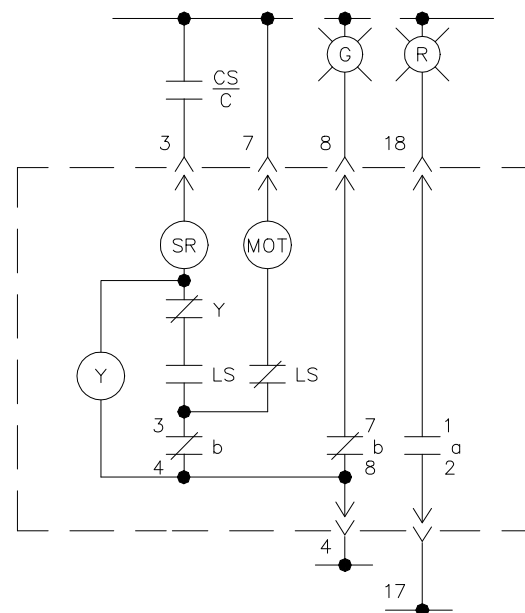
SHEET NO.
11 OF 25



NOTE : SHUNT TRIP IS WIRED PER FIGURE B1

PWR OPER MECH W/LCS SPECIAL

D4



PWR OPER MECH W/O SHUNT TRIP

D5

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

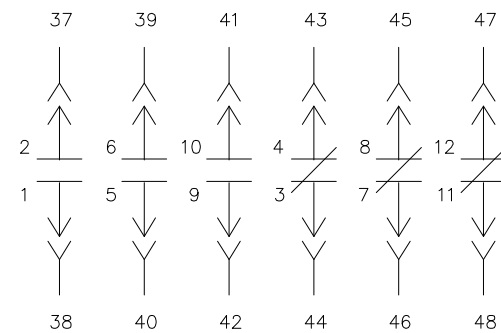
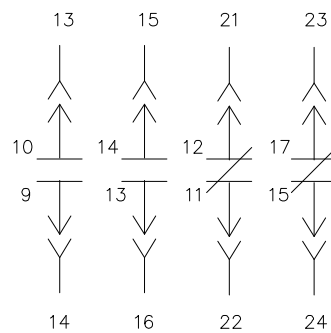
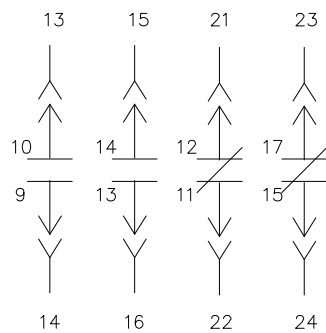
1A33600

REV.
10



SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
12 OF 25



2 NO AND 2 NC

E0

5 NO AND 5 NC

E1

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

1A33600

REV.
10

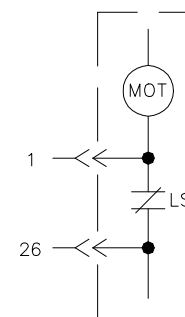
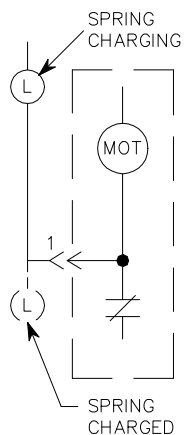


SUBTITLE

DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.

13 OF 25



MOTOR/LIM SW EXT CONN

WITH D3 , D4

F0

LIMIT SW EXTERNAL CONN

WITH D0 , D1 , D2

F1

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

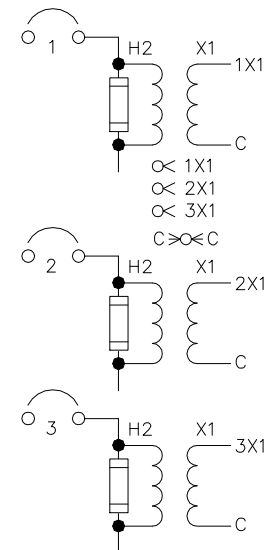
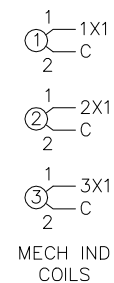
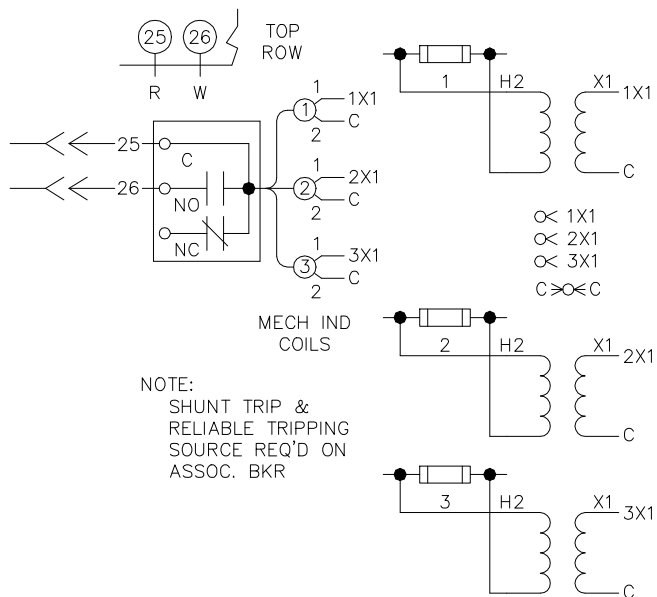
1A33600

REV.
10



SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
14 OF 25



LIMITER TRUCK

F2

NO HARNESS WIRING

BLOWN LIM IND, 3P

F3

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

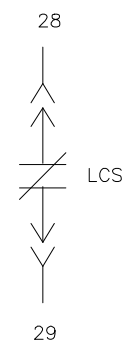
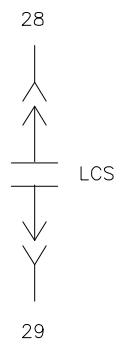
1A33600

REV.
15



SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
15 OF 25



LATCH CHECK SW N.O. CONT.

F4

LATCH CHECK SW N.C. CONT.

F5

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

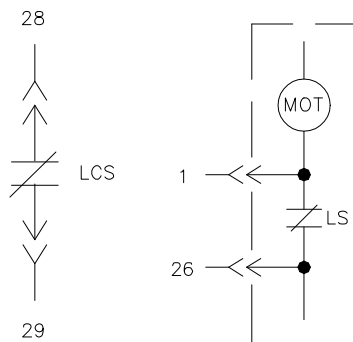
DWG. NO. **1A33600**

REV.
10



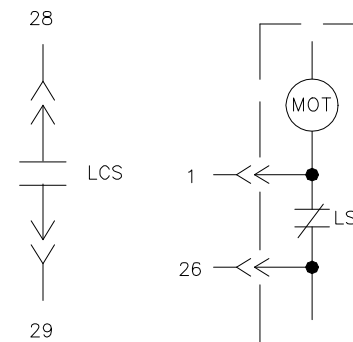
SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
16 OF 25



LCS NC + LIMIT SW. EX. CONN.

F6



LCS NO + LIMIT SW. EX. CONN.

F7

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

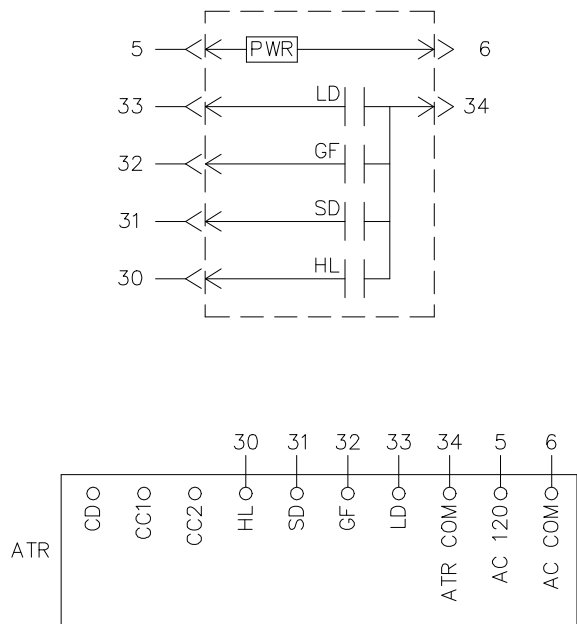
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REV.
10

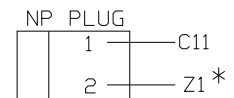
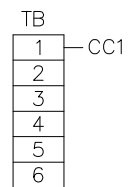
SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
17 OF 25

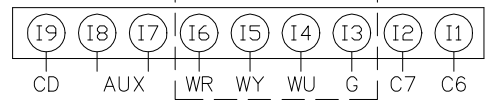




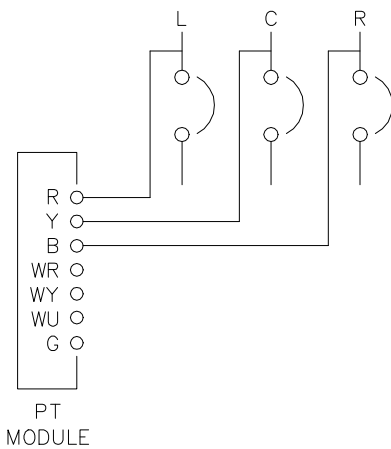
REF ZONE INTERLOCK CONNECTIONS
PER SHEETS 21, 22 AND 24



INTERNAL
WIRING

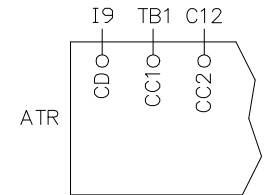
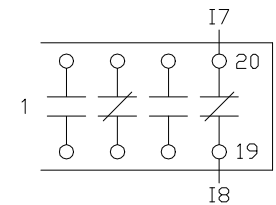
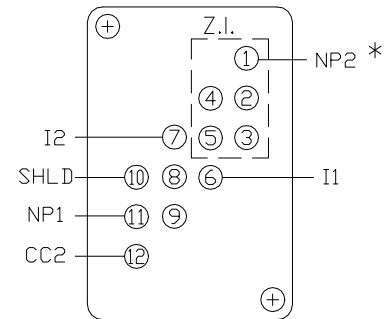


PT INCOM BLOCK (DIGITRIP)



PT
MODULE

COMMUNICATIONS



* ONLY PROVIDE WHEN P.T. MODULE SUPPLIED AND
ZONE INTERLOCKING NOT REQUIRED

MANUALLY OPERATED BREAKERS CANNOT BE CLOSED BY
COMPUTER COMMUNICATION UNLESS FIG. "B0" IS PROVIDED."

DIGITRIP ATR

G0

DIGITRIP WITH INCOM COMMUNICATION (EXCEPT OPTIM 750)

G1

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

1A33600

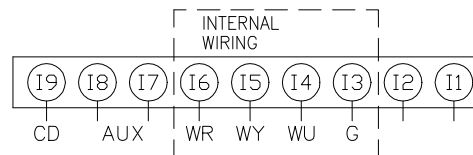
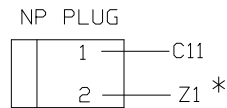
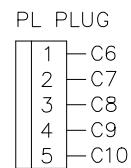
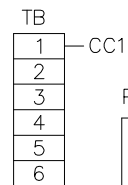
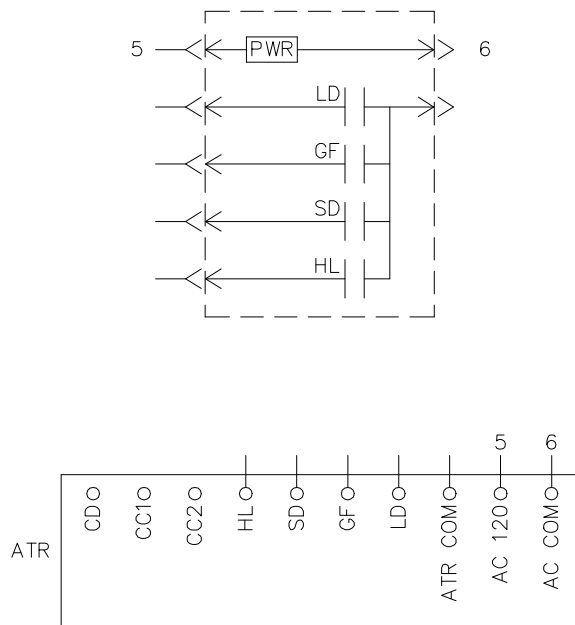
REV.
10

SUBTITLE

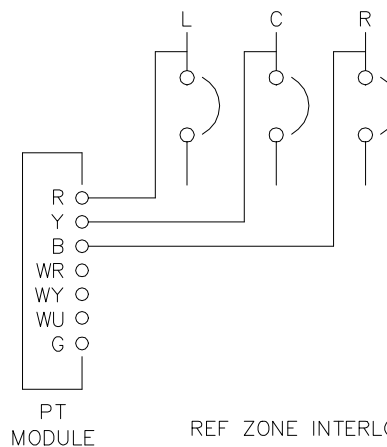
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.

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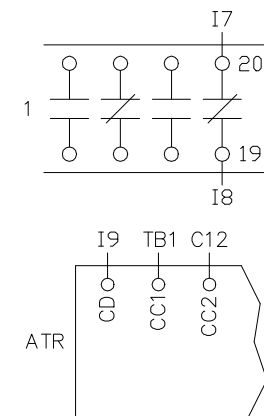
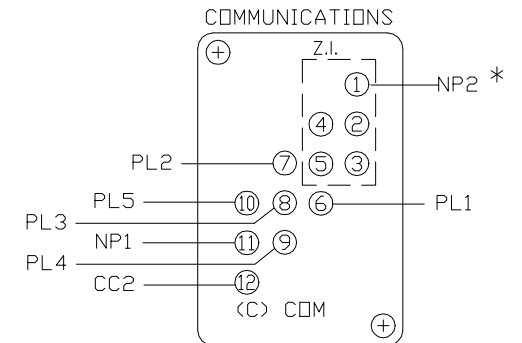


PT INCOM PLUG



PT
MODULE

REF ZONE INTERLOCK CONNECTIONS
PER SHEET 25



* ONLY PROVIDED WHEN P.T. MODULE SUPPLIED AND
ZONE INTERLOCKING NOT REQUIRED

MANUALLY OPERATED BREAKERS CANNOT BE CLOSED BY
COMPUTER COMMUNICATION UNLESS FIG. "B0" IS PROVIDED."

DIGITRIP ATR (POWER SUPPLY ONLY)

G2

DIGITRIP 810D POWER LOGIC COMMUNICATION

G3

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

CAD DIRECTORY
MANAGED BY CMS

DWG. NO.

1A33600

REV.
10

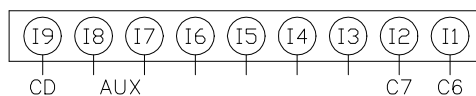
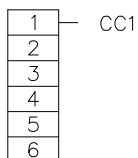
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DSII CIRCUIT BREAKER INTERNAL WIRING

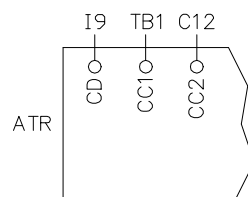
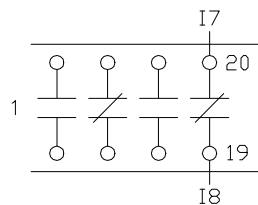
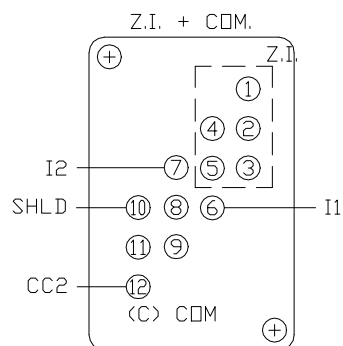
SHEET NO.
19 OF 25

REF ZONE INTERLOCK CONNECTIONS
PER SHEET 23

TB



PT INCOM BLOCK (DIGITRIP)



MANUALLY OPERATED BREAKERS CANNOT BE CLOSED BY
COMPUTER COMMUNICATION UNLESS FIG. "B0" IS PROVIDED."

DIGITRIP OPTIM 750 WITH INCOM COMMUNICATION

G4

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE
A

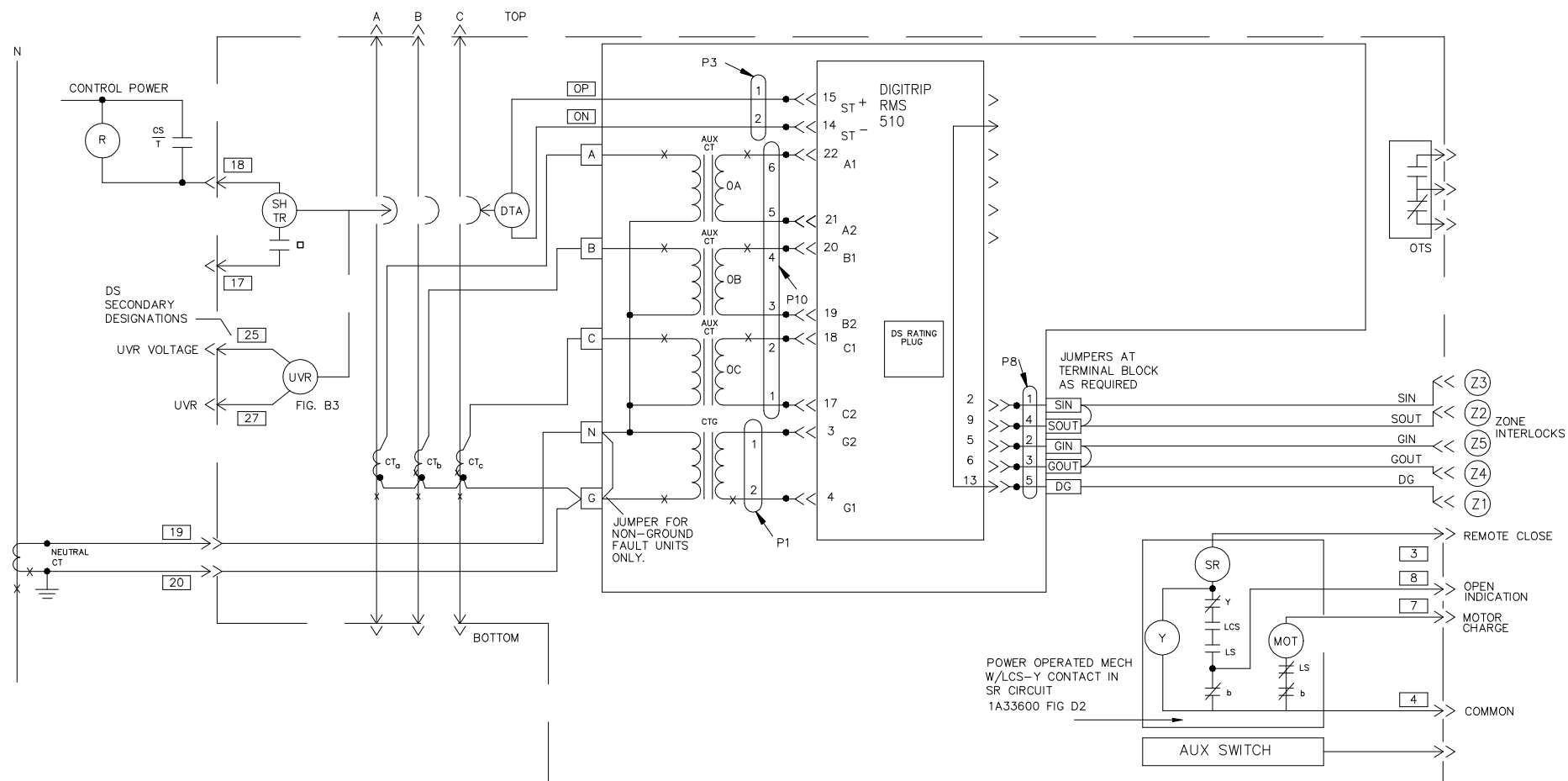
CAD DIRECTORY
MANAGED BY CMS

DWG. NO. 1A33600

REV.
10

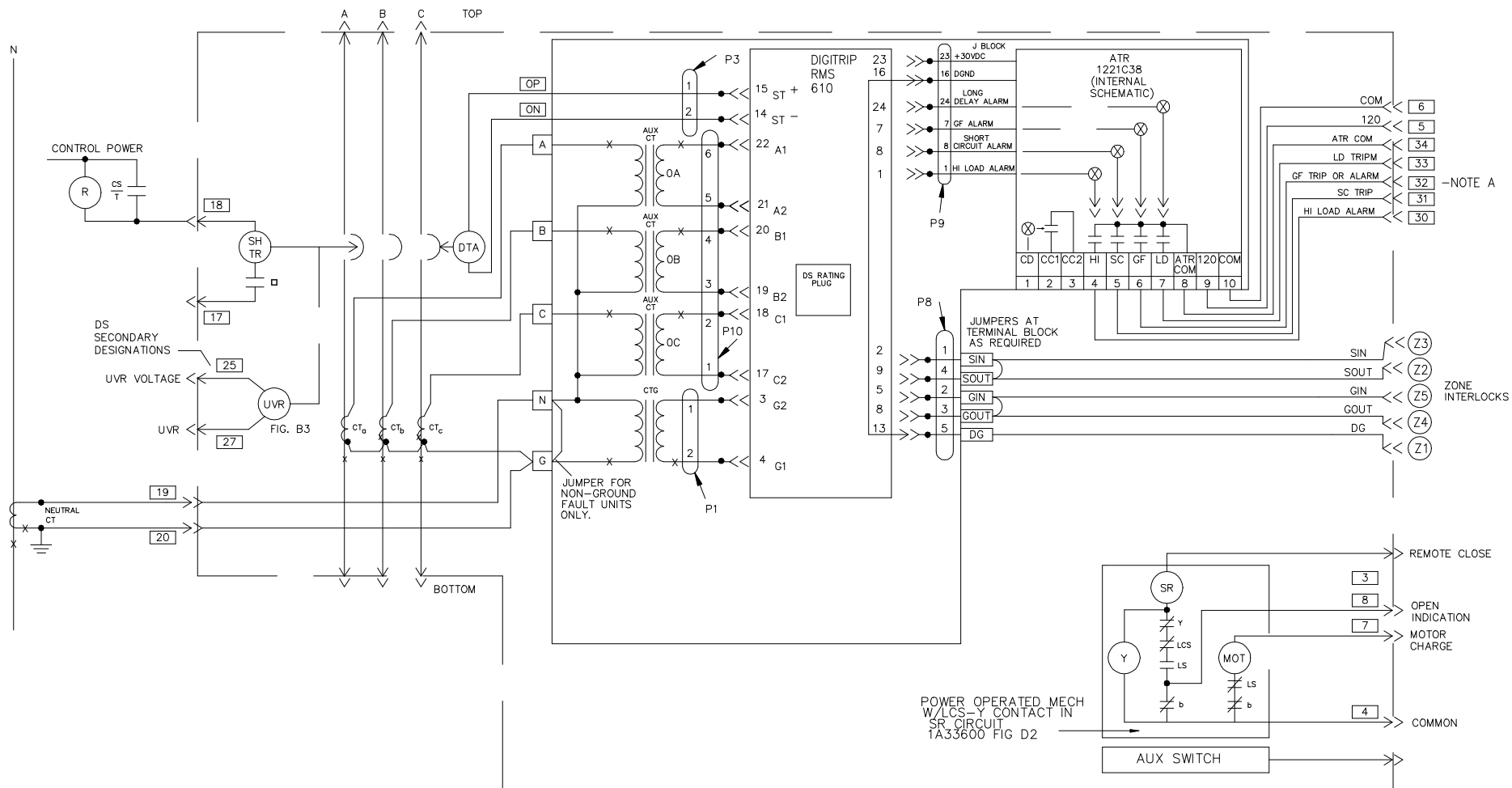
SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
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* STATISTICAL SAMPLING DIMENSION

REV.
10



SCHEMATIC RMS 610

NOTE A- GF ALARM ONLY AVAILABLE WITH DIGITRTP OPTIM

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

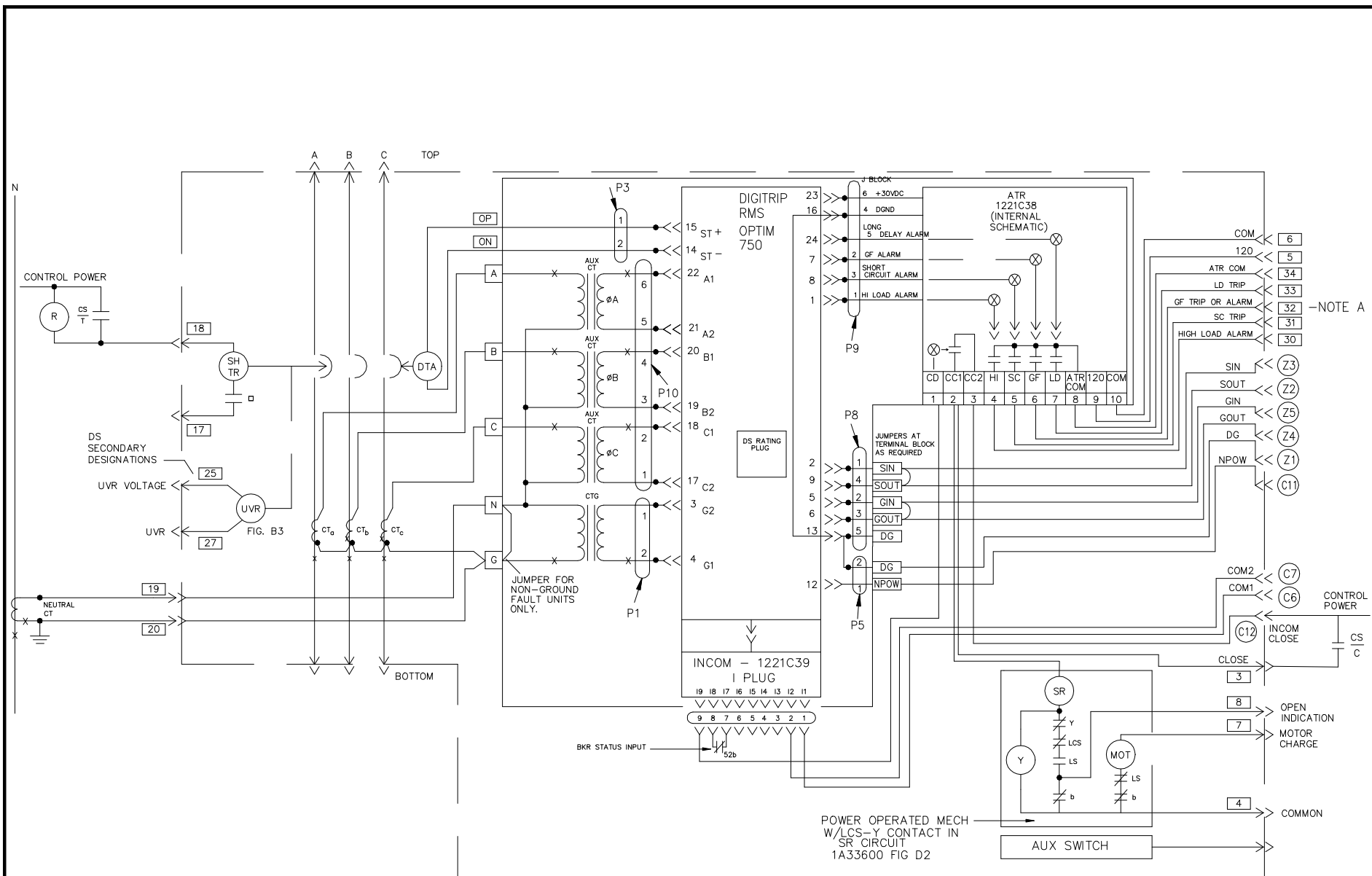
SIZE **A** CAD DIRECTORY
MANAGED BY CMS

DWG. NO. **1A33600**

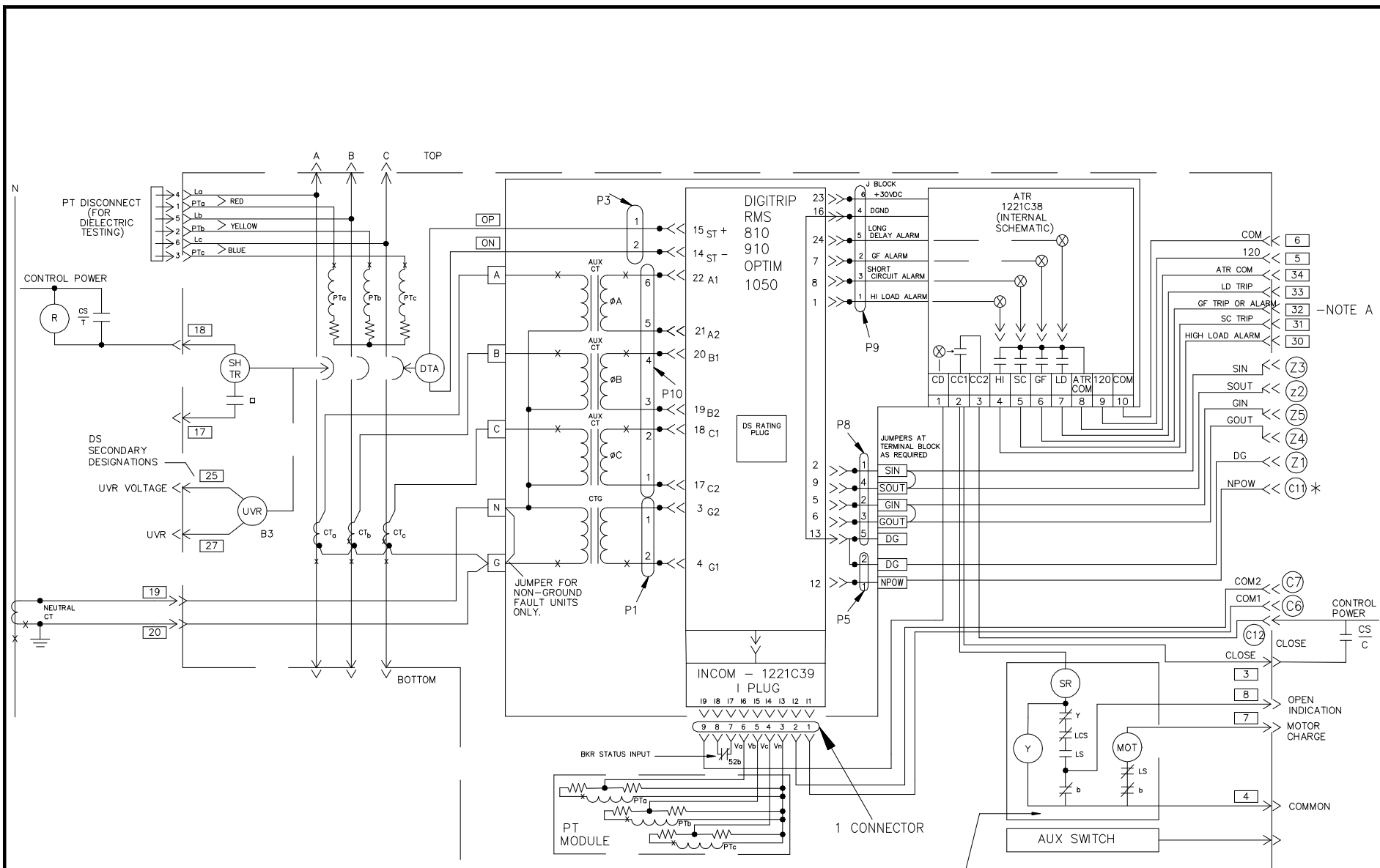
REV.
10

SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
22 OF 25



* STATISTICAL SAMPLING DIMENSION		ALL REV. NOTES LISTED ON SHEET 1		SIZE A	CAD DIRECTORY MANAGED BY CMS	DWG. NO. 1A33600
REV. 10				SUBTITLE DSII CIRCUIT BREAKER INTERNAL WIRING	SHEET NO. 23 OF 25	



SCHEMATIC RMS 810/910/OPTIM 1050

* ON REVERSE FED BREAKERS, SHORT Z1 AND C11 TOGETHER TO NEGATE NEGATIVE POWER READINGS

NOTE A- GF ALARM ONLY AVAILABLE WITH DIGITRIP OPTIM

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE CAD DIRECTORY
MANAGED BY CMS

DWG. NO. 1A33600

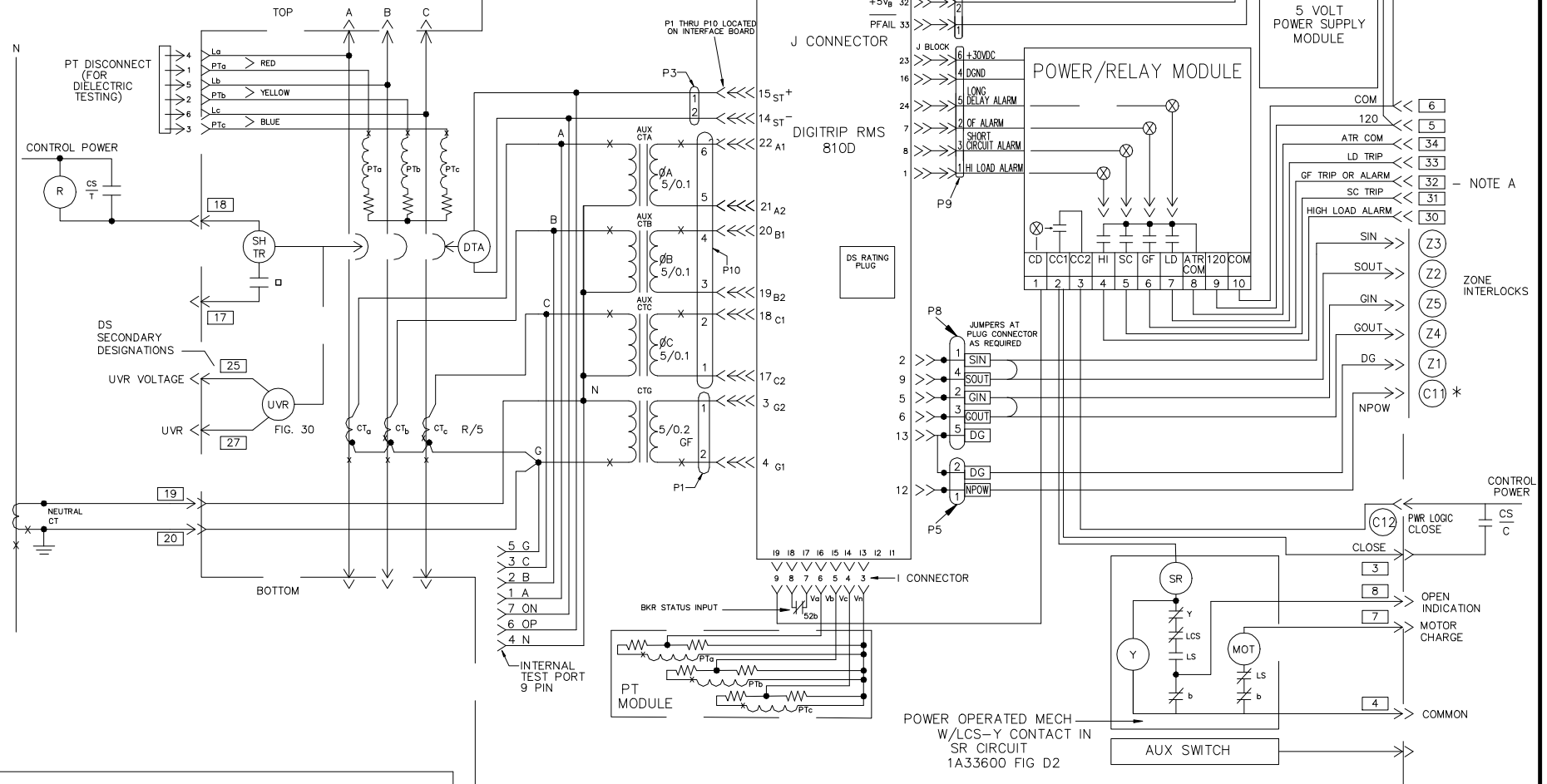
REV.
10

SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
24 OF 25

LEGEND

- - BRK. SEC CONTACTS
- J - DIGITRIP CONNECTOR
- I - DIGITRIP CONNECTOR



SCHEMATIC RMS 810D

* ON REVERSE FED BREAKERS, SHORT Z1 AND C11 TOGETHER TO NEGATE NEGATIVE POWER READINGS

NOTE A- GF ALARM ONLY AVAILABLE WITH DIGITRIP OPTIM

* STATISTICAL SAMPLING DIMENSION

ALL REV. NOTES LISTED ON SHEET 1

SIZE CAD DIRECTORY
MANAGED BY CMS

DWG. NO. 1A33600

REV.
10

SUBTITLE
DSII CIRCUIT BREAKER INTERNAL WIRING

SHEET NO.
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