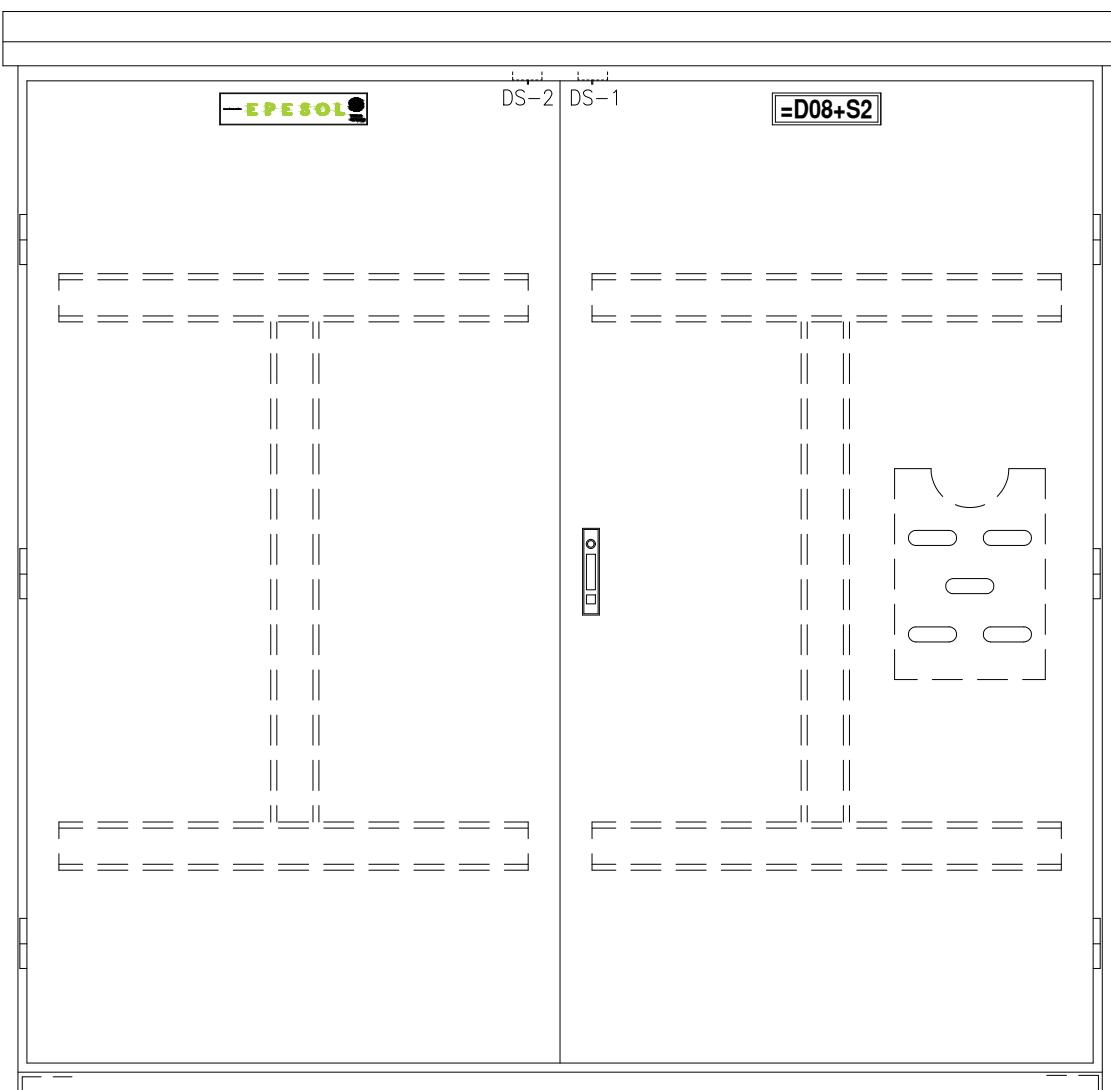


# LAYOUT DIAGRAM OF 220kV LOCAL CONTROL CUBICLE TYPE =D08+S2

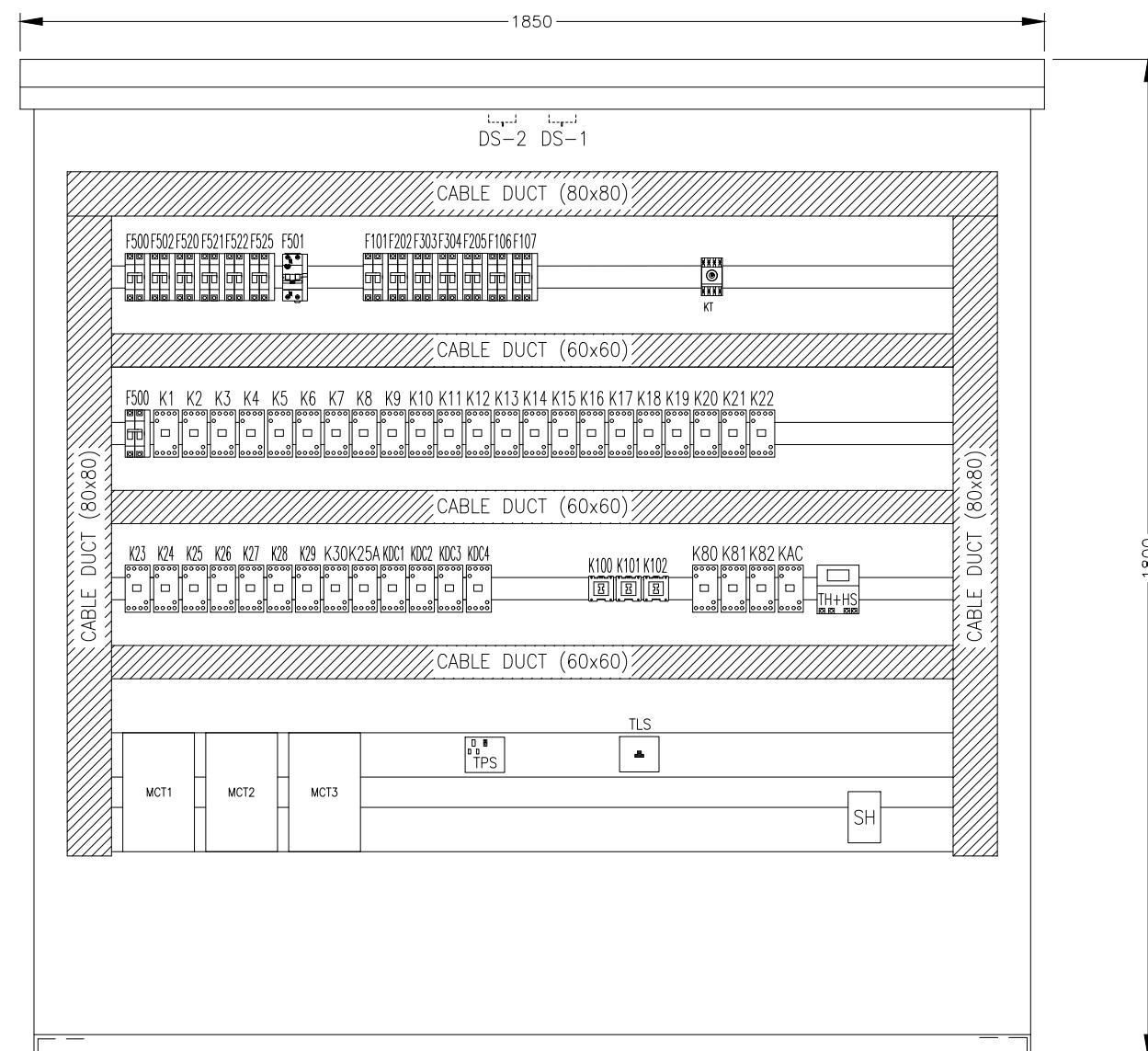
APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	COVER SHEET	DWG#	SHT:
NAH Q.	MSS M. Sohail	MUR B	EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	<b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	EPE/ENU-18/D81592	01 OF 04

A



FRONT VIEW

B



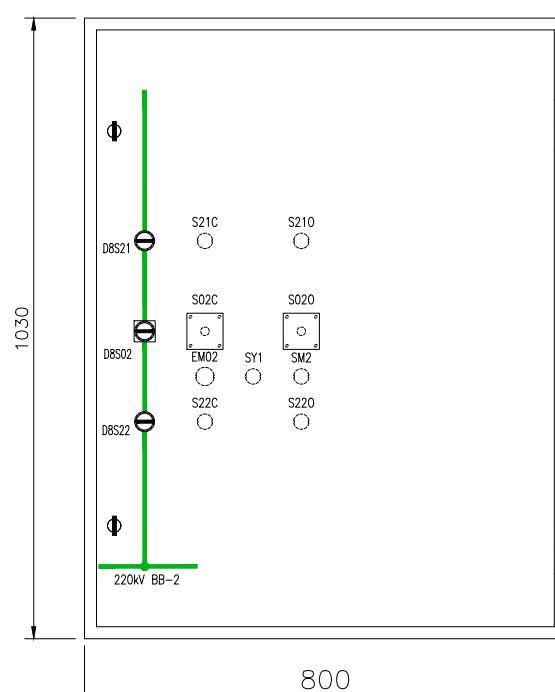
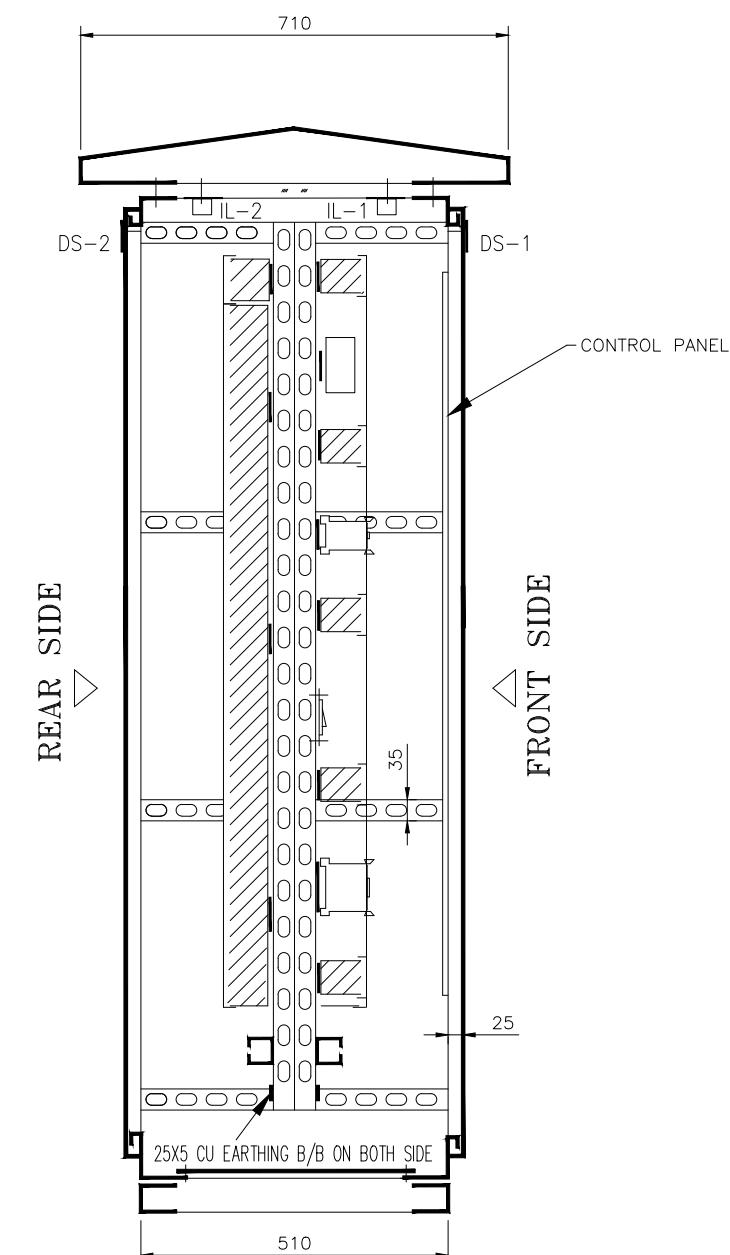
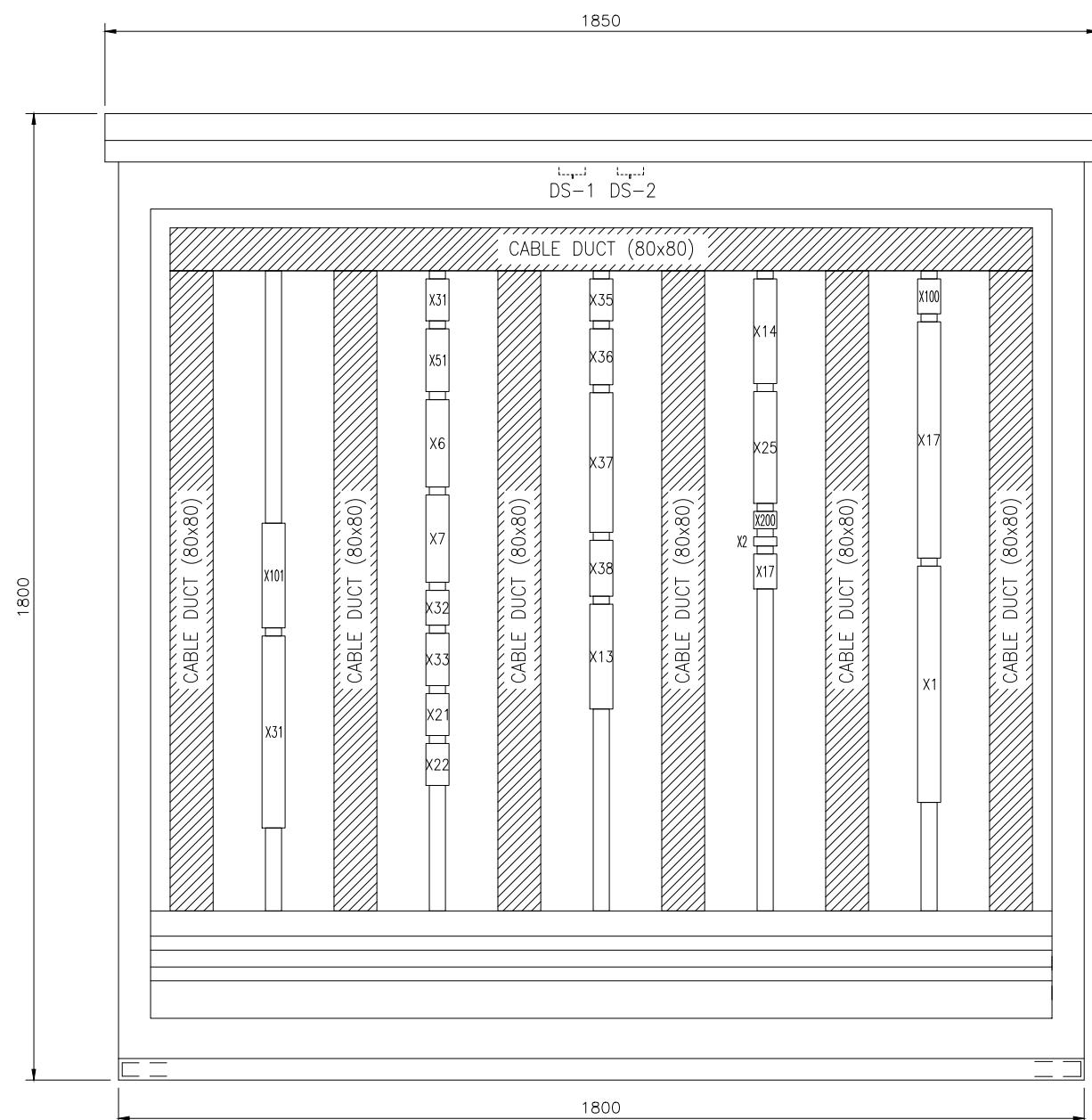
FRONT VIEW WITHOUT DOOR

NOTES

1. 1800x510x1800 mm
2. EARTHING STRAP 16mm<sup>2</sup>
3. COLOR: RAL7032
4. PROTECTION CLASS: IP54

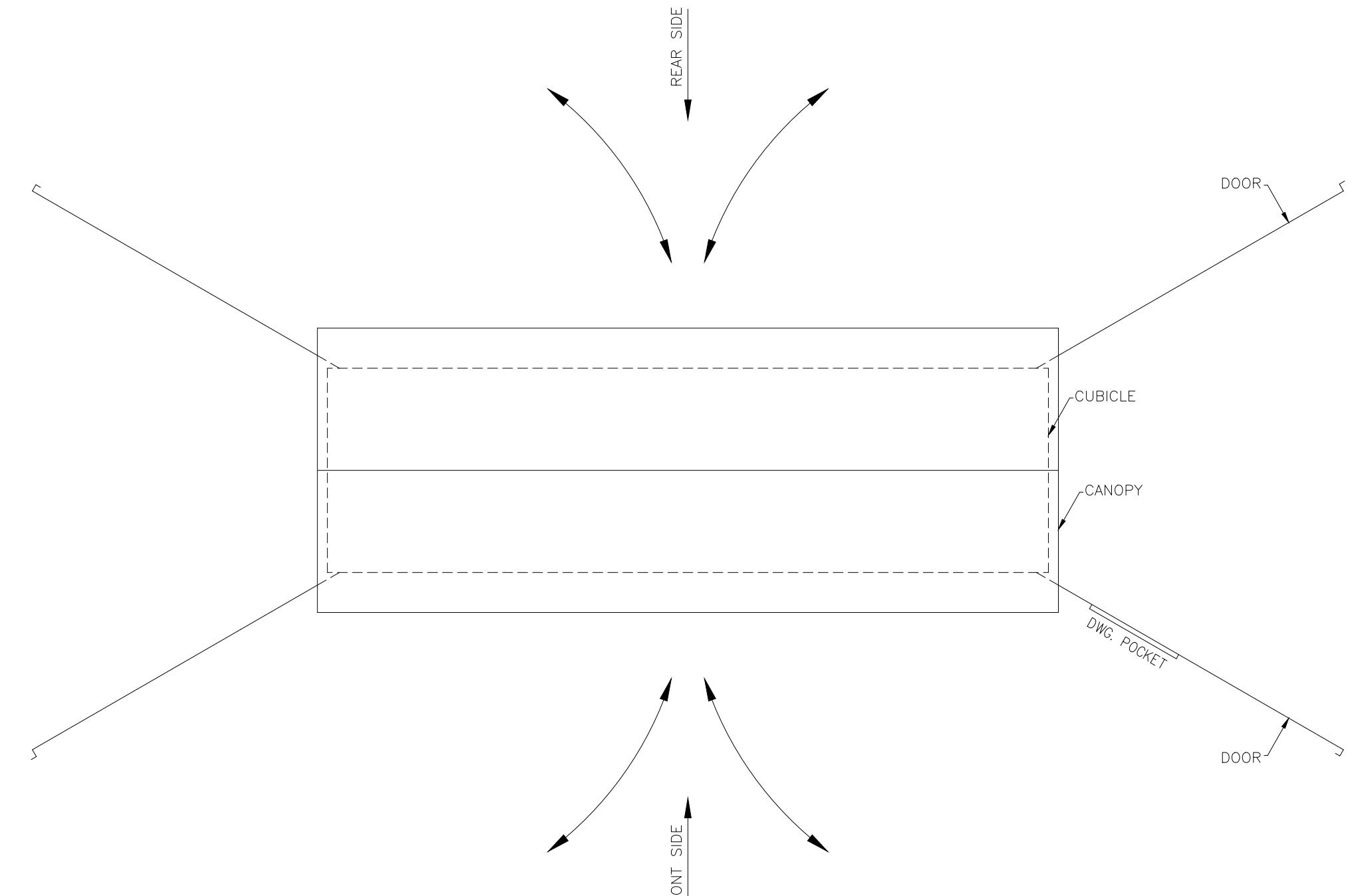
APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	DWG# EPE/ENU-18/D81592		SHT: 02 OF 04
NAH	MSS	MUR	 EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	LAYOUT DIAGRAM 220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	<b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	EPE SOL Pvt. Ltd.	DWG#	SHT:
NAH	MSS	MUR	EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	LAYOUT DIAGRAM 220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	71-B Garden Block, New Garden Town, Lahore, Pakistan	EPE/ENU-18/D81592	03 OF 04



### NOTES

1. 220kV MIMIC COLOR GREEN



TOP VIEW  
DOOR OPENING DETAIL

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG#	SHT:
NAH	MSS	MUR	EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	LAYOUT DIAGRAM 220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan	EPE/ENU-18/D81592	04 OF 04

# LIST OF APPARATUS OF 220kV LOCAL CONTROL CUBICLE TYPE =D08+S2

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	COVER SHEET	DWG#	SHT:
NAH Q.	ABA D.	MSC A.	EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan	EPE/ENU-18/D81593	01 OF 04

1	2	3	4	5	6	7	8	
SR.	ITEM DESIGNATION	DESCRIPTION	QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
A 19	D8S21, D8S22,	SEMAPHORE INDICATOR FOR ISOLATOR POSITION INDICATION, 220 VDC, ROUND TYPE	2	SPR-30S	FUJI	JAPAN	SPR-30S-DC22	
A 20	TH+HS	THERMOSTAT AND HUMIDSTAT	1	ELH220	ELAB	PAKISTAN	ELH220	
A 21	SH	SPACE HEATER	1	ELH220	ELAB	PAKISTAN	ELH220	
B 22	TPS	240 VAC, 16A, THREE PIN SOCKET OUTLET	1		LEAR	CHINA		
B 23	KT	TIMER RELAY, 220VDC, 60s WITH 2 C/O CONTACTS	1	AT8N	AUTONIC	SOUTH KOREA	AT8N-220VDC-60	
B 24	X1	TERMINAL BLOCKS FOR CT CIRCUITS WITH SHORTING & DISCONNECTING FACILITY	55	SCB-6	CABUR	ITLAY		
B 25	X101	TERMINAL BLOCKS FOR DC SUPPLY DISTRIBUTION CIRCUIT	30	CBD-4	CABUR	ITLAY		
B 26	X31	TERMINAL BLOCKS FOR CONTROL CIRCUIT	55	CBD-4	CABUR	ITLAY		
c 27	X51	TERMINAL BLOCKS FOR CB CLOSING CIRCUIT-1	18	CBD-4	CABUR	ITLAY		
c 28	X6	TERMINAL BLOCKS FOR TRIP CIRCUIT-1	25	CBD-4	CABUR	ITLAY		
c 29	X7	TERMINAL BLOCK FOR TRIP CIRCUIT-2	25	CBD-4	CABUR	ITLAY		
c 30	X32	TERMINAL BLOCKS FOR CB MOTOR SUPPLY	10	CBD-4	CABUR	ITLAY		
c 31	X33	TERMINAL BLOCKS FOR POSITION INDICATION CIRCUIT	15	CBD-4	CABUR	ITLAY		
d 32	X21	TERMINAL BLOCKS FOR DISCONNECTOR CONTROL CIRCUIT	12	CBD-4	CABUR	ITLAY		
d 33	X22	TERMINAL BLOCKS FOR DISCONNECTOR CONTROL CIRCUIT	12	CBD-4	CABUR	ITLAY		
d 34	X35	TERMINAL BLOCKS FOR CB/DS STATUS CIRCUIT	12	CBD-4	CABUR	ITLAY		
e 35	X36	TERMINAL BLOCKS FOR POSITION INDICATION SIGNALING	16	CBD-4	CABUR	ITLAY		
e 36	X37	TERMINAL BLOCKS FOR ALARM SIGNALING	40	CBD-4	CABUR	ITLAY		
e 37	X38	TERMINAL BLOCKS FOR ANNUNCIATION CIRCUIT	16	CBD-4	CABUR	ITLAY		
f 38	X13	TERMINAL BLOCKS FOR EVENT RECORDER	30	CBD-4	CABUR	ITLAY		
f 39	X14	TERMINAL BLOCKS FOR SCADA	30	CBD-4	CABUR	ITLAY		
APPROVED	CHECKED	DRAWN	PROJECT:  EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY & CONTROL PANELS	TITLE: LIST OF APPARATUS 220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81593 DATE: 07.03.2019	SHT: 03 OF 04 AS BUILT REV: 0	
NAH Q.	ABA	MSC						

1	2	3	4	5	6	7	8	
SR.	ITEM DESIGNATION	DESCRIPTION	QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
A 40	X25	TERMINAL BLOCKS FOR SYNCH. CIRCUIT	32	CBD-4	CABUR	ITLAY		A
A 41	X100	TERMINAL BLOCKS FOR AC SUPPLY FOR CB/DS BOXES	10	SCB-6	CABUR	ITLAY		A
A 42	X17	TERMINAL BLOCKS FOR AC SUPPLY DISTRIBUTION CIRCUIT	60	SCB-6	CABUR	ITLAY		A
B 43	X200	TERMINAL BLOCKS FOR TELEPHONE CIRCUIT	5	CBD-4	CABUR	ITLAY		B
B 44	TLS	TELEPHONE SOCKET	1		LOCAL			B
C								C
D								D
E								E
F								F
APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	DWG#	SHT: 04 OF 04		
NAH Q.	ABA	MSC	EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	LIST OF APPARATUS 220kV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	EPE/ENU-18/D81593		
						DATE: 07.03.2019	AS BUILT	REV: 0

# SCHEMATIC DIAGRAM OF 220kV LOCAL CONTROL CUBICLE TYPE =D08+S2

APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE:	COVER SHEET 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 01 OF 34
NAH Q.	MSS M. Sohail	MUR B		EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan		DATE: 07.03.2019	AS BUILT

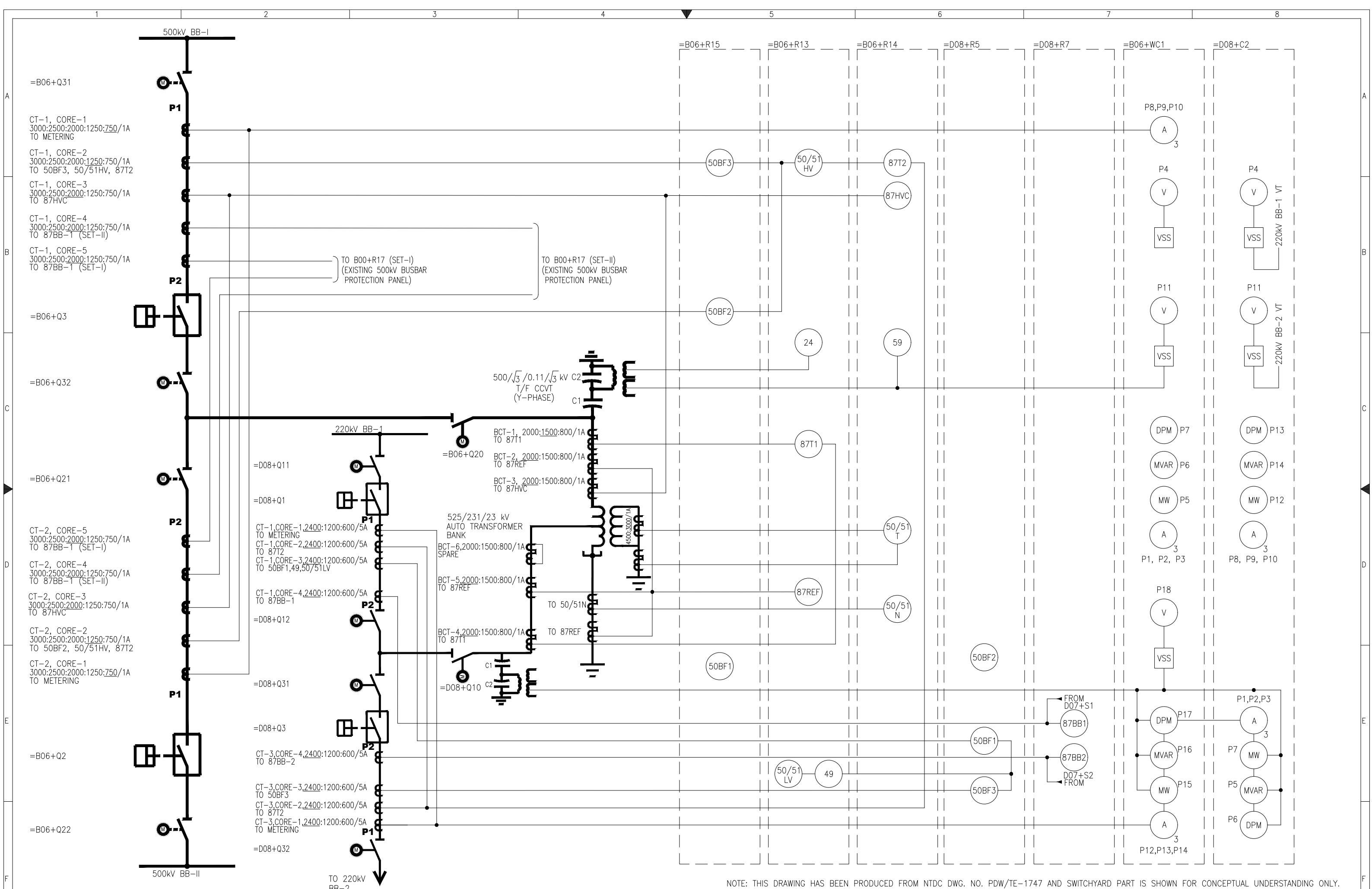
DESCRIPTION	SHEET NO	DESCRIPTION	SHEET NO
COVER SHEET	01	CB/DS STATUS	19
LIST OF CONTENTS	02	POSITION INDICATION CONTROL PANEL	20
LIST OF SYMBOLS AND DESIGNATION	03	CB ALARMS	21
SINGAL LINE DIAGRAM	04	AC SUPPLY FAIL INDICATION CIRCUIT	22
CT CIRCUIT	05	VT MCB TRIP	23
CT CIRCUIT	06	SIGNALING FOR ANNUNCIATION	24
CT CIRCUIT	07	SIGNALING FOR ANNUNCIATION	25
CT CIRCUIT	08	SIGNALING FOR EVENT RECORDER	26
CT CIRCUIT	09	SIGNALING FOR EVENT RECORDER	27
DC SUPPLY DISTRIBUTION	10	SIGNALING FOR SCADA	28
CB AND DISCONNECTOR CONTROL	11	SIGNALING FOR SCADA	29
=D08+Q2 CLOSING CIRCUIT-I	12	SYNC. SELECTION	30
=D08+Q2 TRIP CIRCUIT-I	13	AC DISTRIBUTION CIRCUIT	31
=D08+Q2 TRIP CIRCUIT-II	14	AC DISTRIBUTION CIRCUIT	32
'D08+Q2 MOTOR DRIVE CIRCUIT	15	DC MCB TRIP CIRCUIT	33
POSITION INDICATION CIRCUIT	16	TELEPHONE SOCKET	34
=D08+Q21 DISCONNECTOR CONTROL	17		
=D08+Q22 DISCONNECTOR CONTROL	18		

APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: LIST OF CONTENTS 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 02 OF 34
NAH Q.	MSS M. Sohail	MUR Ilyas				DATE: 07.03.2019	AS BUILT

A  
B  
C  
D  
E  
F  
A  
B  
C  
D  
E  
F

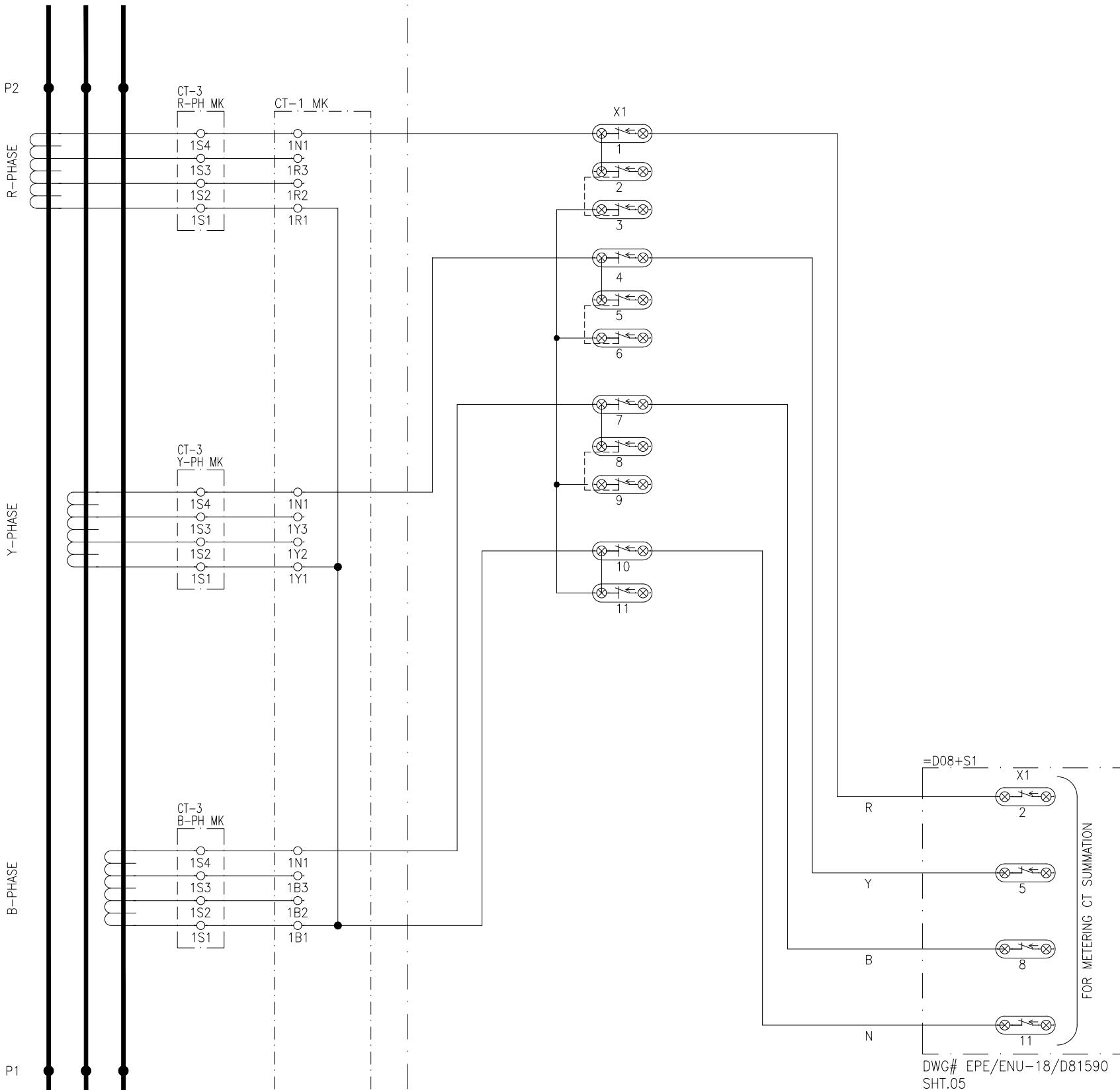
LIST OF SYMBOLS AND DESIGNATIONS

	MOTORIZED HV DISCONNECTOR	74-DC	DC CIRCUIT SUPERVISION RELAY
	HV CIRCUIT BREAKER	X	TERMINAL BLOCKS
	525/231/23 kV AUTO TRANSFORMER	K	AUXILIARY RELAY/CONTACTOR
	CAPACITOR VOLTAGE TRANSFORMER		
	RELAY PANEL TERMINAL BLOCK		
	CONTROL PANEL TERMINAL BLOCK		
	EARTH CONNECTION		
	NORMALLY CLOSED CONTACT		
	NORMALLY OPEN CONTACT		
	CHANGE OVER CONTACT		
	MINIATURE CIRCUIT BREAKER		
	INDICATING BULB/LED/CUBICLE LIGHT		
	220V SOCKET		
	SPACE HEATER		
	COIL		
	EQUIPMENT WITHIN PANEL		
	INDEPENDENT PANEL		
	INDEPENDENT PANEL		



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SINGLE LINE DIAGRAM 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 04 OF 34
NAH Q.	MSS M. Sohail	MUR Iy	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT	REV: 0

## SWITCH YARD

=D08, CT-3, CORE-1  
2400:1200:600/5ANOTE:  
SELECTED CT TAP TO BE CONFIRMED AT SITE.APPROVED DRAWN CHECKED  
NAH [Signature] MUR [Signature] MSS [Signature]

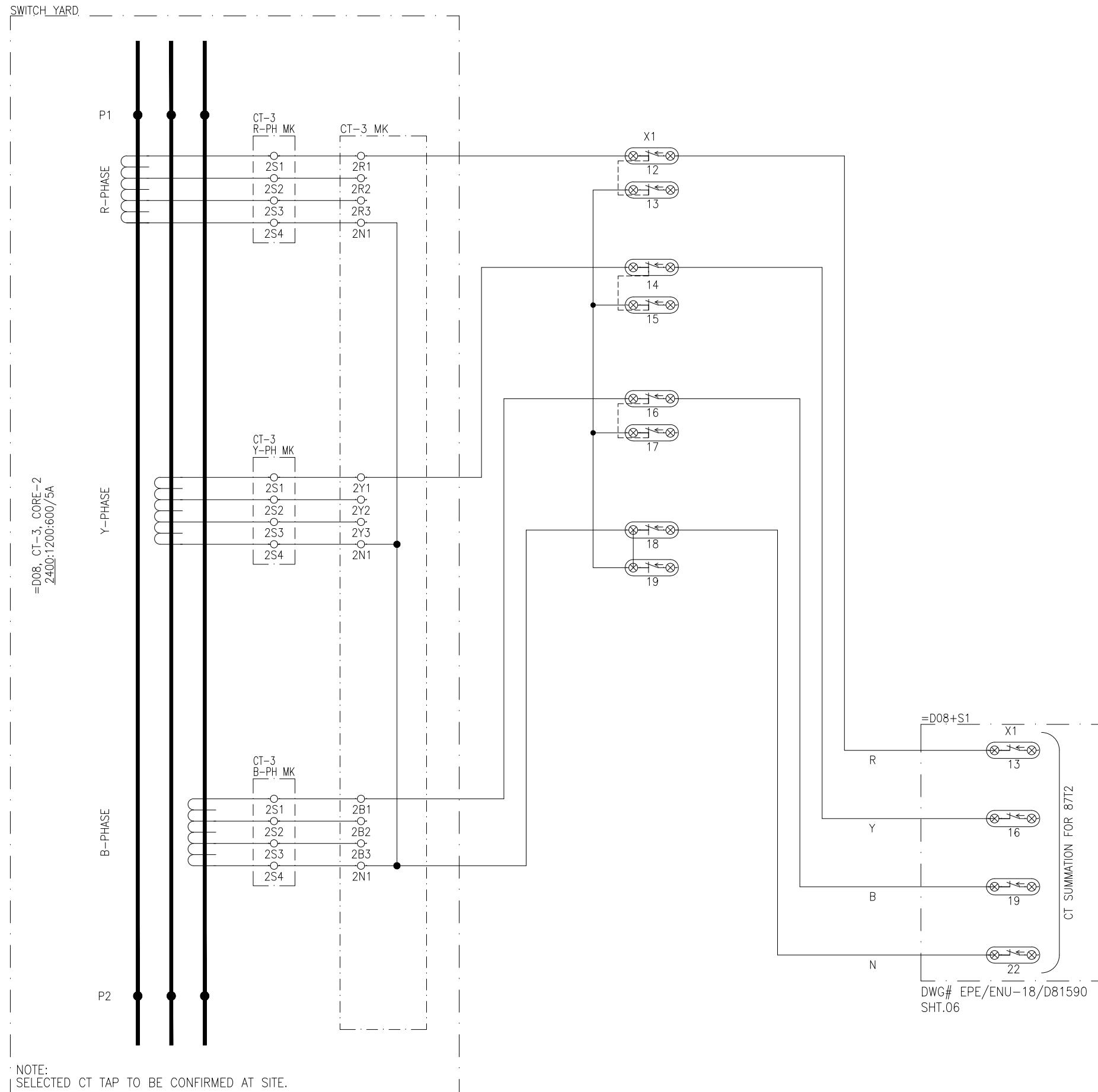
PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&amp;M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV &amp; 500KV RELAY&amp; CONTROL PANELS

TITLE:

CT CIRCUIT  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2E P E S O L P v t . L t d.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81594 SHT: 05 OF 34

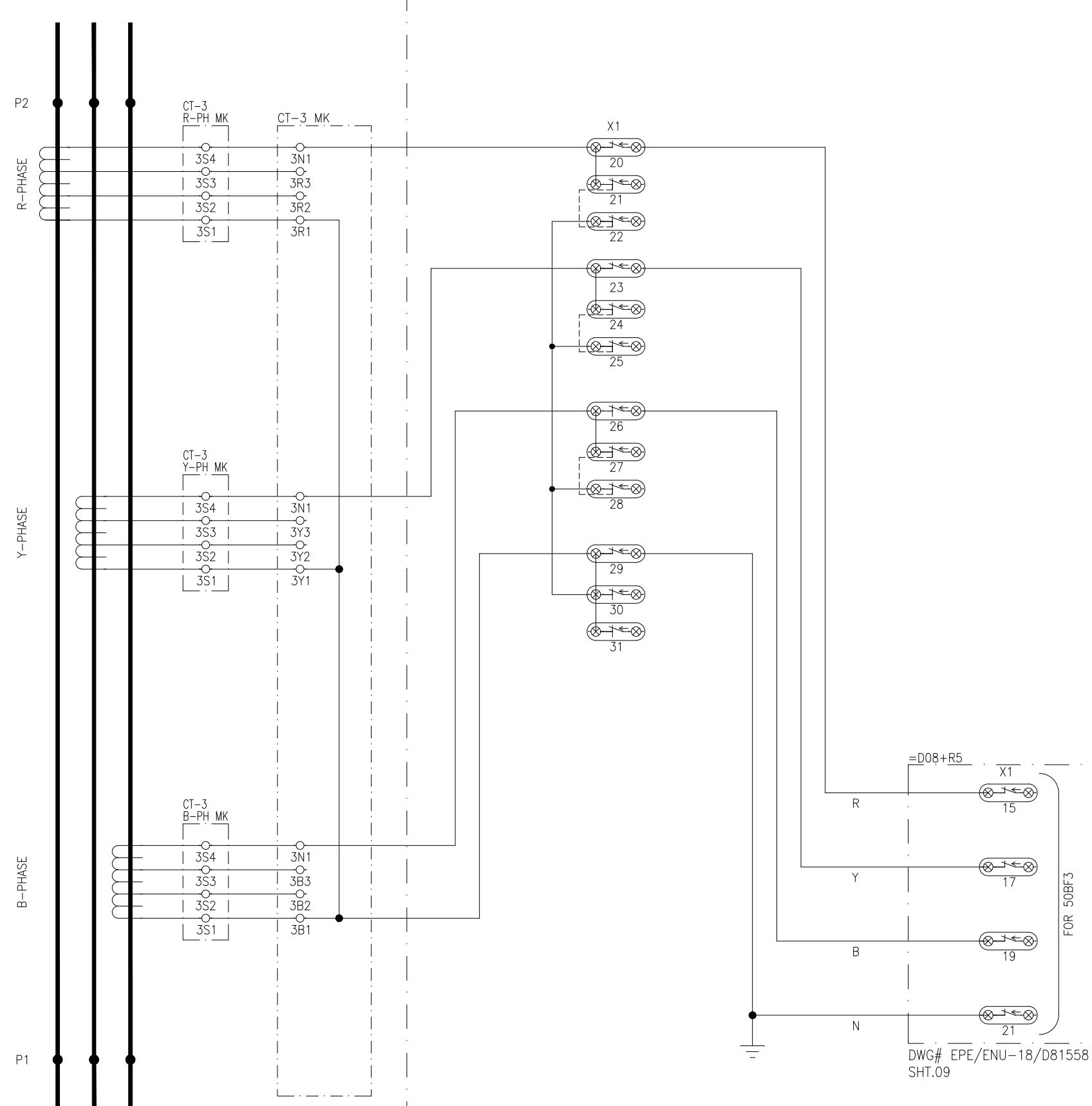
DATE: 07.03.2019 AS BUILT REV: 0



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: CT CIRCUIT 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 06 OF 34
NAH [Signature]	MSS [Signature]	MUR [Signature]		<b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

## SWITCH YARD.

=D08, CT-3, CORE-3  
2400:1200:600/5A



NOTE:  
SELECTED CT TAP TO BE CONFIRMED AT SITE.

APPROVED	CHECKED	DRAWN
NAH [Signature]	MSS [Signature]	MUR [Signature]



PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS

TITLE:

CT CIRCUIT  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2

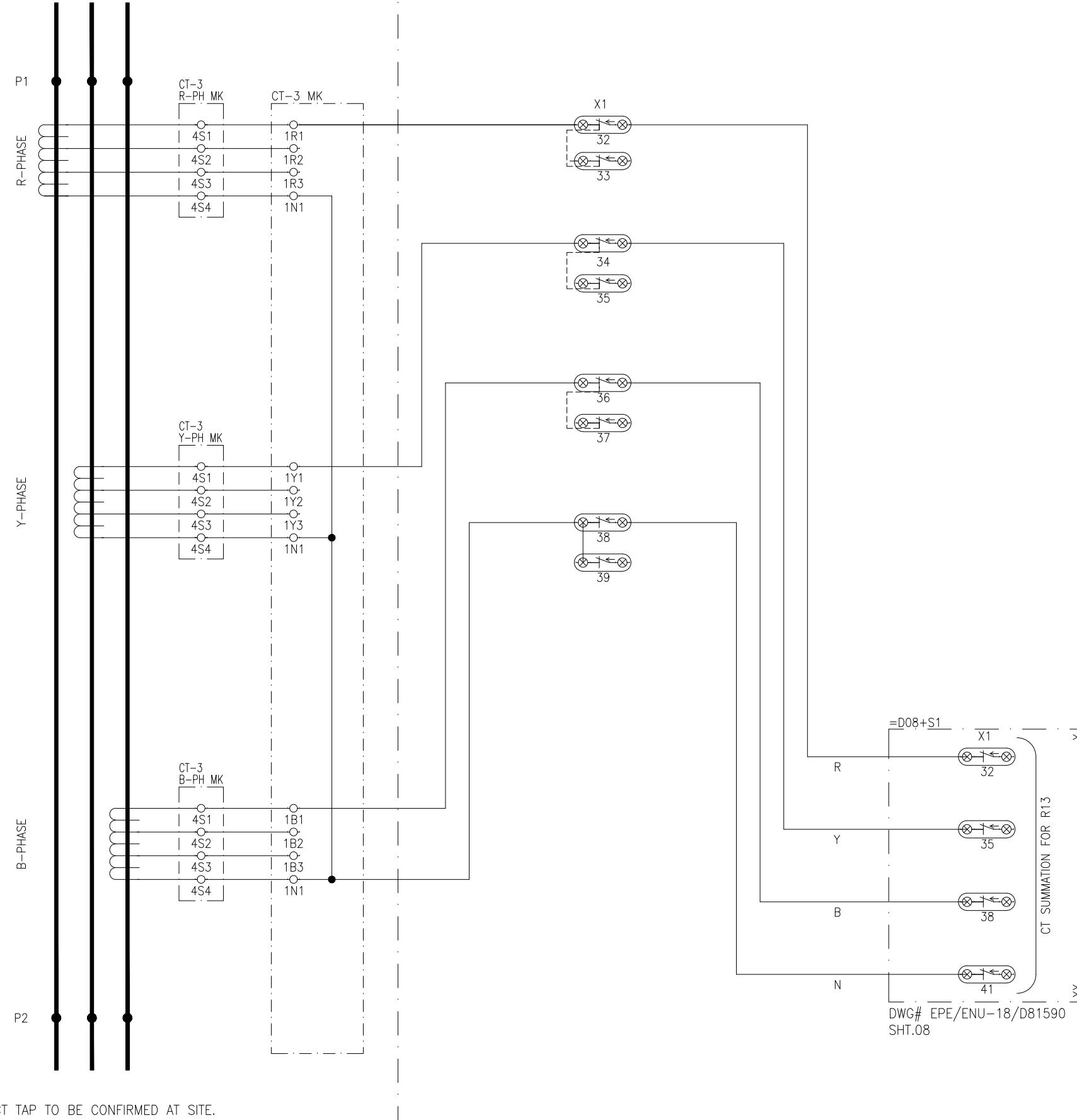


**E P E S O L** Pvt. Ltd.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81594 SHT: 07 OF 34

DATE: 07.03.2019 AS BUILT REV: 0

SWITCH YARD

=D08, CT-3, CORE-4  
2400:1200:600/5A

APPROVED	CHECKED	DRAWN
NAH	MSS	MUR



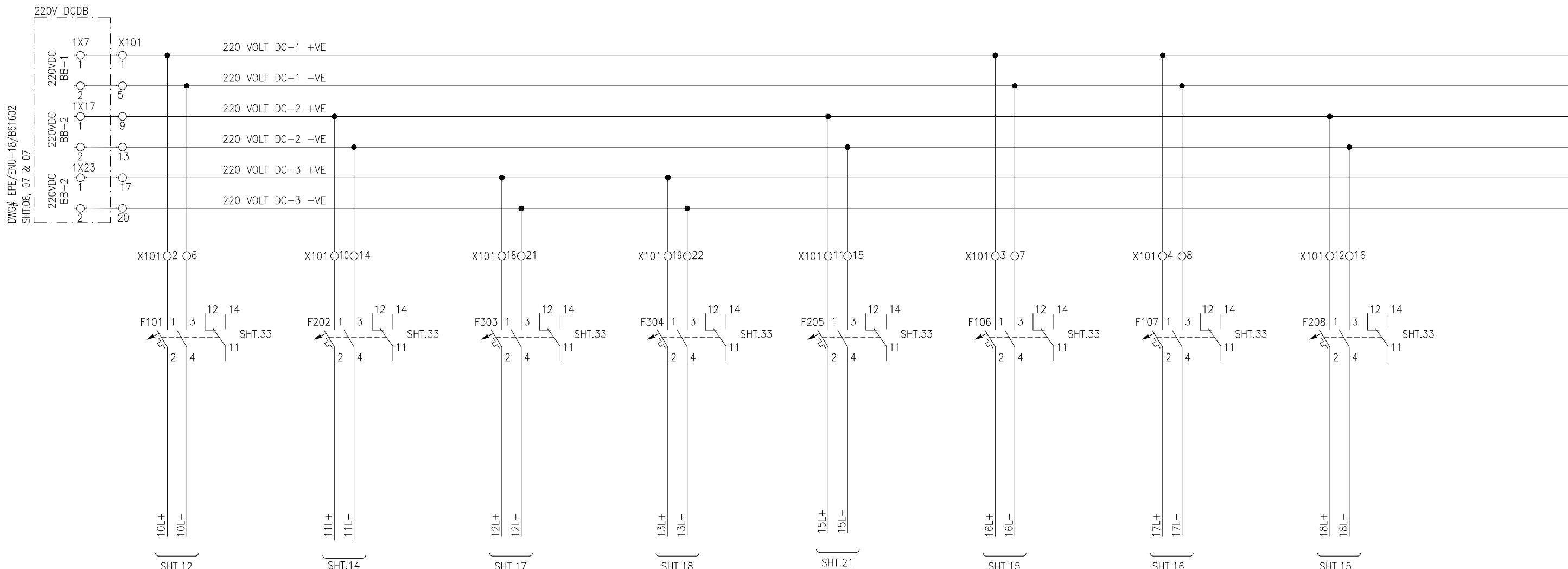
PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018  
FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS

TITLE:  
CT CIRCUIT  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2



**E P E S O L** Pvt. Ltd.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

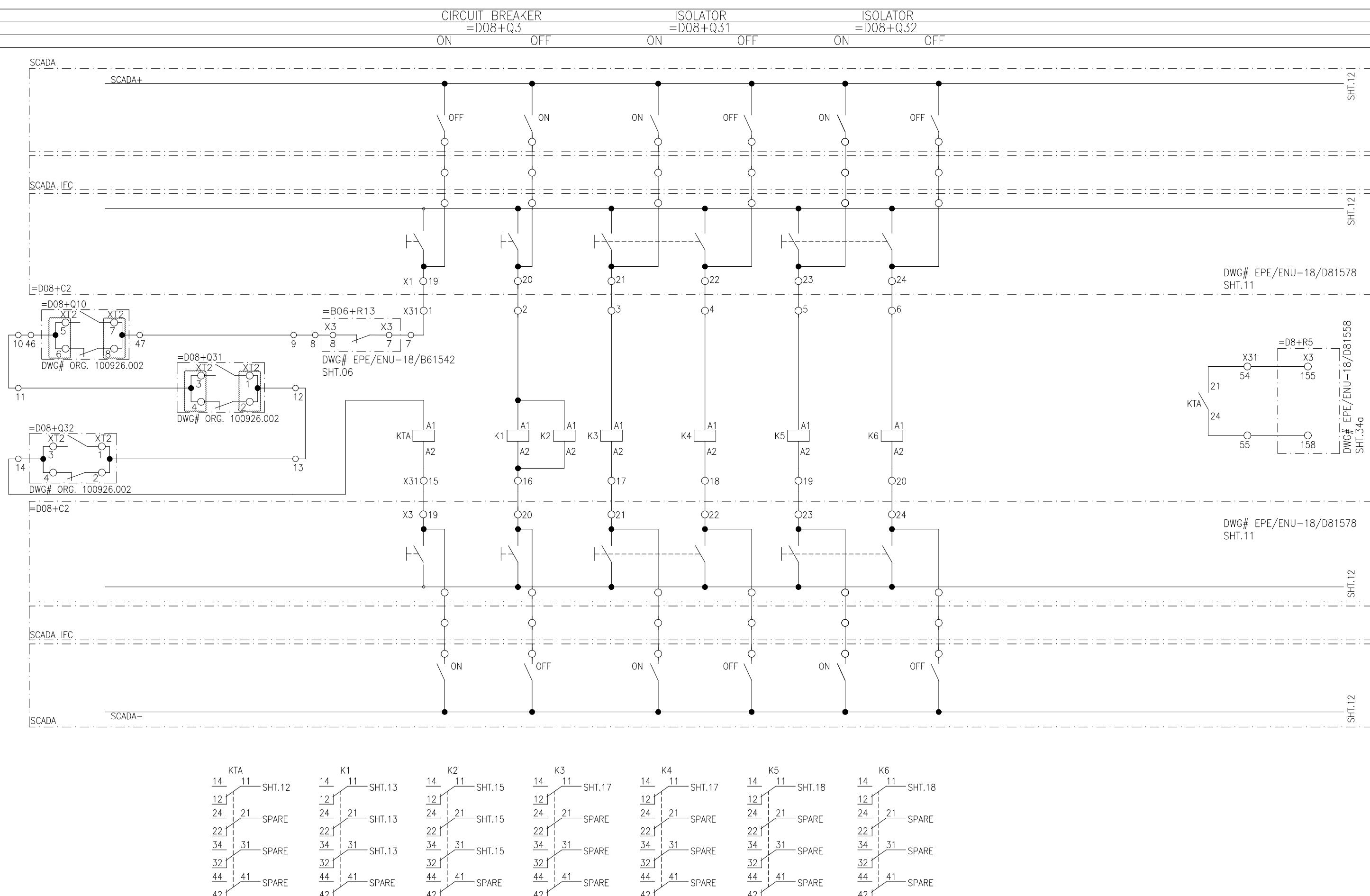
DWG# EPE/ENU-18/D81594 SHT: 08 OF 34  
DATE: 07.03.2019 AS BUILT REV: 0

CB CLOSING &  
TRIP CCT-1CB  
TRIP CCT-2DISCONNECTOR  
=D8+Q11  
MOTOR SUPPLYDISCONNECTOR  
=D8+Q12  
MOTOR SUPPLYALARMS  
SIGNALLINGCIRCUIT BREAKER  
MOTOR DRIVE  
SUPPLY-1POSITION  
INDICATIONCIRCUIT BREAKER  
MOTOR DRIVE  
SUPPLY-2

## LEGEND

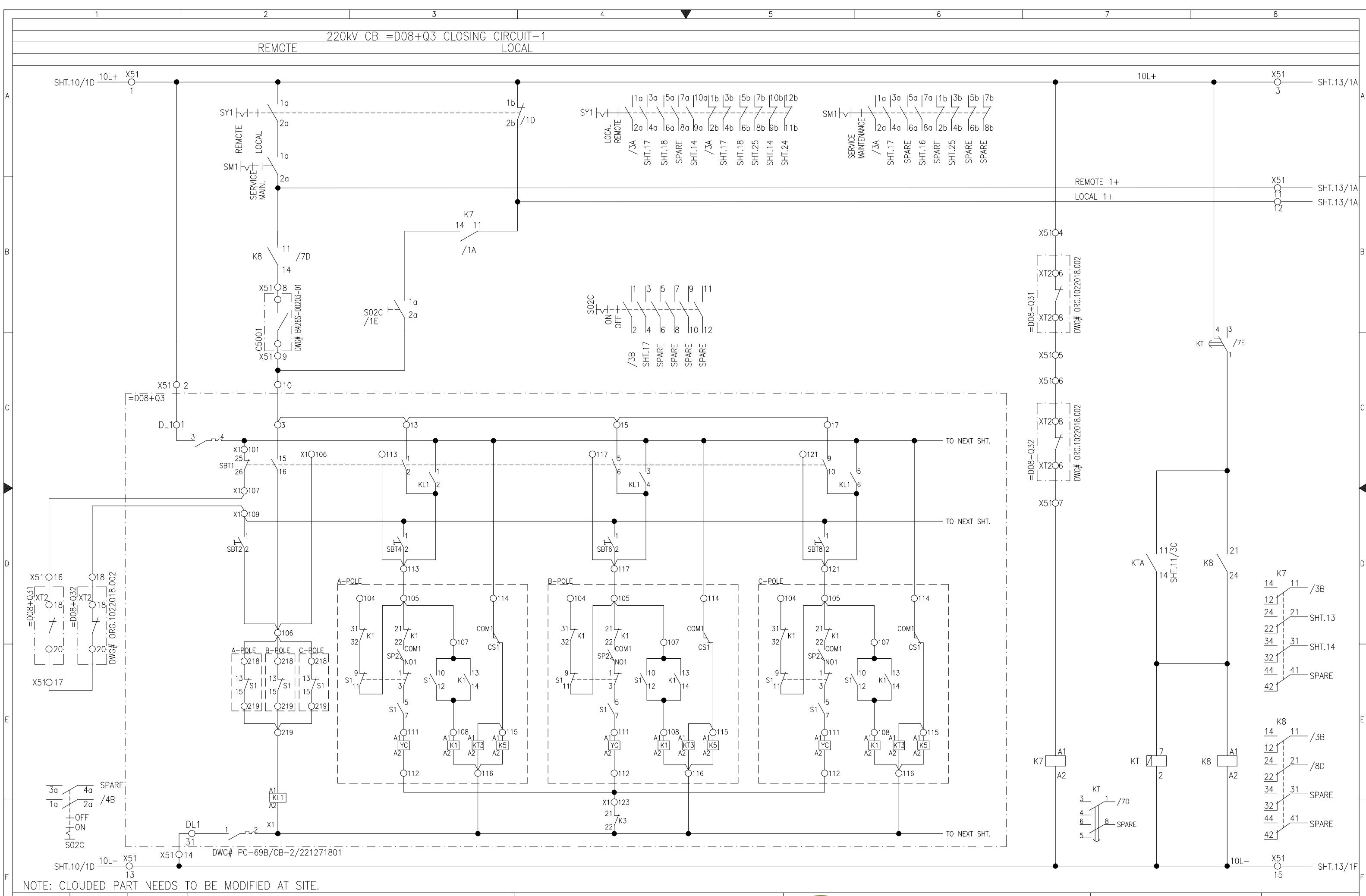
DES:	DESCRIPTION	TYPE	MAKE
F1XX F3XX	TWO POLE, 10Amp DC MCB,s	EP-100	GE
F106 F208	TWO POLE, 16Amp DC MCB,s	EP-100	GE

APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: DC SUPPLY DISTRIBUTION 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 10 OF 34	
NAH	MSS	MUR		EPE SOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT	
1	2	3	4	5	6	7	8



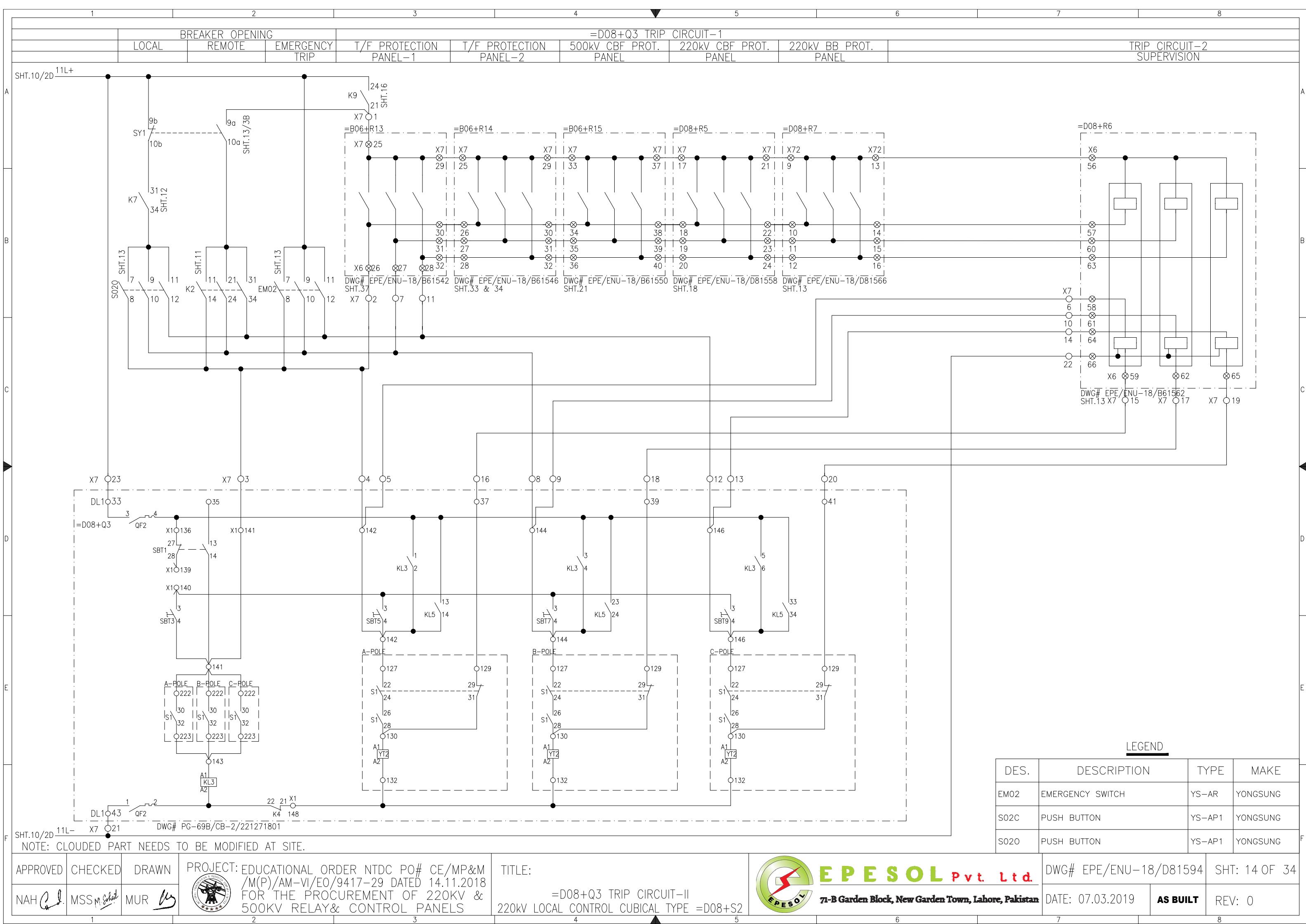
NOTE: CLOUDED PART NEEDS TO BE MODIFIED AT SITE

NOTE: CLOUDED PART NEEDS TO BE MODIFIED AT SITE.			PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: CB AND DISCONNECTOR CONTROL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 11 OF 34
APPROVED 	CHECKED 	DRAWN 				DATE: 07.03.2019	AS BUILT



NOTE: CLOUDED PART NEEDS TO BE MODIFIED AT SITE

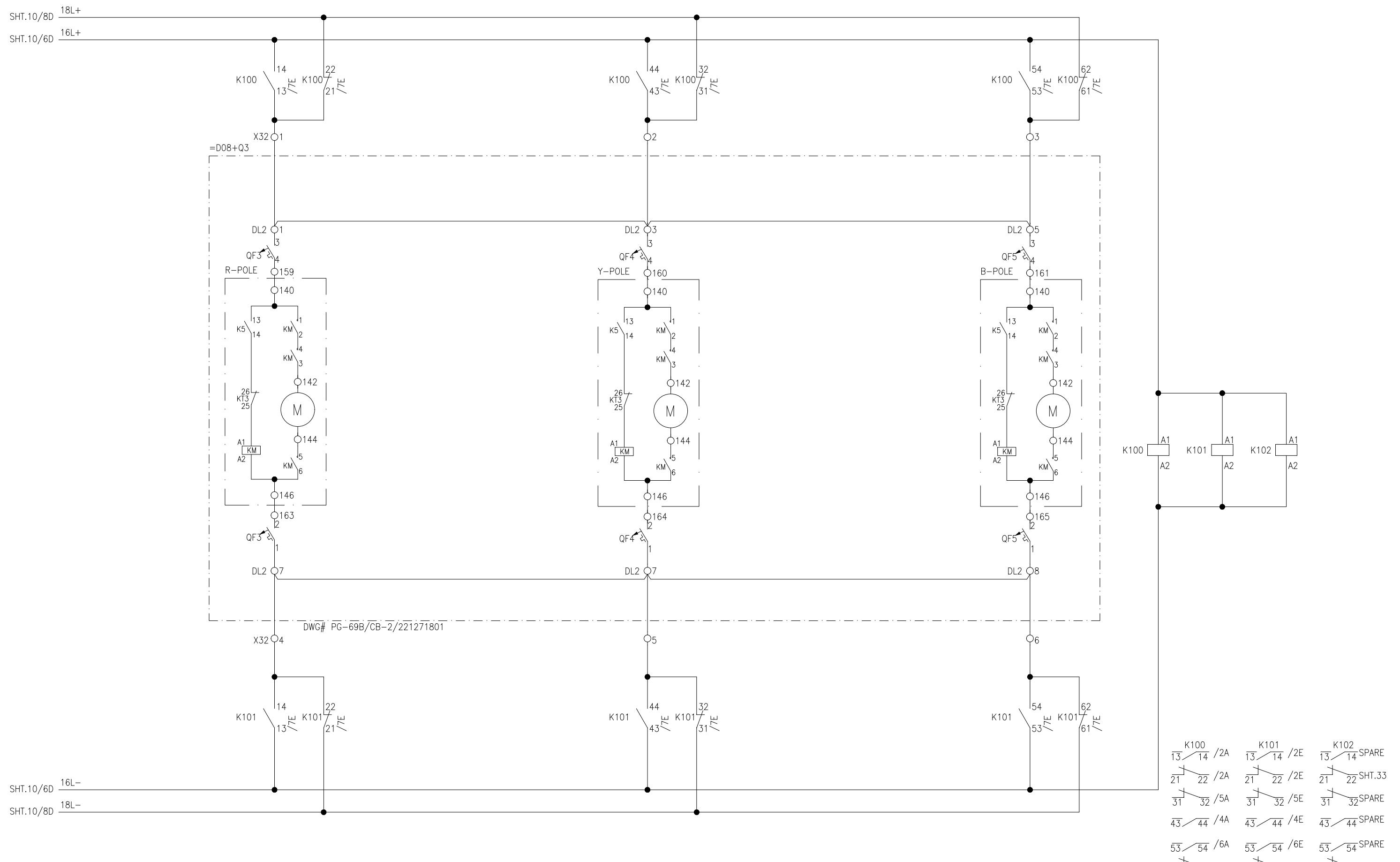
APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: =D08+Q3 CLOSING CIRCUIT-I 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 12 OF 34
NAH 	MSS 	MUR 				DATE: 07.03.2019	AS BUILT



CB MOTOR DRIVE CIRCUIT  
Y-POLE

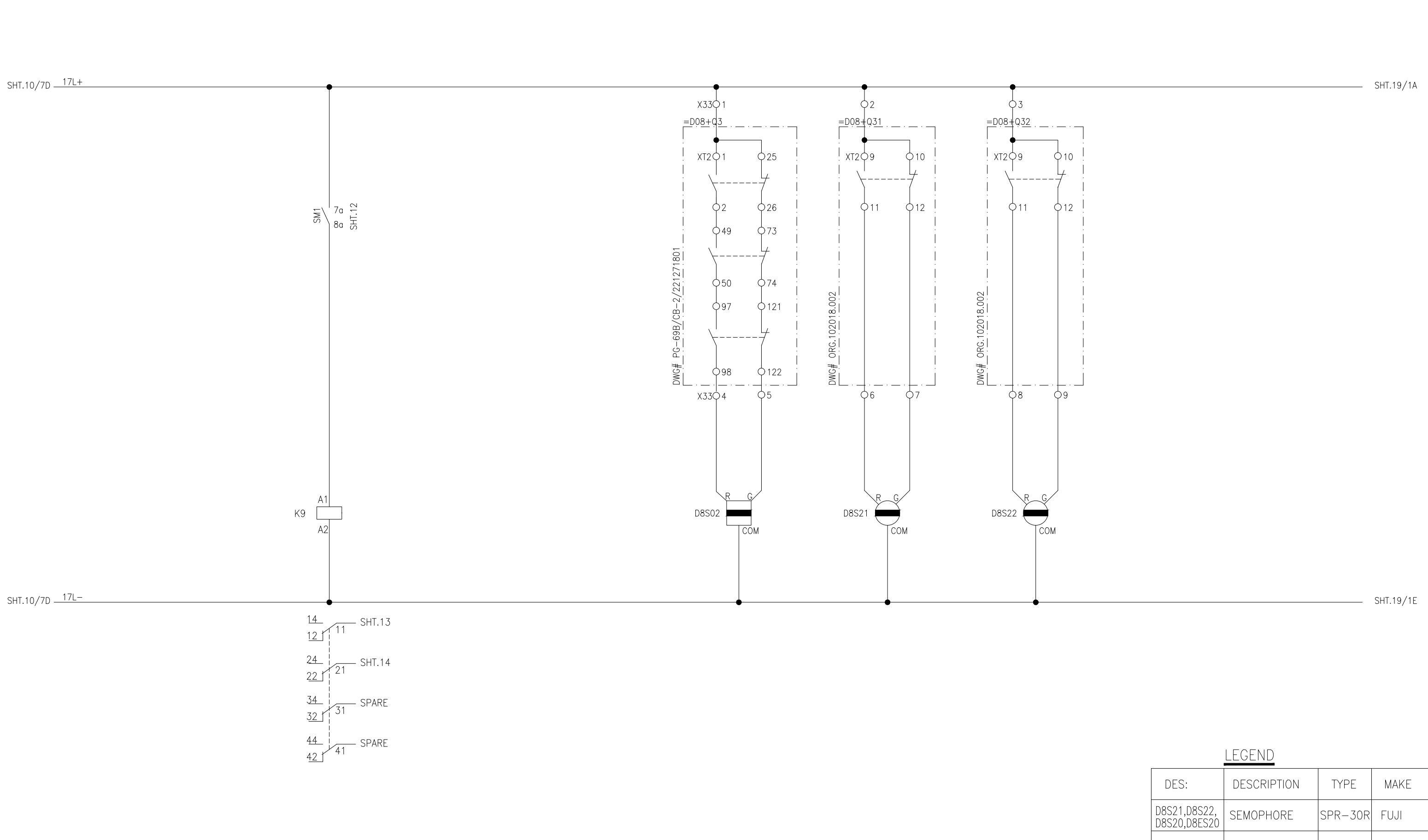
B-POLE

R-POLE



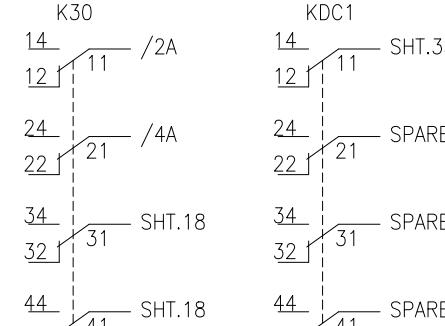
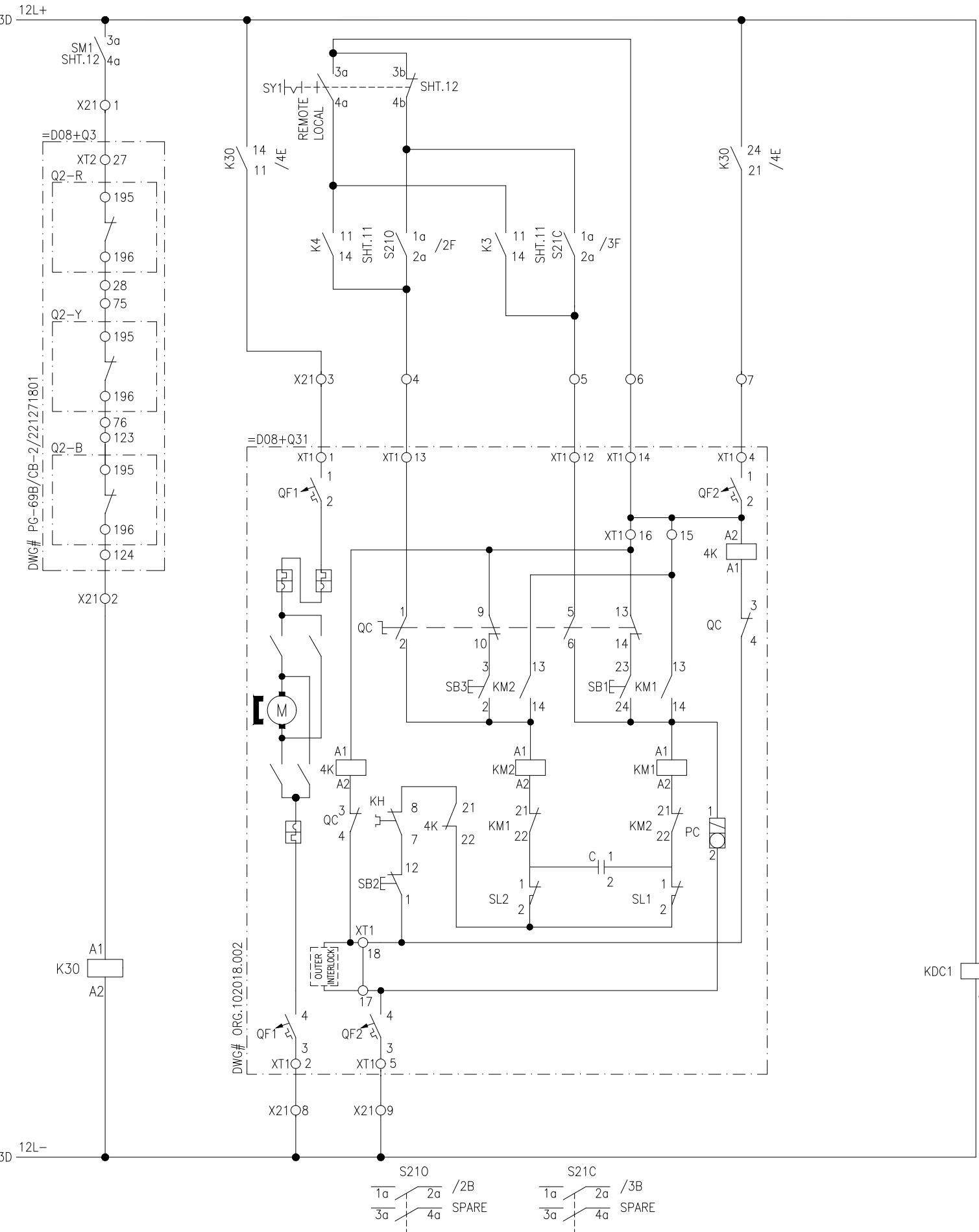
K100 /2A 13/14 /2E 21/22 /2E 21/22 SHT.33  
 21 22 /2A 31 32 /5A 31 32 /5E 31 32 SPARE  
 43 44 /4A 43 44 /4E 43 44 SPARE  
 53 54 /6A 53 54 /6E 53 54 SPARE  
 61 62 /7A 61 62 /7E 61 62 SPARE

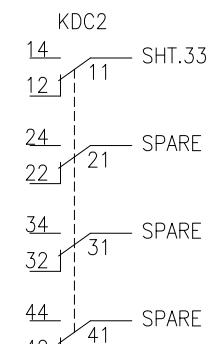
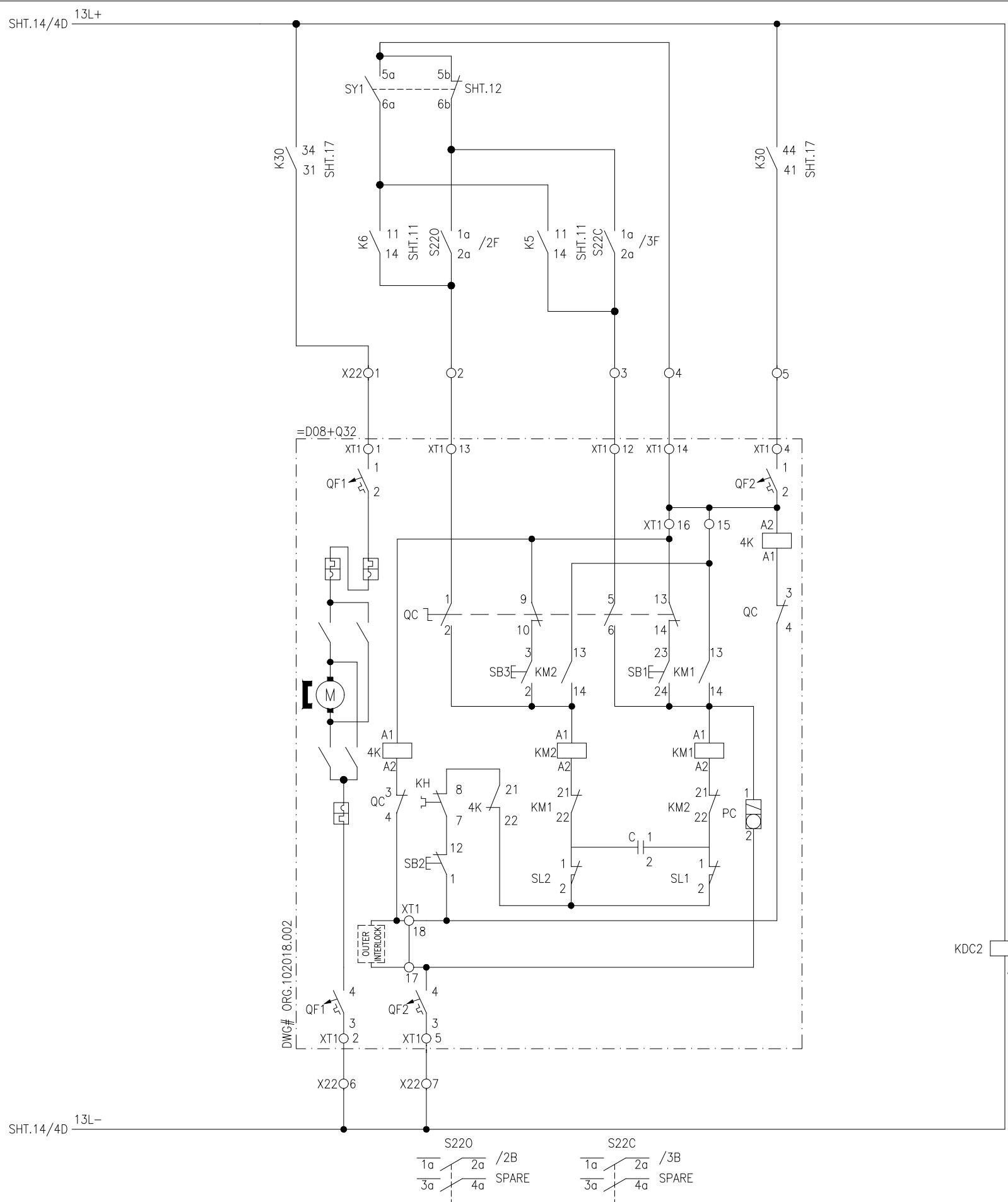
APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: =D08+Q3 MOTOR DRIVE CIRCUIT 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 15 OF 34
NAH	MSS	MUR	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan		DATE: 07.03.2019	AS BUILT REV: 0



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: POSITION INDICATION CIRCUIT 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 16 OF 34
NAH	MSS	MUR		 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

DISCONNECTOR =D08+Q31  
INTERLOCKING MOTOR SUPPLY OPENING CLOSING





APPROVED CHECKED DRAWN

NAH [Signature] MSS [Signature] MUR [Signature]



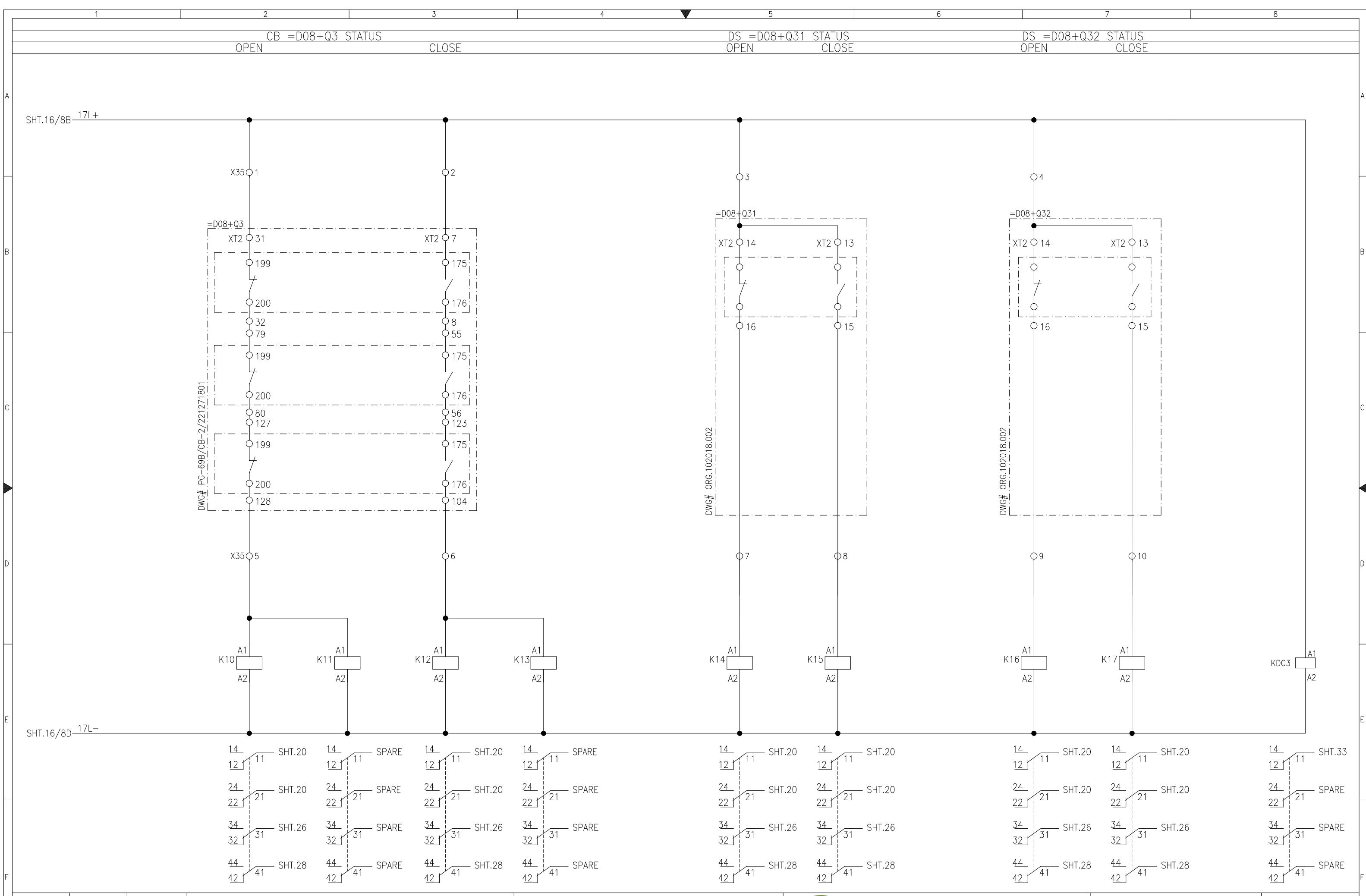
PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS

TITLE:  
=D08+Q32 DISCONNECTOR CONTROL  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2

E P E S O L P v t . L t d.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81594 SHT: 18 OF 34  
DATE: 07.03.2019 AS BUILT REV: 0

1 2 3 4 5 6 7 8



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE:	 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 19 OF 34
NAH 	MSS 	MUR 	CB/DS STATUS 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	4	5	DATE: 07.03.2019	AS BUILT

1 2 3 4 5 6 7 8

## CIRCUIT BREAKER

=D08+Q3

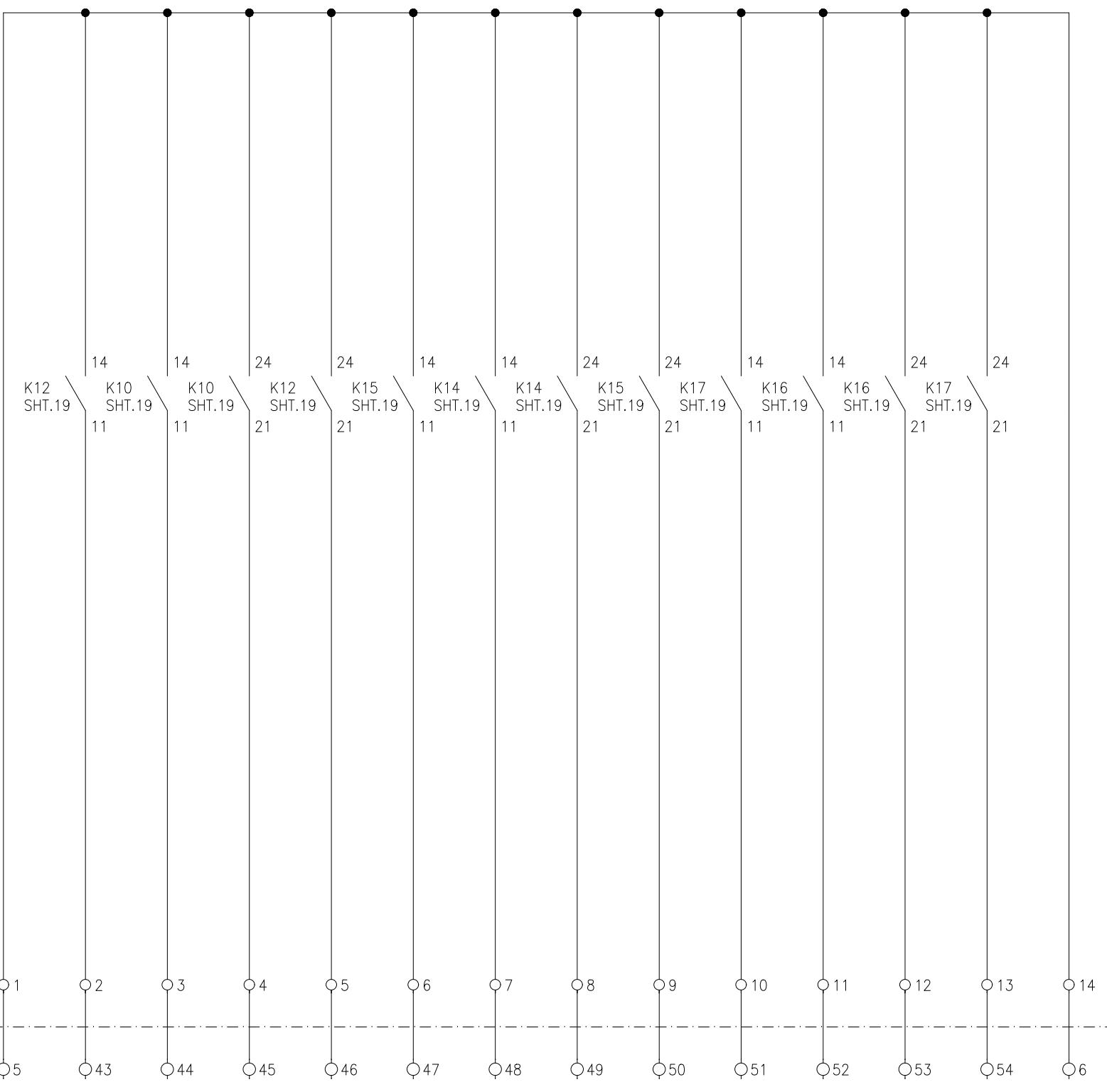
## DISCONNECTOR

=D08+Q31

## DISCONNECTOR

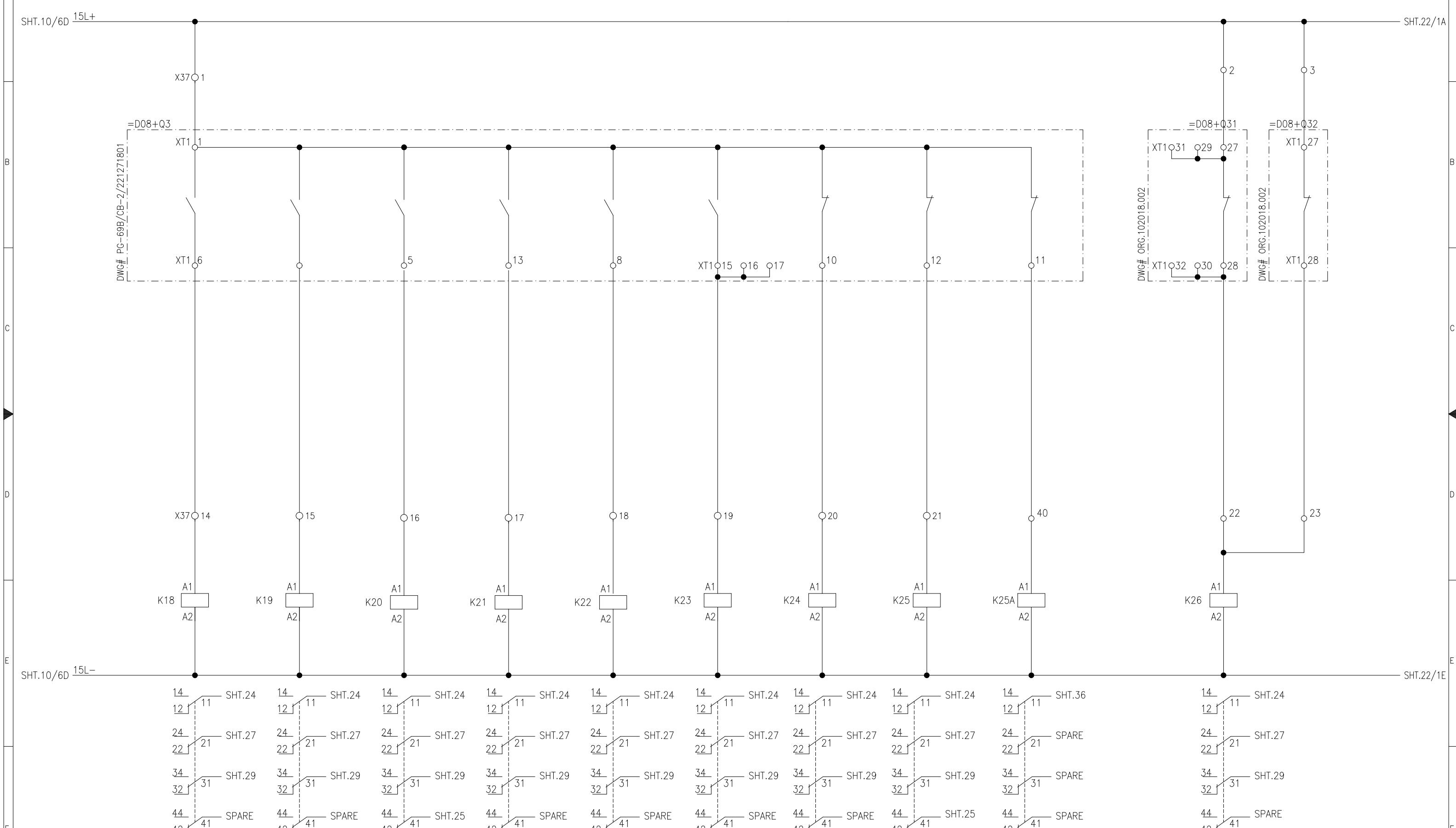
=D08+Q32

CLOSE OPEN OPEN CLOSE CLOSE OPEN OPEN CLOSE CLOSE OPEN OPEN CLOSE

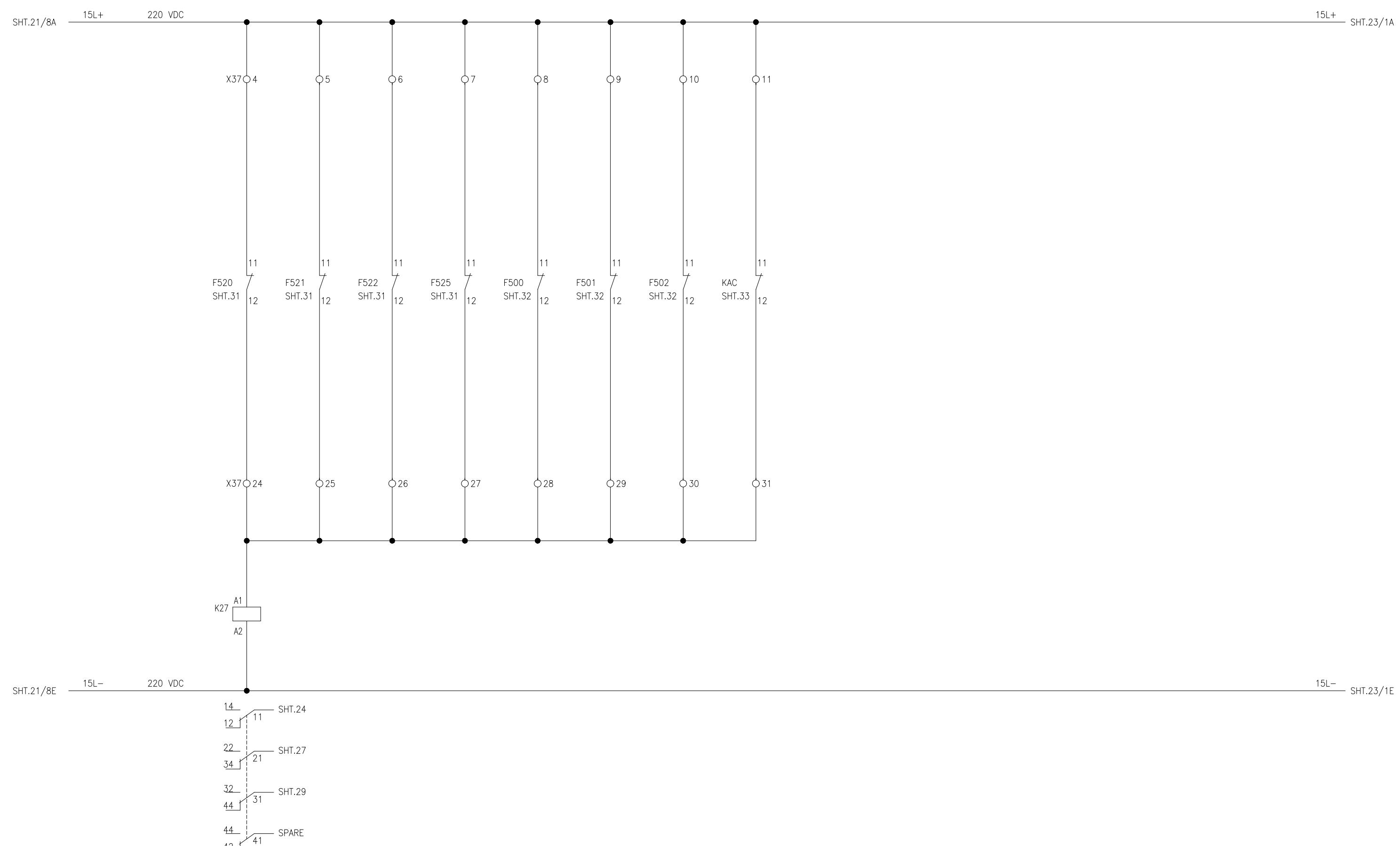


APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: POSITION INDICATION FOR CONTROL PANEL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 20 OF 34
NAH	MSS	MUR		 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT REV: 0

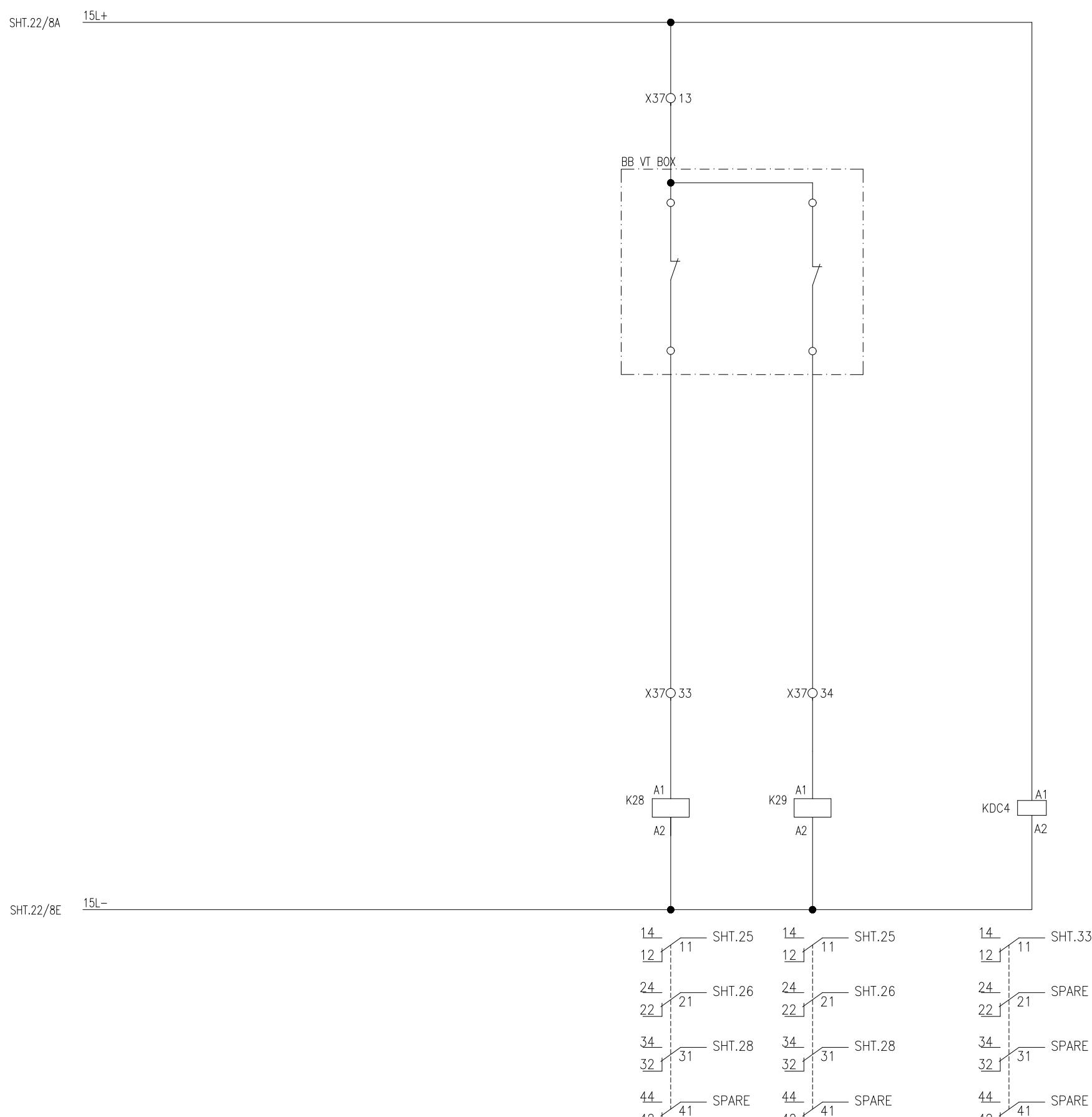
1	2	3	=D08+Q3	4	5	6	7	8
SF6 LOW PRESSURE ALARM	CB SPRING NOT CHARGED	POLE DISCREPANCY	SF6 LOW PRESSURE LOCKOUT	MOTOR RUN TIME MONITORING	CONTROL AT LOCAL	AC SUPPLY FAIL /HEATING FAULTY	MOTOR CONTROL CIRCUIT MCB	DS AC MCB TRIP



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: CB ALARMS 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 21 OF 34
NAH [Signature]	MSS [Signature]	MUR [Signature]				DATE: 07.03.2019	AS BUILT

AC MCB  
TRIP

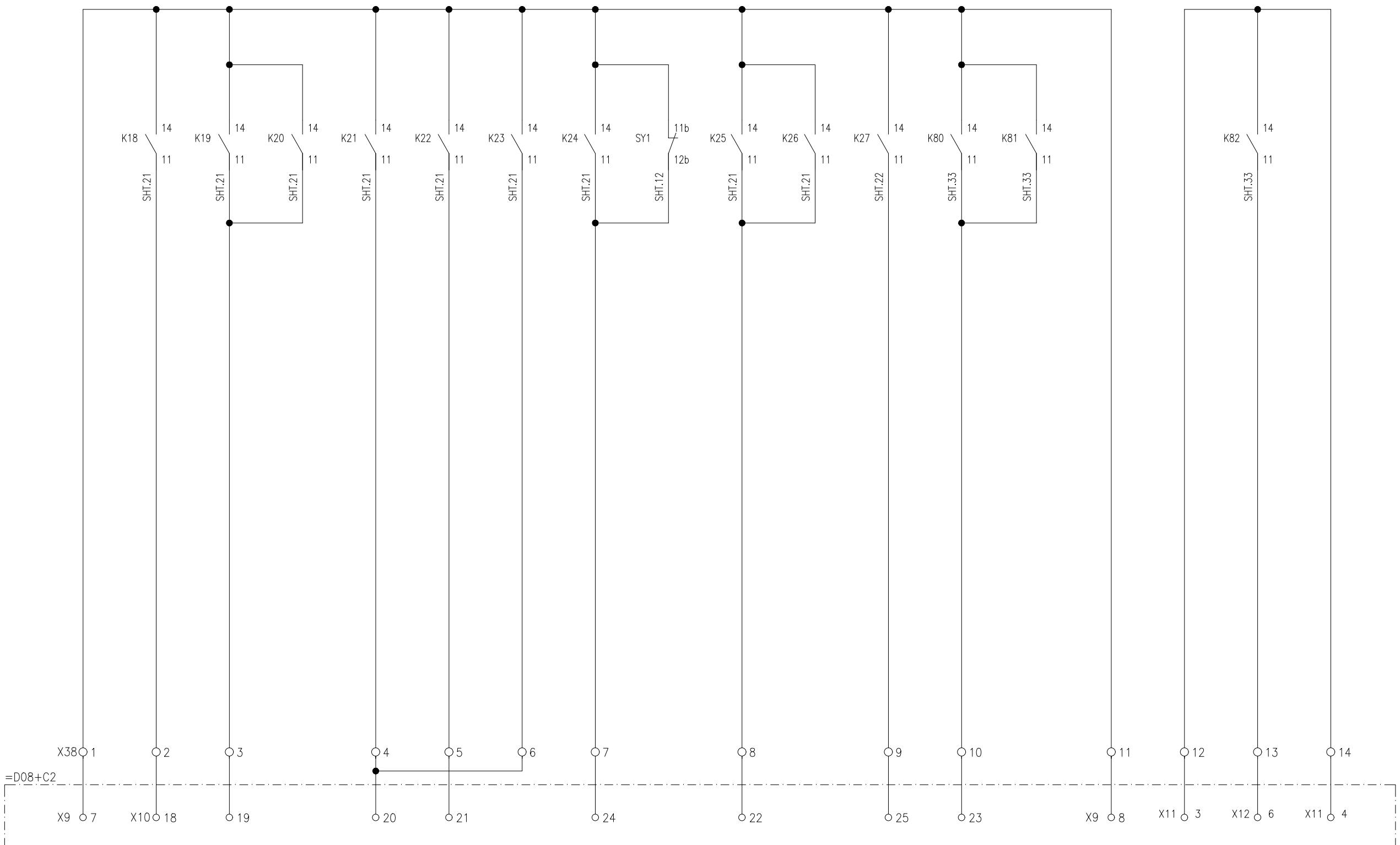
APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: AC SUPPLY FAIL INDICATION CIRCUIT 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 22 OF 34
NAH [Signature]	MSS [Signature]	MUR [Signature]		EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT REV: 0

LEGEND

DES:	DESCRIPTION	TYPE	MAKE
KX	MINATURE RELAY, 220VDC	PRC	GE

APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: VT MCB TRIP 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 23 OF 34
NAH [Signature]	MSS [Signature]	MUR [Signature]		<b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT REV: 0

1	2	3	4	5	6	7	8
SF6 PRESSURE LOW	MECHANISM CLOSING LOCKOUT	ENFORCED CB SPRING NOT CHARGED	SF6 LOW TRIPLE POLE OPERATION	MOTOR PRESSURE LOCKOUT	CB CONTROL RUN TIME MONITORING	AC SUPPLY FAIL /HEATING FAULTY DS AC FAIL	M.K AC MCB TRIP
						MOTOR CIRCUIT MCB TRIP CB DS	MK DC MCB TRIP/SUPPLY FAIL



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SIGNALING FOR ANNUNCIATION 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 24 OF 34
NAH [Signature]	MSS [Signature]	MUR [Signature]				DATE: 07.03.2019	AS BUILT

1

2

3

4

5

6

7

8

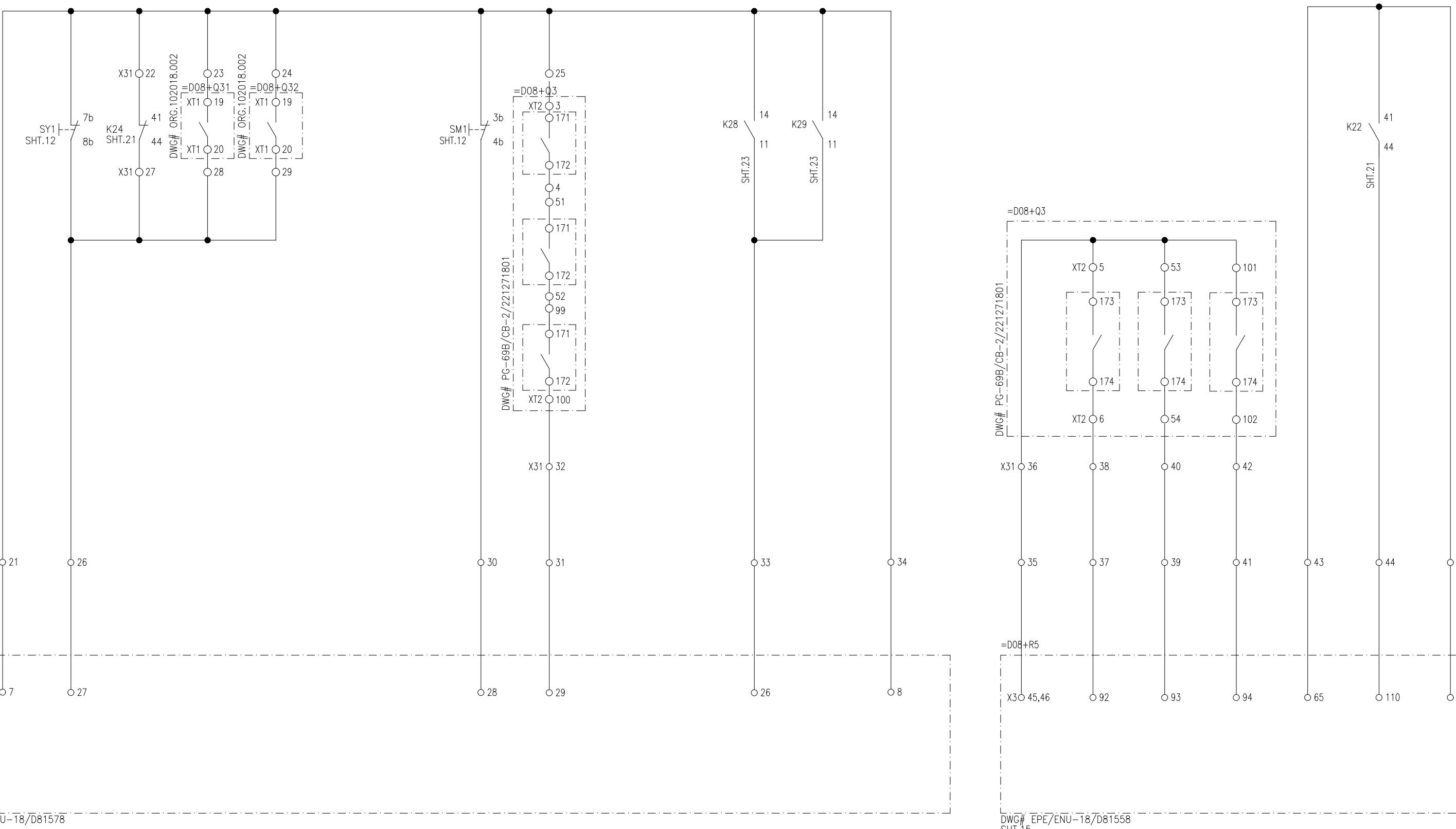
D08+Q3/Q31/Q32  
ON LCC LOCAL

D08+Q3 OPERATION  
ON COUNTER  
MAINTENANCE

BB-2 VT MCB TRIP  
WINDING-1 WINDING-2

=D08+Q3 AUX CONTACT  
FOR BREAKER FAILURE  
RESET

CB FAULTY



APPROVED	CHECKED	DRAWN
NAH	MSS	MUR



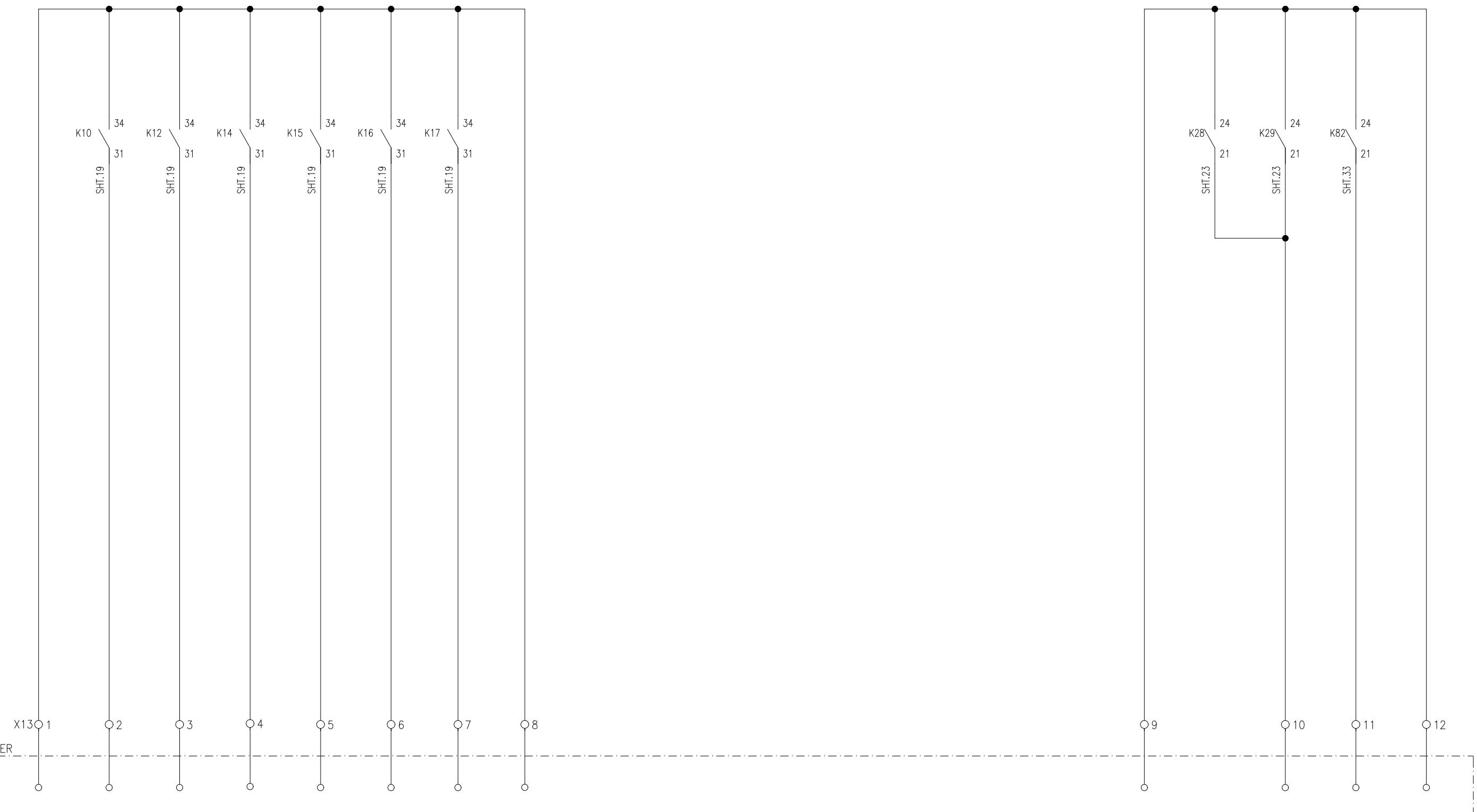
PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018  
FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS

TITLE:  
SIGNALING FOR ANNUNCIATION  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2

 **EPESOL Pvt. Ltd.**  
71-B Garden Block, New Garden Town, Lahore, Pakistan

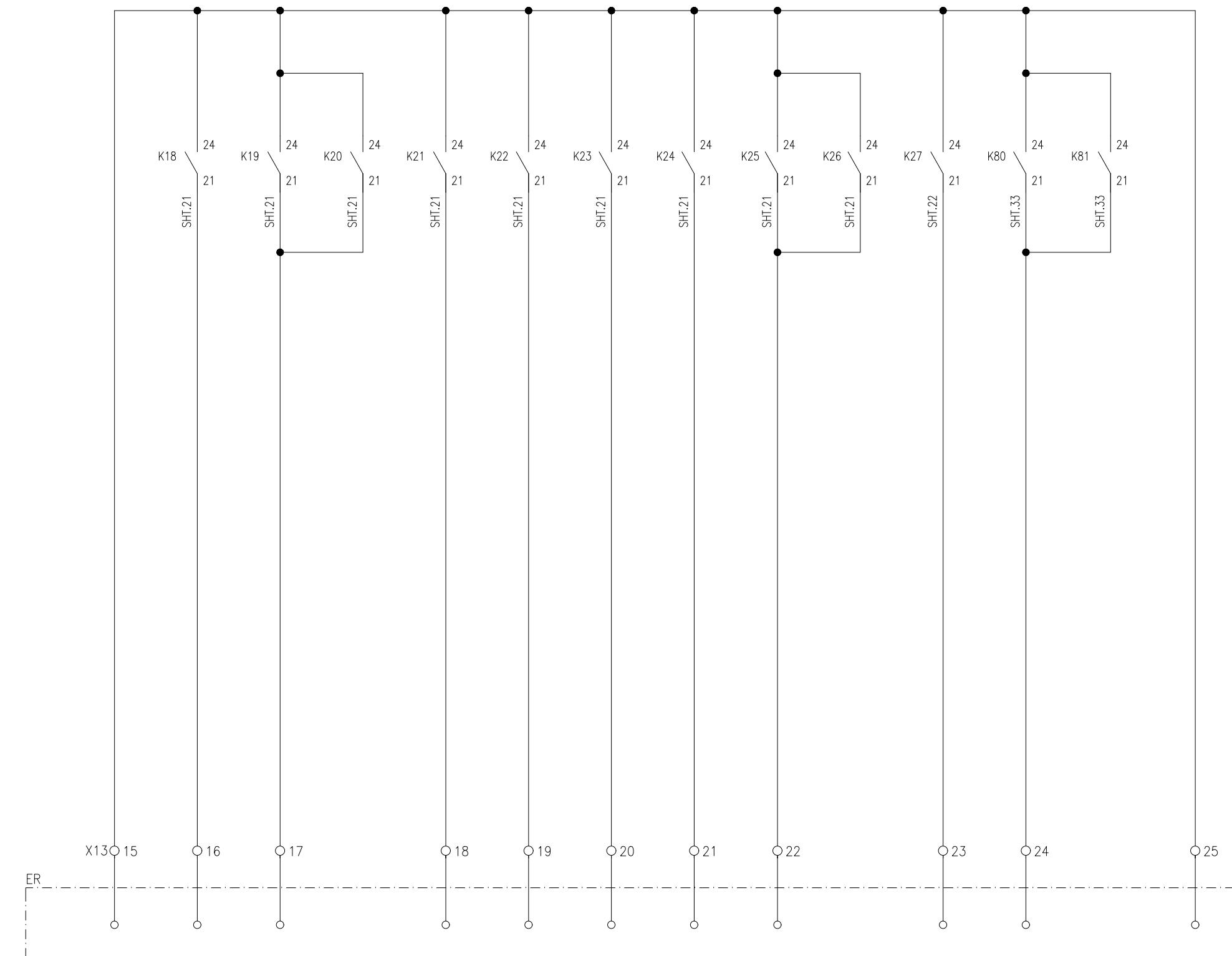
DWG# EPE/ENU-18/D81594 SHT: 25 OF 34  
DATE: 07.03.2019 **AS BUILT** REV: 0

1	2	3	4	5	6	7	8
CIRCUIT BREAKER =D08+Q3	DISCONNECTOR =D08+Q31	DISCONNECTOR =D08+Q32			BB-2 VT MCB TRIP	MK DC SUPPLY FAILURE	
OPEN	CLOSE	OPEN	CLOSE	OPEN	CLOSE		



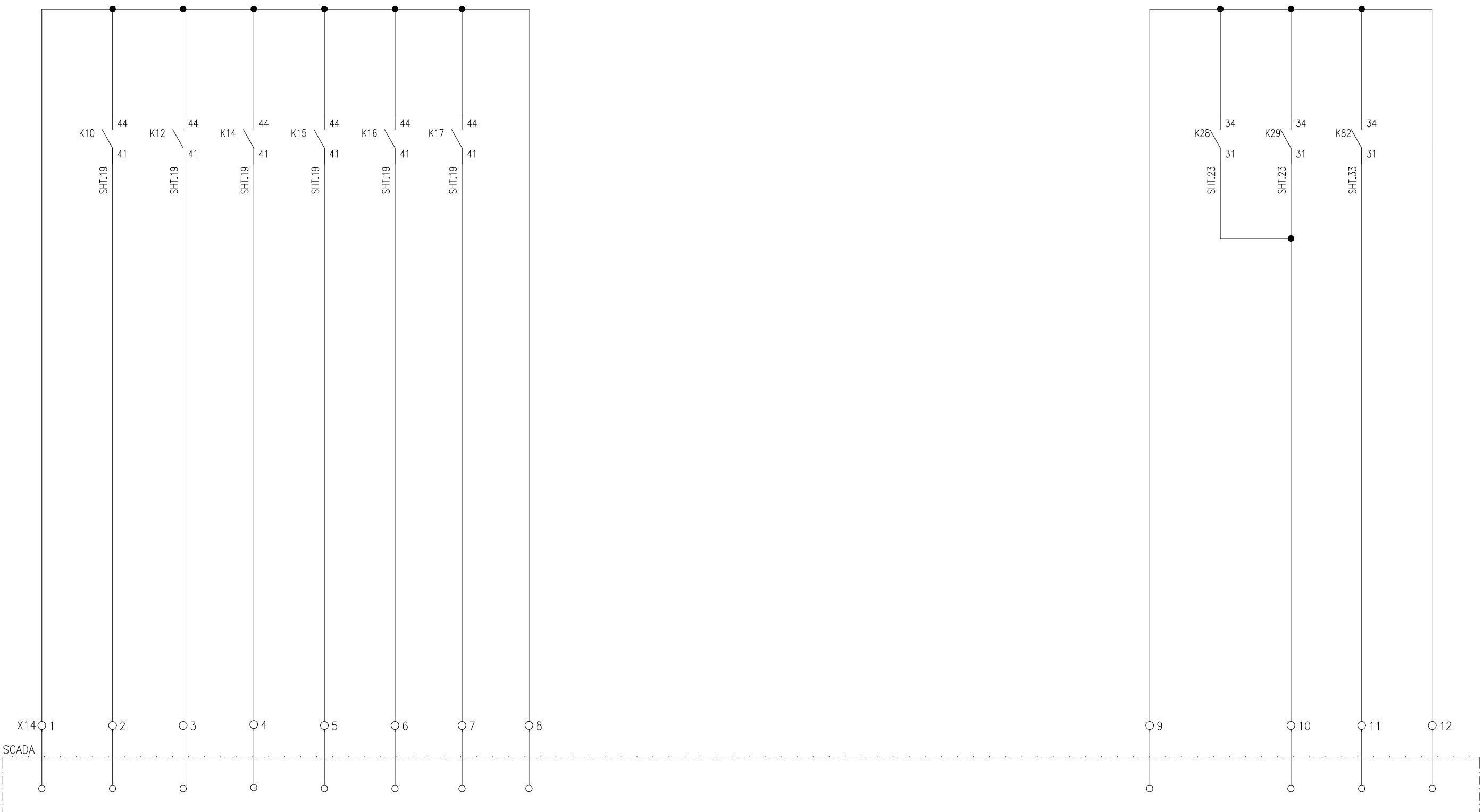
APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SIGNALING FOR EVENT RECORDER 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPE SOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 26 OF 34
NAH	MSS	MUR				DATE: 07.03.2019	AS BUILT

1	2	3	4	5	6	7	8
SF6 PRESSURE LOW	MECHANISM CLOSING LOCKOUT	ENFORCED CB SPRING NOT CHARGED	SF6 LOW TRIPLE POLE OPERATION	MOTOR PRESSURE LOCKOUT	CB CONTROL RUN TIME MONITORING	AC SUPPLY FAIL /HEATING FAULTY DS AC FAIL	M.K AC MCB TRIP
							MOTOR CIRCUIT MCB TRIP CB DS
A	B	C	D	E	F	G	H



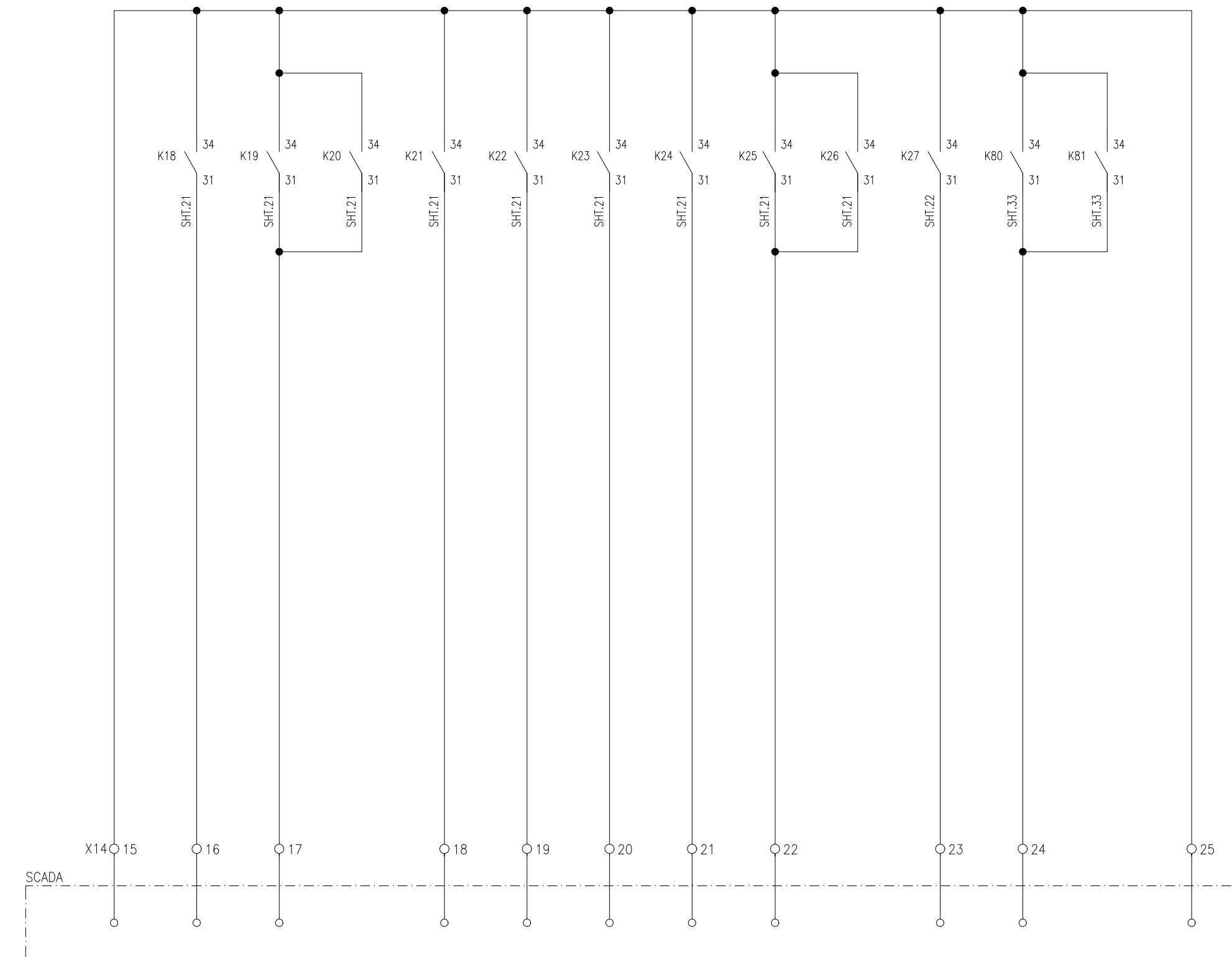
APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SIGNALING FOR EVENT RECORDER 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	EPESOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81594	SHT: 27 OF 34
NAH	MSS	MUR				DATE: 07.03.2019	AS BUILT

1	2	3	4	5	6	7	8
CIRCUIT BREAKER =D08+Q3	DISCONNECTOR =D08+Q31	DISCONNECTOR =D08+Q32			BB-2 VT MCB TRIP	MK DC SUPPLY	
OPEN	CLOSE	OPEN	CLOSE	OPEN	CLOSE	FAILURE	

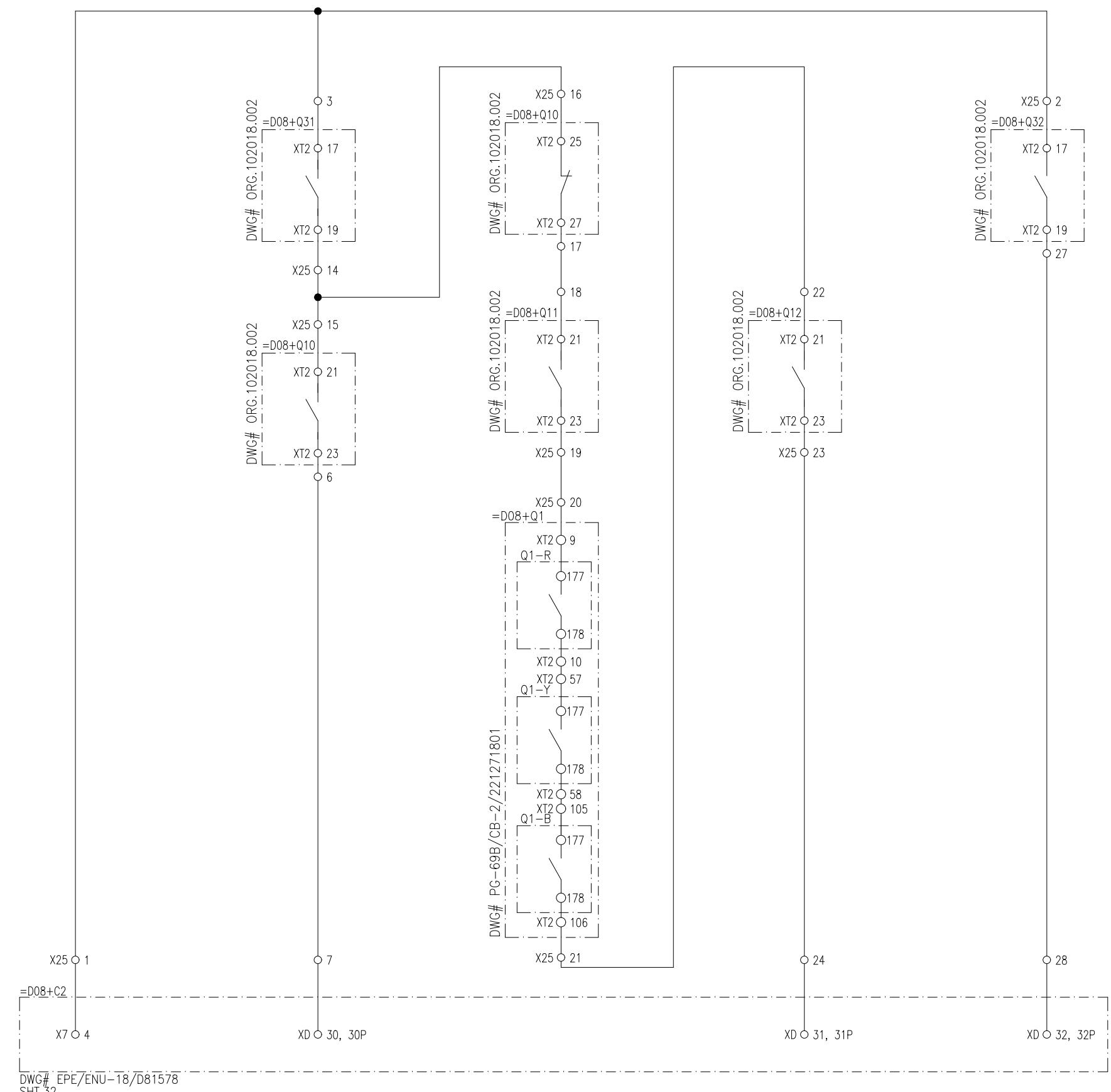


APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SIGNALING FOR SCADA 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 28 OF 34
NAH	MSS	MUR		<b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

1	2	3	4	5	6	7	8
SF6 PRESSURE LOW	MECHANISM CLOSING LOCKOUT	ENFORCED CB SPRING NOT CHARGED	SF6 LOW TRIPLE POLE OPERATION	MOTOR PRESSURE LOCKOUT	CB CONTROL RUN TIME MONITORING	AC SUPPLY FAIL /HEATING FAULTY DS AC FAIL	M.K AC MCB TRIP
							MOTOR CIRCUIT MCB TRIP CB DS
A	B	C	D	E	F	G	H



APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SIGNALING FOR SCADA 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 29 OF 34
NAH [Signature]	MSS [Signature]	MUR [Signature]	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan		DATE: 07.03.2019	AS BUILT



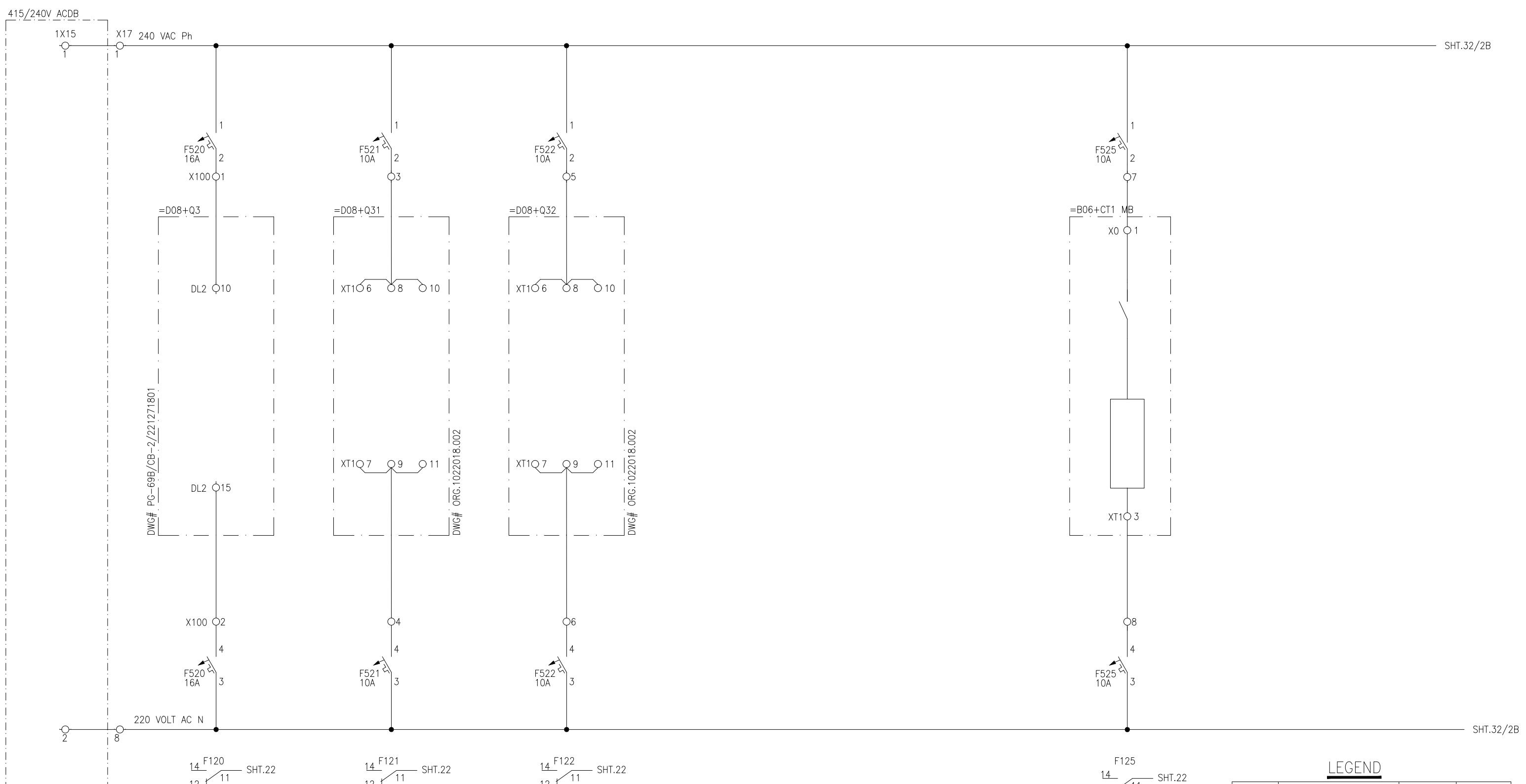
APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: SYNC. SELECTION 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594	SHT: 30 OF 34
NAH Q.	MSS M. Sohail	MUR Iy		<b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

=D08+Q3  
AC SUPPLY

DISCONNECTOR  
=D08+Q31

DISCONNECTOR  
=D08+Q32

CT BOX  
HEATING



NOTE: CLOUDED PART NEEDS TO BE MODIFIED AT SITE.

APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS
NAH [Signature]	MSS [Signature]	MUR [Signature]	

TITLE:  
AC DISTRIBUTION CIRCUIT  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2

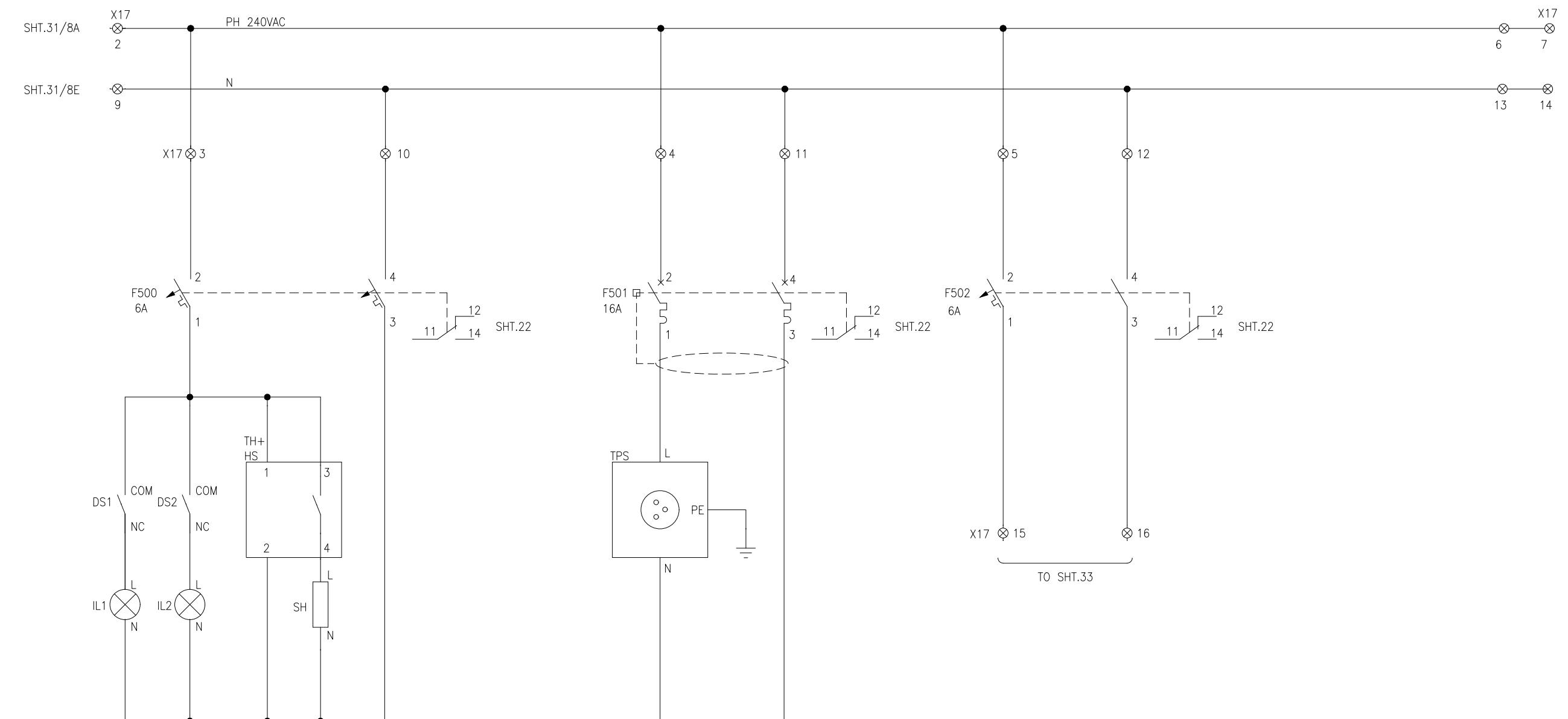
 **EPESOL Pvt. Ltd.**  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DES:	DESCRIPTION	TYPE	MAKE
F52X	TWO POLE, AC MCB,s	G60	GE

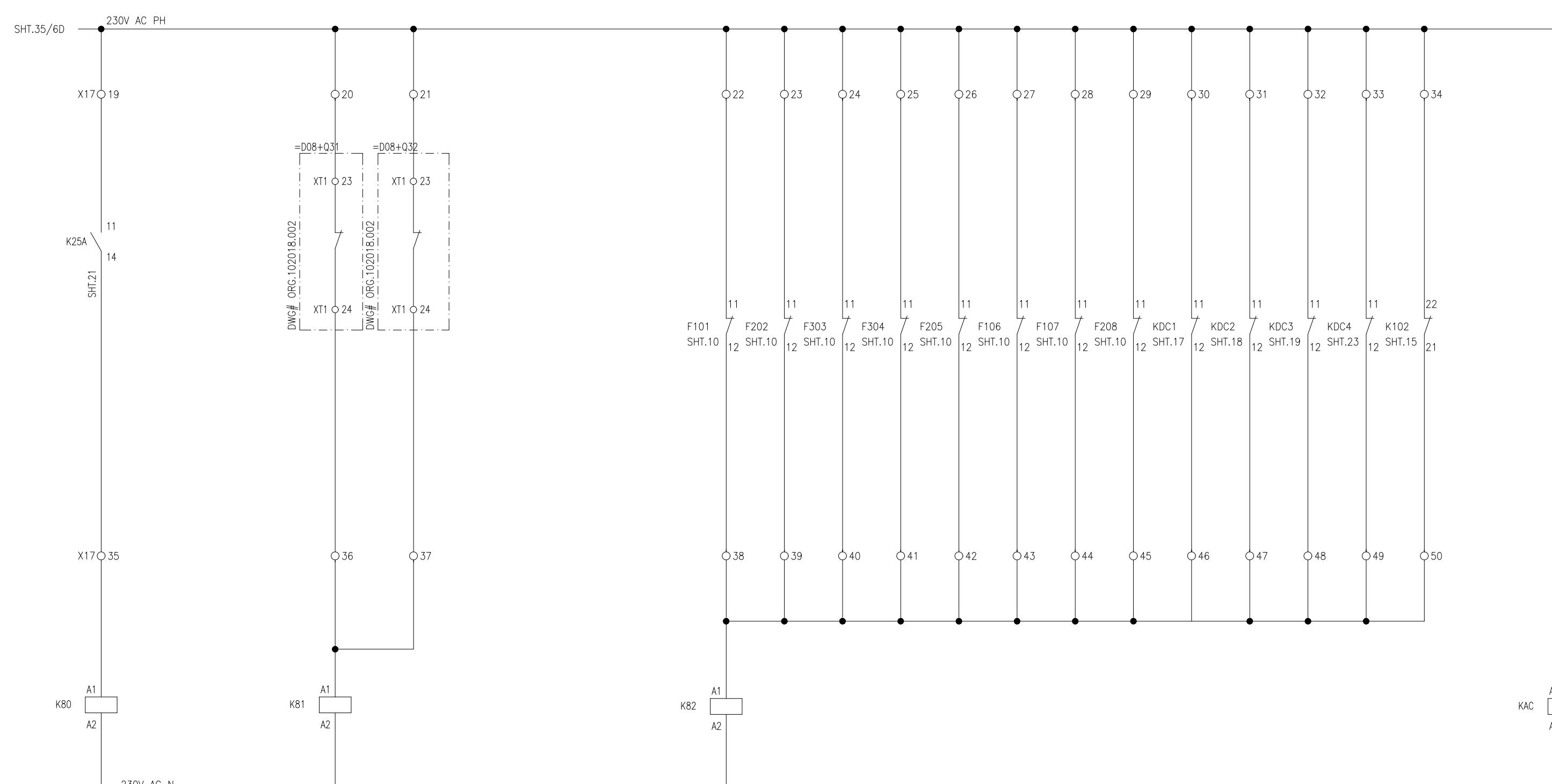
DWG# EPE/ENU-18/D81594 SHT: 31 OF 34  
DATE: 07.03.2019 **AS BUILT** REV: 0

DOOR SWITCH &  
CUBICLE LIGHTSPACE HEATER  
THERMOSTAT

THREE PIN SOCKET

PANEL SUPPLY  
SUPERVISION CIRCUITLEGEND

DES.	DESCRIPTION	TYPE	MAKE
F50X	TWO POLE AC MCB	G60	GE
F501	ELCB	DM100	GE
TPS	THREE PIN SOCKET	220V SOCKET	GE
SH	SPACE HEATER	ELH220	GE
TH+HS	THERMOSTAT	ELH220	GE
IL	CUBICLE LIGHT	YST8	YONGSUNG

CB MOTOR CIRCUIT  
MCB TRIPDS MOTOR SUPPLY  
MCB TRIPDC MCB  
TRIP/SUPPLY FAILLEGEND

DES:	DESCRIPTION	TYPE	MAKE
KX	MINIATURE RELAY, 240VAC	PRC	GE

APPROVED	CHECKED	DRAWN
NAH	MSS	MUR



PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS

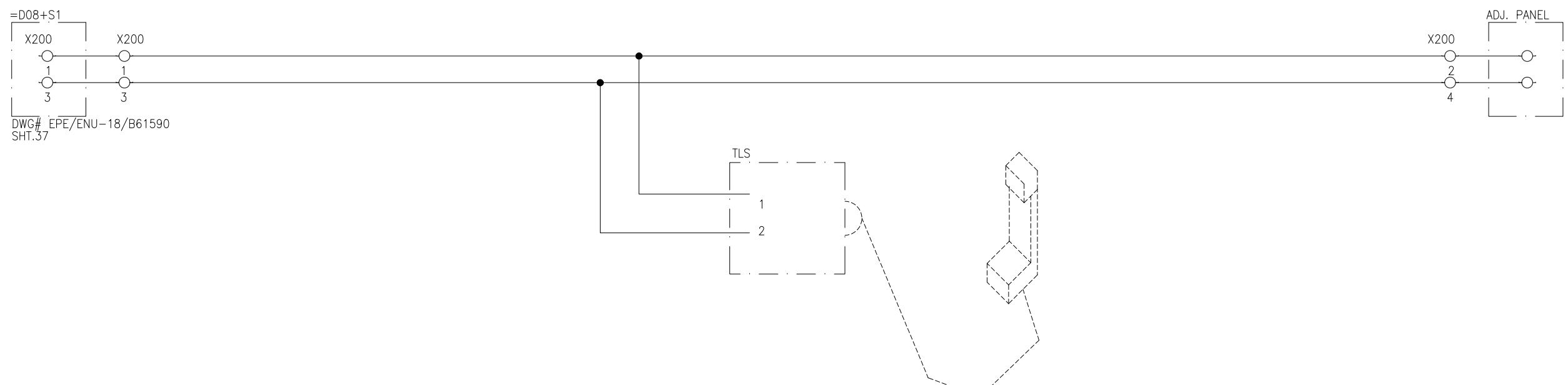
TITLE:  
DC MCB TRIP CIRCUIT  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2



EPE SOL Pvt. Ltd.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81594 SHT: 33 OF 34  
DATE: 07.03.2019 AS BUILT REV: 0

TELEPHONE  
SOCKET



LEGEND

DES:	DESCRIPTION	TYPE	MAKE
TLS	TELEPHONE SOCKET	LOCAL	LOCAL

APPROVED	CHECKED	DRAWN	PROJECT: EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	TITLE: TELEPHONE SOCKET 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	DWG# EPE/ENU-18/D81594 DATE: 07.03.2019	SHT: 34 OF 34 REV: 0
NAH [Signature]	MSS [Signature]	MUR [Signature]	 <b>EPE SOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan			

## LEGEND

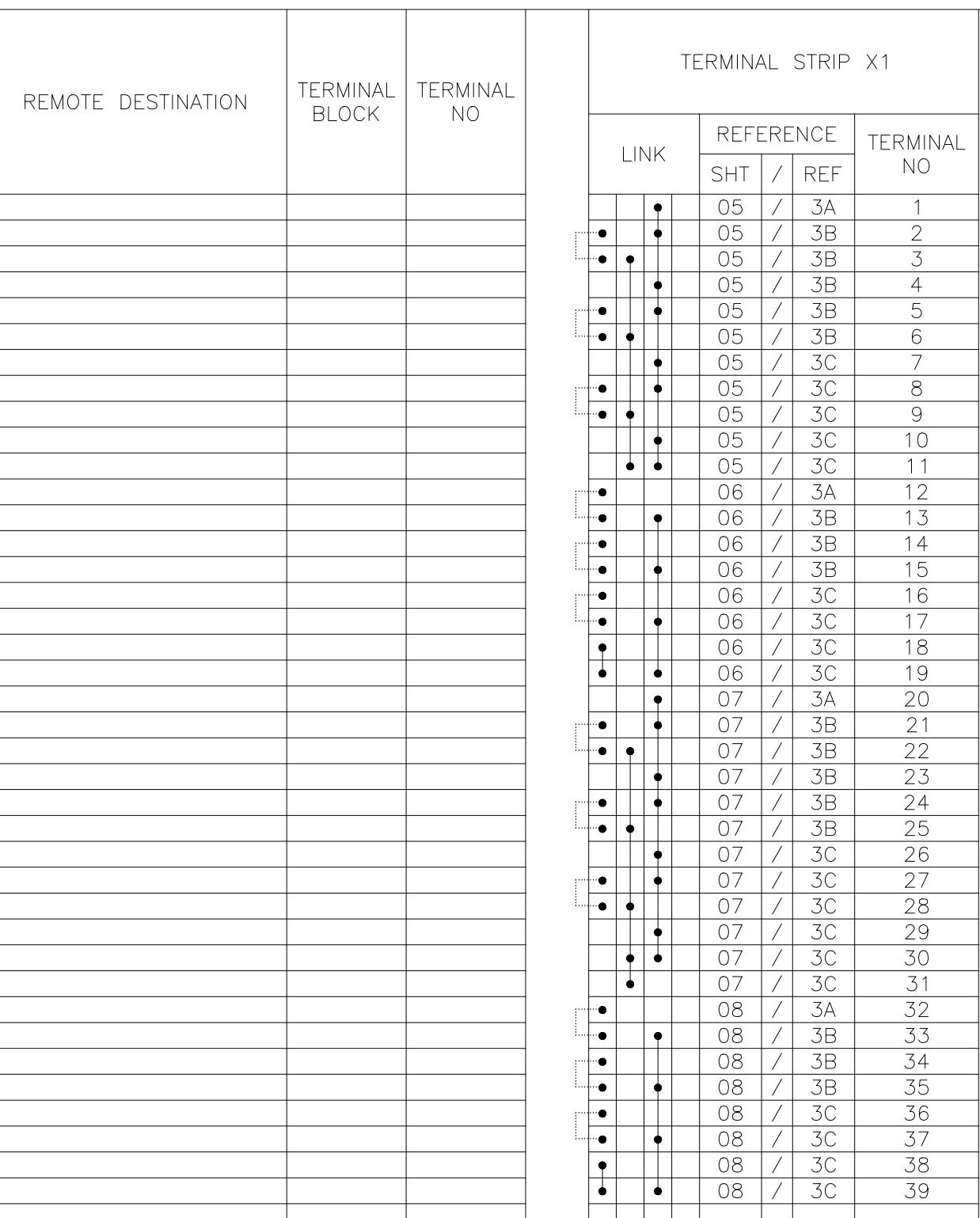


## TEMPORARY SHORTENING LINK

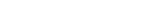
PERMANENT LINK



END COVER



SCHEME DWG. REF: EPE/ENU-18/D81594

APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 01 OF 23
NAH	ABA	MSC				DATE: 07.03.2019	AS BUILT



Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION	LEGEND:												SCHEME DWG. REF: EPE/ENU-18/D81594							
A	1																						
A	2																						
A	3																						
A	4																						
A	5																						
A	6																						
B	7																						
B	8																						
B	9																						
B	10																						
B	11																						
B	12																						
c	1	2	3	4	5	6	7	8	9	10	11	12				TERMINAL STRIP X101							
c																LINK	REFERENCE		TERMINAL NO				
c																	SHT / REF						
c																•	10 / 1B	1					
c																•	10 / 2C	2					
c																•	10 / 6C	3					
c																•	10 / 6C	4					
c																•	10 / 2B	5					
c																•	10 / 2C	6					
c																•	10 / 6C	7					
c																•	10 / 7C	8					
c																•	10 / 2B	9					
c																•	10 / 3C	10					
c																•	10 / 5C	11					
c																•	10 / 7C	12					
c																•	10 / 2B	13					
c																•	10 / 2C	14					
c																•	10 / 5C	15					
c																•	10 / 7C	16					
c																•	10 / 2B	17					
c																•	10 / 3C	18					
c																•	10 / 4C	19					
c																•	10 / 2C	20					
c																•	10 / 3C	21					
c																•	10 / 4C	22					
c																		23					
c																		24					
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c																		26					
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c																		30					
D																							
E																							
F																							
APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS												TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2			E P E S O L P v t . L t d . 71-B Garden Block, New Garden Town, Lahore, Pakistan			DWG# EPE/ENU-18/D81595		SHT: 03 OF 23
NAH Q.	ABA	MSC																		DATE: 07.03.2019		AS BUILT	REV: 0

APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL PVT LTD.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 04 OF 23
NAH 	ABA 	MSC 				DATE: 07.03.2019	AS BUILT

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION	LEGEND:												SCHEME DWG. REF: EPE/ENU-18/D81594			
A	1																		
A	2																		
A	3																		
A	4																		
A	5																		
A	6																		
B	7																		
B	8																		
B	9																		
B	10																		
B	11																		
B	12																		
C	1	2	3	4	5	6	7	8	9	10	11	12				TERMINATION B			
C																			
C																			
C																			
C																			
C																			
D																			
E																			
F																			
REMOTE DESTINATION				TERMINAL STRIP X31				TERMINATION B											
				LINK				REFERENCE				ITEM DESIGNATION				TERMINAL NO			
				SHT				REF								TERMINAL NO			
				•				25	/	6D	41								
				•				25	/	6C	42								
								25	/	6D	43					K20			
								25	/	6D	44					41			
								25	/	6C	45					K20			
																44			
																K20			
																41			
																</			



PROJECT

PROJECT

NTDC PO# CE/MP&M/M(P)/AM-VI/EO/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 220KV & 500KV PROTECTION & CONTROL PANEL

TITLE E.

TITLE: TERMINAL DETAIL  
T 2201V LOCAL CONTROL SURGICAL TYPE -D08 LS2



**E P E S O L** Pvt. Ltd.

DWC# EPF/FNU-18/D81595

DWG# E1 E/ENO-10

S/D01595

SHT: 05.0E.23

SIN. 03

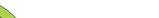
SL.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION										
A	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
B	9												
	10												
	11												
	12												
	1	2	3	4	5	6	7	8	9	10	11	12	
C													
D													
E													
F													

**LEGEND:**

[Diagram: Two dots connected by a horizontal line]	TEMPORARY SHORTENING LINK
[Diagram: Two dots connected by a vertical line]	PERMANENT LINK
D-	END COVER

REMOTE DESTINATION			TERMINAL BLOCK	TERMINAL NO	TERMINAL STRIP X51			TERMINATION B
LINK		REFERENCE			TERMINAL NO			
SHT	/	REF						
•		12	/	1A	1			
•		12	/	1C	2			
•		12	/	8A	3			
•		12	/	7B	4			
•		12	/	7B	5			
•		12	/	7B	6			
•		12	/	7B	7			
•		12	/	2B	8			
•		12	/	2C	9			
•		12	/	2C	10			
•		12	/	8B	11			
•		12	/	8B	12			
•		12	/	1F	13			
•		12	/	2F	14			
•		12	/	8F	15			
•					16			
•					17			
•					18			

APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL PVT LTD.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 06 OF 23
NAH <i>[Signature]</i>	ABA <i>[Signature]</i>	MSC <i>[Signature]</i>				DATE: 07.03.2019	AS BUILT

## LEGEND



## TEMPORARY SHORTENING LIN



PERMANENT LINK



END COVER

APPROVED	CHECKED	DRAWN	PROJECT:
NAH 	ABA 	MSC 	 NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL



PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 220KV & 500KV PROTECTION & CONTROL PANEL

TITLE: TERMINAL DETAIL  
NT CONTROL CUBICAL TYPE -D08 LS2  
LS 220KV LOCAL



**E P E S O L** Pvt. Ltd.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81595	SHT: 07 OF 23
DATE: 07.03.2019	<b>AS BUILT</b>

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION										
A	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
B	9												
	10												
	11												
	12												
	1	2	3	4	5	6	7	8	9	10	11	12	
C													
D													
E													
F													

**LEGEND:**

	TEMPORARY SHORTENING LINK
	PERMANENT LINK
	END COVER

REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO	TERMINAL STRIP X7			TERMINATION B	
			LINK	REFERENCE			TERMINAL NO
				SHT	/		
	13	/	3A	1	K2	14	
	13	/	3B	2	K2	24	
	13	/	3D	3	K2	34	
	13	/	3D	4			
	13	/	3D	5			
	13	/	7B	6			
	13	/	3B	7			
	13	/	4D	8			
	13	/	4D	9			
	13	/	7C	10			
	13	/	3B	11			
	13	/	5D	12			
	13	/	5D	13			
	13	/	7C	14			
	13	/	7C	15			
	13	/	3D	16			
	13	/	8C	17			
	13	/	5D	18			
	13	/	8C	19			
	13	/	6D	20			
	13	/	1F	21			
	13	/	7C	22			
	13	/	1D	23	EM2	7	
				24			
				25			

APPROVED	CHECKED	DRAWN	PROJECT:  NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 08 OF 23
NAH 	ABA 	MSC 				DATE: 07.03.2019	AS BUILT

Sr.	CABLE DESIGNATION		CORE CROSS SECTION		DESTINATION		LEGEND:												SCHEME DWG. REF: EPE/ENU-18/D81594		
A	1																				
A	2																				
A	3																				
A	4																				
A	5																				
A	6																				
B	7																				
B	8																				
B	9																				
B	10																				
B	11																				
B	12																				
c	1	2	3	4	5	6	7	8	9	10	11	12									
D																					
D																					
E																					
F																					
APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS				TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2		 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan										DWG# EPE/ENU-18/D81595	SHT: 09 OF 23	
NAH	ABA	MSC																	DATE: 07.03.2019	AS BUILT	REV: 0
1																			7		8



PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/E0/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 200KV & 500KV PROTECTION & CONTROL PANEL

TITLE:

**IT** TITLE: **TERMINAL DETAIL**



E P E S O L P v t . L t d .

DWG II\_EDE /ENH\_4.0 /D24505

DWG# EPE/ENU-1

3/D81595

SHI: 10 C



APPROVED    CHECKED    DRAWN

NAH [Signature] ABA [Signature] MSC [Signature]



PROJECT:  
NTDC P.O# CE/MP&M/M(P)/AM-VI/E0/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 220KV & 500KV PROTECTION & CONTROL PANELS

TITLE:  
TERMINAL DETAIL  
220KV LOCAL CONTROL CUBICAL TYPE =D08+S2

 **EPESOL Pvt. Ltd.**  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81595    SHT: 11 OF 23  
DATE: 07.03.2019    AS BUILT    REV: 0

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION										
A	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
B	9												
	10												
	11												
	12												
	1	2	3	4	5	6	7	8	9	10	11	12	
C													
D													
E													
F													

**LEGEND:**

	TEMPORARY SHORTENING LINK
	PERMANENT LINK
	END COVER

REMOTE DESTINATION			TERMINAL BLOCK	TERMINAL NO	TERMINAL STRIP X22			TERMINATION B	
					LINK	REFERENCE			TERMINAL NO
						SHT	/		
	18	/	2B	1					
	18	/	2B	2					
	18	/	3B	3					
	18	/	3B	4					
	18	/	4B	5					
	18	/	2E	6					
	18	/	2E	7					
				8					
				9					
				10					
				11					
				12					

APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: 220kV LOCAL TERMINAL DETAIL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 13 OF 23
NAH Q.	ABA D.	MSC A.				DATE: 07.03.2019	AS BUILT REV: 0



APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: TERMINAL DETAIL 220KV LOCAL CONTROL CUBICAL TYPE =D08+S2	 EPESOL PVT. LTD. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 15 OF 23
NAH 	ABA 	MSC 				DATE: 07.03.2019	AS BUILT



APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: 220kV LOCAL TERMINAL DETAIL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 17 OF 23
NAH Q.	ABA D.	MSC A.				DATE: 07.03.2019	AS BUILT REV: 0

APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: 220kV LOCAL TERMINAL DETAIL CONTROL CUBICAL TYPE =D08+S2	 <b>EPESOL Pvt. Ltd.</b> 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81595	SHT: 18 OF 23
NAH Q.	ABA D.	MSC A.				DATE: 07.03.2019	AS BUILT REV: 0

## LEGEND



## TEMPORARY SHORTENING LINK



PERMANENT LINK



END COVER

SCHEME DWG. REF: EPE/ENU-18/D81594

APPROVED	CHECKED	DRAWN	PROJECT:
NAH 	ABA 	MSC 	 NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PA



PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 220KV & 500KV PROTECTION & CONTROL PANEL

TITLE: TERMINAL DETAIL  
NT 220KV LOCAL CONTROL CUBICAL TYPE -D08 LS2



**E P E S O L** Pvt. Ltd.

DWG# EPE/ENU-18/D81595 SHT: 19 OF 23  
DATE: 07.03.2019 AS BUILT REV: 0

												LEGEND:																														
												TEMPORARY SHORTENING LINK																														
												PERMANENT LINK																														
												D-	END COVER																													
A	1	2	3	4	5	6	7	8	9	10	11	12																														
B	9	10	11	12													TERMINATION B																									
C	1	2	3	4	5	6	7	8	9	10	11	12																														
D																																										
E																																										
F																																										

APPROVED	CHECKED	DRAWN	F
NAH <i>[initials]</i>	ABA <i>[initials]</i>	MSC <i>[initials]</i>	

PROJECT

CT:  
NTDC PO# CE/MP&M/M(P)/AM-VI/EO/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF SECURITY PROTECTION & CONTROL PANEL

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	TITLE:	TERMINAL DETAIL	CODES LOCAL CONTROL SURGICAL TYPE PGS : CO
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**E P E S O L** Pvt. Ltd.

F303

DWG# EPE/ENU-18

B/D81595

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SHT: 21 (



BRIDGE

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PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/EO/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 220KV & 500KV PROTECTION & CONTROL PANEL

TITLE: TERMINAL DETAIL  
S 220kV LOCAL CONTROL CIRCUIT TYPE =D08 LS2



**E P E S O L** Pvt. Ltd.

*H. c. c. c. c. c.*

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DWG# EPE/ENU-18/D81595

SHT: 21 OF 23

DATE 07.07.2010

Figure 5

SCHEME DWG. REF: EPE/ENU-18/D81594

APPROVED	CHECKED	DRAWN	PRINTED
NAH 	ABA 	MSC 	

PROJECT  
FRANCHISING & DESPATCH COMPANY

**PROJECT:** NTDC PO# CE/MP&M/M(P)/AM-VI/EO/  
9417-29 DATED 14.11.2018 FOR PROCUREMENT  
OF 220KV & 500KV PROTECTION & CONTROL PANEL

TITLE: TERMINAL DETAIL  
NT 2201V LOCAL CONTROL CIRCUIT TYPE -D08 LS2



**E P E S O L** Pvt. Ltd.  
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWC# EPF /ENII-18/D81595

DWG# E/E/ENO-10

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SHT: 23 OF 23

SHR. 250