

INDEX		
SR. No.	PARTICULAR	Rev. No.
1	COVERPAGE	A
2	INDEX	A
3	LEGENDS AND SYMBOLS	-
4	SAFETY DECALS	-
5	GENERAL ARRANGEMENT-1	-
6	GENERAL ARRANGEMENT-2	-
7	INTERNAL GENERAL ARRANGEMENT	-
8	NAME PLATE DETAILS	A
9	GENERAL NOTES & WIRING INSTRUCTION	A
10	AC AUXILIARY CIRCUIT	-
11	DC POWER SUPPLY CIRCUIT	-
12	DC POWER DISTRIBUTION CIRCUIT-1	-
13	DC POWER DISTRIBUTION CIRCUIT-2	-
14	AC UPS & DC SUPERVISION CIRCUIT	-
15	RESERVE SHEET	-
16	CT SHORTING & PT ARRANGEMENT FOR GPR	-
17	GPR ANALOG INPUT CIRCUIT	A
18	GPR BINARY INPUT CIRCUIT	-
19	GPR BINARY OUTPUT CIRCUIT	-
20	ROTOR E/F MODULE CIRCUIT	-
21	GPR TRIP MATRIX & HMI LED INDICATION	-
22	86A TRIP CIRCUIT FOR GPR	-
23	86B TRIP CIRCUIT FOR GPR	-
24	RESERVE SHEET	-
25	CLOSING & TRIP COMMAND FROM 86A & 86B	-
26	RESERVE SHEET	-
27	GPR FAIL MULTIPLICATION CIRCUIT	-
28	AUXILIARY RELAY FOR 50BF	-
29	RESERVE SHEET	-
30	RESERVE SHEET	-

INDEX		
SR. No.	PARTICULAR	Rev. No.
31	RESERVE SHEET	-
32	RESERVE SHEET	-
33	RESERVE SHEET	-
34	ANNUNCIATION CIRCUIT	-
35	RESERVE SHEET	-
36	CT SHORTING & PT ARRANGEMENT FOR METERING	-
37	MW-TDR & TEST TERMINAL BLOCK CIRCUIT	-
38	RESERVE SHEET	-
39	RESERVE SHEET	-
40	RESERVE SHEET	-
41	TVM / PQM METER CIRCUIT	-
42	RESERVE SHEET	-
43	RESERVE SHEET	-
44	RESERVE SHEET	-
45	RESERVE SHEET	-
46	RESERVE SHEET	-
47	TERMINAL ARRANGEMENT-1	-
48	TERMINAL ARRANGEMENT-2	-
49	TERMINAL ARRANGEMENT-3	-
50	TERMINAL ARRANGEMENT-4	-
51	TERMINAL ARRANGEMENT-5	-
52	TERMINAL ARRANGEMENT-6	-
53	RESERVE SHEET	-
54	RESERVE SHEET	-
55	RESERVE SHEET	-
---	BILLS OF MATERIAL	-

				Prepared: HUR 17-Feb-2021	Derived from : Rev-	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : INDEX FOR RELAY AND METERING PANEL	Size: A3
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TITLE	INFORMATION OF LEGENDS AND SYMBOLS USED IN THIS DRAWING	
SR. NO.	SYMBOL	DESCRIPTION OF DEVICE
1		PANEL SPACE HEATER
2		PANEL ILLUMINATION LAMP
3		THERMOSTAT
4		DOOR SWITCH
5		HRC FUSE
6		LED TYPE INDICATING LAMP
7		SERVICE SOCKET WITHOUT SWITCH
8		BUZZER
9		RESIDUAL CURRENT OPERATED CIRCUIT BREAKER (2-POLE)
10		MINIATURE CIRCUIT BREAKER (SINGLE POLE)
11		MINIATURE CIRCUIT BREAKER (2-POLE)
12		MINIATURE CIRCUIT BREAKER (4-POLE)

TITLE	INFORMATION OF LEGENDS AND SYMBOLS USED IN THIS DRAWING	
SR. NO.	SYMBOL	DESCRIPTION OF DEVICE
13		PUSH BUTTON WITH MAKE CONTACT (SPRING RETURN TYPE)
14		EMERGENCY PUSH BUTTON WITH MAKE CONTACT (STAY PUT TYPE)
15		ELECTROMAGNETIC ACTUATOR (CONTACTOR / RELAY) WITH SURGE PROTECTION (FOR DC COIL ONLY)
16		CHANGE OVER CONTACT OF CONTACTOR / RELAY
17		NORMALLY OPEN CONTACT OF RELAY
18		NORMALLY CLOSE CONTACT OF CONTACTOR / RELAY
19		CONNECTION / JUNCTION IN WIRING
20		WIRE / CONDUCTOR / CABLE
21		TERMINAL
22		TERMINAL STRIP
23		EARTHING

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						Document No.	62OP42671_U1_637090002	Rev.No.	-
								Sheet:	003

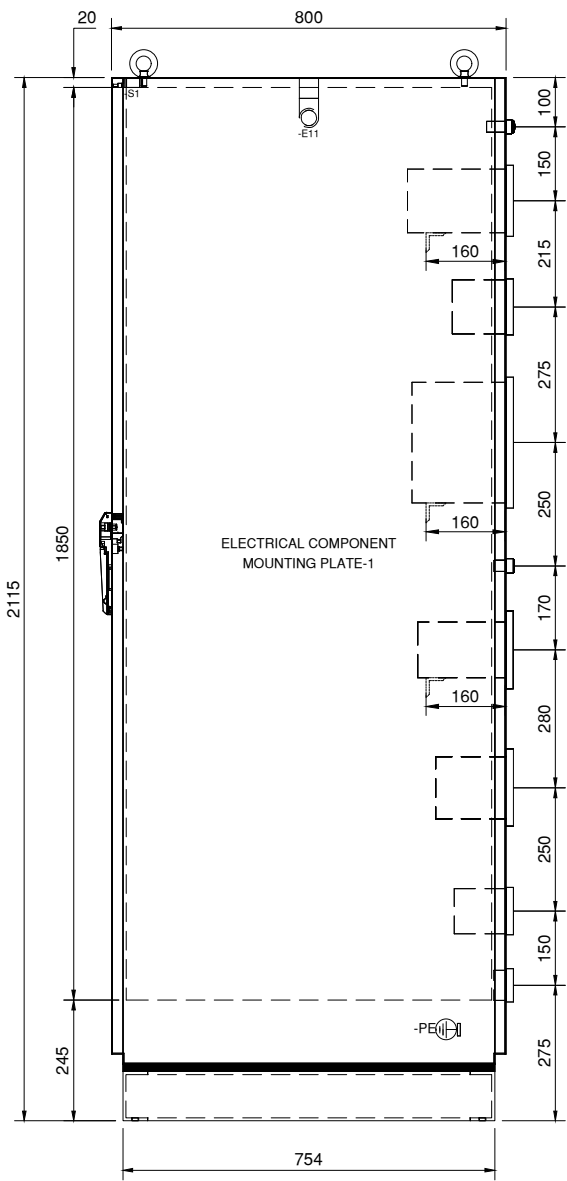
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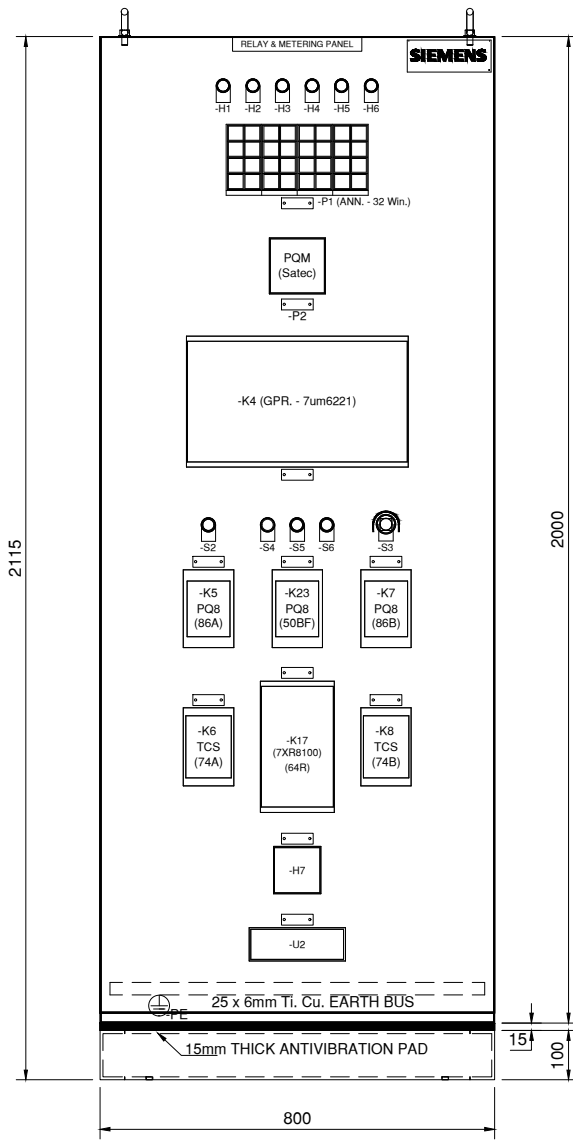
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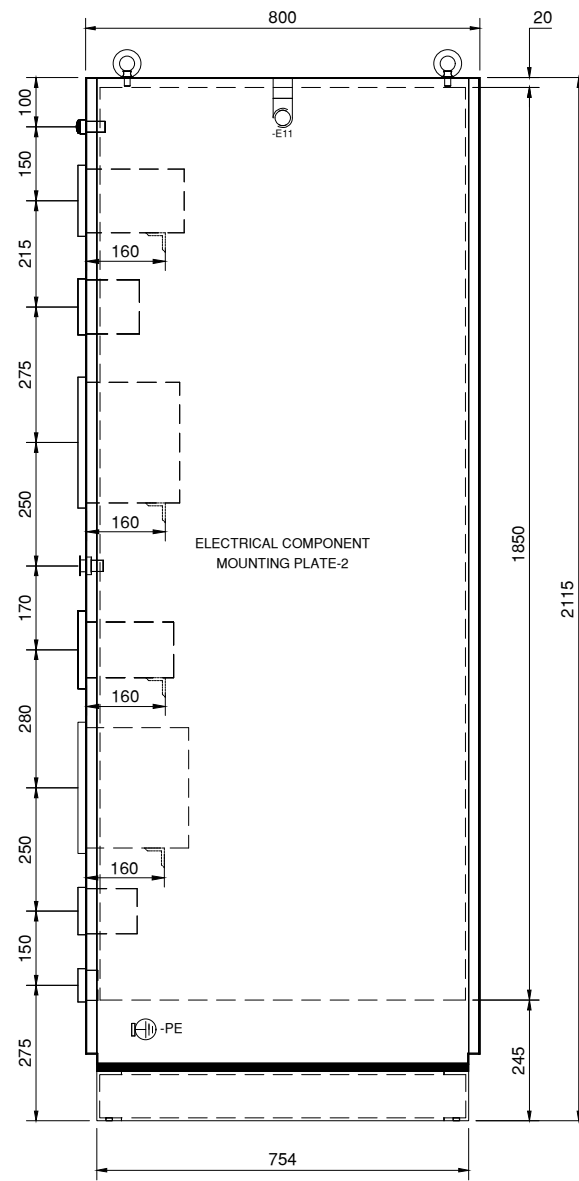
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				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.	
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L. H. SIDE VIEW



FRONT VIEW

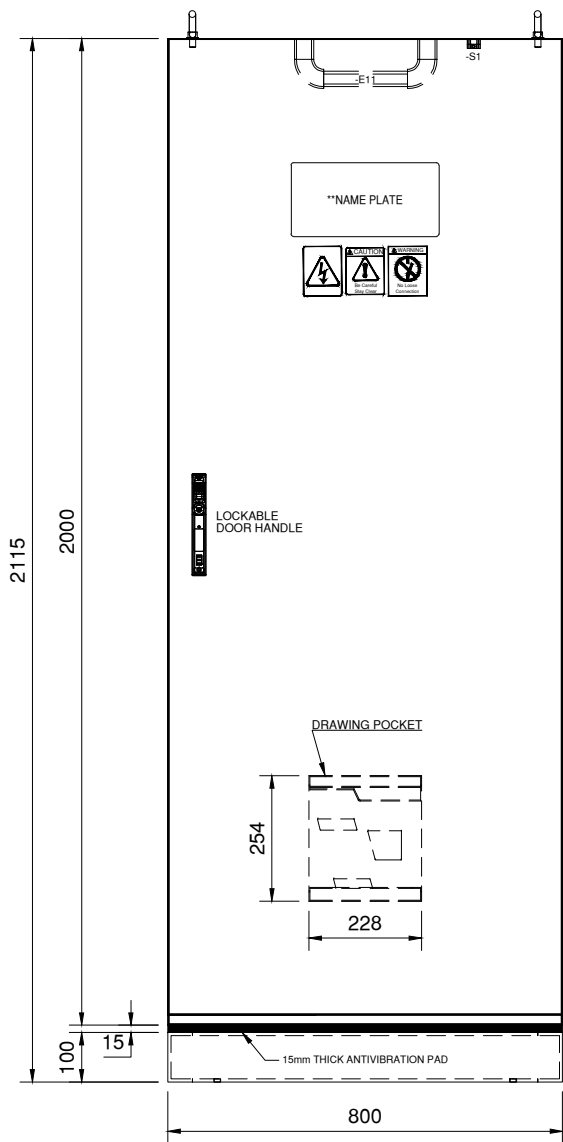


R.H. SIDE VIEW

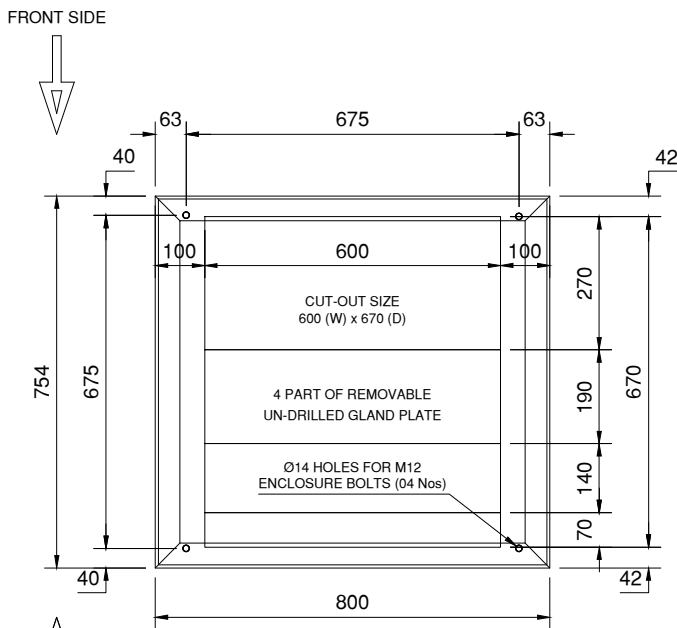
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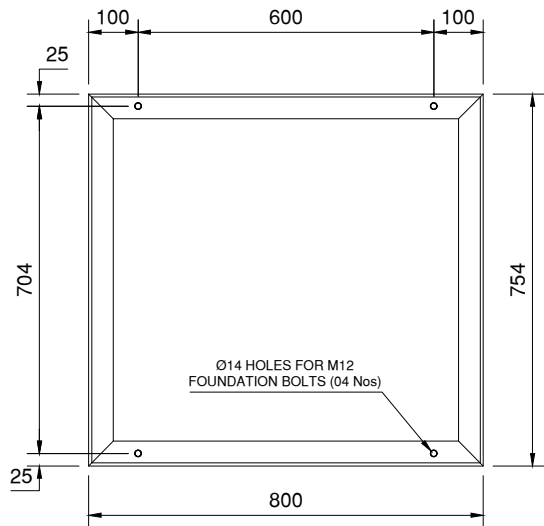
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REV. DATE : 31.03.2010



REAR VIEW



BOTTOM VIEW



FOUNDATION DETAILS

**NOTE:- REFER SHEET NO. 008 FOR NAME PLATE DETAILS.

Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : GENERAL ARRANGEMENT-2 FOR RELAY AND METERING PANEL	Size: A3
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				Sheet: 006

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				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : INTERNAL GENERAL ARRANGEMENT FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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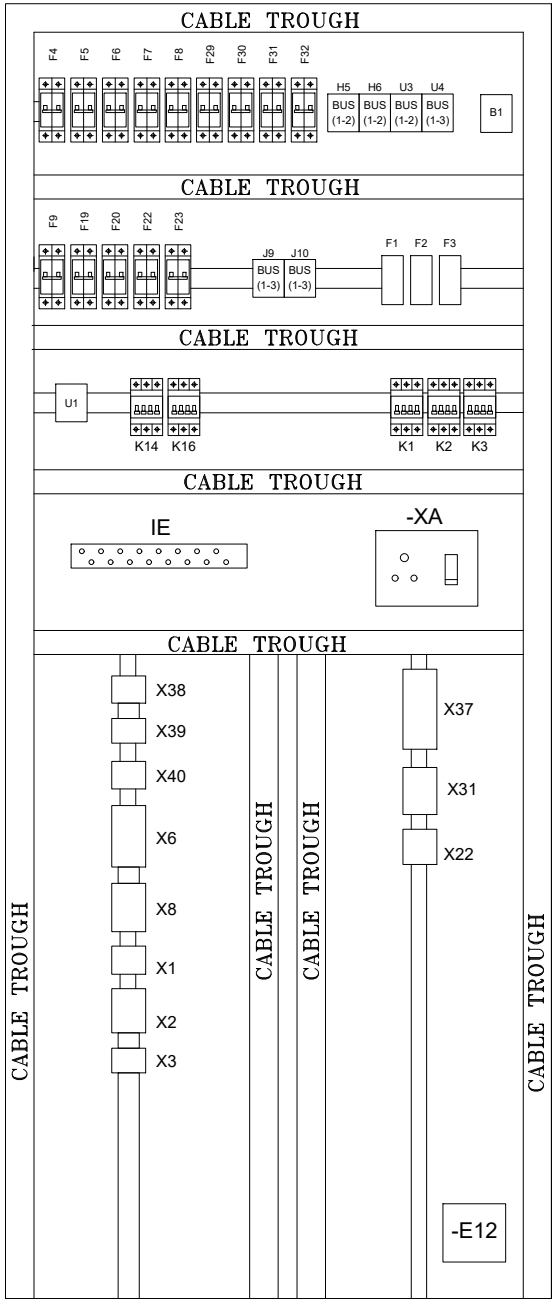
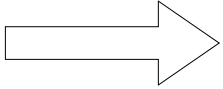
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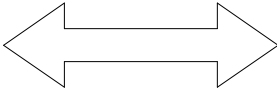
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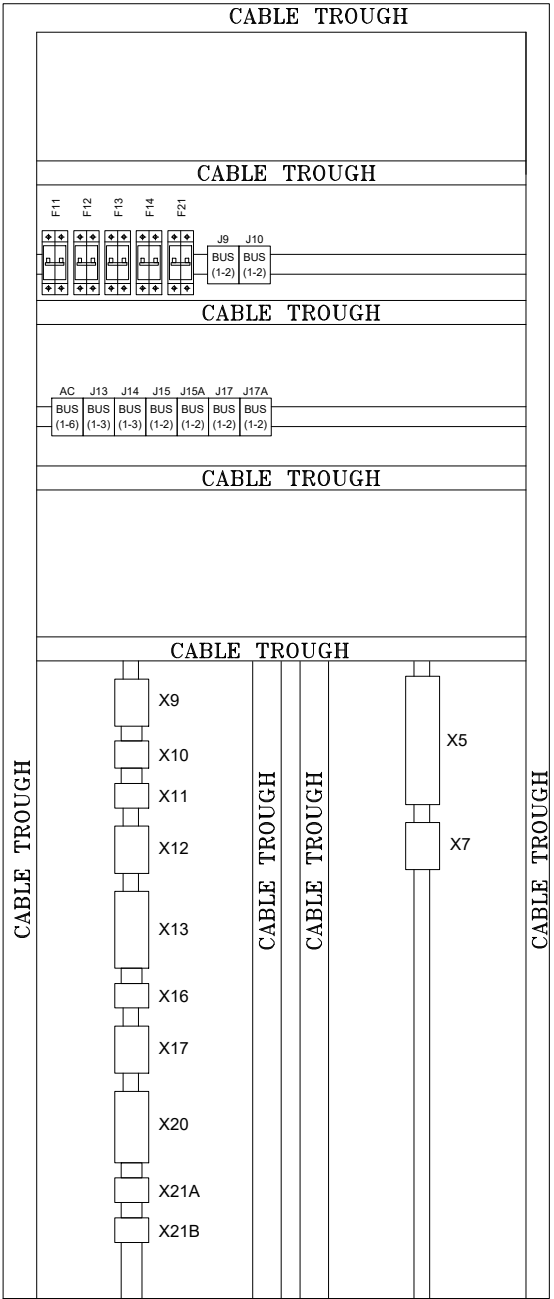
FRONT



LHS VIEW

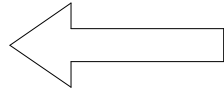


REAR



RHS VIEW

FRONT



A 80	TITLE	NAME PLATE DETAILS	
	SR. No.	PARTICULAR	DETAILS
	1	INSTALLATION	KHATAV MAN TALUKA AGRO PROCESSING LTD. - 1x8.6 MW
	2	END USER	KHATAV MAN TALUKA AGRO PROCESSING LTD.
	3	PANEL MANUFACTURE'S NAME	Dresser-Rand India Private Limited
	4	PANEL NAME	RELAY AND METERING PANEL
	5	PANEL SRL. No.	DRI-202105-1186
	6	YEAR OF MANUFACTURE	2021
	7	AC AUX. CIRCUIT RATED VOLTAGE LEVEL	1 Ø, 230V AC
	8	AC UPS CIRCUIT RATED VOLTAGE LEVEL	1 Ø, 230V AC
	9	SYSTEM FREQUENCY	50 Hz
	10	DC CIRCUIT VOLTAGE LEVEL	110V DC
	11	DEGREE OF PROTECTION	IP4X
	12	SERVICE	NORMAL SERVICE CONDITION (INDOOR INSTALLATION)
	13	MAX. WEIGHT	750Kg APPROXIMATELY.
	A 150		

NOTE FOR NAME PLATE:
BACKGROUND - SS/ LETTER - BLACK / MATERIAL - SS

A

DETAIL MARKED AS LATER SHALL BE UPDATED IN AS-BUILT DRAWINGS.

PROJECT SPECIFIC DETAILS :-			
SR.NO.	PARTICULAR	DATA	UNIT
01	GENERATOR MW RATING	8.60	MW
02	GENERATOR RATED FREQUENCY	50	Hz
03	GENERATOR RATED POWER FACTOR	0.80	LAGGING
04	PT RATED PRIMARY VOLTAGE	11000	VOLT
05	PT RATED SECONDARY VOLTAGE	110	VOLT
06	CT RATED PRIMARY CURRENT	700	A
07	CT RATED SECONDARY CURRENT	1	A

				Prepared: HUR 17-Feb-2021	Derived from : Rev-	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : NAME PLATE DETAILS FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
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				SIEMENS Ingenuity for life			Document No. 62OP42671_U1_637090002	Rev.No. A Sheet: 008

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GENERAL NOTES :

PANEL CONSTRUCTION DETAILS :

CONSTRUCTION	A) GASKET: AS PER RITTAL STANDARD B) COMPONENT MOUNTING PLATE : 3.0 MM THICK, POWDER COATED (7 TANK PROCESS). C) ANTI VIBRATION PAD : 15mm THICK RUBBER. D) BASE FRAME : 100mm ISMC.
INGRESS PROTECTION	A) IP4X
PAINTING	A) PANEL PAINT PROCESS : AS PER RITTAL STANDARD. B) BASE FRAME SHADE : RAL9005.
GLAND PLATE	A) 3.0mm G.I. RITTAL MAKE.
HARDWARE	A) ALL HARDWARE USED IN PANEL SHALL BE ZINC PASSIVATED. B) BOLTS USED : MS 4.4 GRADE OR BETTER.

WIRING, EARTHING & TAGGING INSTRUCTIONS :

BASIC WIRING SPECIFICATIONS	A) 1.1KV GRADE PVC INSULATED (FRLS), MULTI-STRANDED COPPER CONDUCTOR FLEXIBLE SINGLE CORE WIRE. B) EACH WIRE SHALL HAVE FERRULE NUMBERS AS PER APPROVED SCHEME.
WIRE TERMINATION	A) WIRE SHALL BE TERMINATED WITH CRIMPING TYPE LUGS (TIN. CU.) AND SLEEVES AS MENTIONED WIRE TABLE. B) WIRE LOOPING FROM EQUIPMENT TO EQUIPMENT IS NOT PERMITTED. USE 4-WAY TB FOR SUCH DISTRIBUTION.
WIRE ROUTING	A) WIRE SHALL BE ROUTED THROUGH FR PVC WIRE DUCTS. B) WIRE FOR SPACE HEATER CIRCUIT SHALL BE ROUTED IN SEPARATE PVC SPIRAL BINDING.
EARTHING	A) 25 x 6 Sq. MM TINNED COPPER EARTH BUS FOR PANEL POWER EARTH (-PE). 1. ALL CONNECTION MARKED WITH  IN THIS DRAWING SHALL BE CONNECTED TO (-PE) EARTH BUS. 2. ENCLOSURE BODY FRAME, DOOR, MOUNTING PLATES, GLAND PLATE SHALL BE CONNECTED TO (-PE) EARTH BUS. B) 25 x 6 Sq. MM TINNED COPPER EARTH BUS FOR INSTRUMENT SIGNAL CABLES (-IE). 1. ALL CONNECTION MARKED WITH  IN THIS DRAWING SHALL BE CONNECTED TO (-IE) EARTH BUS.
TAGGING	A) FLUSH MOUNTED EQUIPMENT : SELF ADHESIVE / RIVETTED / SCREW TYPE AL/SS. NAME PLATE / TAG. B) INTERNALLY MOUNTED EQUIPMENT : SELF ADHESIVE TYPE PVC STICKER TAG. C) PANEL NAME PLATE : SELF ADHESIVE / RIVETTED / SCREW TYPE AL/SS. NAME PLATE.

TECHNICAL REQUIREMENTS :

GENERAL	A) IT IS RECOMMENDED TO KEEP CLEAR SPACE OF 1.0 Meter ON FRONT & REAR SIDE. B) UNLESS SPECIFIED OTHERWISE ALL DIMENSION ARE IN mm. TOLERANCE: +/- 2mm C) INCOMING LT CABLE ENTRY FROM BOTTOM. D) ALL ELECTRICAL CONTROL DEVICES ARE SHOWN IN DE-ENERGISED CONDITION. E) PANEL FOUNDATION REQUIREMENT SHALL BE ENSURED BY CIVIL CONTRACTOR. (NOT IN SIEMENS' SCOPE).
---------	---

SCOPE DEMARCATION :

SIEMENS' SCOPE.

CUSTOMER'S SCOPE.

WIRE COLOUR CODES :

SR. No.	DESCRIPTION	COLOUR CODE AS PER IS 11353	ABBREVIATION	SLEEVES	WIRE SIZE (Sq. mm)
1	AC AUXILIARY SUPPLY CIRCUIT (PH.)	RED	RD	RD	2.5
2	AC AUXILIARY SUPPLY CIRCUIT (N.)	BLACK	BK	BK	2.5
3	AC UPS SUPPLY CIRCUIT (PH.)	RED	RD	RD	2.5
4	AC UPS SUPPLY CIRCUIT (N.)	BLACK	BK	BK	2.5
5	DC SUPPLY CIRCUIT (+VE)	RED	RD	RD	2.5
6	DC SUPPLY CIRCUIT (-VE)	BLUE	BL	BL	2.5
7	DC CONTROL CIRCUIT	GREY	GR	RD	1.5
8	ANNUNCIATION CIRCUIT	BLUE	BL	BL	1.0
9	SHIELD CABLE FOR ANALOG SIGNAL (4 - 20 mA)	WHITE	---	---	0.5
10	VOLTAGE CIRCUIT, SECONDARY WIRING OF VT	L1: RED, L2: YELLOW L3: BLUE, N: BLACK	L1: RD, L2: YL L3: BL, N: BK	RD, YL BL, BK	2.5
11	CURRENT CIRCUIT, SECONDARY WIRING OF CT	L1: RED, L2: YELLOW L3: BLUE, N: BLACK	L1: RD, L2: YL L3: BL, N: BK	RD, YL BL, BK	2.5
12	CURRENT CIRCUIT, SECONDARY WIRING OF NGR CT	S1: RED, S2: BLACK	S1: RD, S2: BK	RD, BK	2.5
13	POTENTIAL FREE CONTACT	ORANGE	OR	RD	1.5
14	POWER EARTHING	GREEN - YELLOW	GNYE	YE	4.0

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SERVICE DESCRIPTION:

AC AUX.
INCOMING
SUPPLY

AC AUX. INCOMING
SUPPLY ON
INDICATION

SPACE HEATER
CIRCUIT

SPACE HEATER
ON INDICATION

LED TYPE PANEL
ILLUMINATION
TUBE LIGHT

SERVICE SOCKET
CIRCUIT

A

B

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D

DEVELOPMENT:

NOTES:

@ THERMOSTAT TO BE SET AT 35 DEG C DURING FAT.

FORMAT NO : IP-Q-F-2002/B
REV. DATE : 31.03.2010

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title :	AC AUXILIARY CIRCUIT FOR RELAY AND METERING PANEL	Size:	A3
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Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet:	055
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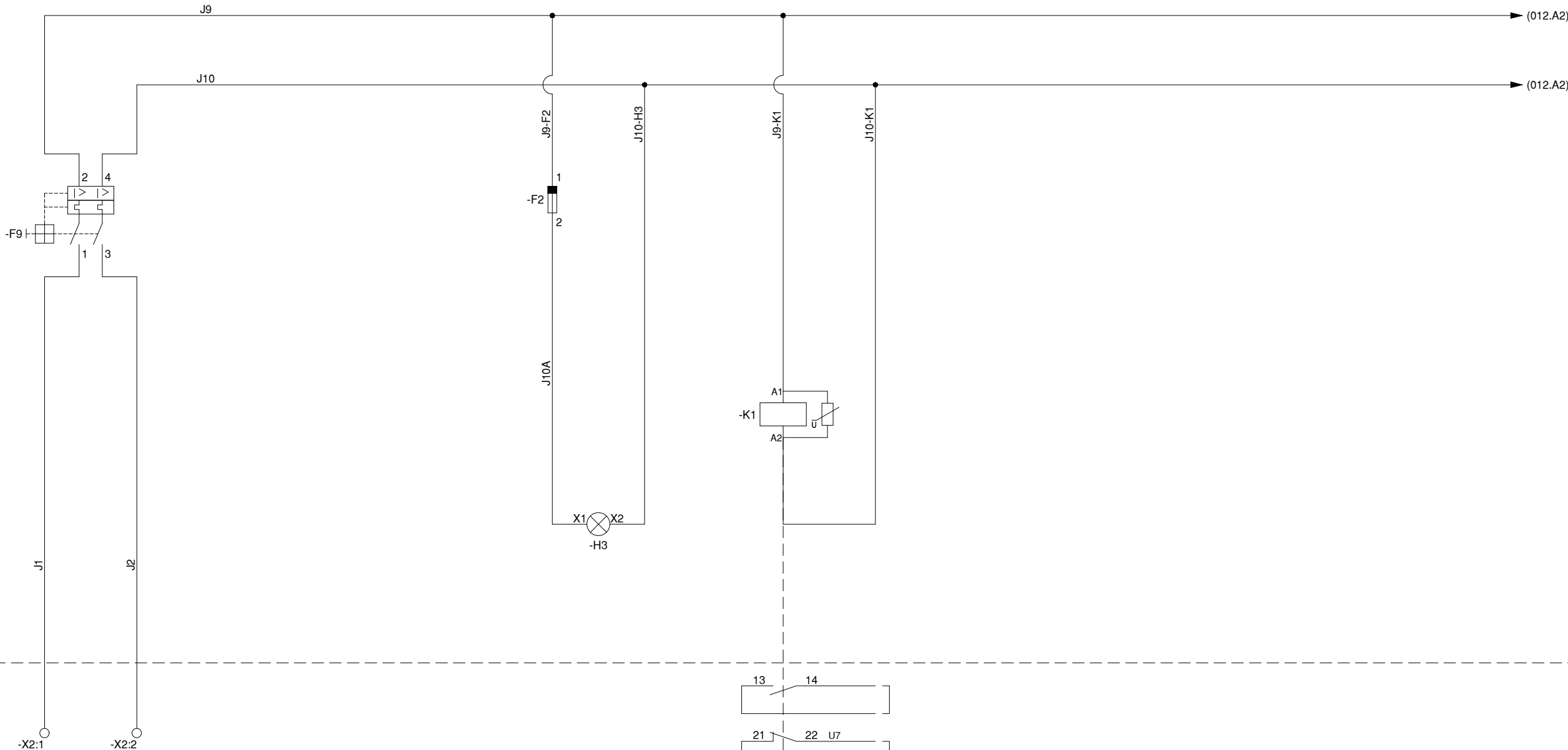
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REV. DATE : 31.03.2010

SERVICE DESCRIPTION:

DC INCOMING
SUPPLY

DC INCOMING
SUPPLY
ON INDICATION

DC SUPERVISION
CONTACTOR



DEVELOPMENT:

NOTES:

Prepared:	HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : DC POWER SUPPLY CIRCUIT FOR RELAY AND METERING PANEL	Size: A3
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SERVICE DESCRIPTION:

GPR AUX.CKT
ON/OFF MCB

GPR BINARY
INPUT CKT
ON/OFF MCB

86A MASTER TRIP
RELAY ON/OFF
MCB

86B MASTER TRIP
RELAY ON/OFF
MCB

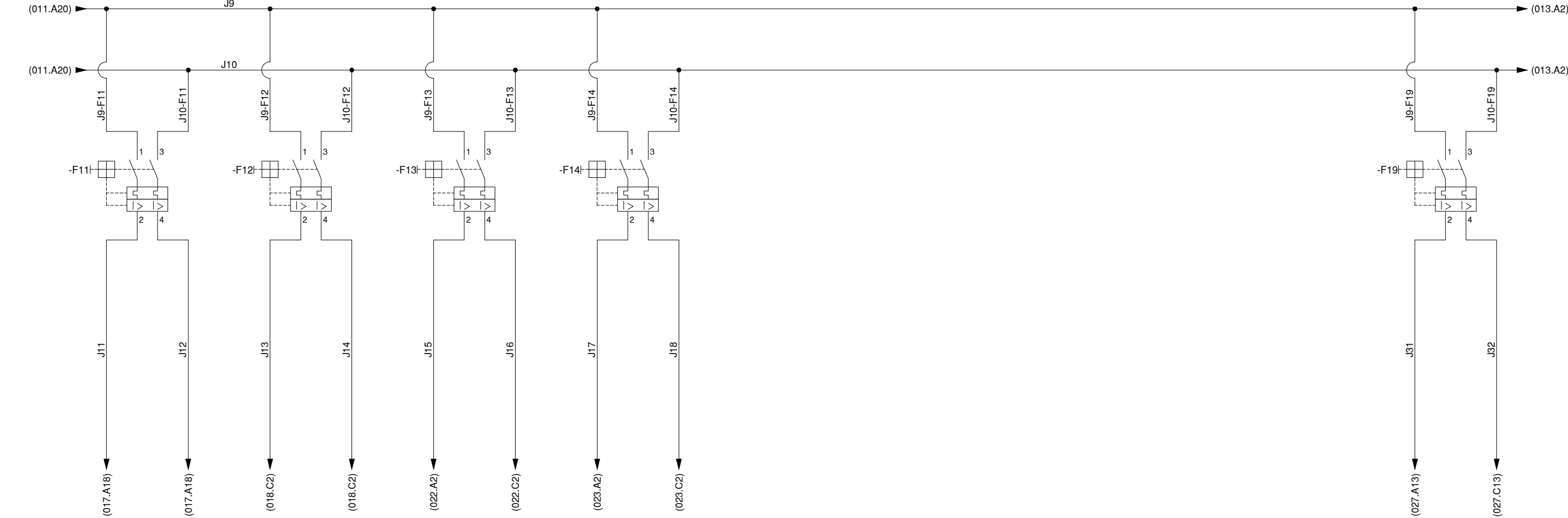
GCB TRIP CKT
HEALTHY AUX.
RELAY ON/OFF MCB

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DEVELOPMENT:

NOTES:

Prepared:	HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : DC POWER DISTRIBUTION CIRCUIT-1 FOR RELAY AND METERING PANEL	Size: A3
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SIEMENS <i>Ingenuity for life</i>				Document No. 62OP42671_U1_637090002	Rev.No. - Sheet: 012

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FORMAT NO : IP-Q-F-2002/B
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SERVICE DESCRIPTION:

50BF AUX. RELAY
ON/OFF MCB

ANNUNCIATOR
ON/OFF MCB

MW-TDR ON/OFF
MCB

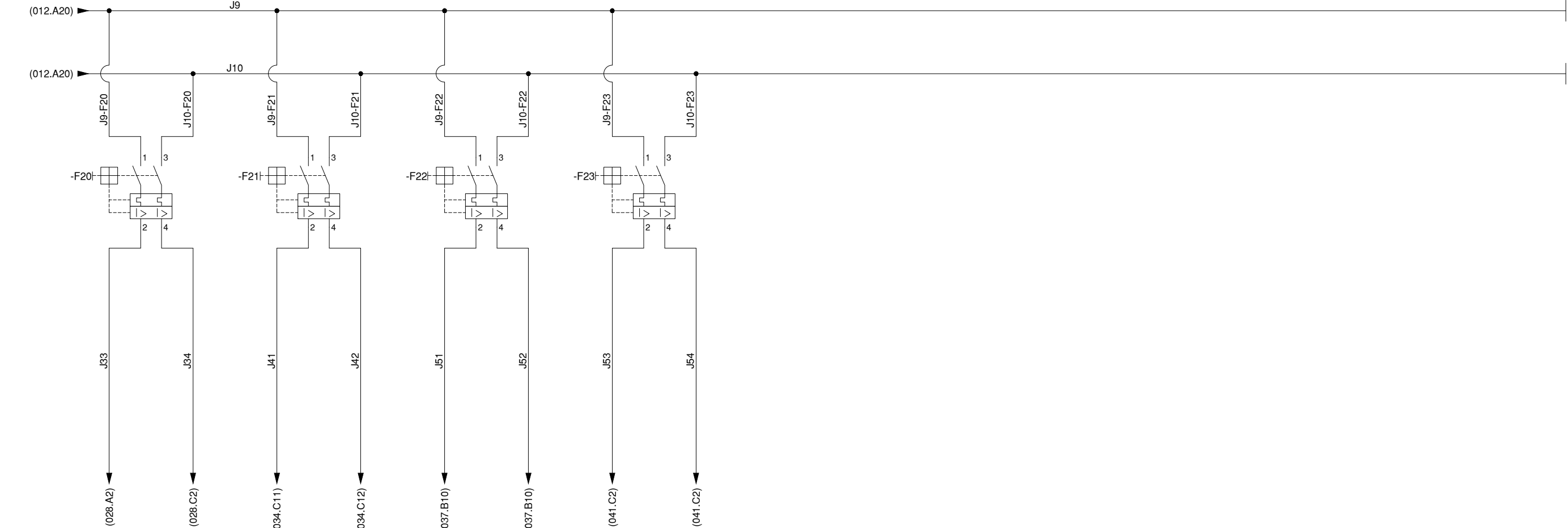
METERING CKT.
ON/OFF MCB

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DEVELOPMENT:

NOTES:

				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : DC POWER DISTRIBUTION CIRCUIT-2 FOR RELAY AND METERING PANEL	Size: A3	
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SERVICE DESCRIPTION:

AC UPS INCOMING SUPPLY

AC UPS INCOMING SUPPLY ON INDICATION

AC UPS SUPERVISION CONTACTOR

DC SUPERVISION CIRCUIT

ROTOR EF MODULE ON/OFF MCB

GPR FAILED AUX. RELAY ON/OFF MCB

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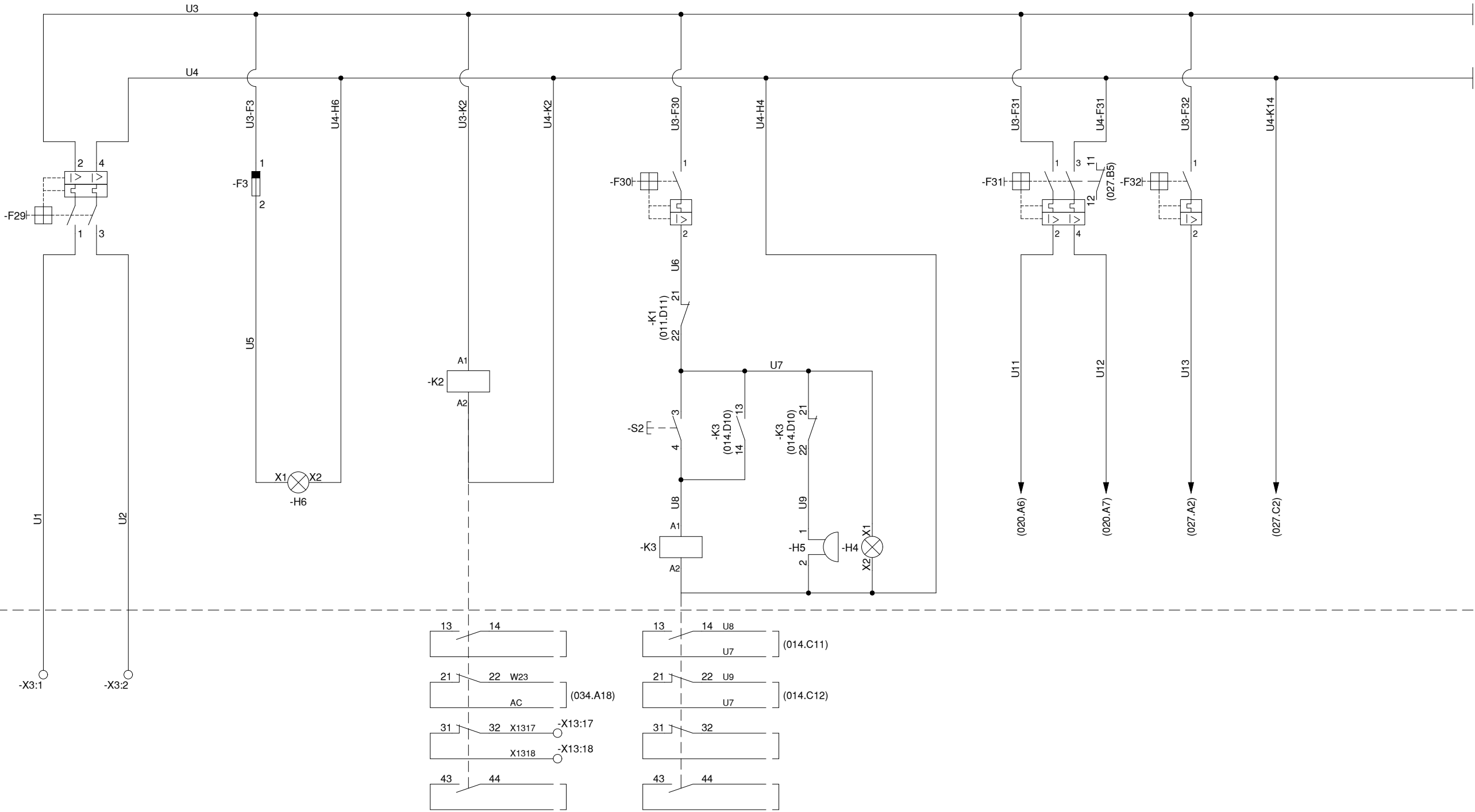
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DEVELOPMENT:

NOTES:



				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : AC UPS & DC SUPERVISION CIRCUIT FOR RELAY AND METERING PANEL	Size: A3	
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055	
					SIEMENS <i>Ingenuity for life</i>		Document No. 62OP42671_U1_637090002	Rev.No. -	Sheet: 014

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REV.DATE : 31.03.2010

RESERVE SHEET

Prepared:	HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : RESERVE SHEET FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD. Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet:	055
		SIEMENS <i>Ingenuity for life</i>		Document No. 62OP42671_U1_637090002	Rev.No. -	Sheet: 015



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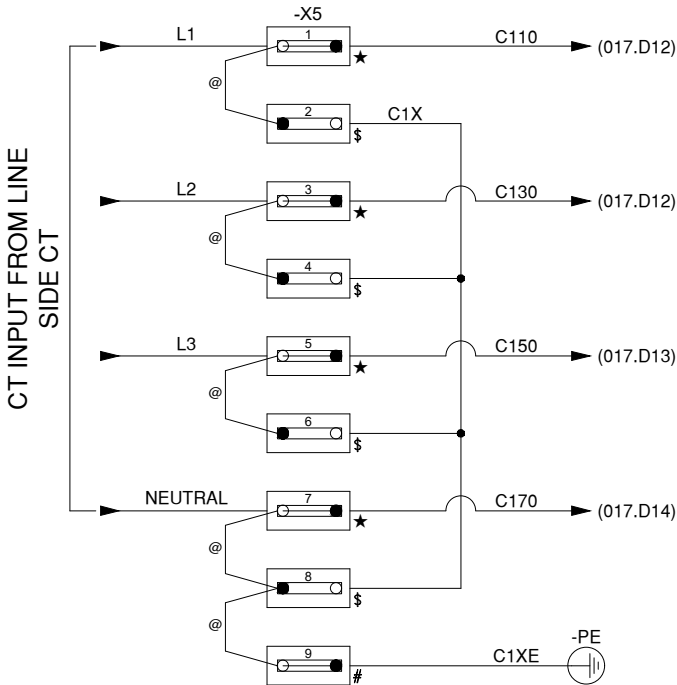
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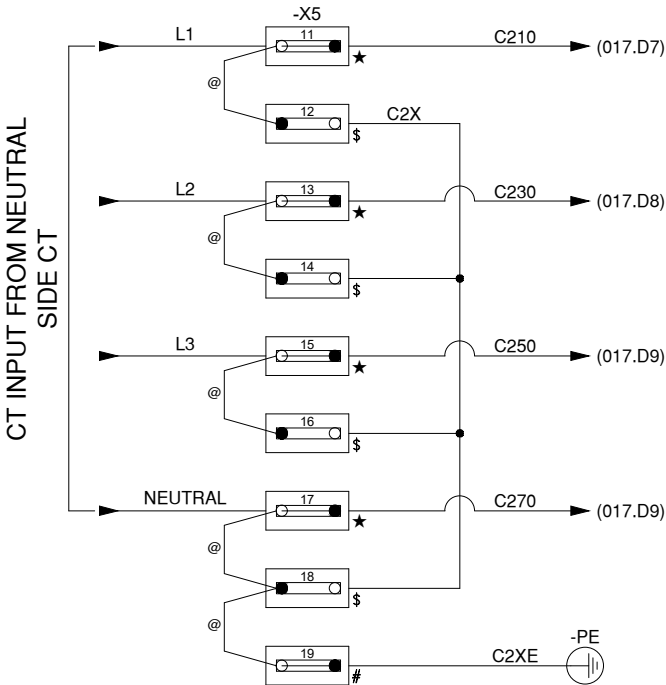
FORMAT NO : IP-Q-F-2002/B
REV. DATE : 31.03.2010

SERVICE DESCRIPTION:

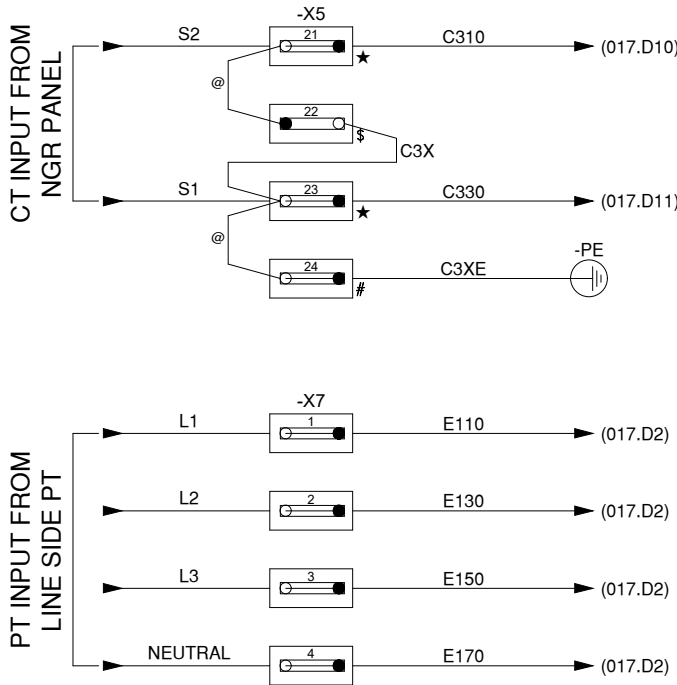
LINE SIDE CT INPUT FOR PROTECTION CIRCUIT



NEUTRAL SIDE CT INPUT FOR PROTECTION CIRCUIT



NGR CT INPUT & PT INPUT FOR PROTECTION CIRCUIT



DANGER!

- INTERRUPTIONS IN SECONDARY CIRCUITS OF CURRENT TRANSFORMERS WILL BE RESULTED INTO HAZARDOUS VOLTAGE AND ARC FLASHOVER.
- HENCE SHORT-CIRCUIT THE CURRENT TRANSFORMER SECONDARY CIRCUITS BEFORE CURRENT CONNECTIONS TO THE DEVICE OR CIRCUIT ARE BEING OPENED FOR TESTING OR MAINTENANCE.
- CHECK THE TERMINAL CONNECTIONS , TIGHTNESS AND SHORTING ARRANGEMENT BEFORE ENERGIZATION.

NOTES:

CT SHORTING INSTRUCTION

NORMAL OPERATION

: TERMINAL LINK FOR "*" MARKED TERMINALS MUST BE IN "CLOSED" POSITION AND TERMINAL LINK FOR "\$" MARKED TERMINALS MUST BE IN "OPENED" POSITION.

CT SHORTING

: IN CASE OF CT NEED TO BE SHORTED FOR TESTING OR MAINTENANCE THEN, FIRST CLOSE TERMINAL LINK OF "\$" MARKED TERMINALS AND THEN ONLY OPEN TERMINAL LINK OF "*" MARKED TERMINALS.

EARTHING

: CT SECONDARY MUST BE EARTHED AT ONE POINT ONLY . CT SECONDARY WILL BE EARTHED AT GENERATOR PROTECTION PANEL AND HENCE CLOSE "#" MARKED EARTH LINK.

PT DISCONNECTING INSTRUCTION

NORMAL OPERATION

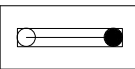
: TERMINAL LINK FOR ALL TERMINALS MUST BE IN "CLOSED" POSITION

MAINTENANCE & TESTING

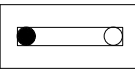
: TERMINAL LINK FOR ALL TERMINALS MUST BE IN "OPENED" POSITION

EARTHING

: PT SECONDARY MUST BE EARTHED AT ONE POINT ONLY . PT SECONDARY WILL BE EARTHED AT LAVT PANEL



INDICATES TERMINAL LINK IN CLOSED POSITION



INDICATES TERMINAL LINK IN OPENED POSITION

"@"

INDICATES ELMEX MAKE RING TYPE SHORTING LINK - KDSL4R.

Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : CT SHORTING & PT ARRANGEMENT FOR GPR FOR RELAY AND METERING PANEL	Size: A3
Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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DEVELOPMENT:

NOTES:



				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : GPR ANALOG INPUT CIRCUIT FOR RELAY AND METERING PANEL		Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.	
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055	
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FORMAT NO : IP-Q-F-2002/B
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SERVICE
DESCRIPTION:

GENERATOR
PROTECTION RELAY
(BINARY INPUTS)

BINARY INPUTS FOR GPR

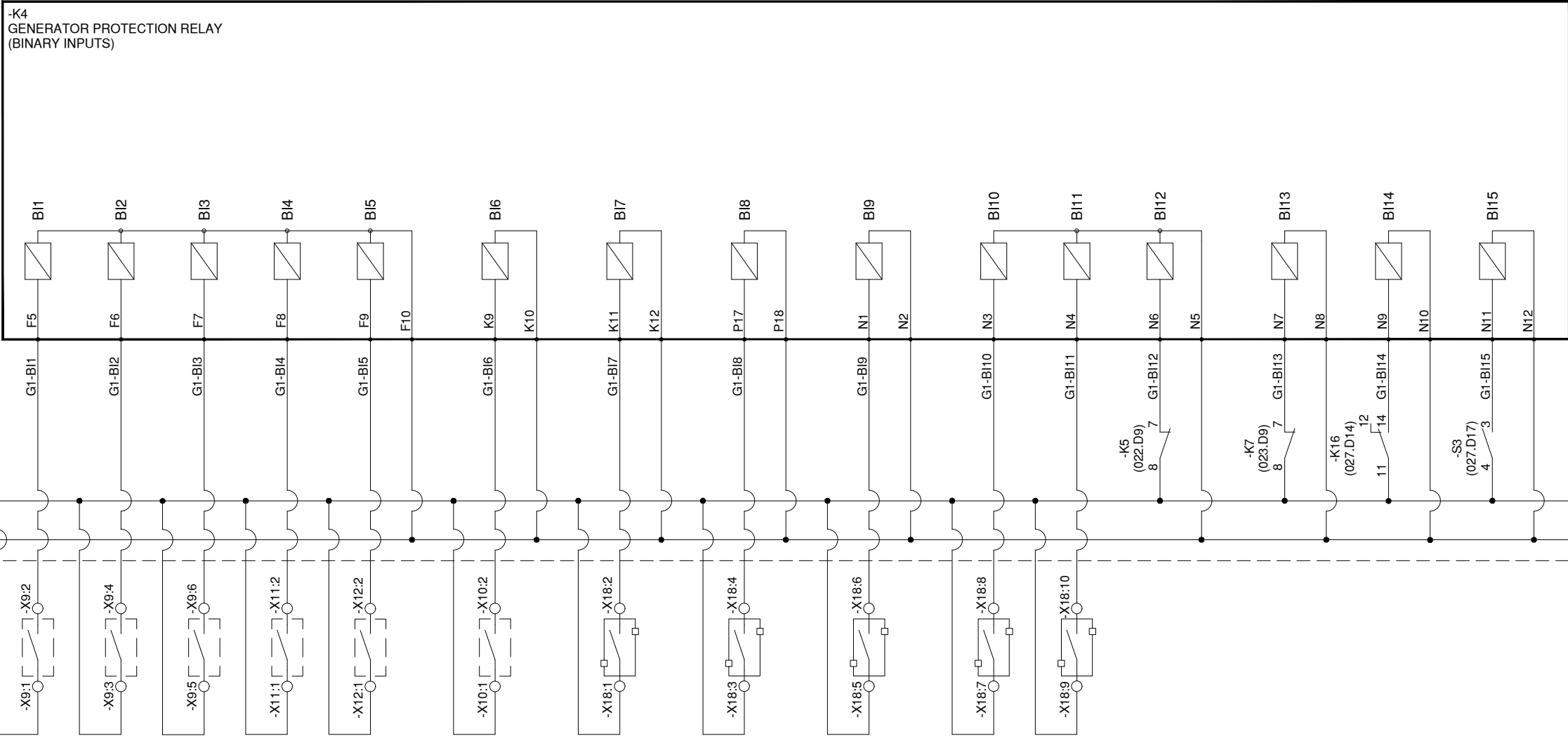
SR. NO.	DESCRIPTION
BI-1	GENERATOR BREAKER CLOSED FEEDBACK
BI-2	GRID BREAKER CLOSED FEEDBACK
BI-3	NIS STATUS
BI-4	TURBINE TRIP FEEDBACK
BI-5	AVR TRIP FEEDBACK

BINARY INPUTS FOR GPR

SR. NO.	DESCRIPTION
BI-6	GPR PT MCB CLOSED FEEDBACK
BI-7	SPARE
BI-8	86A SPARE TRIP-1
BI-9	86B SPARE TRIP-1
BI-10	86A SPARE TRIP-2

BINARY INPUTS FOR GPR

SR. NO.	DESCRIPTION
BI-11	86B SPARE TRIP-2
BI-12	86A MASTER TRIP RELAY OPERATED
BI-13	86B MASTER TRIP RELAY OPERATED
BI-14	GCB TRIP CKT. HEALTHY
BI-15	EMERGENCY TRIP



DEVELOPMENT:

NOTES:

Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : GPR BINARY INPUT CIRCUIT FOR RELAY AND METERING PANEL	Size: A3
Checked: PJM 17-Feb-2021	Sep. PL same No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet: 055
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FORMAT NO : IP-Q-F-2002/B
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SERVICE DESCRIPTION:

GENERATOR PROTECTION
RELAY (BINARY OUTPUTS
& PORTS)

BINARY OUTPUTS FOR GPR

SR. NO.	WINDOW NO.	ANSI NO.	DESCRIPTION
BO-1	1	50/67/51V	DT OC / INST. OC / VOLTAGE CONTROLLED OC TRIP
BO-2	2	46	NEG. PHASE SEQ. TRIP
BO-3	3	87G	GENERATOR DIFFERENTIAL TRIP
BO-4	4	78/50,27	POLE SLIPPING / INADVERTENT ENERGIZATION TRIP
BO-5	5	27/59	UNDER / OVER VOLTAGE TRIP
BO-6	---	---	SPARE
BO-7	---	---	FOR 86A TRIP

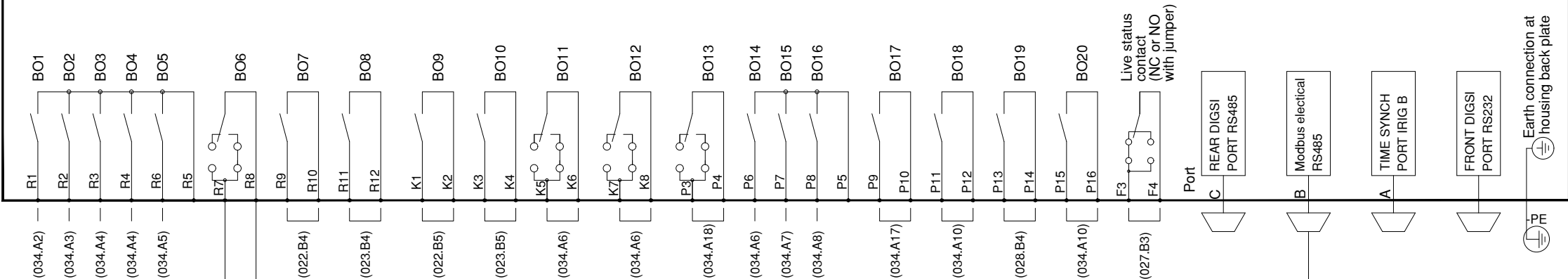
BINARY OUTPUTS FOR GPR

SR. NO.	WINDOW NO.	ANSI NO.	DESCRIPTION
BO-8	---	---	FOR 86B TRIP
BO-9	---	---	FOR 86A TRIP
BO-10	---	---	FOR 86B TRIP
BO-11	6	40/24	UNDEREXCITATION / OVERFLUXING TRIP
BO-12	7	81U	UNDER FREQUENCY TRIP
BO-13	22	81O	OVER FREQUENCY ALARM
BO-14	8	32R	REV. POWER SHORT TIME TRIP

BINARY OUTPUTS FOR GPR

SR. NO.	WINDOW NO.	ANSI NO.	DESCRIPTION
BO-15	9	32R	REV. POWER LONG TIME TRIP
BO-16	10	64R	ROTOR EF TRIP
BO-17	21	---	COMMON ALARM FROM GPR
BO-18	11	59N/50GN	STATOR EF / SENSITIVE EF TRIP
BO-19	---	50 BF	FOR 50BF TRIP
BO-20	12	---	SPARE
7UM LSC	---	---	TO MULTIPLICATION RELAY

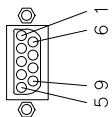
-K4
GENERATOR PROTECTION RELAY
(BINARY OUTPUTS & PORTS)



DEVELOPMENT:

X161
X162
-X16:1
2

9-pin D-subminiature
female connectors



Pin No.	RS 485
1	Shield (with shielded ends electrically connected)
2	-
3	A/A' (Rx/D/TxD-N)
4	-
5	C/C' (EARTH)
6	-
7	-
8	B/B' (Rx/D/TxD-P)
9	-
Remarks:	
TxD = Data Output	
RxD = Data Input	

NOTES:

Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : GPR BINARY OUTPUT CIRCUIT FOR RELAY AND METERING PANEL	Size: A3
Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
Approved: SD 17-Feb-2021	CAD file : 41	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet: 055
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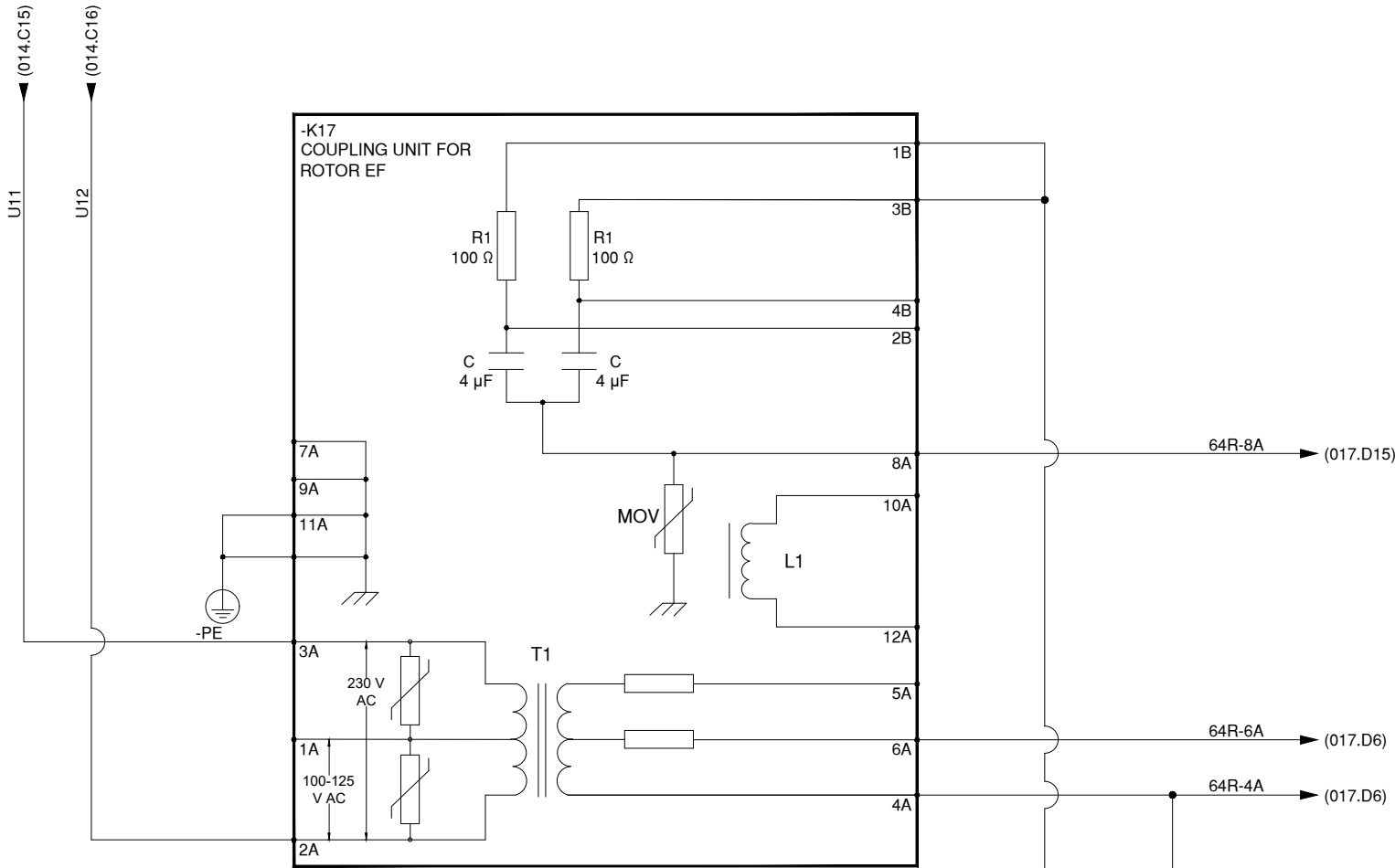
(G)

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COUPLING UNIT FOR ROTOR EF



Prepared:	HUR 17-Feb-2021
Checked:	PJM 17-Feb-2021
Approved:	SD 17-Feb-2021

Derived from :	
ORDER INDENT	
Sep. PL same No.	☐
Another No.	☐
CAD file :	

Responsible department :
RC-IN SE GP G INP IST-COE EIC

Take over department :
RC-IN SE GP G INP IST-PM-ASP IN

Circuit ref :
--

Title :	ROTOR E/F MODULE CIRCUIT FOR RELAY AND METERING PANEL	
Project:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	
Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	
Consultant:	ESBEE CONSULTING ENGINEERS, PUNE	
Document No.	620P42671_U1_637090002	Rev.No

Size:	A3
Language:	ENG.
No. of sheet:	055
Sheet:	020

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FORMAT NO : IP-Q-F-2002/B
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SERVICE DESCRIPTION:

TRIP FROM GPR

TRIP FROM GPR

TRIP FROM AVR

SPARE TRIP-1

SPARE TRIP-2

86A MASTER TRIP RELAY

74A TRIP CKT. SUPERVISION RELAY

(012.C6)

J15

-K4
(019.C6)
R9

-K4
(019.C7)
K1

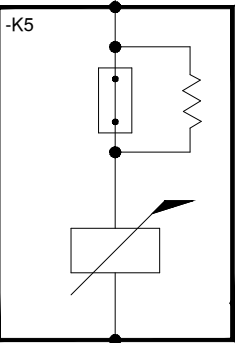
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-X12:4

-X20:1
-X20:2

-X20:3
-X20:4

J15A

-PE

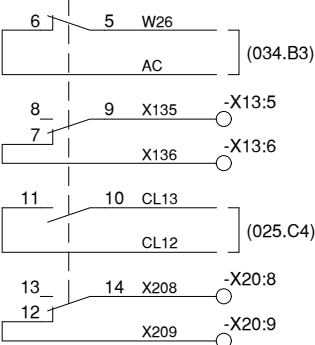
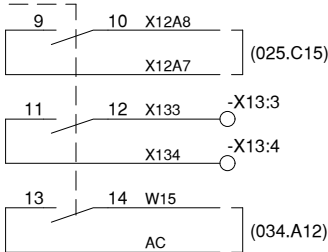
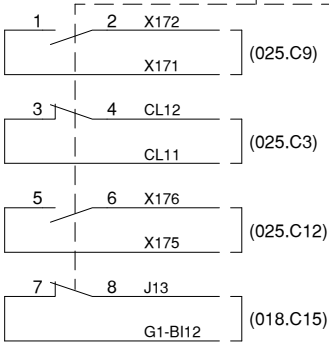


-PE

DEVELOPMENT:

(012.C7)

J16



NOTES:

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title :	86A TRIP CIRCUIT FOR GPR FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No.	☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN	Project:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet:	055
						Consultant:	ESBEE CONSULTING ENGINEERS, PUNE		
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FORMAT NO : IP-Q-F-2002/B
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SERVICE DESCRIPTION:

TRIP FROM GPR

TRIP FROM GPR

TRIP FROM EMPB

SPARE TRIP-1

SPARE TRIP-2

86B MASTER TRIP RELAY

74B TRIP CKT. SUPERVISION RELAY

(012.C8)

J17

-K4
(019.C6)
R11

-K4
(019.C8)
K3

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-X20:13

-X20:12

-X20:14

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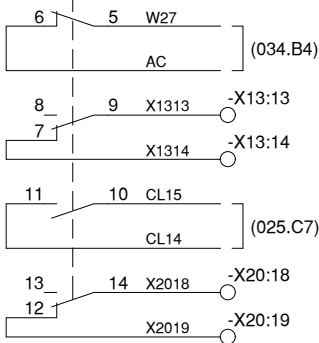
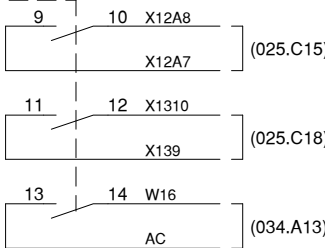
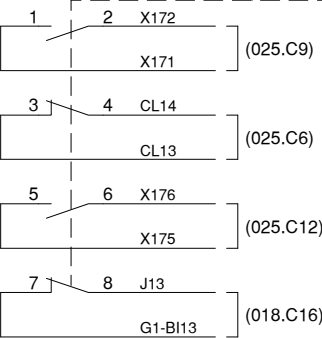
J17B

-PE

DEVELOPMENT:

(012.C9)

J18



NOTES:

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title :	86B TRIP CIRCUIT FOR GPR FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No.	☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN	Project:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet:	055
						Consultant:	ESBEE CONSULTING ENGINEERS, PUNE		
						Document No.	62OP42671_U1_637090002	Rev.No.	-
								Sheet:	023

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RESERVE SHEET

Prepared:	HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : RESERVE SHEET FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Project:	Language:
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client:	No. of sheet:	055
				Consultant:		
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SERVICE
DESCRIPTION:

CLOSING
INTERLOCK TO
GEN. CB

TRIP COMMAND
TO GEN. CB TRIP
COIL-1

TRIP COMMAND
TO GEN. CB TRIP
COIL-2

TRIP COMMAND
TO AVR

TRIP COMMAND
TO TURBINE

DEVELOPMENT:

NOTES:

				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : CLOSING & TRIP COMMAND FROM 86A & 86B FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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RESERVE SHEET

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title : RESERVE SHEET FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No.	☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Project:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet:
						Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	055
						Consultant:	ESBEE CONSULTING ENGINEERS, PUNE	
						Document No.	62OP42671_U1_637090002	Rev.No.
							-	Sheet:
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FORMAT NO : IP-Q-F-2002/B
REV.DATE : 31.03.2010

SERVICE DESCRIPTION:

GPR FAILED AUX. RELAY

GCB TRIP CKT. HEALTHY AUX. RELAY

EMERGENCY TRIP PUSH BUTTON

A

B

C

D

DEVELOPMENT:

NOTES:

NOTE FOR GPR FAIL CONTACT: ** GPR FAIL CONTACT STATUS IS 0 (OPEN) WHEN GPR IS HEALTHY.
NOTE FOR GCB TRIP COIL HEALTHY: ## GCB TRIP COIL HEALTHY CONTACT STATUS IS 1 (CLOSED) WHEN THE TRIP COIL IS HEALTHY.

				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : GPR FAIL MULTIPLICATION CIRCUIT FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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FORMAT NO : IP-Q-F-2002/B
REV. DATE : 31.03.2010

SERVICE DESCRIPTION:

TRIP FROM GPR

AUXILIARY RELAY FOR 50BF

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DEVELOPMENT:

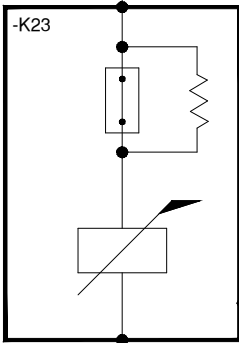
NOTES:

(013.C2)

J33

-K4
(019.C13)
P13 P14

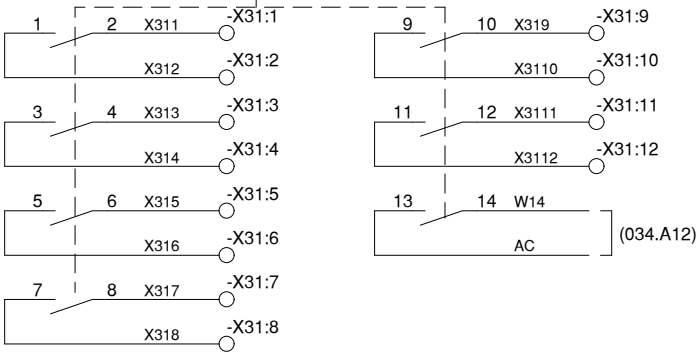
J33A



-PE

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				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : AUXILIARY RELAY FOR 50BF FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client:	No. of sheet:	055
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet: 055	
				Client: KHATAV MAN TALUKA AGRO PROCESSING LTD.		
				Consultant: ESBEE CONSULTING ENGINEERS, PUNE		
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Project:	Client:	No. of sheet:
				Consultant:	ESBEE CONSULTING ENGINEERS, PUNE	055
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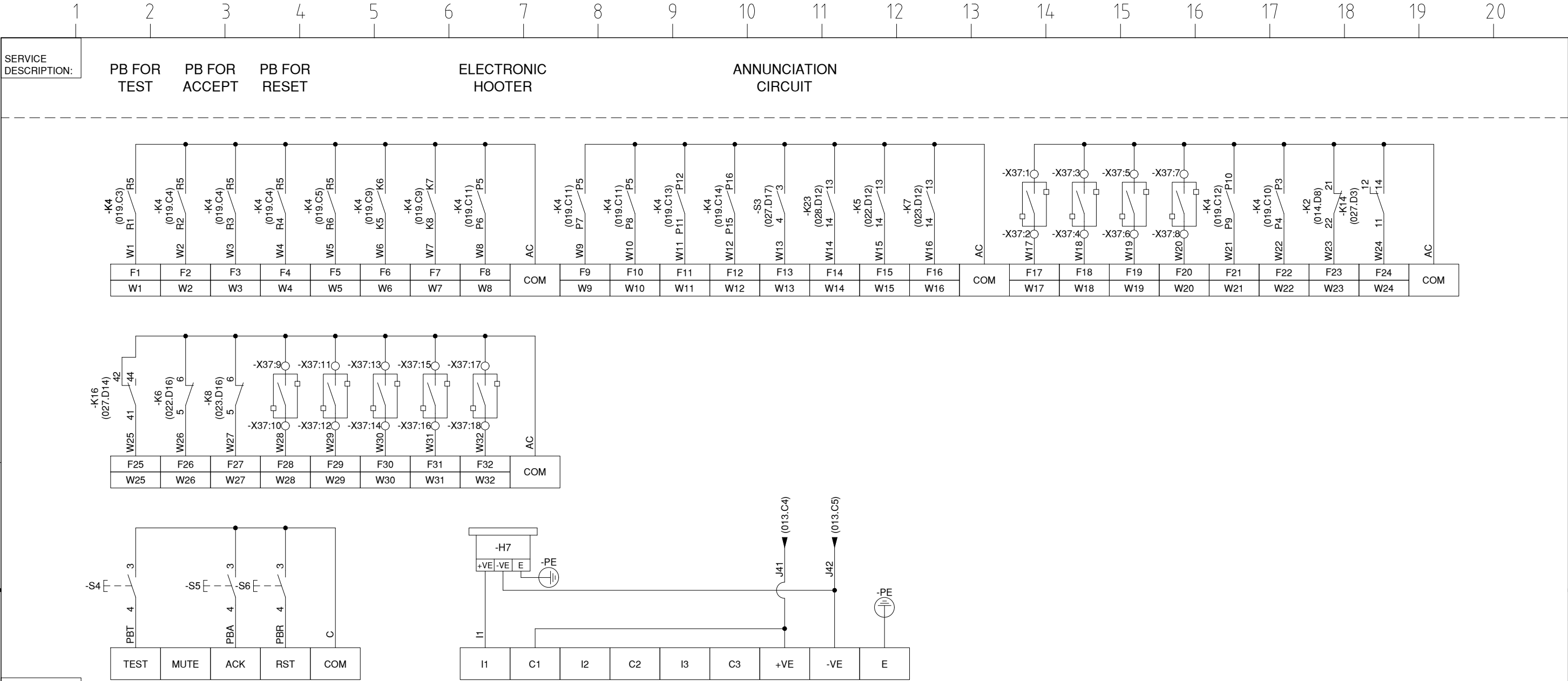
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REV. DATE : 31.03.2010

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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Project:	Language:
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client:	No. of sheet:	055
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DEVELOPMENT:

WINDOW NO.	DESCRIPTION
W1	DT OC / INST. OC / VOLTAGE CONTROLLED OC TRIP
W2	NEG. PHASE SEQ. TRIP
W3	GENERATOR DIFFERENTIAL TRIP
W4	POLE SLIPPING / INADVERTENT ENERGIZATION TRIP
W5	UNDER / OVER VOLTAGE TRIP
W6	UNDEREXCITATION / OVERFLUXING TRIP
W7	UNDER FREQUENCY TRIP
W8	REV. POWER SHORT TIME TRIP

WINDOW NO.	DESCRIPTION
W9	REV. POWER LONG TIME TRIP
W10	ROTOR EF TRIP
W11	STATOR EF / SENSITIVE EF TRIP
W12	SPARE
W13	EMERGENCY TRIP
W14	50BF TRIP
W15	86A TRIP
W16	86B TRIP

WINDOW NO.	DESCRIPTION
W17	SPARE
W18	SPARE
W19	SPARE
W20	SPARE
W21	COMMON ALARM FROM GPR
W22	OVER FREQUENCY ALARM
W23	AC UPS SUPPLY FAILED
W24	GPR / ROTOR EF FAILED

WINDOW NO.	DESCRIPTION
W25	GCB TRIP COIL UNHEALTHY
W26	86A TRIP COIL UNHEALTHY
W27	86B TRIP COIL UNHEALTHY
W28	SPARE
W29	SPARE
W30	SPARE
W31	SPARE
W32	SPARE

NOTES:

RED COLOUR FOR W1 - W20
YELLOW COLOUR FOR W21 - W32

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Checked:	PJM 17-Feb-2021	Sep. PL same No.	☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN	Project:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet:	055
						Consultant:	ESBEE CONSULTING ENGINEERS, PUNE		
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								Sheet:	034

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				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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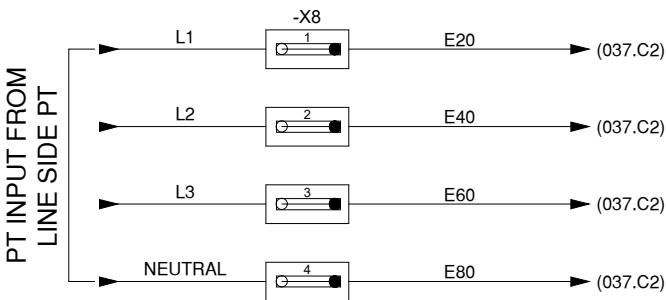
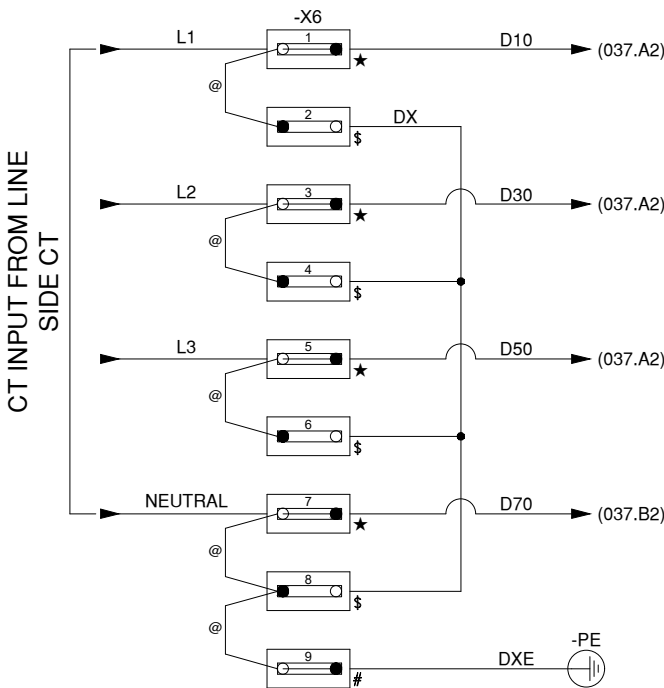
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SERVICE DESCRIPTION:

CT INPUT FOR METERING CIRCUIT

PT INPUT FOR METERING CIRCUIT



DEVELOPMENT:

NOTES:

FOR CT SHORTING AND PT DISCONNECTING PLEASE REFER NOTES ON SHEET NO. 016

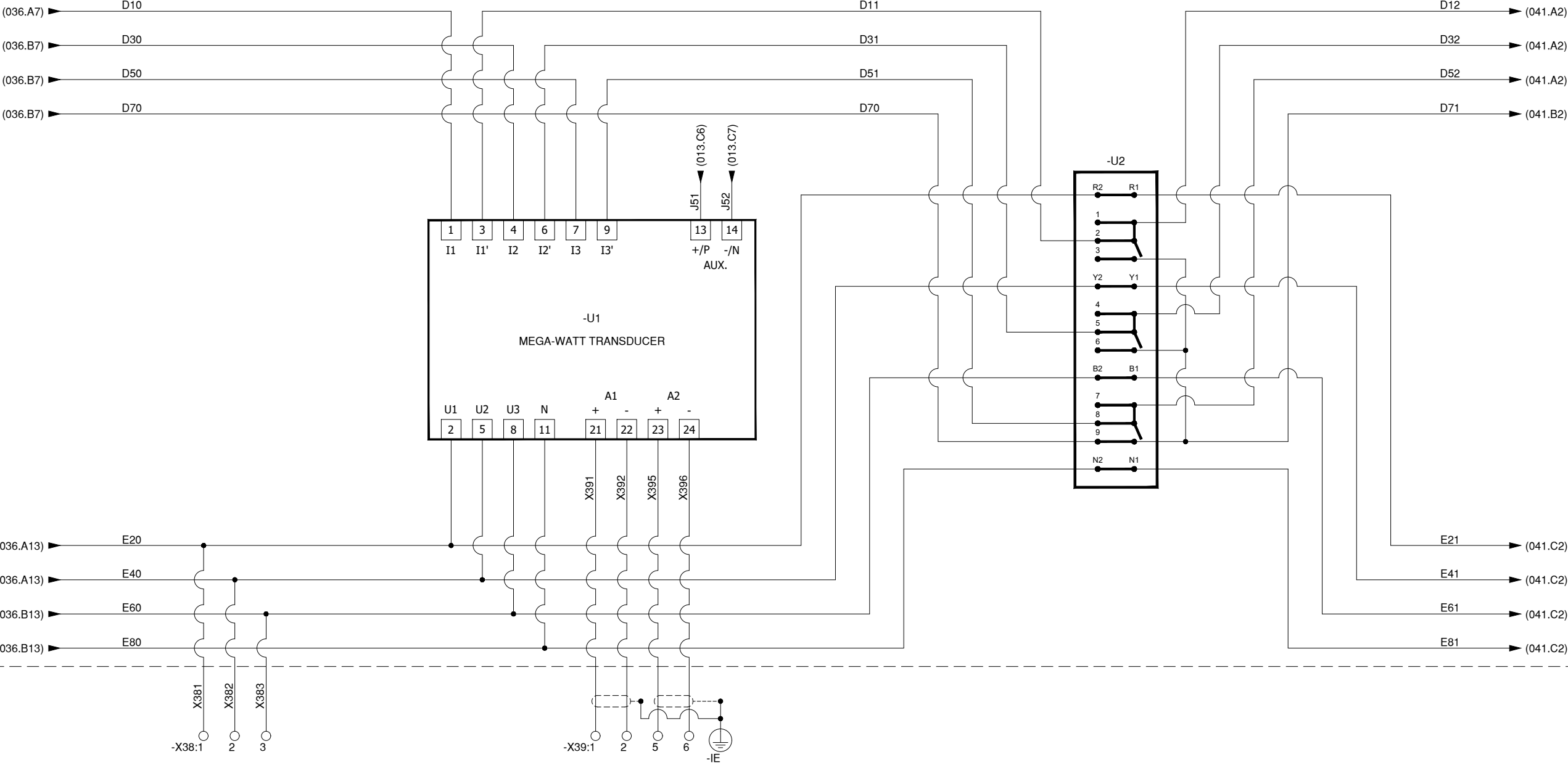
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Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
SIEMENS Ingenuity for life			Document No. 62OP42671_U1_637090002	Rev.No. - Sheet: 036

SERVICE DESCRIPTION:

MEGA-WATT
TRANSDUCER

TEST TERMINAL
BLOCK



DEVELOPMENT:

NOTES:

SETTING FOR MEGA-WATT TRANSDUCER	
VALUE	MW
4 mA	-0.86
12 mA	
20 mA	10.32

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Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Project:	Language:
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client:	No. of sheet:	055
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				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐	Another No. ☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
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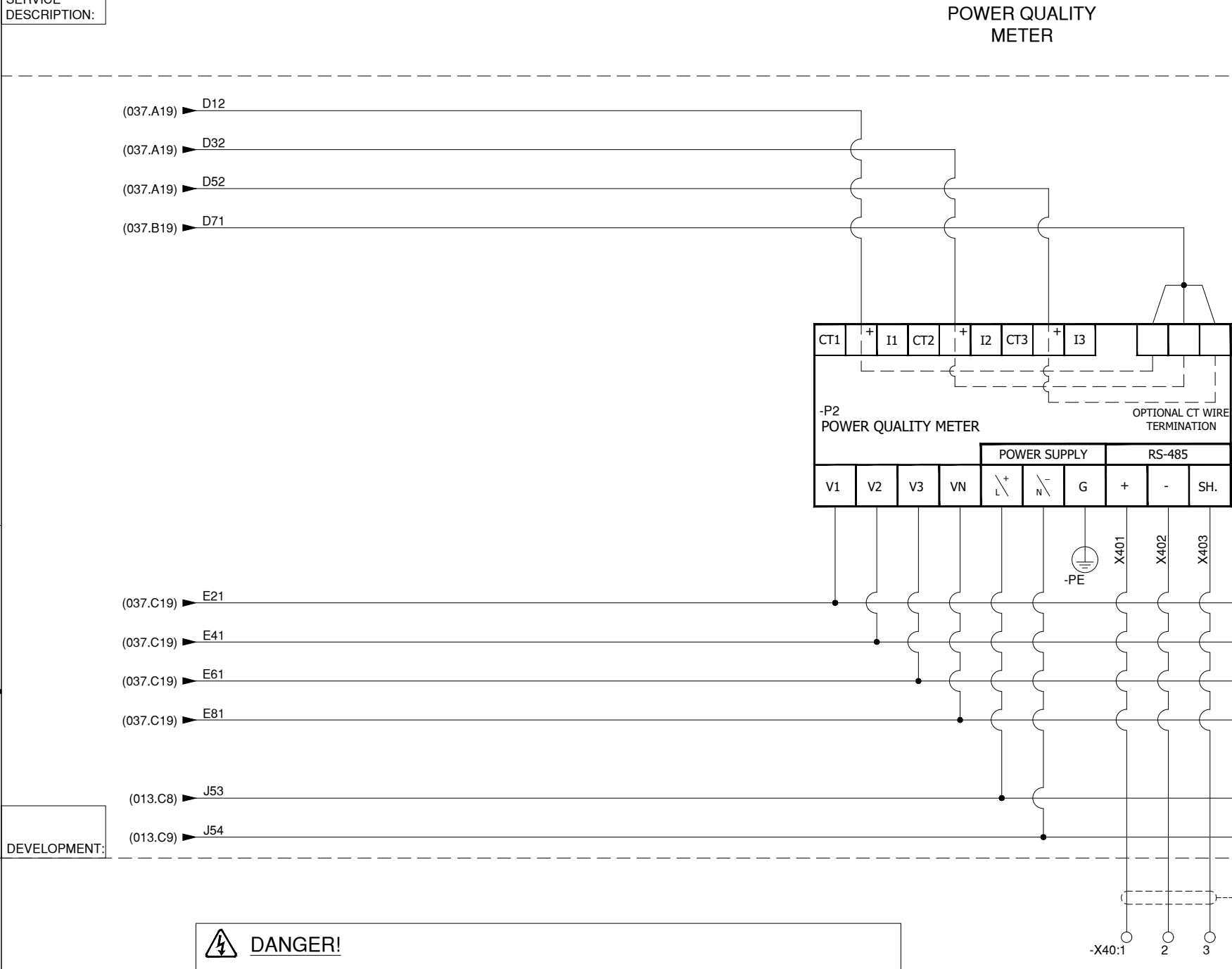
SERVICE DESCRIPTION:

DEVELOPMENT:

NOTES:

				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : TVM / PQM METER CIRCUIT FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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**DANGER!**

- INTERRUPTIONS IN SECONDARY CIRCUITS OF CURRENT TRANSFORMERS WILL BE RESULTED INTO HAZARDOUS VOLTAGE AND ARC FLASHOVER.
- HENCE SHORT-CIRCUIT THE CURRENT TRANSFORMER SECONDARY CIRCUITS BEFORE CT SHORTING LINKS ON DEVICE ARE BEING OPENED FOR TESTING OR MAINTENANCE.
- CHECK THE TERMINAL CONNECTIONS , TIGHTNESS AND SHORTING ARRANGEMENT BEFORE ENERGIZATION.

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Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD. Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet:	055
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet: 055	
				Client: KHATAV MAN TALUKA AGRO PROCESSING LTD.		
				Consultant: ESBEE CONSULTING ENGINEERS, PUNE		
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐	Another No. ☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language: ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet: 055
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Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐	Another No. ☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
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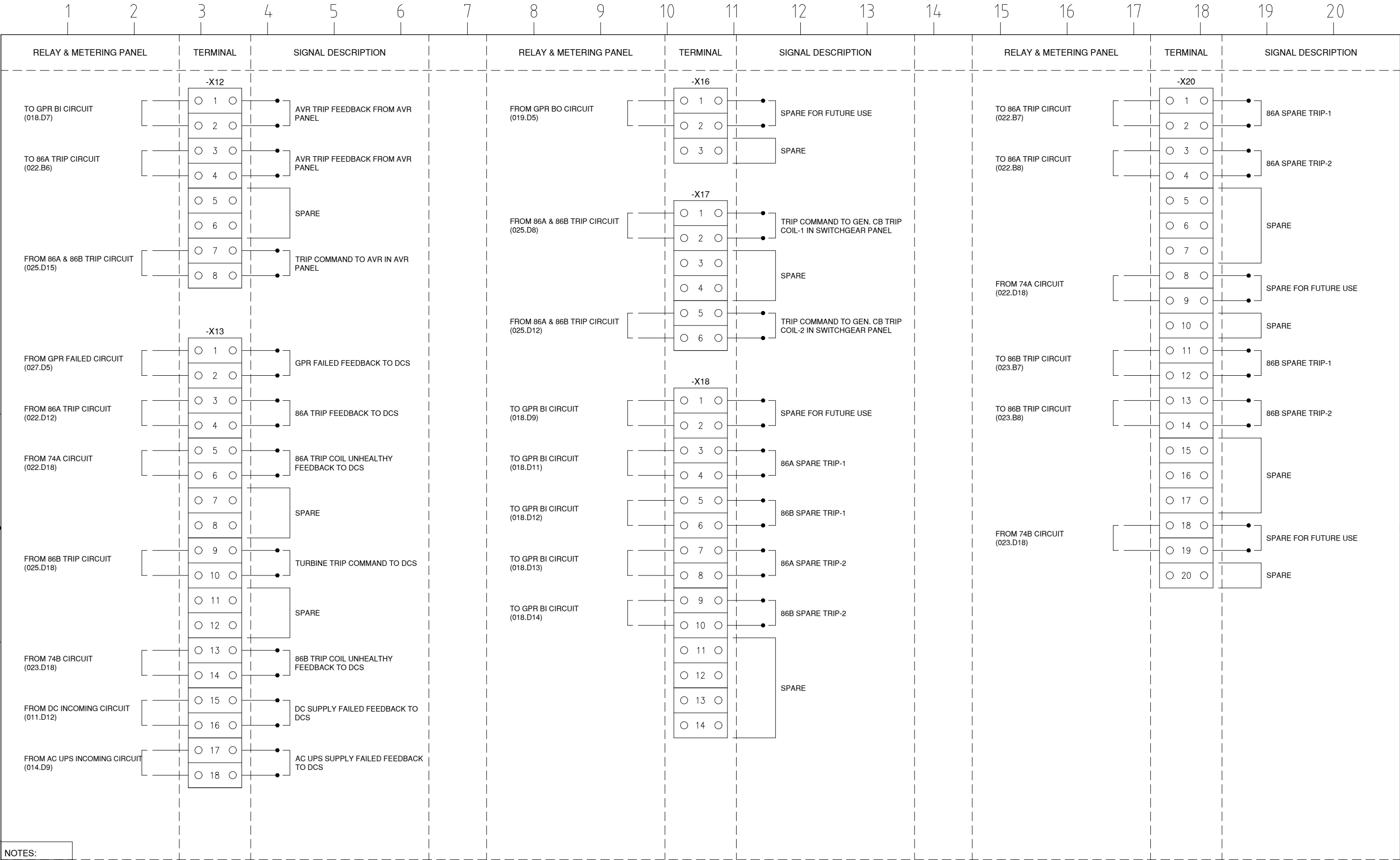
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				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : TERMINAL ARRANGEMENT-2 FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD.	No. of sheet: 055
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							Document No. 62OP42671_U1_637090002	Rev.No. -
								Sheet: 048

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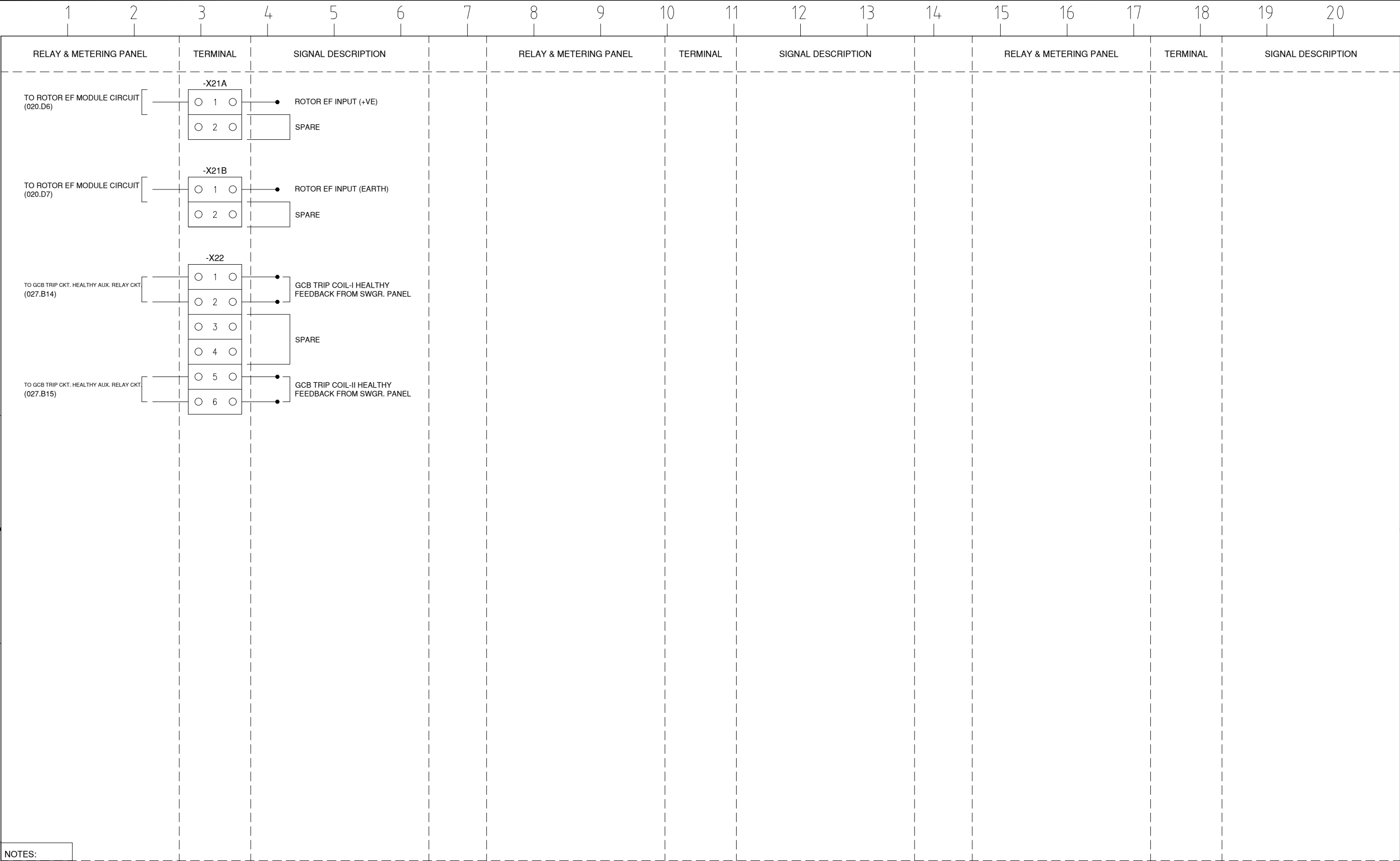
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				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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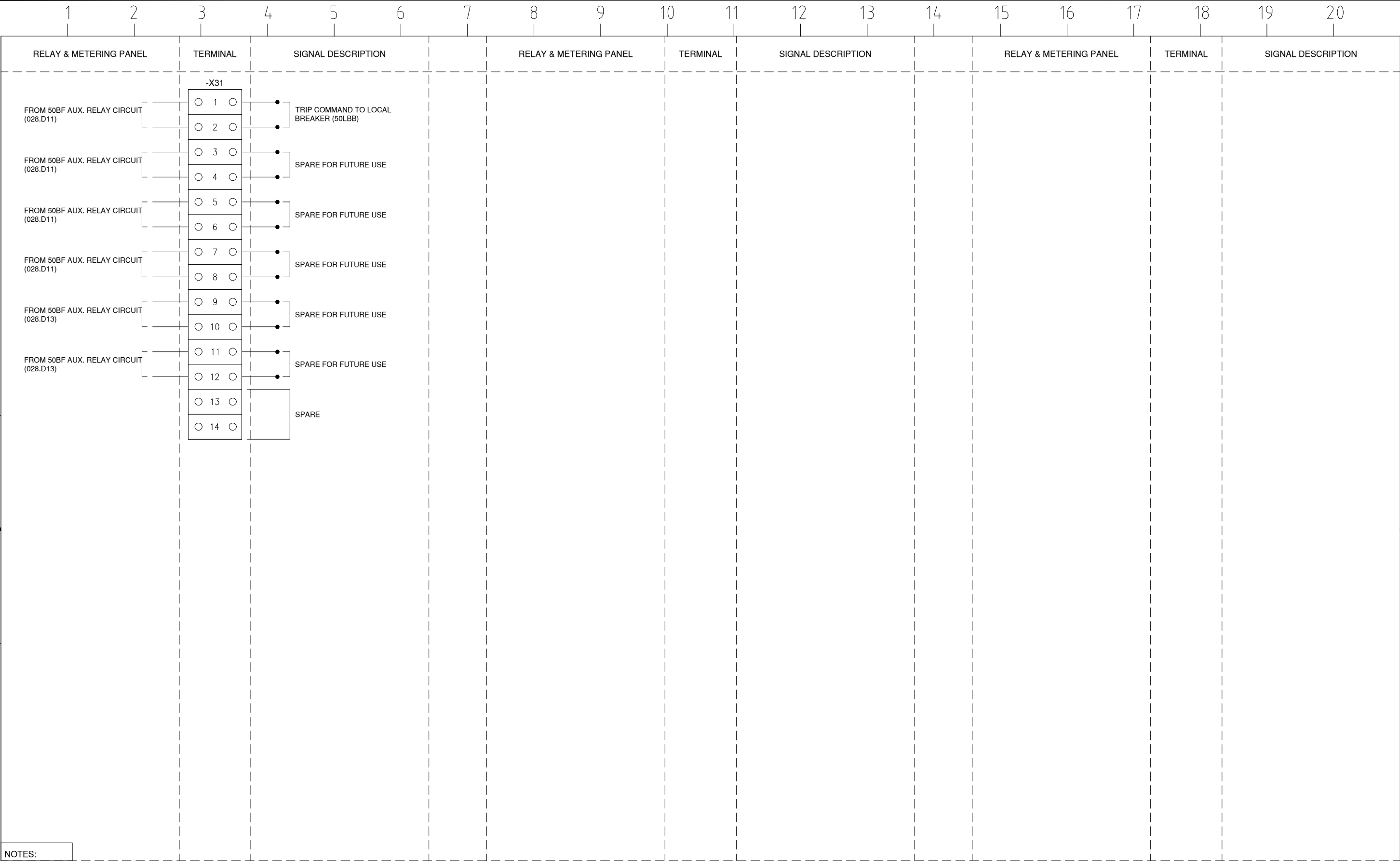
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NOTES:

				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : TERMINAL ARRANGEMENT-5 FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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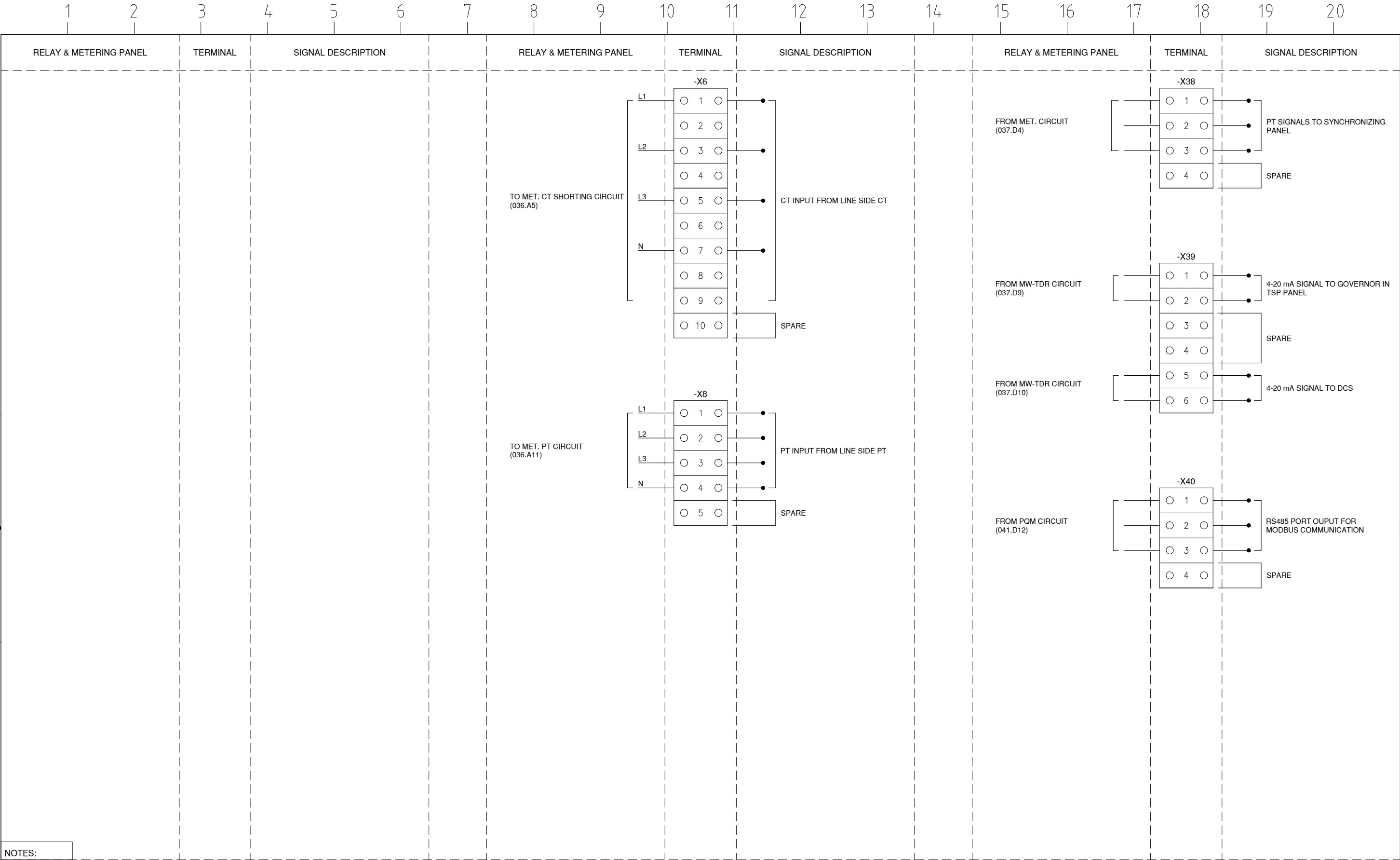
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FORMAT NO : IP-Q-F-2002/B
REV. DATE : 31.03.2010



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NOTES:

				Prepared: HUR 17-Feb-2021	Derived from : ORDER INDENT	Responsible department : RC-IN SE GP G INP IST-COE EIC	Title : TERMINAL ARRANGEMENT-6 FOR RELAY AND METERING PANEL	Size: A3
				Checked: PJM 17-Feb-2021	Sep. PL same No. ☐ Another No. ☐	Take over department : RC-IN SE GP G INP IST-PM-ASP IN	Project: KHATAV MAN TALUKA AGRO PROCESSING LTD.	Language: ENG.
				Approved: SD 17-Feb-2021	CAD file : ----	Circuit ref : --	Client: KHATAV MAN TALUKA AGRO PROCESSING LTD. Consultant: ESBEE CONSULTING ENGINEERS, PUNE	No. of sheet: 055
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RESERVE SHEET

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title : RESERVE SHEET FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐	Another No. ☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Project:	Client:	Consultant:
						Document No.	Rev.No.	Sheet:
						62OP42671_U1_637090002	-	053



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RESERVE SHEET

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title : RESERVE SHEET FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐	Another No. ☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Project:	Client:	Consultant:
						Document No.	Rev.No.	Sheet:
						62OP42671_U1_637090002	-	054



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RESERVE SHEET

Prepared:	HUR 17-Feb-2021	Derived from :	ORDER INDENT	Responsible department :	RC-IN SE GP G INP IST-COE EIC	Title : RESERVE SHEET FOR RELAY AND METERING PANEL	Size:	A3
Checked:	PJM 17-Feb-2021	Sep. PL same No. ☐	Another No. ☐	Take over department :	RC-IN SE GP G INP IST-PM-ASP IN		Language:	ENG.
Approved:	SD 17-Feb-2021	CAD file :	----	Circuit ref :	--	Project:	Client:	Consultant:
						Document No.	Rev.No.	Sheet:
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		-	17-Feb-21	HUR	PJM	SD	Project:	KHATAV MAN TALUKA AGRO PROCESSING LTD. - 1x8.6 MW		
							Client:	KHATAV MAN TALUKA AGRO PROCESSING LTD		
							Consultant:	ESBEE CONSULTING ENGINEERS, PUNE		
							Document No.	62OP42671_U1_637090002	Rev.	-
Rev.	TAG NO.2DESCRIPTION	VOLTAGE	CURRENT	COLOUR	CONTACT	SPECIFICATION	PART NO.	QTY.	MAKE	
	-K23 AUXILIARY RELAY FOR 50BF	110 V DC	---	---	7N/O	---	PQ8NCH2J	01	ABB	
	-P1 ANNUNCIATOR	110 V DC	---	RED FOR TRIP YELLOW FOR ALARM	---	NO. OF WINDOWS: 32, WINDOW SIZE: 30x30mm	MBAS 0600 40B32SMP0	01	MINILEC	
	-P2 POWER QUALITY METER	110 V DC	---	---	---	ACCURACY CLASS: 0.2s WITH RS485 COMMUNICATION PORT	PM135EH	01	SATEC	
	-S1 DOOR LIMIT SWITCH	230 V AC	---	---	1N/O+1N/C	SNAP ACTION	3SE5232-0CC05	01	SIEMENS	
	-S2 DC FAILED ACKNOWLEDGE PUSH BUTTON	230 V AC	---	RED	2N/O	NORMAL PB	3SB5000-0AC01 3SB5400-0E	01	SIEMENS	
	-S3 EMERGENCY TRIP PUSH BUTTON WITH PROTECTIVE CAP AND LABEL	110 V DC	---	RED	2N/O+2N/O	MUSHROOM PB	3SB50 00-0UC01 3SB5400-0E+3SB5400-0E 3SU1900-0DY30-00A0 3SB59 21-0AD	01	SIEMENS	
	-S4 PUSH BUTTON FOR TEST ANNUNCIATOR	110 V DC	---	WHITE	2N/O	NORMAL PB	3SB5000-0AG01 3SB5400-0E	01	SIEMENS	
	-S5 PUSH BUTTON FOR ACCEPT ANNUNCIATOR	110 V DC	---	RED	2N/O	NORMAL PB	3SB5000-0AC01 3SB5400-0E	01	SIEMENS	
	-S6 PUSH BUTTON FOR RESET ANNUNCIATOR	110 V DC	---	GREEN	2N/O	NORMAL PB	3SB5000-0AE01 3SB5400-0E	01	SIEMENS	
	-U1 MEGA-WATT TRANSDUCER	110 V DC	---	---	---	ACCURACY CLASS: 0.2, MULTI-FUNCTION TRANSDUCER	PT3-623-12F	01	SECURE	
	-U2 TEST TERMINAL BLOCK	110 V AC	---	---	---	---	---	01	DAV	
	-XA UNIVERSAL TYPE SERVICE SOCKET	230 V AC	6 A	---	---	---	---	01	CRABTREE	
	-X1 TB FOR AC AUX. INCOMING SUPPLY			RED & BLACK		4 SQ. MM (SPRING LOADED TYPE)	281-903 & 281-905	04	WAGO	
	-X2 TB FOR DC INCOMING SUPPLY			RED & BLACK		4 SQ. MM (SPRING LOADED TYPE)	281-903 & 281-905	06	WAGO	
	-X3 TB FOR AC UPS INCOMING SUPPLY			RED & BLACK		4 SQ. MM (SPRING LOADED TYPE)	281-903 & 281-905	04	WAGO	
	-X5 TB FOR GPR PROTCTION CT INPUT			GREY FOR R-Y-B-N. GREEN FOR EARTH.		END PLATE- KPLD4, END CLAMP- SCUN, GROUP MARKING- SCUN MLH. RING TYPE SHORTING LINK (KDSL4R), WITH PROTECTIVE COVER	KLTD4	26	ELMEX	
	-X6 TB FOR METERING CT INPUT			GREY FOR R-Y-B-N. GREEN FOR EARTH.		END PLATE- KPLD4, END CLAMP- SCUN, GROUP MARKING- SCUN MLH. RING TYPE SHORTING LINK (KDSL4R), WITH PROTECTIVE COVER	KLTD4	10	ELMEX	
	-X7 TB FOR GPR PROTCTION PT INPUT			GREY		END PLATE- KPLD4, END CLAMP- SCUN, GROUP MARKING- SCUN MLH. WITH PROTECTIVE COVER	KLTD4	05	ELMEX	
	-X8 TB FOR METERING PT INPUT			GREY		END PLATE- KPLD4, END CLAMP- SCUN, GROUP MARKING- SCUN MLH. WITH PROTECTIVE COVER	KLTD4	05	ELMEX	
	-X9 TB FOR GPR SYNCH. INTERFACE SIGNALS			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	10	WAGO	
	-X10 TB FOR GPR LAVT INTERFACE SIGNALS			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	03	WAGO	
	-X11 TB FOR GPR TSP INTERFACE SIGNALS			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	03	WAGO	
	-X12 TB FOR GPR AVR INTERFACE SIGNALS			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	08	WAGO	
	-X13 TB FOR GPR DCS INTERFACE SIGNALS			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	18	WAGO	
	-X16 TB FOR SPARE OUTPUT FROM GPR			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	03	WAGO	
	-X17 TB FOR TRIP COMMAND TO GEN CB FROM GPR			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	06	WAGO	
	-X18 TB FOR GPR BI CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	14	WAGO	
	-X20 TB FOR 86A & 86B CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	20	WAGO	
	-X21A TB FOR ROTOR EF (+ve) INPUT CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	02	WAGO	
	-X21B TB FOR ROTOR EF (EARTH) INPUT CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	02	WAGO	
	-X22 TB FOR GCB TRIP CKT. HEALTHY FEEDBACK			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	06	WAGO	
	-X31 TB FOR 50BF AUX. RELAY CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	14	WAGO	
	-X37 TB FOR ANNUNCIATOR CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	22	WAGO	
	-X38 TB FOR PT OUTPUT TO SYNCH PANEL			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	04	WAGO	
	-X39 TB FOR MW-TDR OUTPUT CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	06	WAGO	
	-X40 TB FOR TVM/PQM OUTPUT CIRCUIT			GREY		4 SQ. MM (SPRING LOADED TYPE)	281-901	04	WAGO	