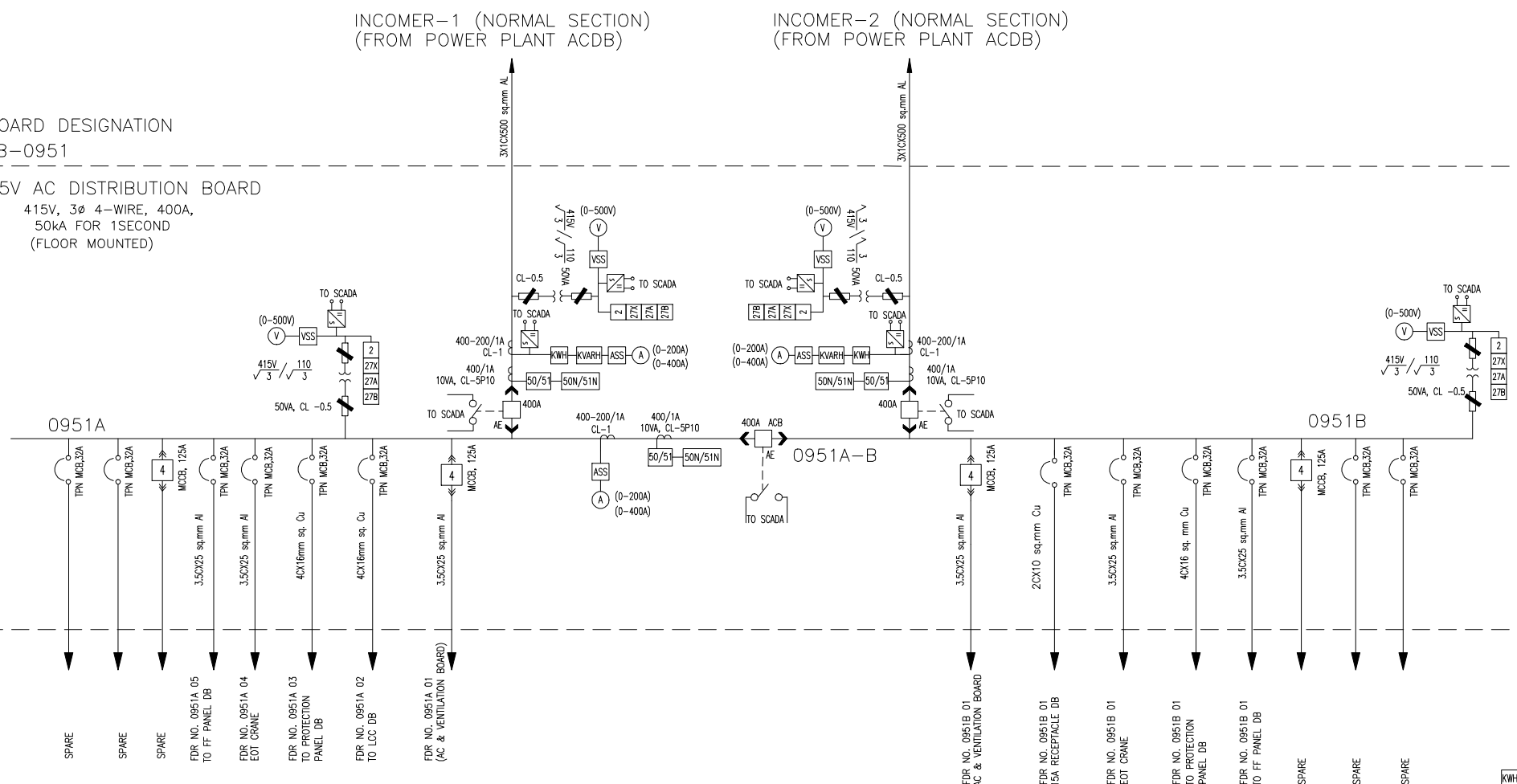


DRAWING No. TB 3 334 316 002

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BOARD DESIGNATION
AB-0951

415V AC DISTRIBUTION BOARD
415V, 3Ø 4-WIRE, 400A,
50kA FOR 1SECOND
(FLOOR MOUNTED)



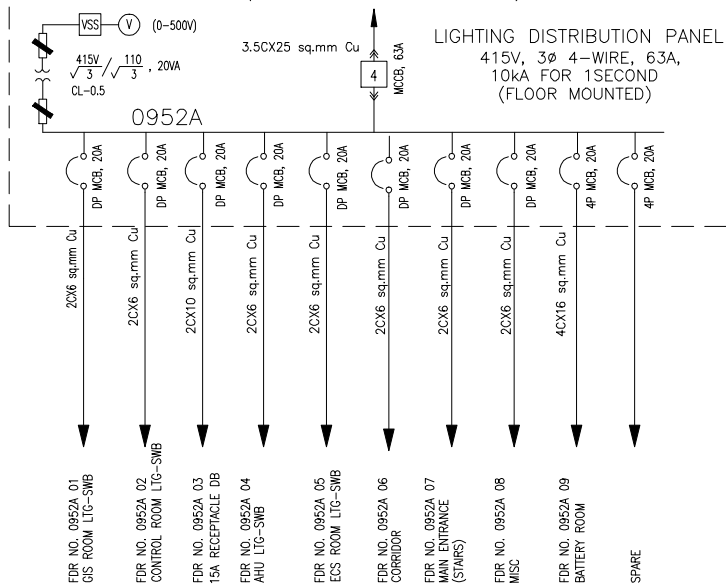
LEGENDS:-

- AIR CIRCUIT BREAKER (ACB)
- CONTROL VOLTAGE 110V DC
- CHARGING MOTOR 110V DC
- 4 POLE MOULDED CASE CIRCUIT BREAKER DRAWOUT TYPE (MCCB)
- 2 POLE DRAWOUT TYPE MCCB
- MCB
- TRANSDUCER
- CONTROL FUSE
- ISOLATING SWITCH

- ACTIVE ENERGY METER
- REACTIVE ENERGY METER
- 27 DC INSTANTANEOUS UNDER VOLTAGE RELAY
- 54 DC INSTANTANEOUS OVER VOLTAGE RELAY
- 64 EARTH LEAKAGE RELAY
- V VOLTMETER
- A AMMETER
- VSS VOLTAGE SELECTOR SWITCH
- ASS AMMETER SELECTOR SWITCH
- TPN THREE POLE WITH SEPARATE NEUTRAL LINK
- 2 TIME DELAY PICK UP RELAY
- 27X AC DOUBLE POLE INSTANTANEOUS UNDER VOLTAGE RELAY
- 50N INSTANTANEOUS EARTH FAULT RELAY
- 50 TRIPLE POLE INSTANTANEOUS OVER CURRENT RELAY
- 51 DOUBLE POLE INVERSE DEFINITE MINIMUM TIME O/C RELAY
- 51N SINGLE POLE INVERSE DEFINITE MINIMUM TIME E/F RELAY

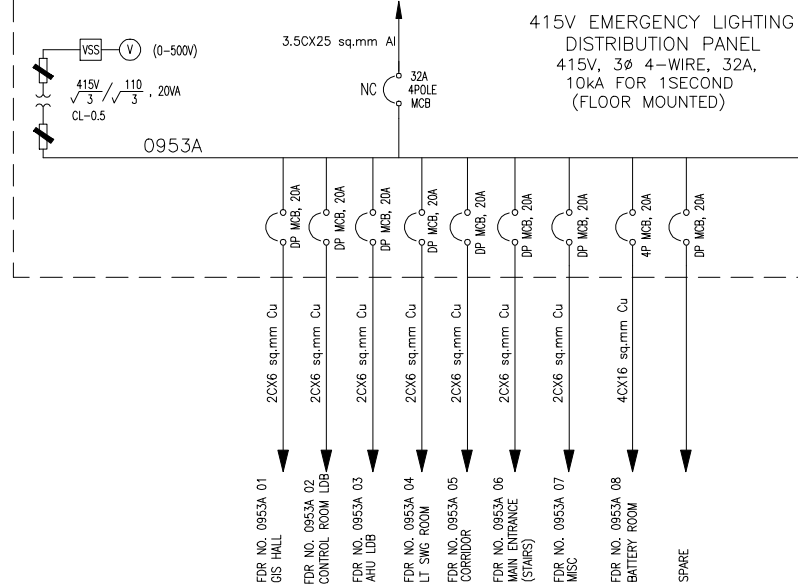
LB-0952

INCOMER (NORMAL LIGHTING TRANSFORMER SECTION)
(FROM POWER PLANT MLDB)



LB-0953

INCOMER (EMERGENCY LIGHTING TRANSFORMER SECTION)
(FROM POWER PLANT ELDB)

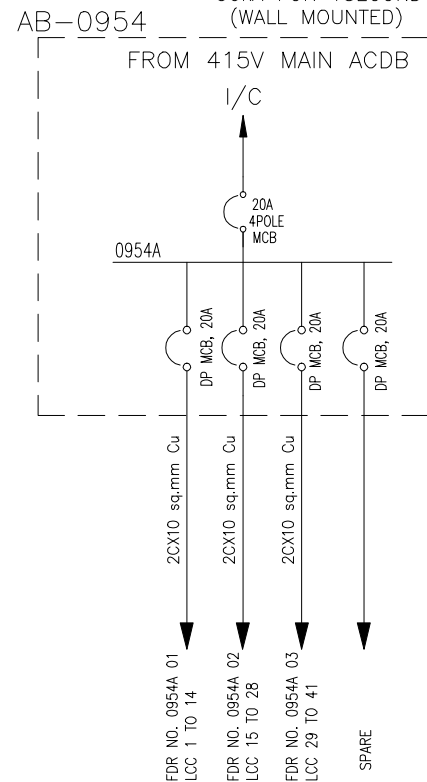


COMPUTER DRG. PART NAME :
SIGN. & DATE :
INVENTORY No. :

REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED

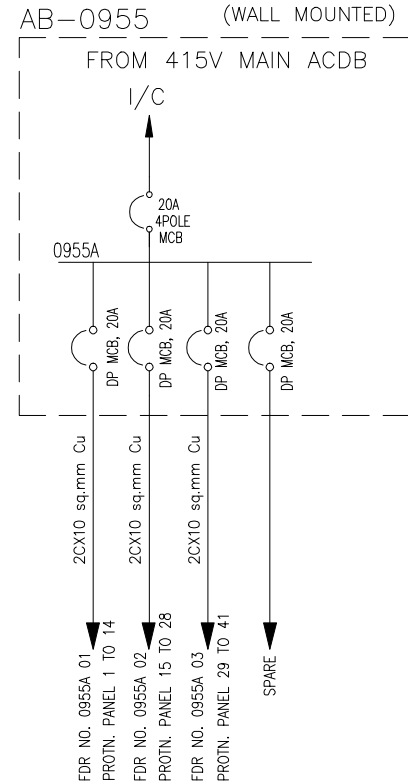
ADDITIONAL INFORMATION W.O.No. 80005		आइसक/परियोजना का नाम ONGC PETRO ADDITION LIMITED NAME OF CUSTOMER/PROJECT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT			
STATUS OF DRAWING		NAME OF CONSULTANT : ENGINEERS INDIA LIMITED			
DISTRIBUTION OF PRINTS				अनुपात / SCALE	कार्ड कोड / CARD CODE
REV.	DATE	ALTERED / BA CHECKED / APPROVED	REV.	DATE	ALTERED / BA CHECKED / APPROVED
01	03.12.11	SKS			
DRAWING REVISED AS PER CUSTOMER COMMENTS AND AS PER PED FEEDER AVAILABILITY.		शीर्षक/TITLE SINGLE LINE DIAGRAM OF 415V ACDB AND DCDB FOR 66KV GIS		कुर्वांग.क./DRAWING NO. TB 3 334 316 002	
				पृष्ठ नं./SHEET No. 01/कुर्वांग.क. पृष्ठ/NEXT SHEET 02	

LCC POWER DISTRIBUTION PANEL
415V, 3 ϕ 4-WIRE, 32A,
50kA FOR 1SECOND
(WALL MOUNTED)

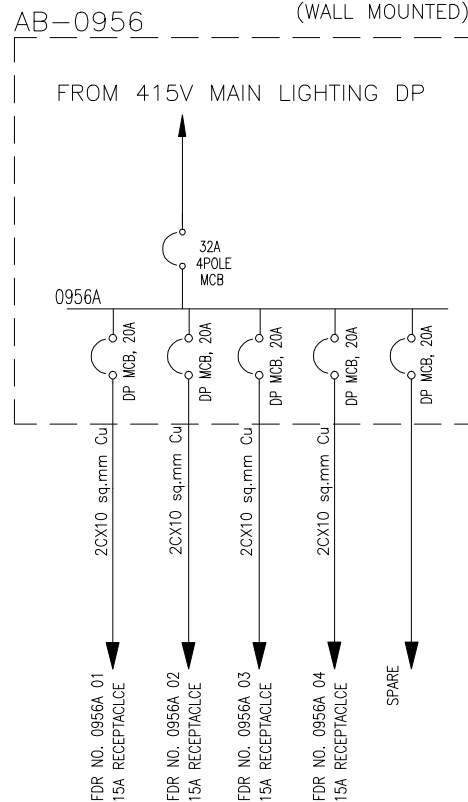


(SEE DETAIL-A FOR DISTRIBUTION)

PROTECTION PANEL POWER DP
415V, 3 ϕ 4-WIRE, 32A,
50kA FOR 1SECOND
(WALL MOUNTED)

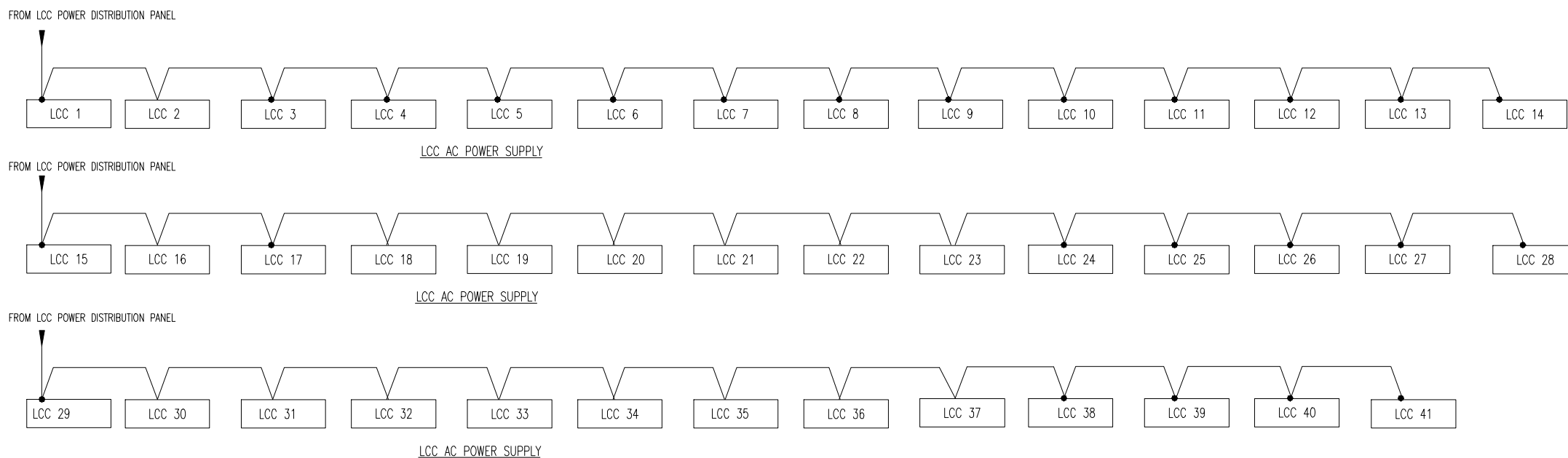


POWER RECEPTACLE DISTRIBUTION PANEL
415V, 3 ϕ 4-WIRE, 32A,
10kA FOR 1SECOND
(WALL MOUNTED)



Notes:

- NO TWO AC SOURCE SHALL BE PARALLELED AT ANY STAGE.
- IN THE NORMAL CASE , BOTH THE MAIN INCOMERS ACBs ARE CLOSED AND BUS COUPLER ACB IS OPEN.
IF ONE OF THE INCOMER SUPPLY FAILS, AUTOMATIC CHANGEOVER TO ANOTHER AC SOURCE IS PROVIDED AND CLOSING COMMAND SHALL BE ISSUED THE BUS -COUPLER ACB. (ELECTRICAL INTERLOCK TO BE PROVIDED)
- EACH BAY LCC AS WELL AS PROTECTION PANELS SHALL BE FED BY ONE SOURCE FROM ACDB. IN CASE OF FAILURE OF THAT SUPPLY, SECOND AC SOURCE SHALL BE AUTOMATICALLY SWITCHED ON. LOOPING OF CABLES BETWEEN LCC AND PROTECTION PANELS IS SHOWN IN DETAIL A.
- STATUS OF ALL INCOMERS AND BUSCOUPLER BREAKERS OF MAIN AC DC BOARDS SHALL BE AVAILABLE FOR SCADA (ECS) SYSTEM. SUITABLE AUX. CONTACTS TO BE PROVIDED.
- FOLLOWING ALARMS SHALL BE AVAILABLE FOR SCADA (ECS) SYSTEM.
RELAY TRIP OF ALL BREAKERS OF 415V AC BOARD
MAIN INCOMER SUPPLY FAILURE / OFF OF 415V AC BOARD.
RELAY TRIP OF ALL BREAKER OF 110V DC BOARD
- TRANSDUCERS (OF 4-20MA) FOR FOLLOWING SHALL BE AVAILABLE FOR SIGNALS TO SCADA (ECS) SYSTEM.
-CURRENT IN MAIN INCOMER 1 AND 2 OF 415V AC BOARD
-CURRENT IN EMERGENCY INCOMER OF 415V AC BOARD
-CURRENT IN EMERGENCY AND MAIN BUS COUPLER OF 415V AC BOARD
-VOLTAGE OF MAIN INCOMER 1 AND 2 OF 415V AC BOARD
-VOLTAGE OF EMERGENCY INCOMER OF 415V AC BOARD
-VOLTAGE OF EMERGENCY AND MAIN BUS COUPLER OF 415V AC BOARD
-CURRENT IN MAIN INCOMER 1 AND 2 OF 110V DC BOARD
-VOLTAGE OF MAIN INCOMER 1 AND 2
- NECESSARY CONTACTORS SHALL BE PROVIDED IN AC AND DC DISTRIBUTION BOARDS SUCH THAT 110V DC CRITICAL LIGHTING PANEL SHALL TURNED ON AFTER FAILURE OF MAIN AND EMERGENCY LIGHTING SUPPLY.
- MANUAL CHANGEOVER IS PROVIDED BETWEEN 110V DC DISTRIBUTION BOARDS 1 & 2.
- MINIMUM 10% SPARE FEEDERS TO BE CONSIDERED FOR EACH TYPE IN AC AND DC DISTRIBUTION BOARD.



DETAIL-A

(THE ABOVE DETAIL IS ALSO APPLICABLE FOR DISTRIBUTION OF AC SUPPLY TO BAY PROTECTION PANELS)

REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED

ADDITIONAL INFORMATION W.O.No. 80005		ग्राहक/परियोजना का नाम ONGC PETRO ADDITION LIMITED NAME OF CUSTOMER/PROJECT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT			
STATUS OF DRAWING DISTRIBUTION OF PRINTS		NAME OF CONSULTANT : ENGINEERS INDIA LIMITED			
REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED
01	03.12.11	CHECKED SKS / APPROVED AS			
DRAWING REVISED AS PER CUSTOMER COMMENTS AND AS PER PED FEEDER AVAILABILITY.		भारत हेवी इलेक्ट्रिकल्स लिमिटेड भारतीया भारतीया भारतीया BHARAT HEAVY ELECTRICALS LTD. TRANSMISSION PROJECTS DIVISION		नाम /NAME SKS/BA AS -Sd- -Sd- -Sd-	दि./DATE 10.10.11 10.10.11 10.10.11
ड्राइंग/टITLE SINGLE LINE DIAGRAM OF 415V ACDB AND DCDB FOR 66KV GIS		ड्राइंग/टITLE TB 3 334 316 002		पृष्ठ/REV. 01	
ZONE		ZONE		पृष्ठ/REV. 03	

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COMPUTER DRG. PATH NAME :

REF. DRG. No.

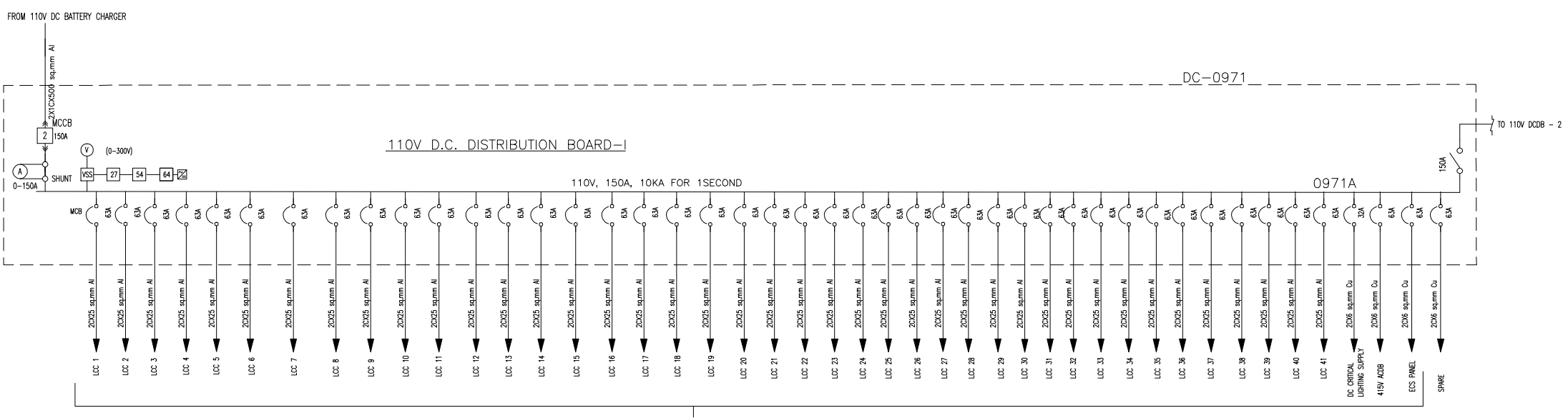
SIGN. & DATE

INVENTORY No.

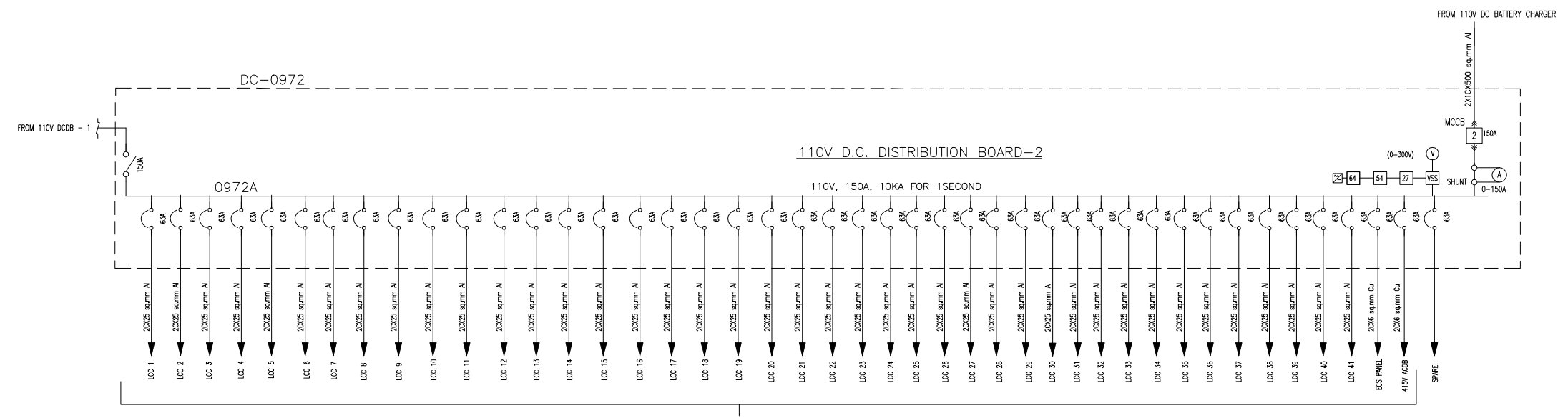
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DRAWING No. TB 3 334 316 002

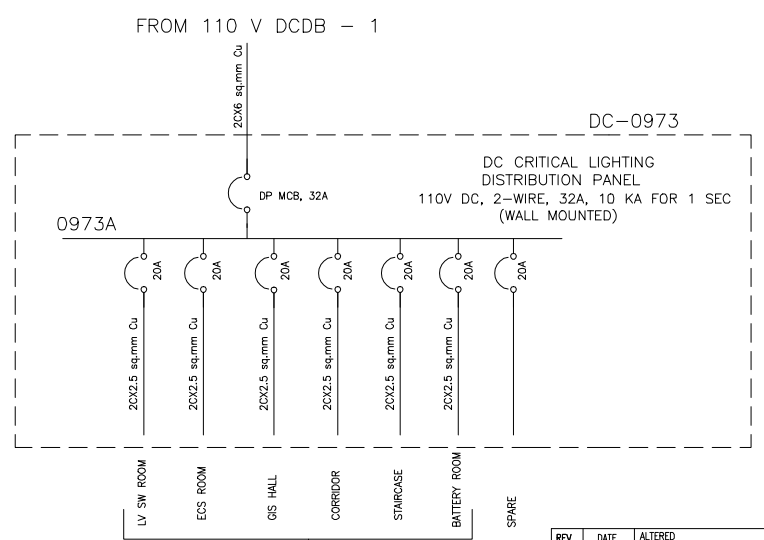
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FDR NO. 0971A 01 TO 0971A 44



FDR NO. 0972A 01 TO 0972A 43



FDR NO. 0973A 01 TO 097A 06

COMPUTER DRG. PATH NAME :

REF. DRG. No.

SIGN. & DATE

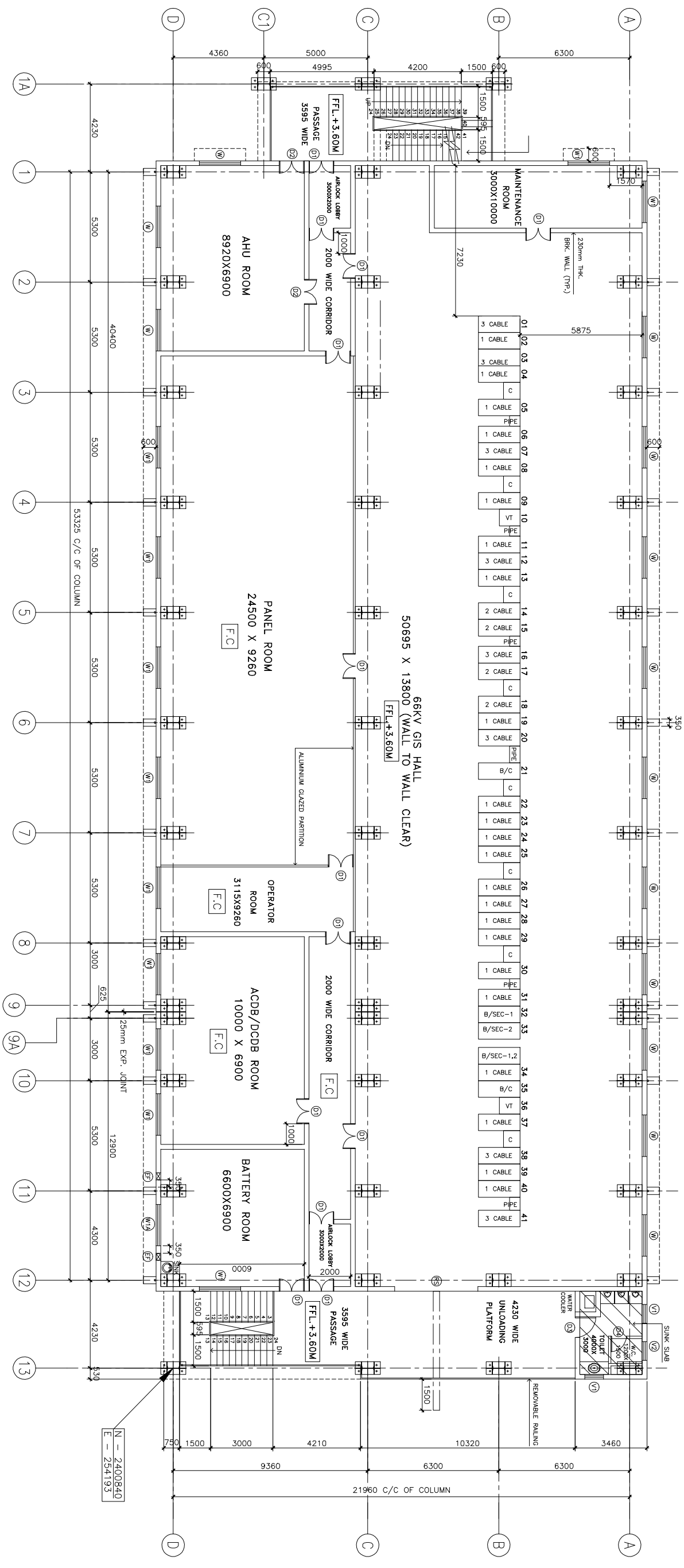
INVENTORY No.

ADDITIONAL INFORMATION W.O.No. 80005		आयुक्त/परियोजना का नाम ONGC PETRO ADDITION LIMITED NAME OF CUSTOMER/PROJECT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT				
STATUS OF DRAWING		NAME OF CONSULTANT : ENGINEERS INDIA LIMITED				
DISTRIBUTION OF PRINTS		भारत हेवी इलेक्ट्रिकल्स लिमिटेड भारतीय भारी विद्युत निगम BHARAT HEAVY ELECTRICALS LTD. TRANSMISSION PROJECTS DIVISION		ड्राइंग/NAME RK SKS/BA AS	ए-स्टा/./SIGN. -Sd- -Sd- -Sd-	दि./DATE 10.10.11 10.10.11 10.10.11
REV. 01	DATE 03.12.11	ALTERED BY CHECKED SKS APPROVED AS	डि-डि/DEPT. कोड/ZONE कोड/ZONE	ड्राइंग/SCALE अक्षर/SCALE कार्ड कोड/CARD CODE	ड्राइंग/REV. TB 3 334 316 002 01 पृष्ठ/ SHEET No. 03/अंश/पृष्ठ/NEXT SHEET --	

REV.	DATE	ALTERED BY	CHECKED	APPROVED	REV.	DATE	ALTERED BY	CHECKED	APPROVED

12 11 10 9 8 7 6 5 4 3 2 1

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FIRST FLOOR

INVENTORY No.	SIGN. & DATE	REF. DRG. No.	COMPUTER DRG. PATH NAME :
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REV.	DATE	ALTERED	REV.	DATE	ALTERED
1		AS PER	1		AS PER
2		AS PER	2		AS PER
3		AS PER	3		AS PER
4		AS PER	4		AS PER
5		AS PER	5		AS PER
6		AS PER	6		AS PER
7		AS PER	7		AS PER
8		AS PER	8		AS PER
9		AS PER	9		AS PER
10		AS PER	10		AS PER
11		AS PER	11		AS PER
12		AS PER	12		AS PER
13		AS PER	13		AS PER

ADDITIONAL INFORMATION W.O.No. 80005 STATUS OF DRAWING DISTRIBUTION OF PRINTS		ENGINEERS INDIA LIMITED NAME OF CONSULTANT : NAME OF CUSTOMER/PRODUCT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT	
REV. DATE ALTERED 1 11/90 AS PER 2 11/90 AS PER 3 11/90 AS PER 4 11/90 AS PER 5 11/90 AS PER 6 11/90 AS PER 7 11/90 AS PER 8 11/90 AS PER 9 11/90 AS PER 10 11/90 AS PER 11 11/90 AS PER 12 11/90 AS PER 13 11/90 AS PER		REV. DATE ALTERED 1 11/90 AS PER 2 11/90 AS PER 3 11/90 AS PER 4 11/90 AS PER 5 11/90 AS PER 6 11/90 AS PER 7 11/90 AS PER 8 11/90 AS PER 9 11/90 AS PER 10 11/90 AS PER 11 11/90 AS PER 12 11/90 AS PER 13 11/90 AS PER	
NAME OF CONSULTANT : ENGINEERS INDIA LIMITED ADDRESS : BHARAT HEAVY ELECTRICALS LTD. TRANSMISSION PRODUCTS DIVISION 1150		NAME OF CUSTOMER/PRODUCT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT ADDRESS : 24.02.12 24.02.12 24.02.12	
PROJECT TITLE GIS CONTROL ROOM BUILDING		SHEET NO. / DRAWING NO. TB 3 334 316 003 DATE OF SHEET / NEXT SHEET 00	

Catalogue: B143R01 DILO Make

B143R01 for liquid SF₆-storage

Standard equipment:

2 oilfree compressors, (2m³/h, final pressure p_e 50 bar,
final pressure at suctioning < 50 mbar)
vacuum pump 14 m³/h (2-stage, final vacuum < 1mbar)
dry filter
particle filter
pressure reducer
indicating instruments
rubber hose 5m long, on both ends with
coupling tongue part DN8
SF6-bottle connection W 21.8 x 1/14"
Operating voltage:
230 V / 50-60 Hz alternating current

paint: RAL 2004



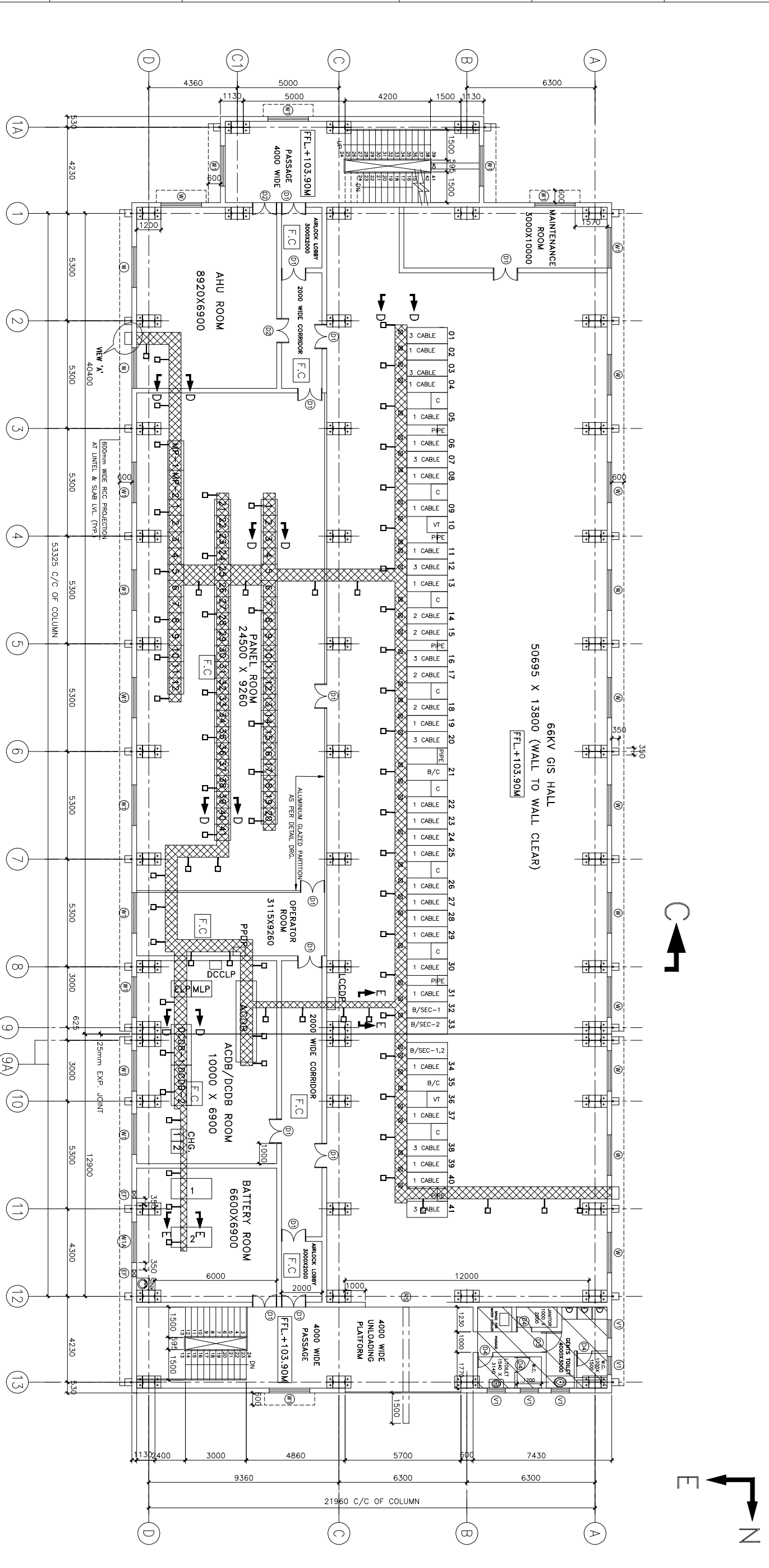
Length: 1016 mm
Width: 813 mm
Height : 1397 mm
Weight: 109 kg

Functions

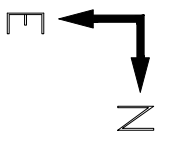
The small service cart is designed to carry out all necessary functions associated with SF 6 -gas handling.

- Removal and storage of SF 6
- Direct liquefaction of SF 6 in an approved cylinder
- Automatic cleansing of SF 6 during removal and filling
- Pressure regulated discharge for safe refilling of SF 6
- Evacuation of air and moisture via 2-stage vacuum pump

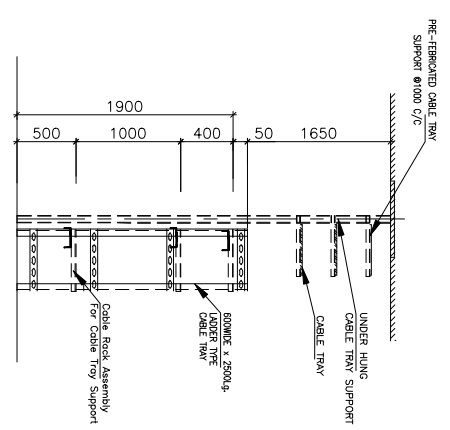
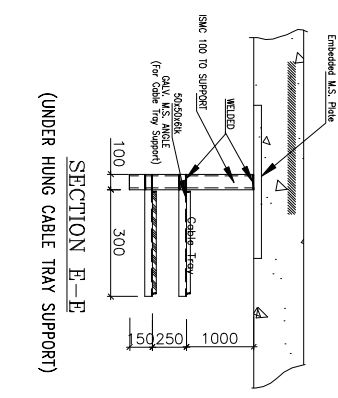
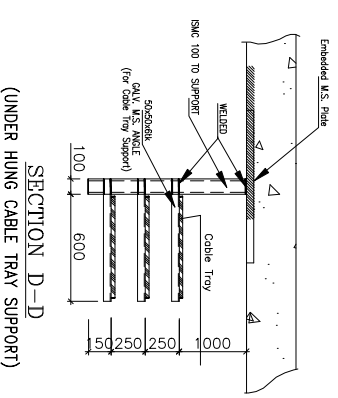
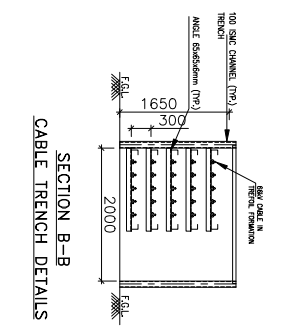
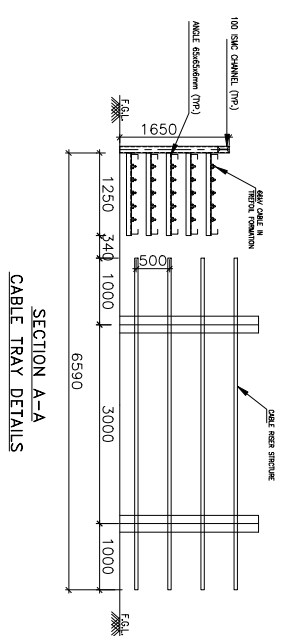
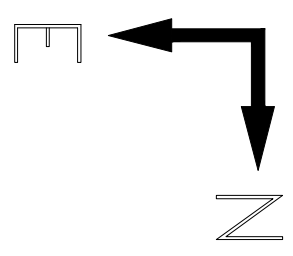
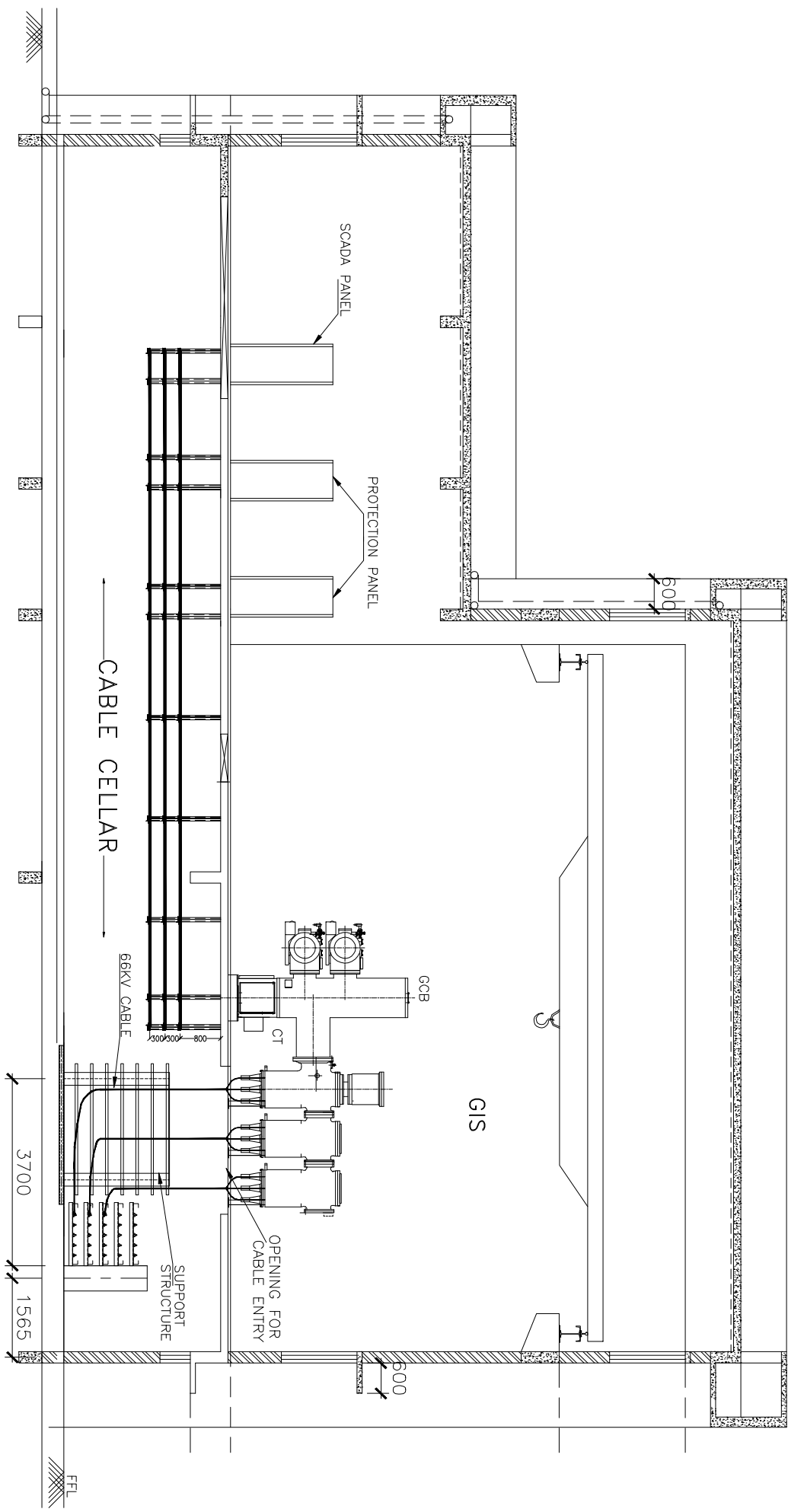
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FIRST FLOOR



INVENTORY No.	SIGN. & DATE	REF. DRG. No.	COMPUTER DRG. PATH NAME :
A		B	
<p>ADDITIONAL INFORMATION W.O.No. 80005</p> <p>STATUS OF DRAWING DISTRIBUTION OF PRINTS</p> <p>NAME OF CONSULTANT : ENGINEERS INDIA LIMITED</p> <p>NAME OF CUSTOMER/PRODUCT : ONGC PETRO ADDITION LIMITED ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT</p>			
REV.	DATE	ALTERED BY	APPROVED BY
ZONE			
REV.	DATE	ALTERED BY	APPROVED BY
ZONE			
REV.	DATE	ALTERED BY	APPROVED BY
ZONE			
<p>NAME OF CONSULTANT : ENGINEERS INDIA LIMITED</p> <p>BRANCH : TRANSMISSION PRODUCTS DIVISION</p> <p>PROJECT : ONGC PETRO ADDITION LIMITED</p> <p>CLIENT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT</p>		<p>DATE : 12.03.12</p> <p>BY : SRS/VA</p> <p>CHECKED : IAS</p> <p>SCALE : 1:150</p>	<p>DATE : 12.03.12</p> <p>BY : SRS/VA</p> <p>CHECKED : IAS</p> <p>SCALE : 1:150</p>
<p>PROJECT TITLE : GIS CONTROL ROOM BUILDING TRENCH LAYOUT</p>		<p>SHEET No. / DRAWING NO. : TB 3 334 316 004</p>	<p>DATE : 12.03.12</p> <p>BY : SRS/VA</p> <p>CHECKED : IAS</p>



ONGC PETRO ADDITION LIMITED NAME OF CUSTOMER/PRODUCT : ONGC DAHEJ PETRO CHEMICAL COMPLEX PROJECT		ENGINEERS INDIA LIMITED NAME OF CONSULTANT :	
ADDITIONAL INFORMATION W.O.No. 80005		STATUS OF DRAWING DISTRIBUTION OF PRINTS	
REV.	DATE	ALTERED	CHECKED
		CHECKED	APPROVED
ZONE			
REV.	DATE	ALTERED	CHECKED
		CHECKED	APPROVED
ZONE			
REV.	DATE	ALTERED	CHECKED
		CHECKED	APPROVED
ZONE			
PROJECT / TITLE GIS CONTROL ROOM BUILDING TRENCH SECTION		SHEET / NO. TB 3 334 316 004	
SCALE 1:80		DATE / DATE 12.03.12	
DEPT. AS		APPROVED AS	
DESIGNED BY SMS/BA		CHECKED BY SMS/BA	
DRAWN BY AS		APPROVED BY AS	
PROJECT NO. 12.03.12		SHEET NO. 00	

INVENTORY No. SIGN. & DATE REF. DRG. No. COMPUTER DRG. PATH NAME :