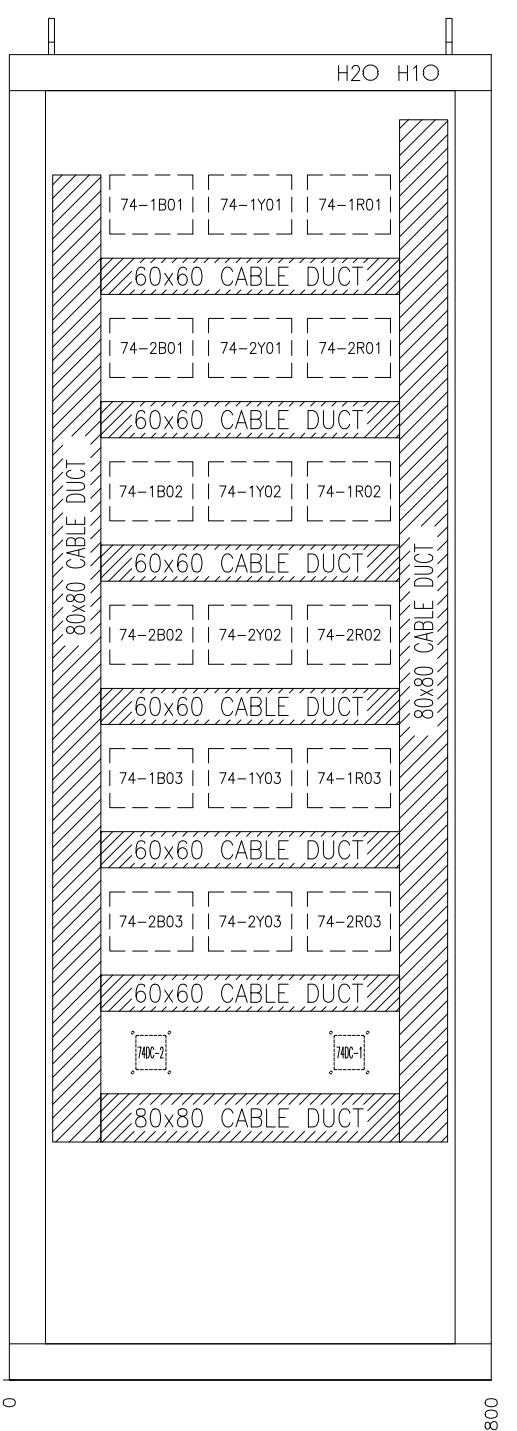
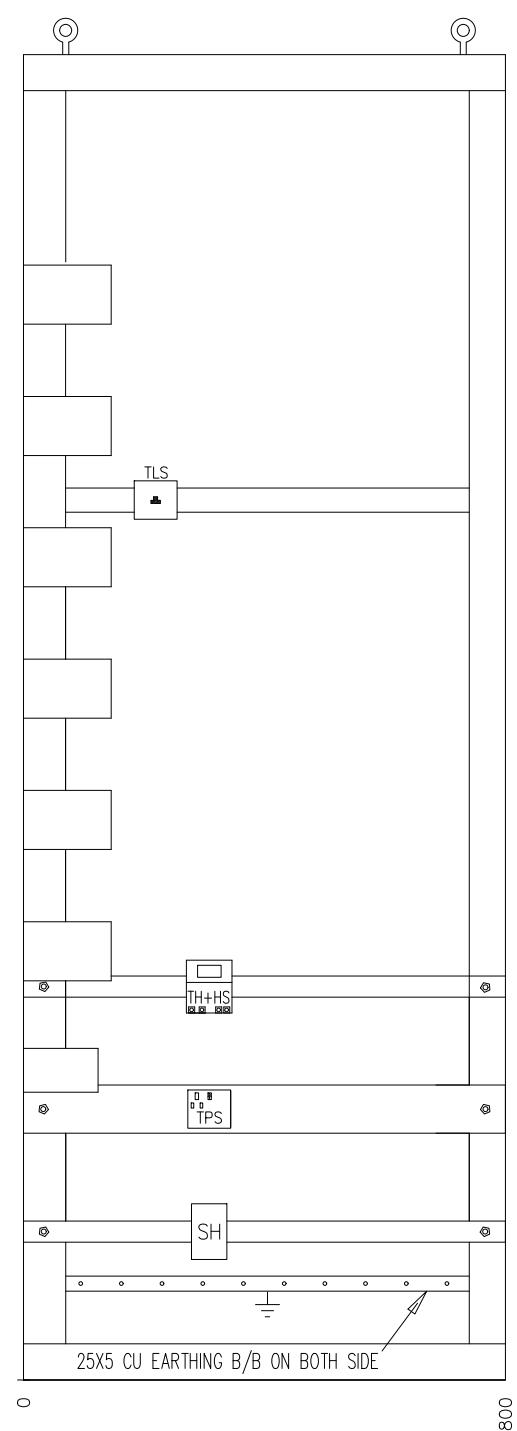
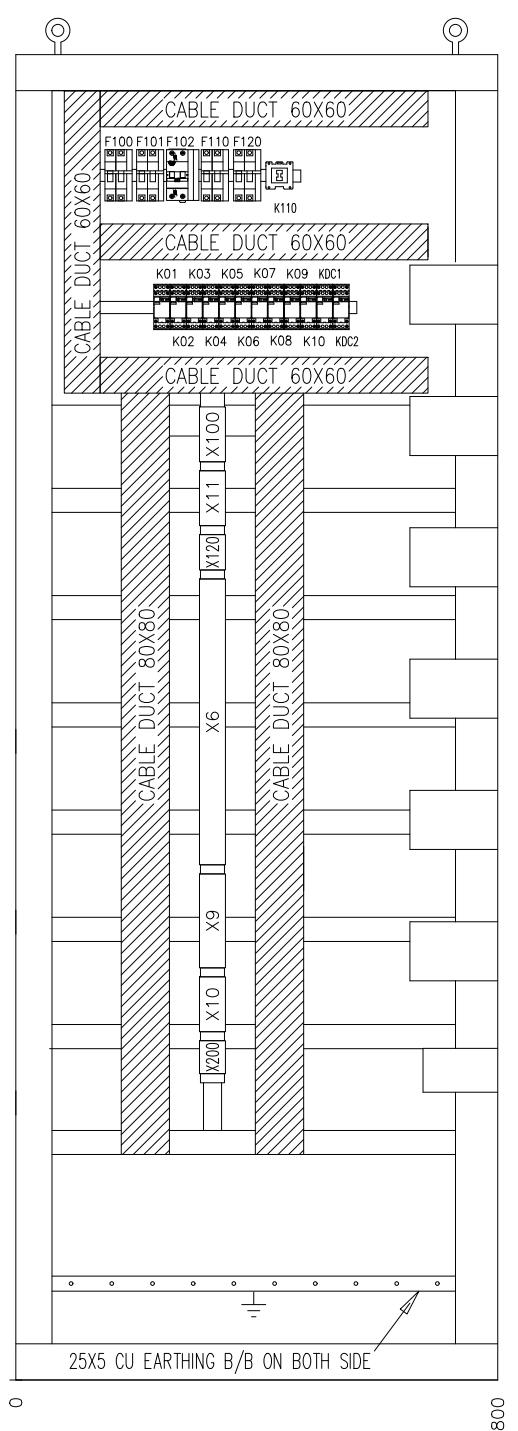
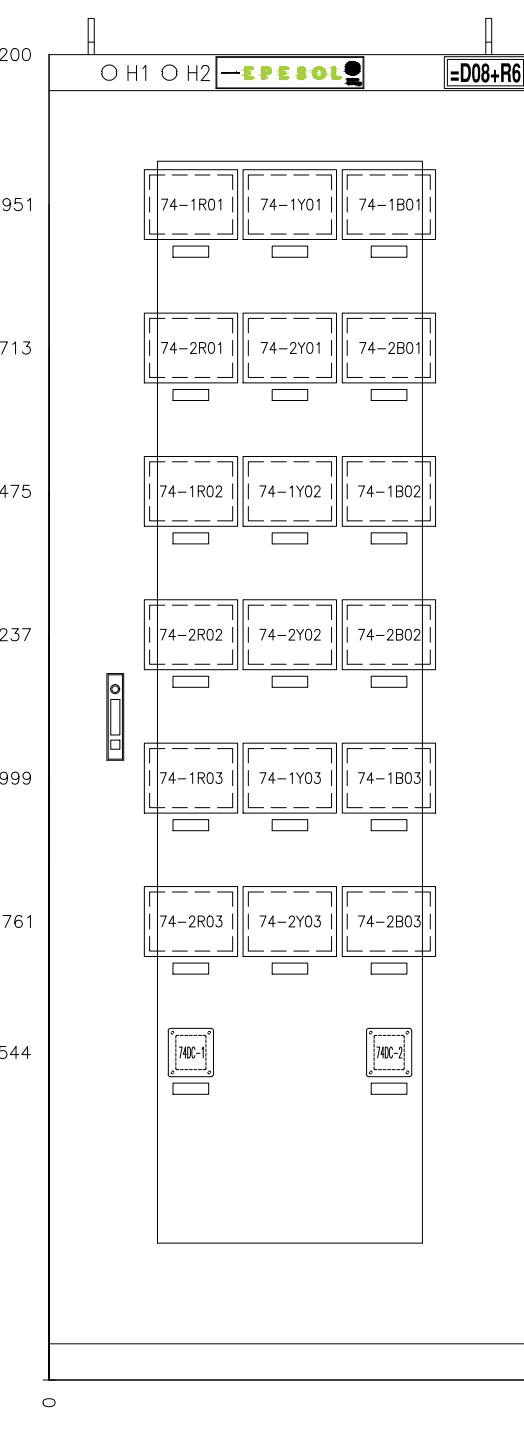


LAYOUT DIAGRAM OF 220kV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6 FOR ONE AND A HALF BREAKER SCHEME

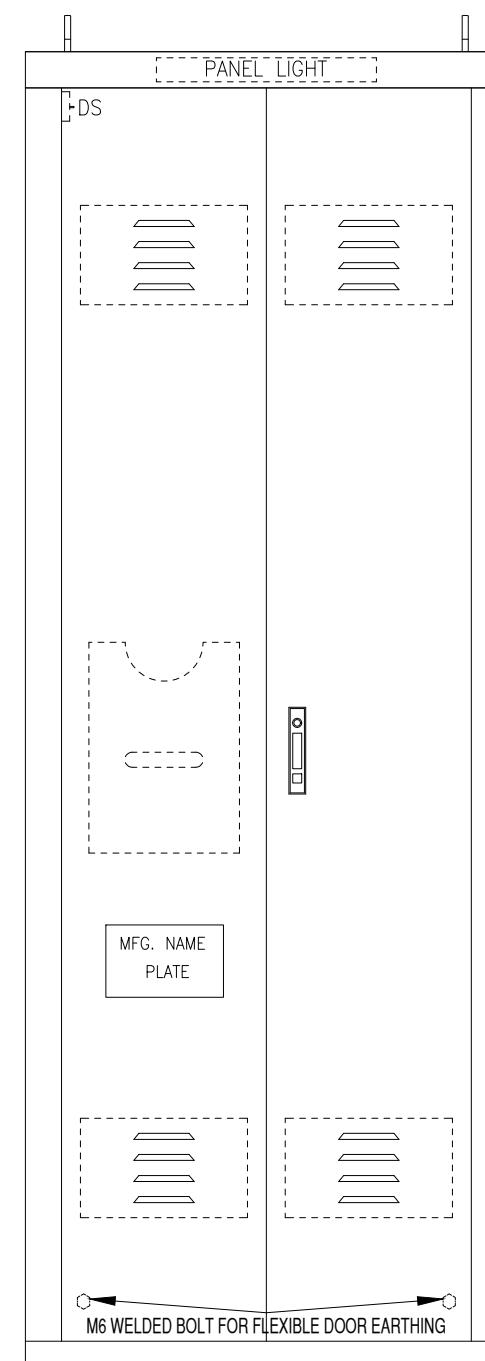
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NAH	MSS	MUR	EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/E0/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	COVER SHEET	EPE/ENU-18/D81560	010F 03
				220kV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	DATE: 07.03.2019	AS BUILT



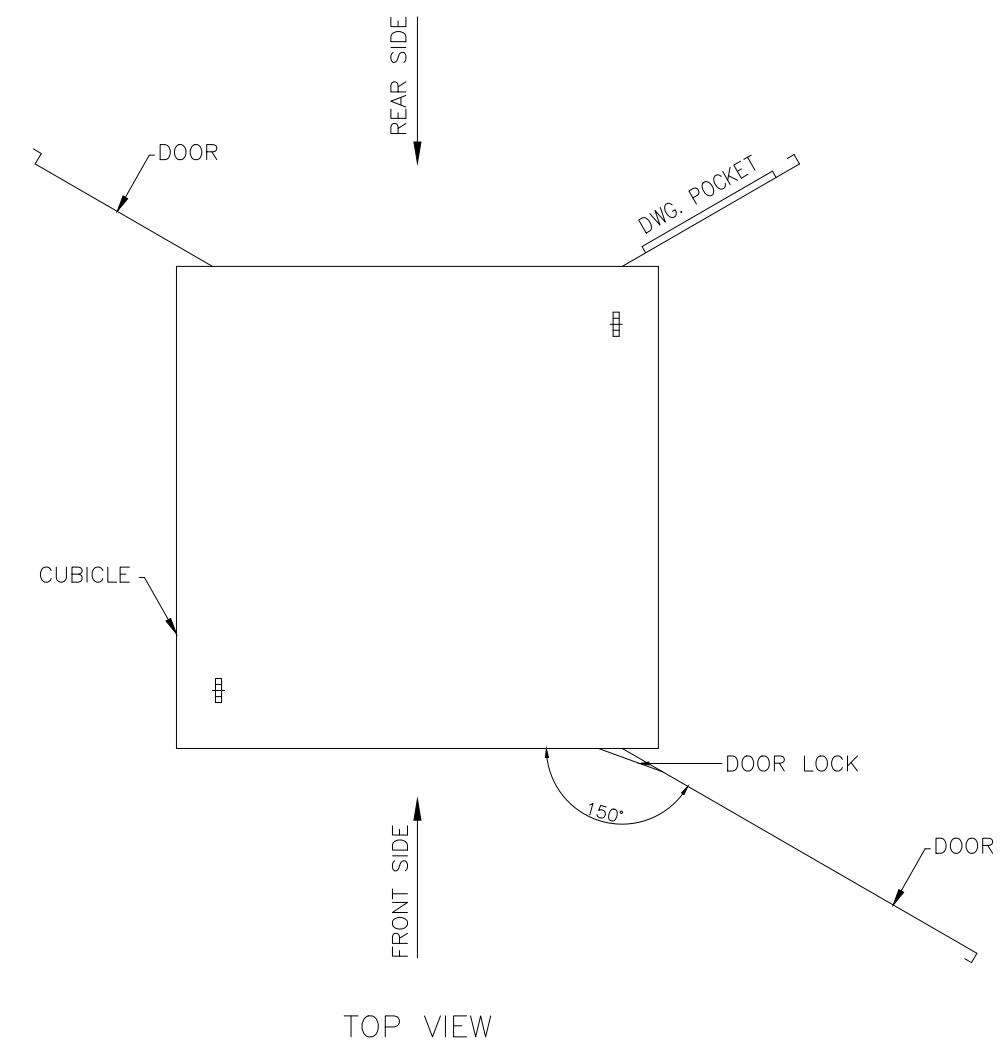
NOTES

1. RELAY PANEL: 800Wx800Dx2200H mm
2. EARTHING BUSBAR 25x5 mm²
3. FLEXIBLE EARTHING STRAP 16mm²
4. COLOUR: RAL7032
5. CLASS OF PROTECTION: IP51
6. APPLICABLE SPECS: P204:2008

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	DWG# EPE/ENU-18/D81560		SHT: 020F 03	
NAH	MSS	MUR	 EDUCATIONAL ORDER NTDC PO# CE/MP&M /M(P)/AM-VI/EO/9417-29 DATED 14.11.2018 FOR THE PROCUREMENT OF 220KV & 500KV RELAY& CONTROL PANELS	LAYOUT DIAGRAM 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT	REV: 0



REAR VIEW



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 TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	EPE/ENU-18/D81560	030F 03



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/D81560
DATE: 07.03.2019
AS BUILT

SHT: 030F 03
REV: 0

LIST OF APPARATUS

220kV TRIP CIRCUIT SUPERVISION PANEL

TYPE R6

FOR ONE AND A HALF BREAKER SCHEME

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	DWG# EPE/ENU-18/D81561	SHT: 01 OF 03
NAH <i>[Signature]</i>	MSS <i>[Signature]</i>	MUR <i>[Signature]</i>		220kV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	E P E S O L P v t . L t d. 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			
SR.	ITEM DESIGNATION		DESCRIPTION		QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
A	1	74-XXXX		TRIP CIRCUIT SUPERVISION RELAY, 220 VDC, 2NO + 2NC CONTACTS		18	TS-101	E-LABS	PAKISTAN	TS101-220VDC
	2	74DC-1 TO 74DC-2		DC SUPERVISION RELAY, 220 VDC, 2 C/O CONTACTS		2	VDF-10	ARTECHE	SPAIN	VDF-10-OP2-220VDC
B	3	K01 TO K09 & KDC1, KDC2		AUXILIARY RELAY, 4 C/O CONTACTS, 220 VDC		11	PRC	GE	HUNGARY/POLAND	PRC4M40DCML
	4	K10		AUXILIARY RELAY, 4 C/O CONTACTS, 240 VAC		1	PRC	GE	HUNGARY/POLAND	PRC4M40ANL
C	5	K110		AUXILIARY CONTACTOR FOR SUPPLY CHANGOVER, 16A, 2NO-2NC, 220V DC		1	MCRC	GE	HUNGARY/POLAND	MCRC022ATWN
	6	F110, F120		DC MCB, 2 POLE, 10A, 220VDC, 10kA WITH ONE C/O CONTACT		2	EP-100	GE	HUNGARY/POLAND	EP102UCC10+CAH(1)
D	7	F100, F101		AC MCB, 2 POLE, 6A, 240VAC WITH ONE C/O CONTACT, 6kA		2	G60	GE	HUNGARY/POLAND	G62C06+CAH(1)
	8	F102		ELCB, 2-POLE, RATINGS: 16A, 30mA, 230VAC, ONE C/O CONTACT		1	DM100	GE	HUNGARY/POLAND	DM100C16/030+CAH(1)
E	9	TH+HS		THERMOSTAT AND HUMIDISTAT		1	ELH-220	E-LABS	PAKISTAN	ELH-220
	10	SH		SPACE HEATER		1	ELH-220	E-LABS	PAKISTAN	ELH-220
F	11	DS		DOOR SWITCH		1	YSP+YSMS-C	YONGSUNG	SOUTH KOREA	YSP3315GWB+YSMS-C
	12	IL		CUBICLE LIGHTING , 5W, 220 VAC		1	YST8	YONGSUNG	SOUTH KOREA	YS-T8-30-5W
G	13	TPS		240 VAC, 16A, THREE PIN SOCKET OUTLET		1		LEAR	CHINA	
	14	H1, H2		INDICATION LAMP GREEN		2	YSPL	YONGSUNG	SOUTH KOREA	YS-PL-2-AL-22-G-W
H	15	TLS		TELEPHONE SOCKET		1	-	LOCAL	PAKISTAN	-
	16	X100		TERMINAL BLOCKS FOR COMPARTMENT HEATING CIRCUIT		14	CBD-4	CABUR	ITALY	-
I	17	X11		TERMINAL BLOCK FOR SCADA		14	CBD-4	CABUR	ITALY	-
	18	X120		TERMINAL BLOCKS FOR DC SUPPLY		14	CBD-4	CABUR	ITALY	-
J	19	X6		TERMINAL BLOCKS FOR TRIP CIRCUIT SUPERVISION		73	CBD-4	CABUR	ITALY	-
	20	X9		TERMINAL BLOCKS FOR ANNUNCIATION		24	CBD-4	CABUR	ITALY	-
K	21	X10		TERMINAL BLOCK FOR EVENTS		14	CBD-4	CABUR	ITALY	-
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 TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPESOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan			DWG# EPE/ENU-18/D81561	SHT: 02 OF 03
NAH	MSS	MUR			DATE: 07.03.2019				AS BUILT	REV: 0

1	2	3	4	5	6	7	8	
SR.	ITEM DESIGNATION	DESCRIPTION	QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
A 22	X200	TERMINAL BLOCK	5	CBD-4	CABUR	ITALY	-	A
B								B
C								C
D								D
E								E
F								F
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 TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	EPESOL Pvt Ltd 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81561 DATE: 07.03.2019	SHT: 03 OF 03 AS BUILT REV: 0	
NAH Q.I.	MSS M.Sohail	MUR Ilyas						

SCHEMATIC DIAGRAMS

220kV TRIP CIRCUIT SUPERVISION PANEL

TYPE =D08+R6

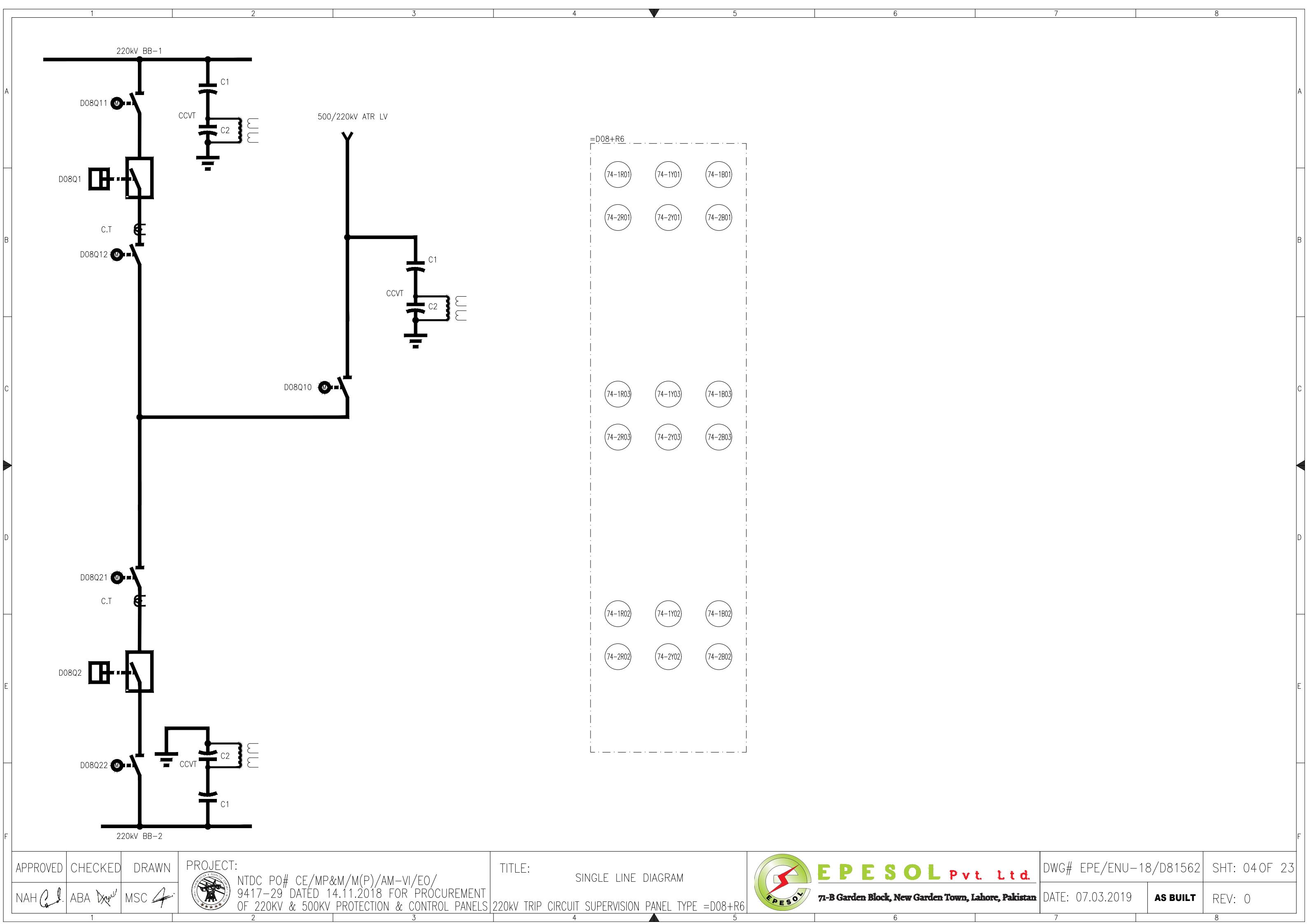
FOR ONE AND A HALF BREAKER SCHEME

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	DWG# EPE/ENU-18/D81562		SHT: 01 OF 23
NAH Q.I.	ABA D.W.	MSC A.	 NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	COVER SHEET 220kV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	E P E S O L P v t . L t d .	71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019 AS BUILT REV: 0

DESCRIPTION	SHEET NO
COVER SHEET	01
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AC SUPPLY DISTRIBUTION	05
MAINTENANCE SUPPLY	06
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D08Q1 TRIPPING ANNUNCIATION	14
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ANNUNCIATION FUNCTION	18
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SCADA FUNCTION	20
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LIST OF SYMBOLS AND DESIGNATIONS

	MOTORIZED HV DISCONNECTOR	74-XXXX	TRIP CIRCUIT SUPERVISION RELAY
	HV CIRCUIT BREAKER	X	TERMINAL BLOCKS
	220/132/0.4 KV AUTO TRANSFORMER	F	MINIATURE CIRCUIT BREAKER
	CAPACITOR VOLTAGE TRANSFORMER	K	AUXILIARY RELAY/CONTACTOR
	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		



DOOR SWITCH &
CUBICLE LIGHT

SPACE HEATER
THERMOSTAT

AC SUPPLY DISTRIBUTION

THREE
PIN SOCKET

PANEL DC-1
SUPPLY
HEALTHY

PANEL AC SUPPLY
SUPERVISION

LEGEND

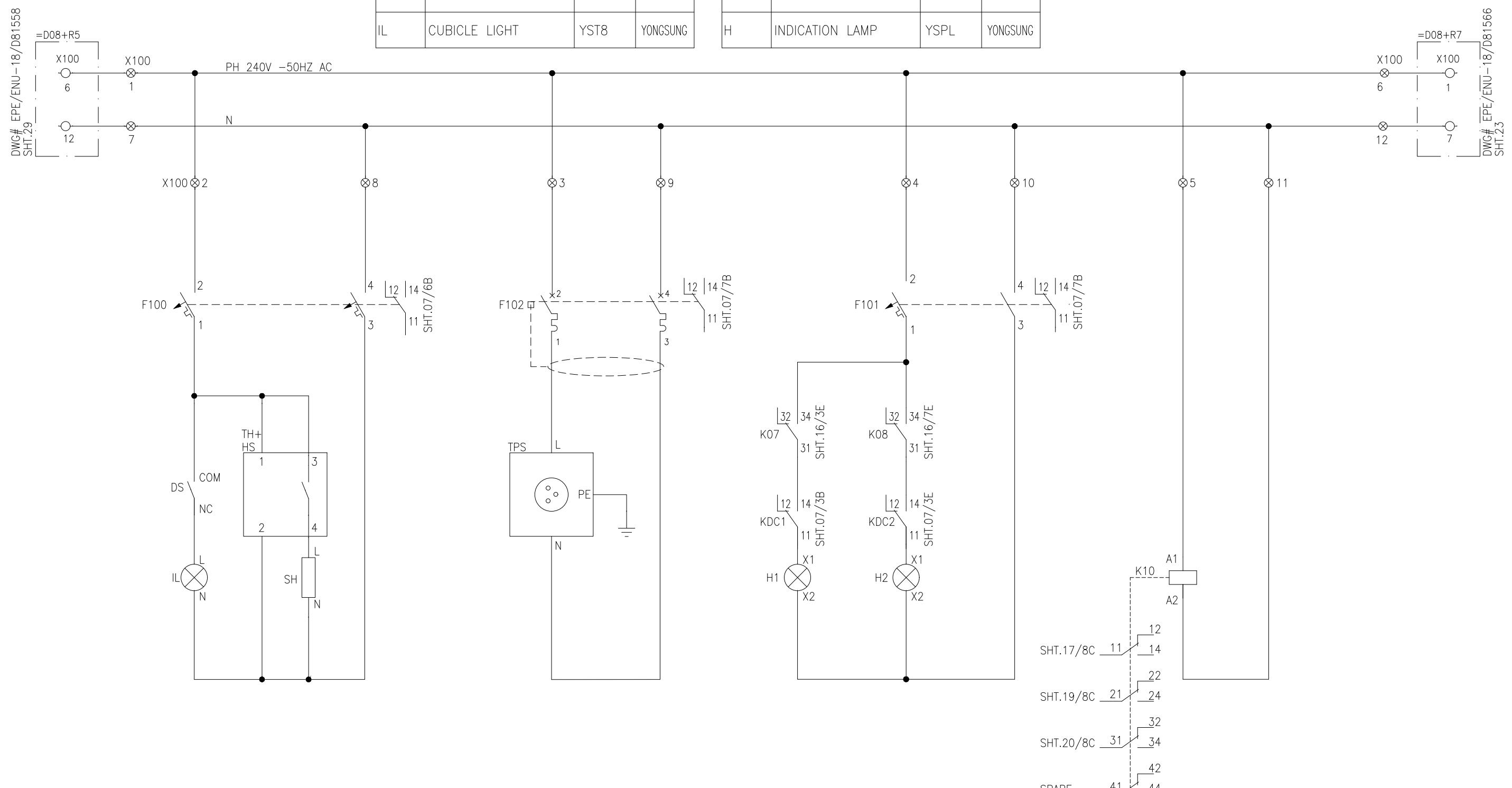
DES:	DESCRIPTION	TYPE	MAKE
TPS	THREE PIN SOCKET	220V SOCKET	LEAR
SH	SPACE HEATER	ELH220	E-LABS
TH+HS	THERMOSTAT	ELH220	E-LABS
IL	CUBICLE LIGHT	YST8	YONGSUNG

LEGEND

DS	DOOR SWITCH	YSP+YSMS-C	YONGSUNG
F100, F101	TWO POLE AC MCB	G60	GE
F102	ELCB	DM100	GE
K10	AUX. RELAY 240VAC	PRC	GE
H	INDICATION LAMP	YSPL	YONGSUNG

LEGEND

K07, K08	AUX. RELAY 220VDC	PRC	GE
KDC1, KDC2	AUX. RELAY 220VDC	PRC	GE



APPROVED: NAH [Signature]
CHECKED: ABA [Signature]
DRAWN: MSC [Signature]



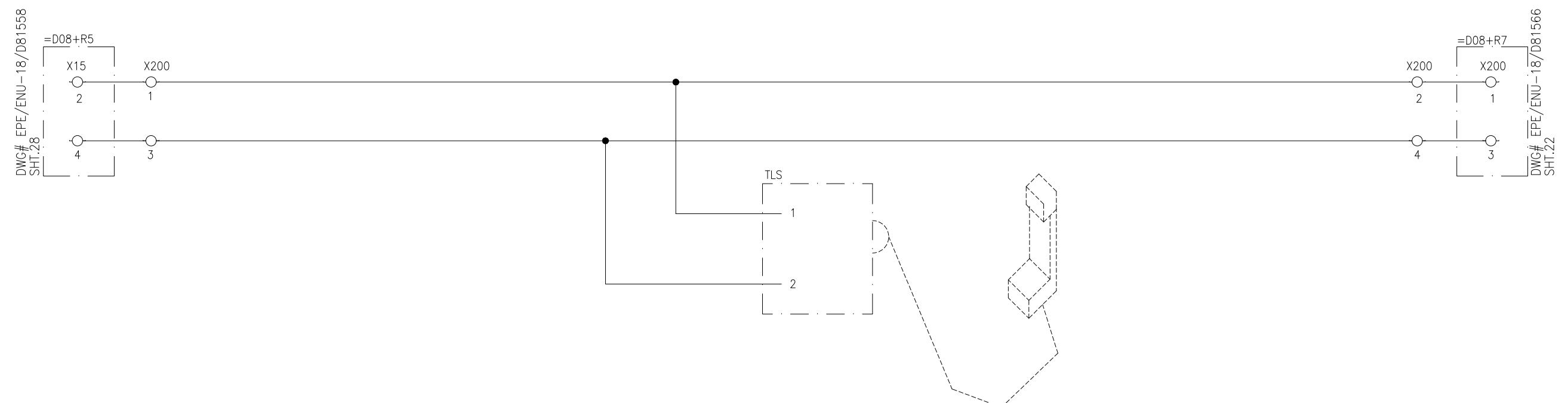
PROJECT:
NTDC PO# CE/MP&M/M(P)/AM-VI/E0/
9417-29 DATED 14.11.2018 FOR PROCUREMENT
OF 220KV & 500KV PROTECTION & CONTROL PANELS

TITLE: AC SUPPLY DISTRIBUTION
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6



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

DWG# EPE/ENU-18/D81562 SHT: 05 OF 23
DATE: 07.03.2019 AS BUILT REV: 0

TELEPHONE SOCKET
SOCKET

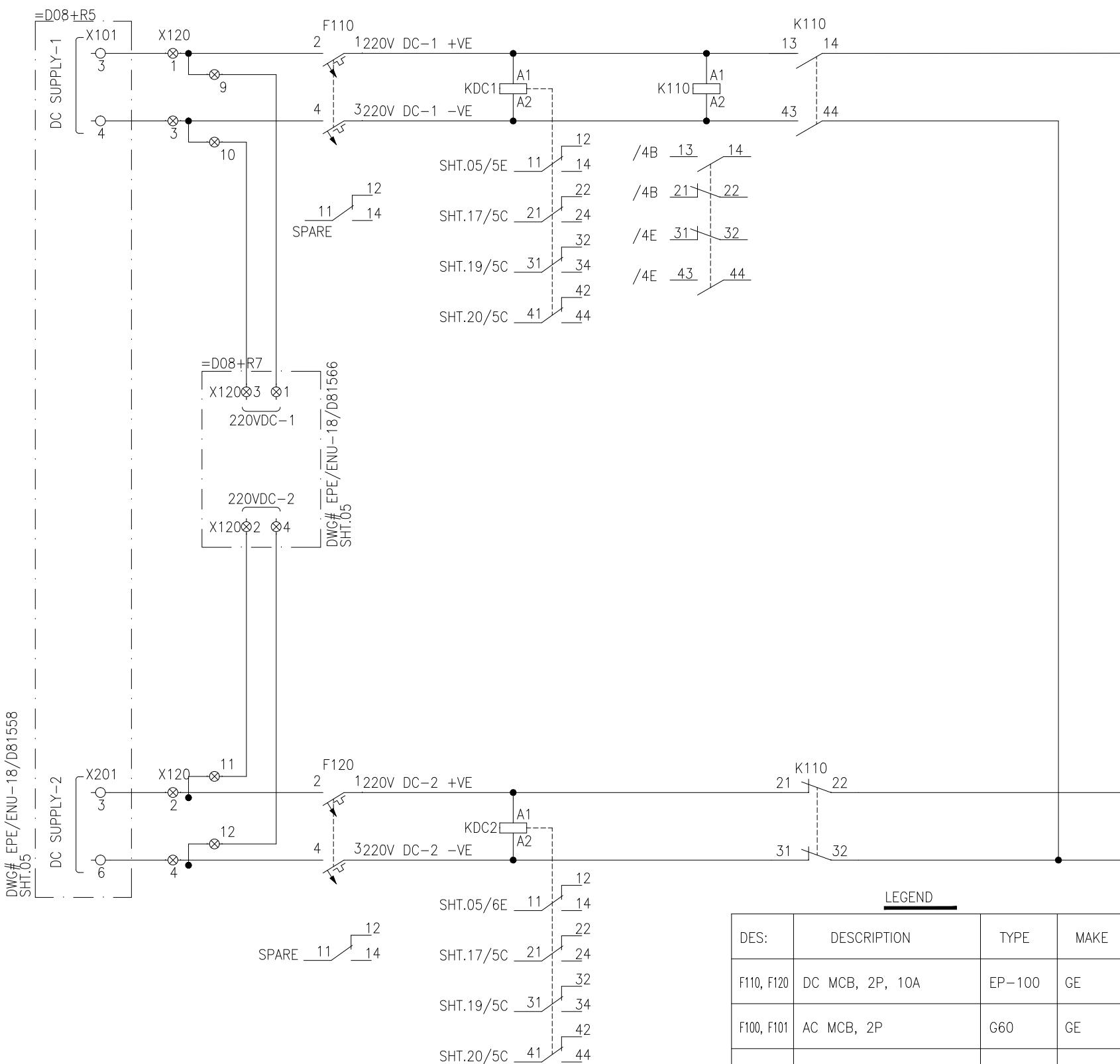
LEGEND

DES:	DESCRIPTION	TYPE	MAKE
TLS	TELEPHONE SOCKET	LOCAL	LOCAL

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: MAINTENANCE SUPPLY 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	DWG# EPE/ENU-18/D81562 DATE: 07.03.2019	SHT: 06 OF 23 AS BUILT
NAH Q.I.	ABA D.W.	MSC A.				REV: 0

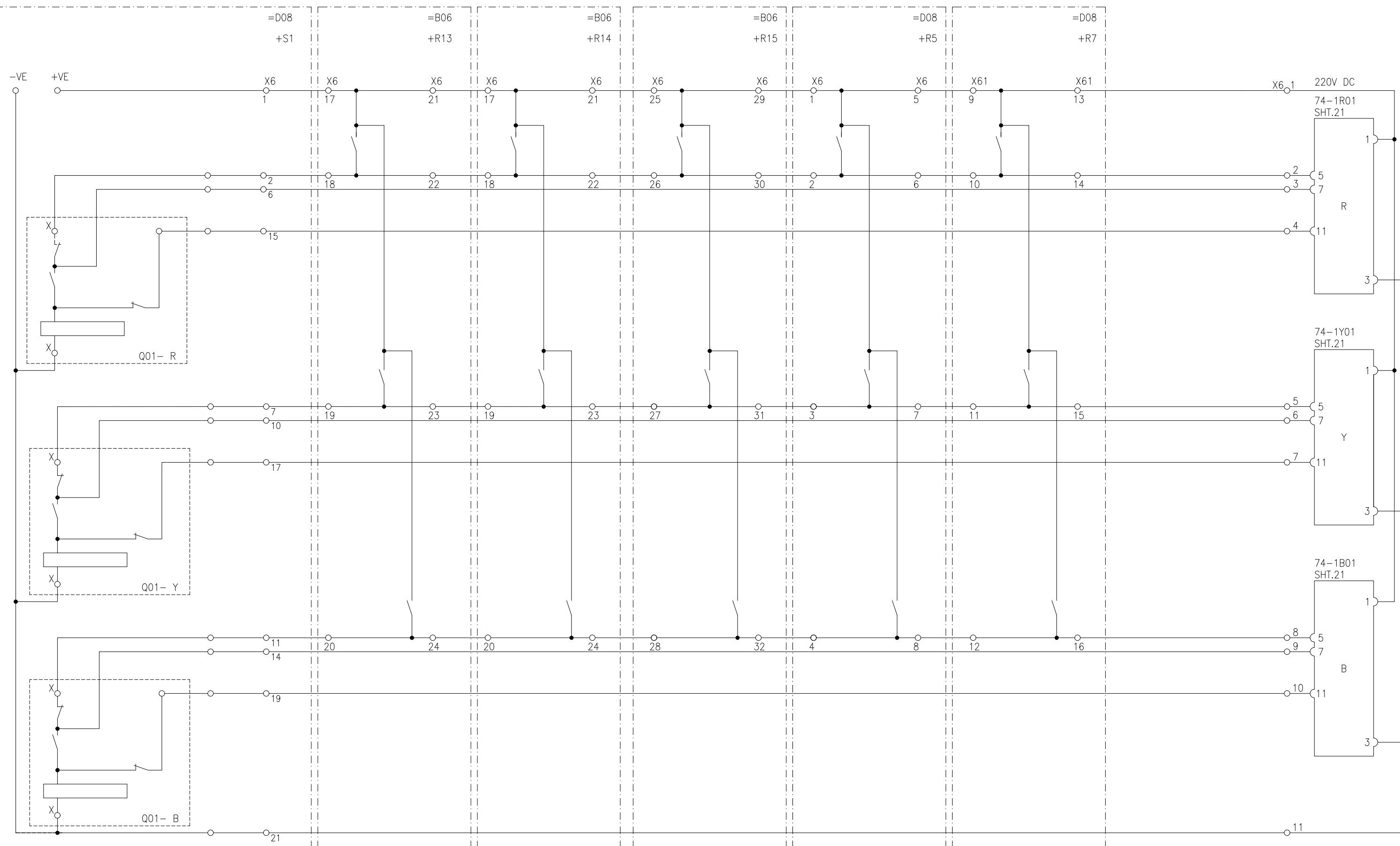
DC SUPPLY SUPERVISION

INCOMING SUPPLY A

AC SUPPLY
TRIP

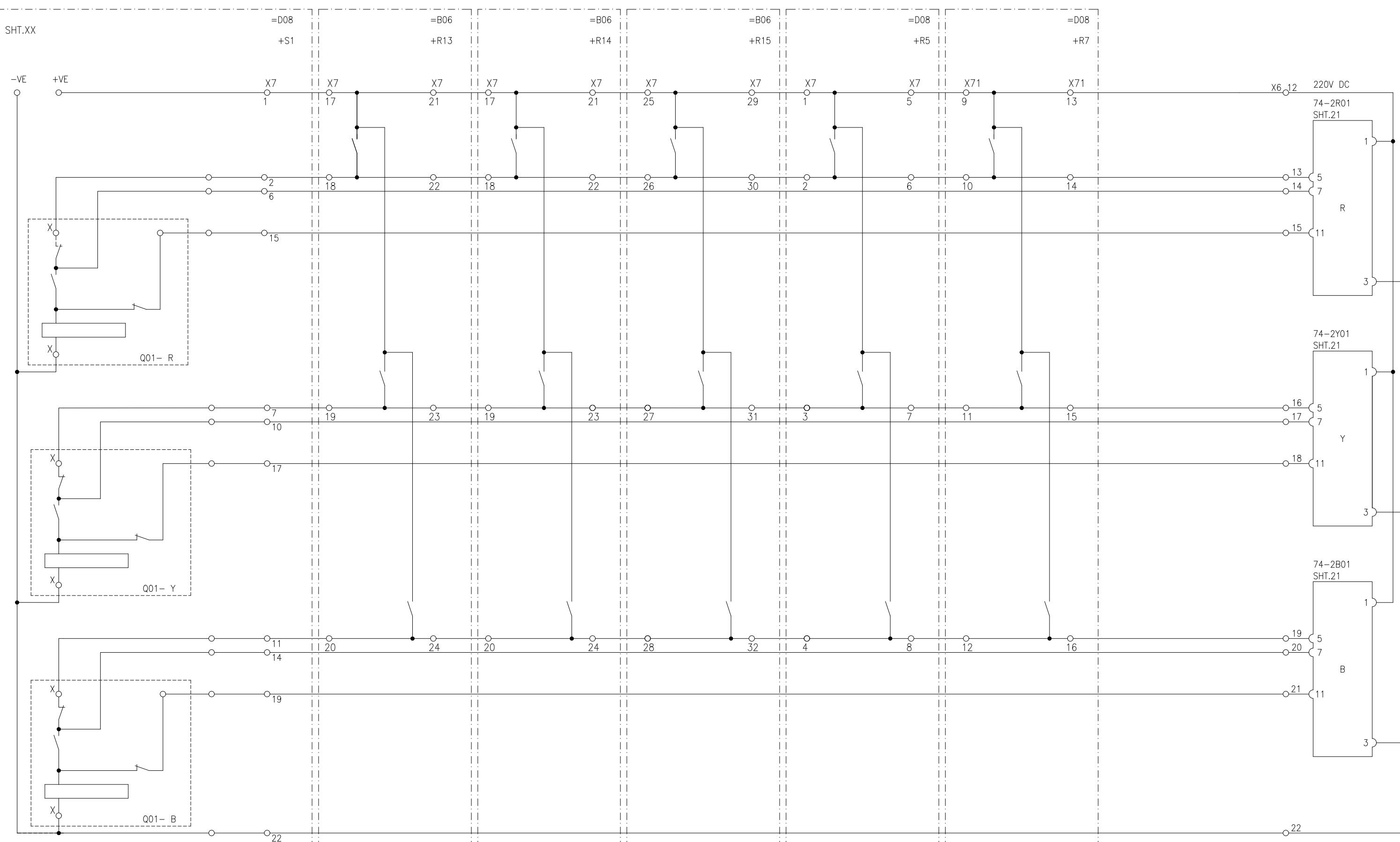
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NAH	ABA	MSC	 NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	DC SUPPLY CIRCUIT 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019 AS BUILT REV: 0

TRIP CIRCUIT
SUPERVISION RELAY



DWG# EPE/ENU-18/D81590, SHT. DWG# EPE/ENU-18/B61542, SHT. DWG# EPE/ENU-18/B61546, SHT. DWG# EPE/ENU-18/D81550, SHT. DWG# EPE/ENU-18/D81558, SHT. DWG# EPE/ENU-18/D81566, SHT.12

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: D08Q1, TRIP SUPERVISION CIRCUIT 1 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81562	SHT: 08 OF 23
NAH Q.	ABA D.	MSC A.				DATE: 07.03.2019	AS BUILT

TRIP CIRCUIT
SUPERVISION RELAY

DWG# EPE/ENU-18/D81590, SHT.37 DWG# EPE/ENU-18/B61542, SHT. DWG# EPE/ENU-18/B61546, SHT. DWG# EPE/ENU-18/D81550, SHT. DWG# EPE/ENU-18/D81558, SHT. DWG# EPE/ENU-18/D81566, SHT.12



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:
D08Q1, TRIP SUPERVISION CIRCUIT 2
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6

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

DWG# EPE/ENU-18/D81562 SHT: 09 OF 23

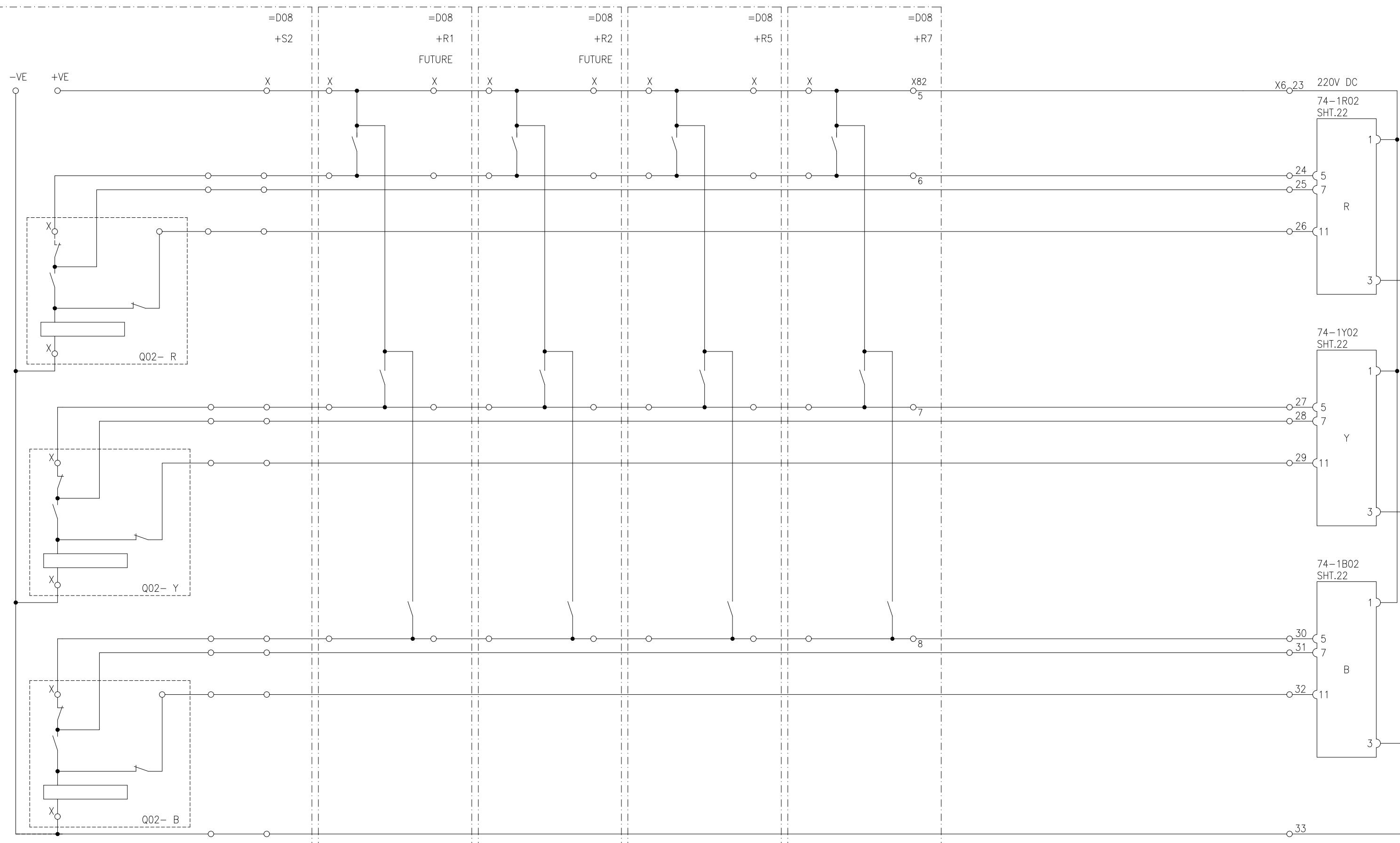
DATE: 07.03.2019 AS BUILT REV: 0

APPROVED CHECKED DRAWN

NAH ABA MSC

REV: 0

TRIP CIRCUIT
SUPERVISION RELAY



DWG# EPE/ENU-18/D81594 SH



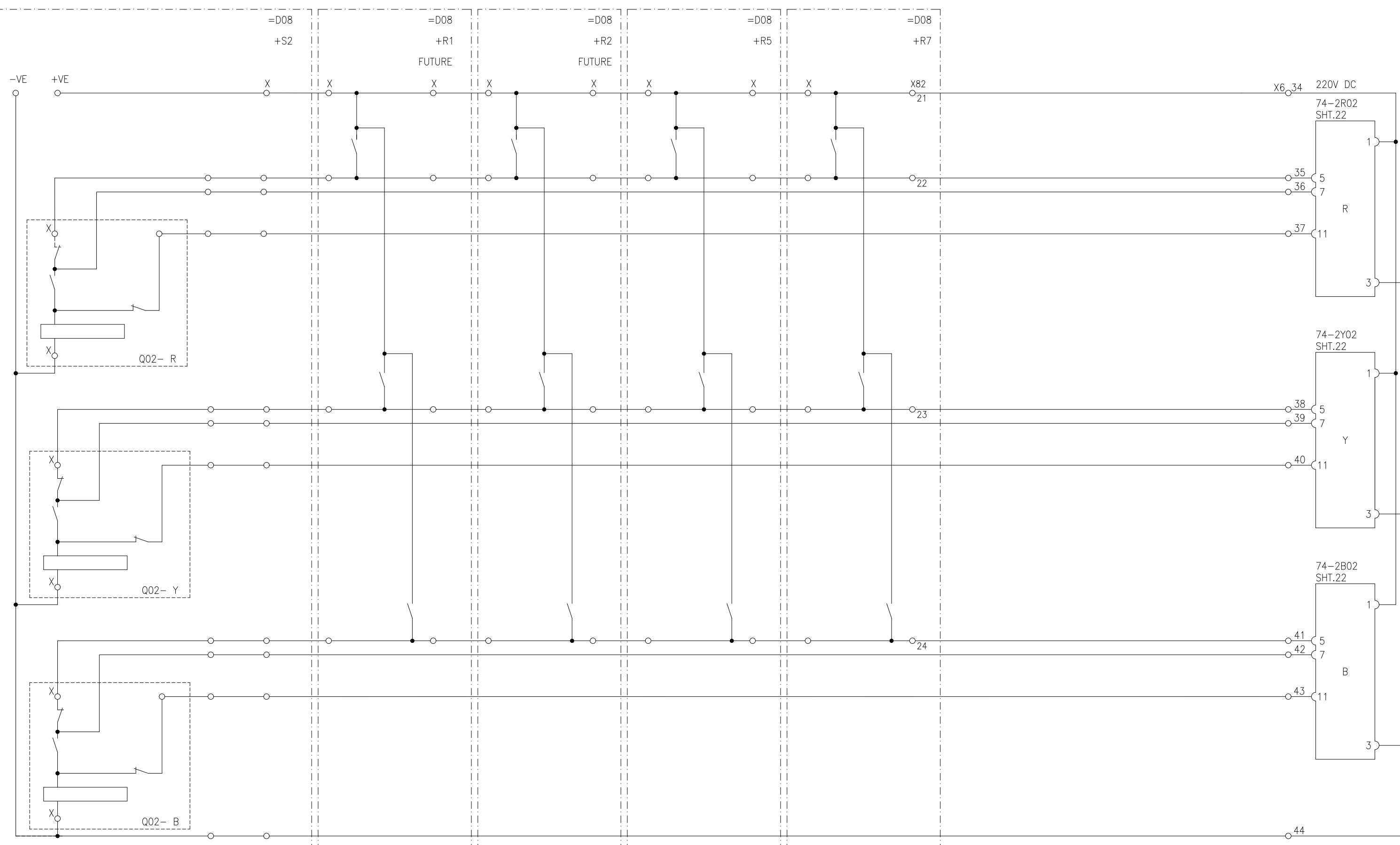
T:
NTDC PO# CE/MP&M/M(P)/AM-VI/EO/
9417-29 DATED 14.11.2018 FOR PROCUREMENT
OF 220KV & 500KV PROTECTION & CONTROL PANEL

TITLE:
D08Q2, TRIP SUPERVISION CIRCUIT 1
220V TRIP CIRCUIT SUPERVISION PANEL TYPE -D08-LP6



W *T* *T*

REV: 0

TRIP CIRCUIT
SUPERVISION RELAY

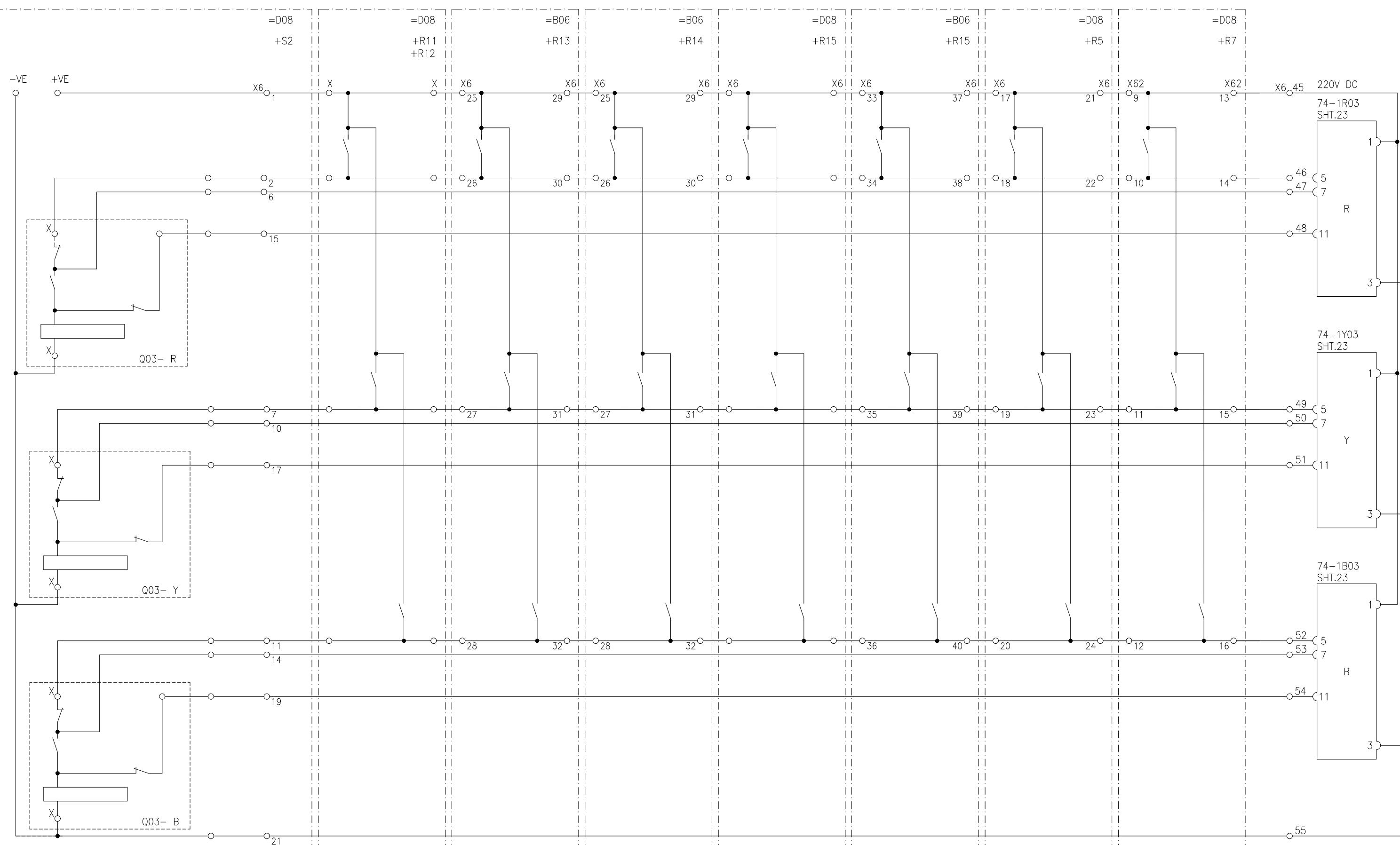
PROJECT:
NTDC PO# CE/MP&M/M(P)/AM-VI/E0/
9417-29 DATED 14.11.2018 FOR PROCUREMENT
OF 220KV & 500KV PROTECTION & CONTROL PANELS

TITLE:
D08Q2, TRIP SUPERVISION CIRCUIT 2
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6

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

DWG# EPE/ENU-18/D81562 SHT: 11 OF 23
DATE: 07.03.2019 AS BUILT
REV: 0

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

TRIP CIRCUIT
SUPERVISION RELAY

DWG# EPE/ENU-18/D81594, SHT.13

DWG# EPE/ENU-18/B61542, SHT. DWG# EPE/ENU-18/B61546, SHT.

DWG# EPE/ENU-18/D81550, SHT. DWG# EPE/ENU-18/D81558, SHT. DWG# EPE/ENU-18/D81566, SHT.12

APPROVED CHECKED DRAWN



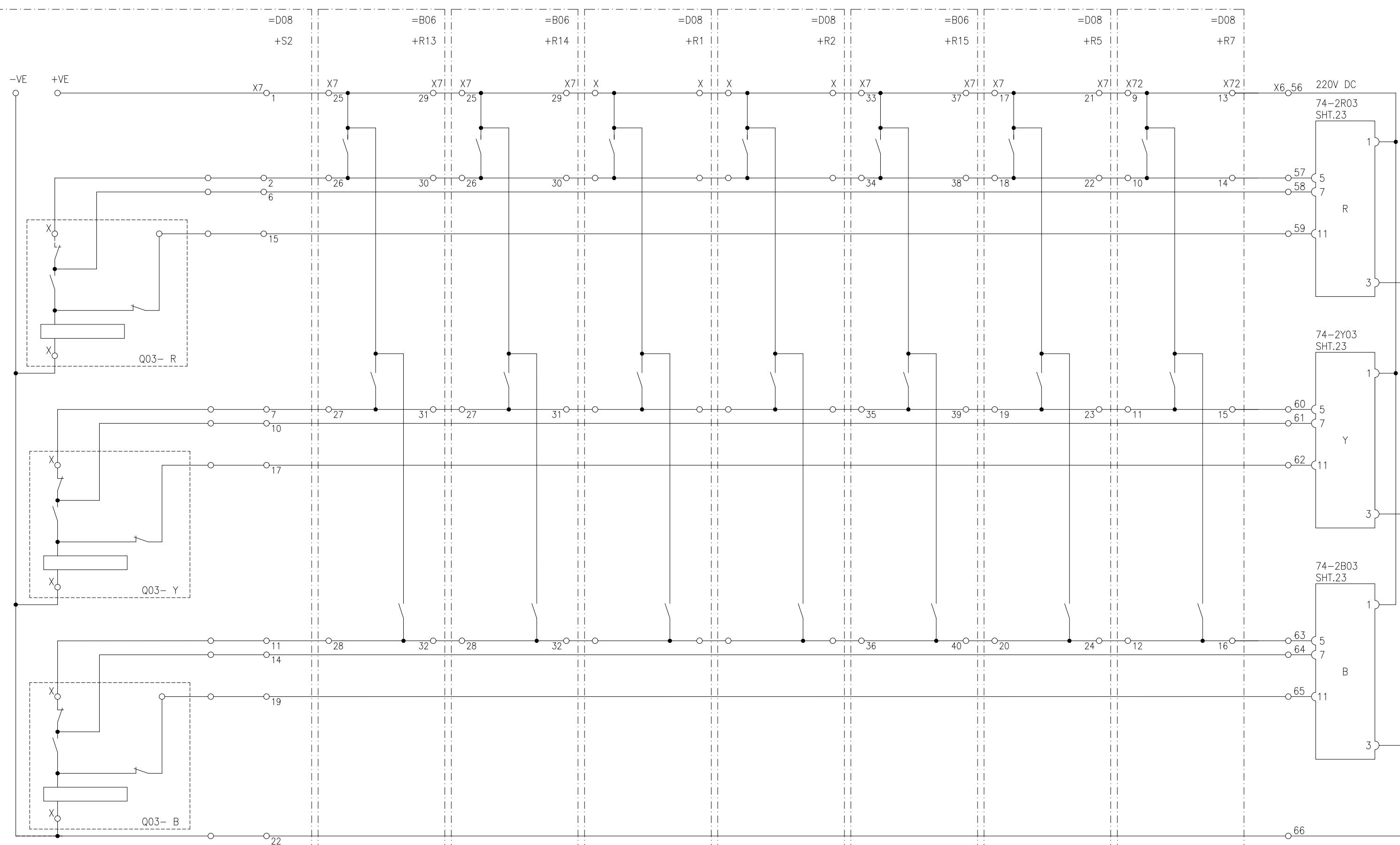
PROJECT:
NTDC PO# CE/MP&M/M(P)/AM-VI/EO/
9417-29 DATED 14.11.2018 FOR PROCUREMENT
OF 220KV & 500KV PROTECTION & CONTROL PANELS

TITLE:
D08Q3, TRIP SUPERVISION CIRCUIT 1
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6

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

DWG# EPE/ENU-18/D81562 SHT: 12 OF 23

DATE: 07.03.2019 AS BUILT REV: 0

TRIP CIRCUIT
SUPERVISION RELAY

DWG# EPE/ENU-18/D81594, SHT.14

DWG# EPE/ENU-18/B61542, SHT. DWG# EPE/ENU-18/B61546, SHT.

DWG# EPE/ENU-18/D81550, SHT. DWG# EPE/ENU-18/D81558, SHT. DWG# EPE/ENU-18/D81566, SHT.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:
D08Q3, TRIP SUPERVISION CIRCUIT 2
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6

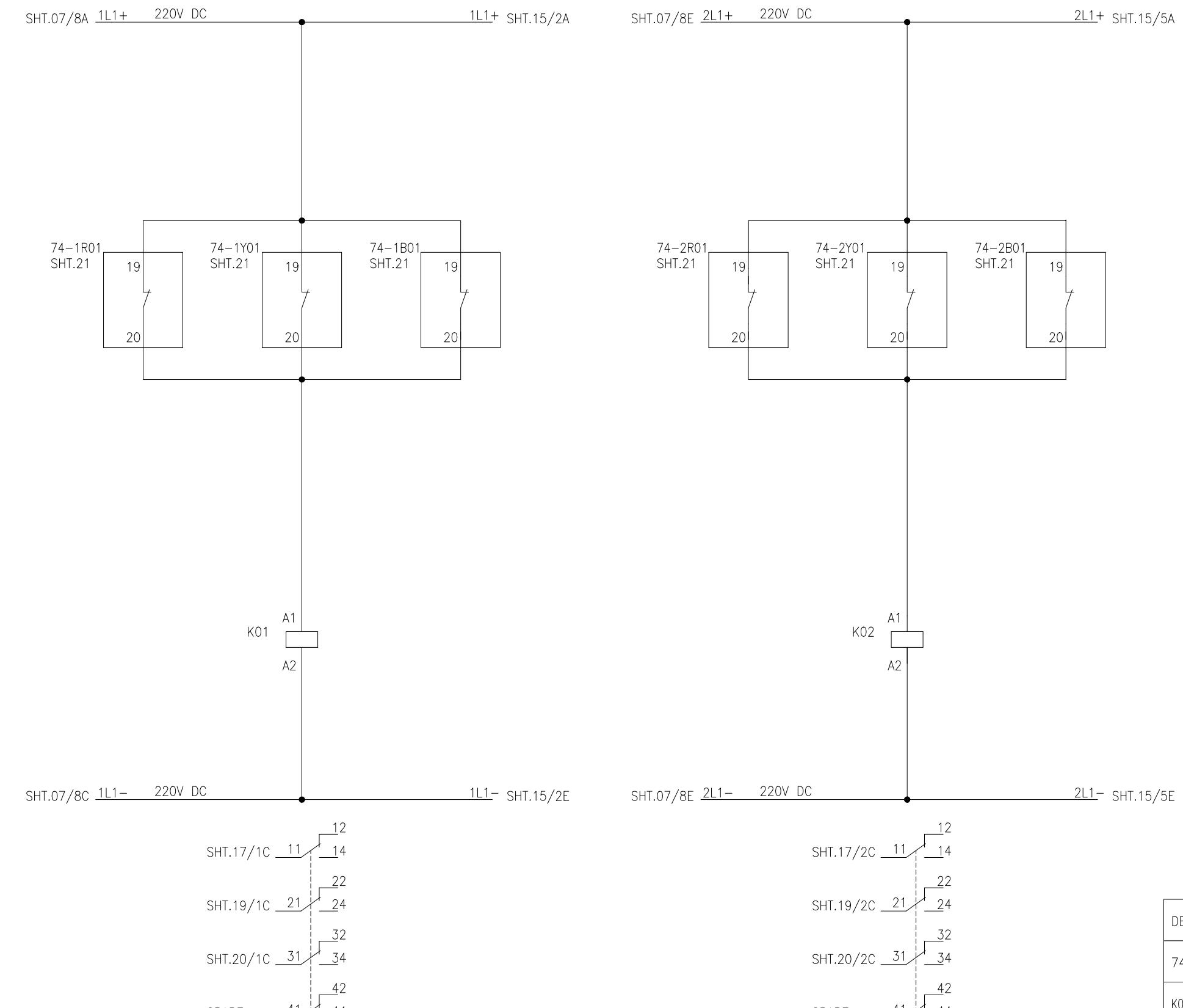
EPESOL Pvt. Ltd.
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81562 SHT: 13 OF 23

DATE: 07.03.2019 AS BUILT REV: 0

D08Q1 CB TRIP CIRCUIT 1
FAILURE

D08Q1 CB TRIP CIRCUIT 2
FAILURE



LEGEND

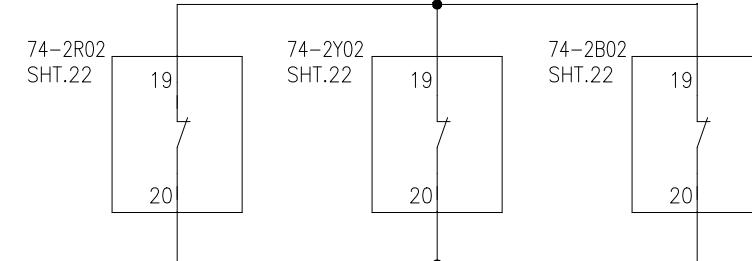
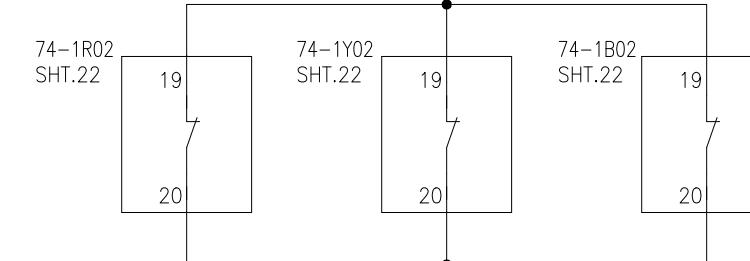
DES:	DESCRIPTION	TYPE	MAKE
74-XX	TRIP CIR. SUP. RELAY	TS-101	ELABS
K01, K02	AUX. RELAY	PRC	GE

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: D08Q1 TRIPPING ANNUNCIATION 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	DWG# EPE/ENU-18/D81562	SHT: 14 OF 23
NAH [Signature]	ABA [Signature]	MSC [Signature]	 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT	REV: 0

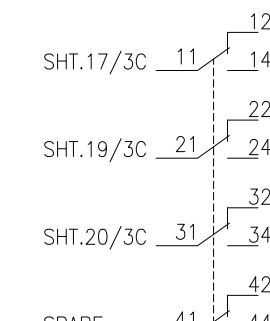
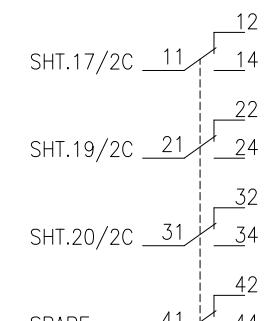
D08Q2 CB TRIP CIRCUIT 1
FAILURE

D08Q2 CB TRIP CIRCUIT 2
FAILURE

SHT.14/4A 1L1+ 220V DC 1L1+ SHT.16/1A SHT.14/7A 2L1+ 220V DC 2L1+ SHT.16/5A



SHT.14/4E 1L1- 220V DC 1L1- SHT.16/1E SHT.14/7E 2L1- 220V DC 2L1- SHT.16/5E



LEGEND

DES:	DESCRIPTION	TYPE	MAKE
74-XX	TRIP CIR. SUP. RELAY	TS-101	ELABS
K03, K04	AUX. RELAY	PRC	GE

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

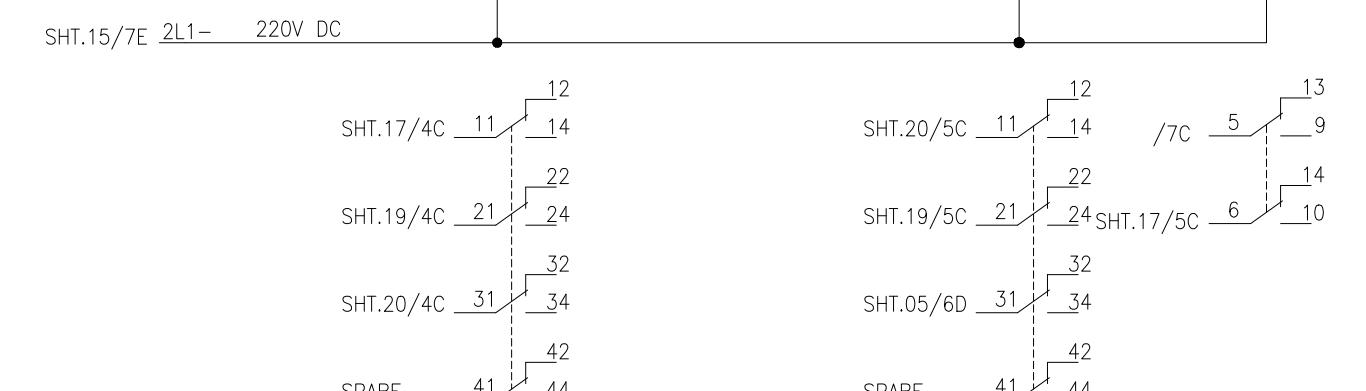
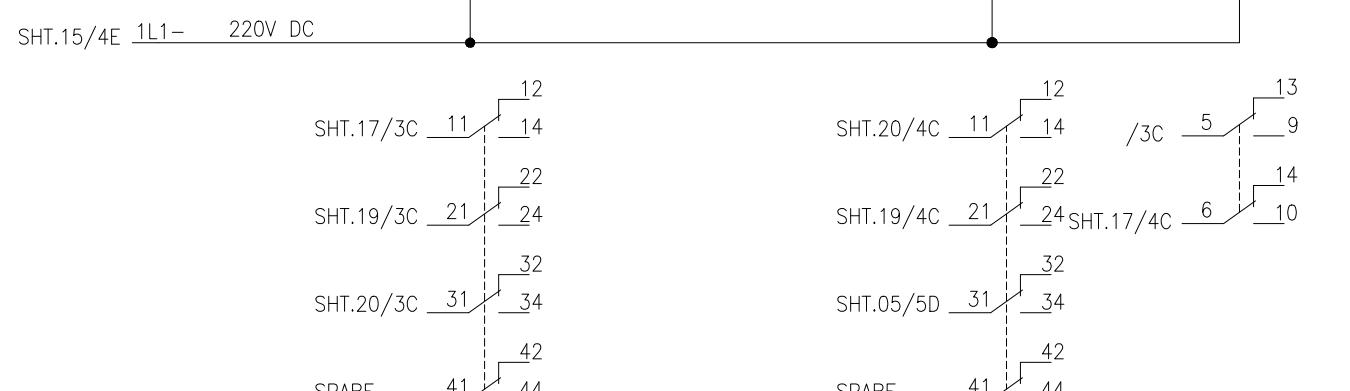
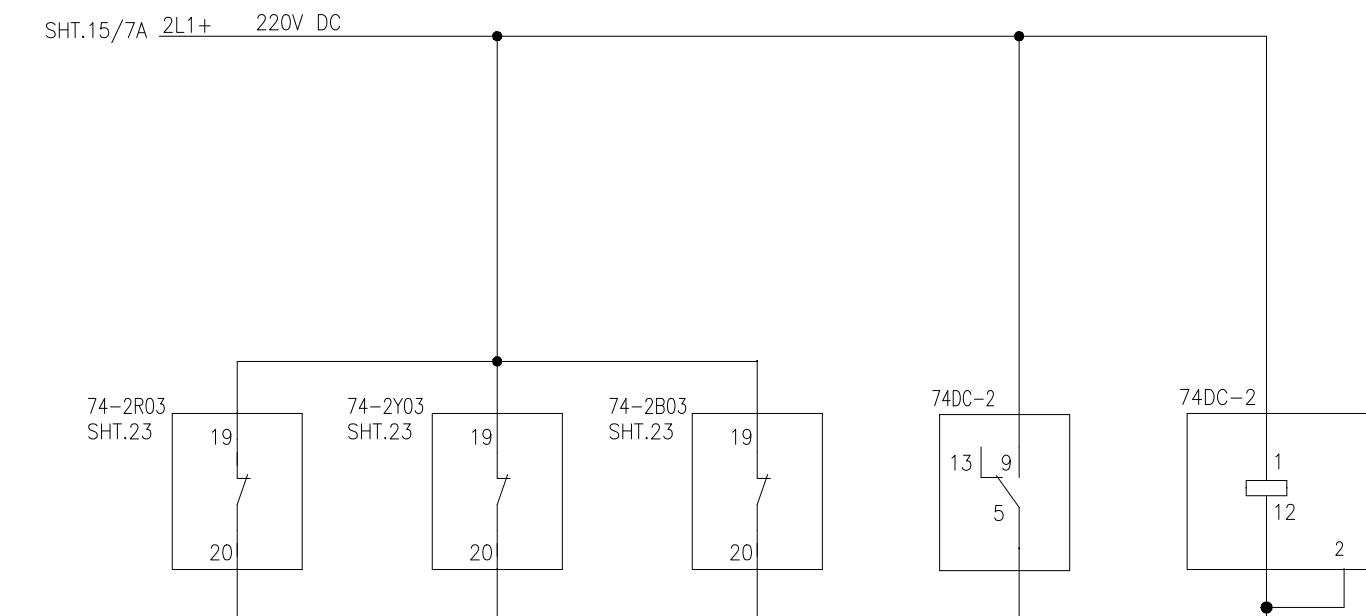
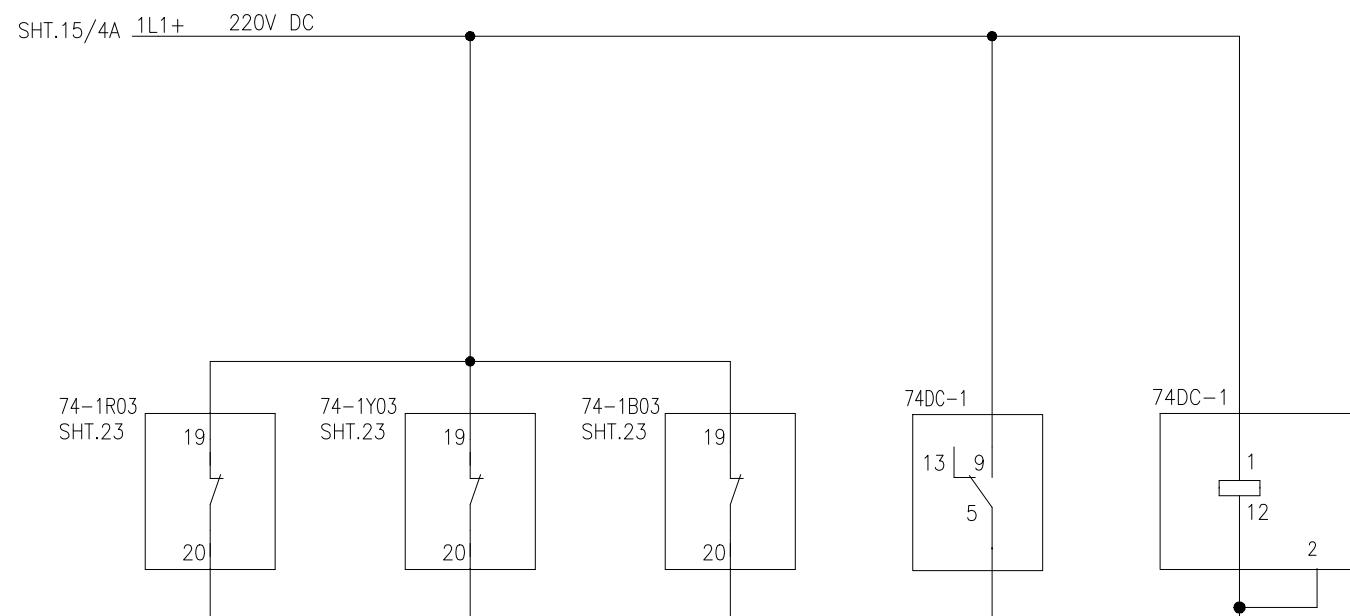
TITLE:
D08Q2 TRIPPING ANNUNCIATION
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6



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/D81562 SHT: 15 OF 23

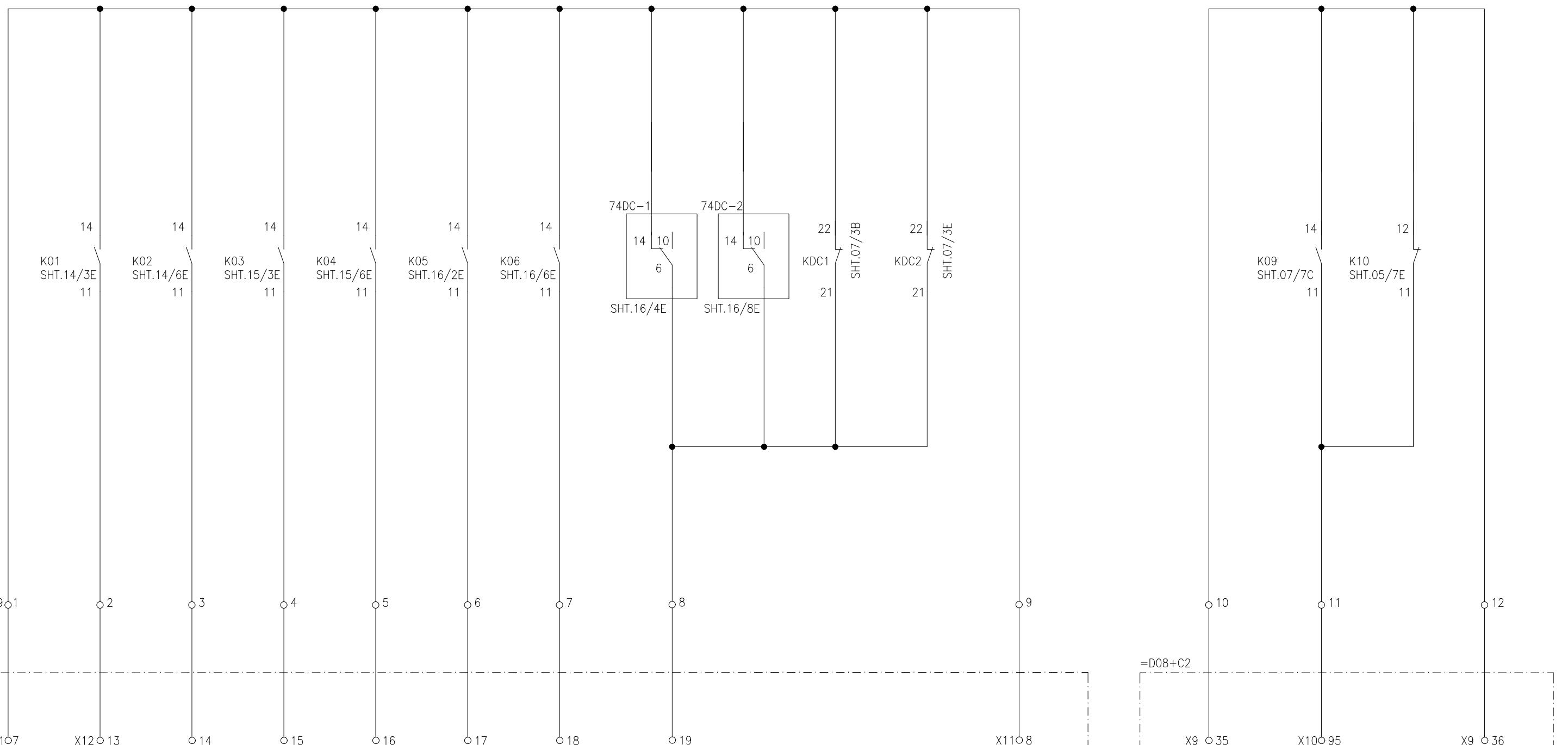
DATE: 07.03.2019 AS BUILT REV: 0

D08Q3 CB TRIP CIRCUIT 1
FAILUREDC LOOP-1
SUPERVISION RELAYD08Q3 CB TRIP CIRCUIT 2
FAILUREDC LOOP-2
SUPERVISION RELAY

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	EPE SOL Pvt Ltd.	DWG# EPE/ENU-18/D81562	SHT: 16 OF 23
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 PANELS	D08Q3 TRIPPING ANNUNCIATION 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	EPE SOL Pvt Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

D08Q1 CB TCS I	D08Q1 CB TCS II	D08Q2 CB TCS I	D08Q2 CB TCS II	D08Q3 CB TCS I	D08Q3 CB TCS II	DC SUPPLY
FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAILURE

AC SUPPLY
TRIP/FAIL



L CONTROL PANEL (ANNUNCIATOR)
DWG# EPE/ENU-18/D81578
SHT.27

L CONTROL PANEL (ANNUNCIATOR)
DWG# EPE/ENU-18/D81578
SHT.25

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	DWG# EPE/ENU-18/D81562		SHT: 17 OF 23
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 PANELS	ANNUICATION FUNCTION 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT

D08Q1 CB TCS I D08Q1 CB TCS II D08Q2 CB TCS I D08Q2 CB TCS II D08Q3 CB TCS I D08Q3 CB TCS II

HEALTHY

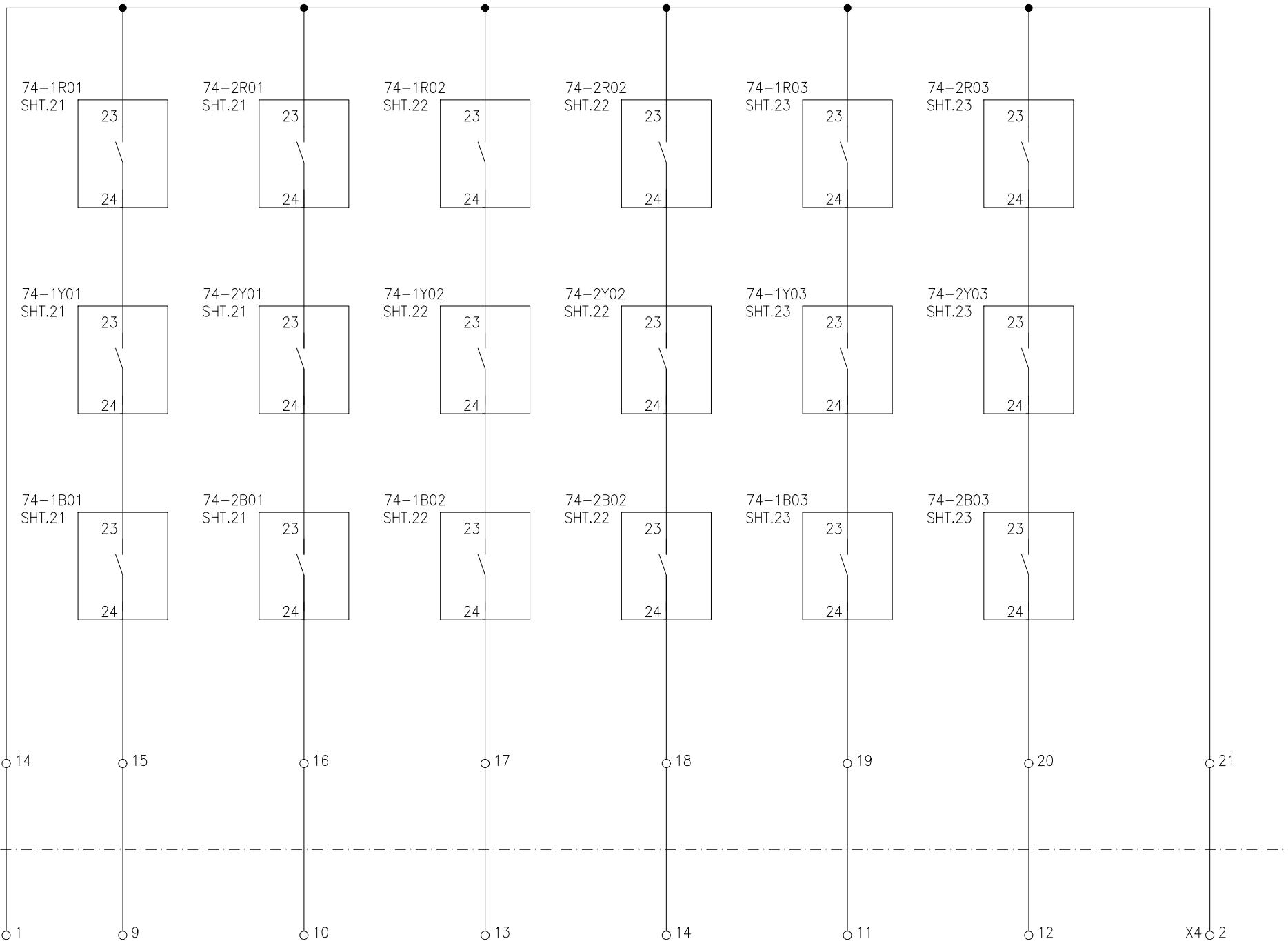
D08Q1 CB TCS I
HEALTHY

D08Q2 CB TCS I
HEALTHY

D08Q2 CB TCS II
HEALTHY

D08Q3 CB TCS I
HEALTHY

D08Q3 CB TCS II
HEALTHY



CONTROL PANEL (INDICATIONS)
DWG# EPE/ENU-18/D81578
SHT.16

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC



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:
ANNUNCIATION FUNCTION
220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6



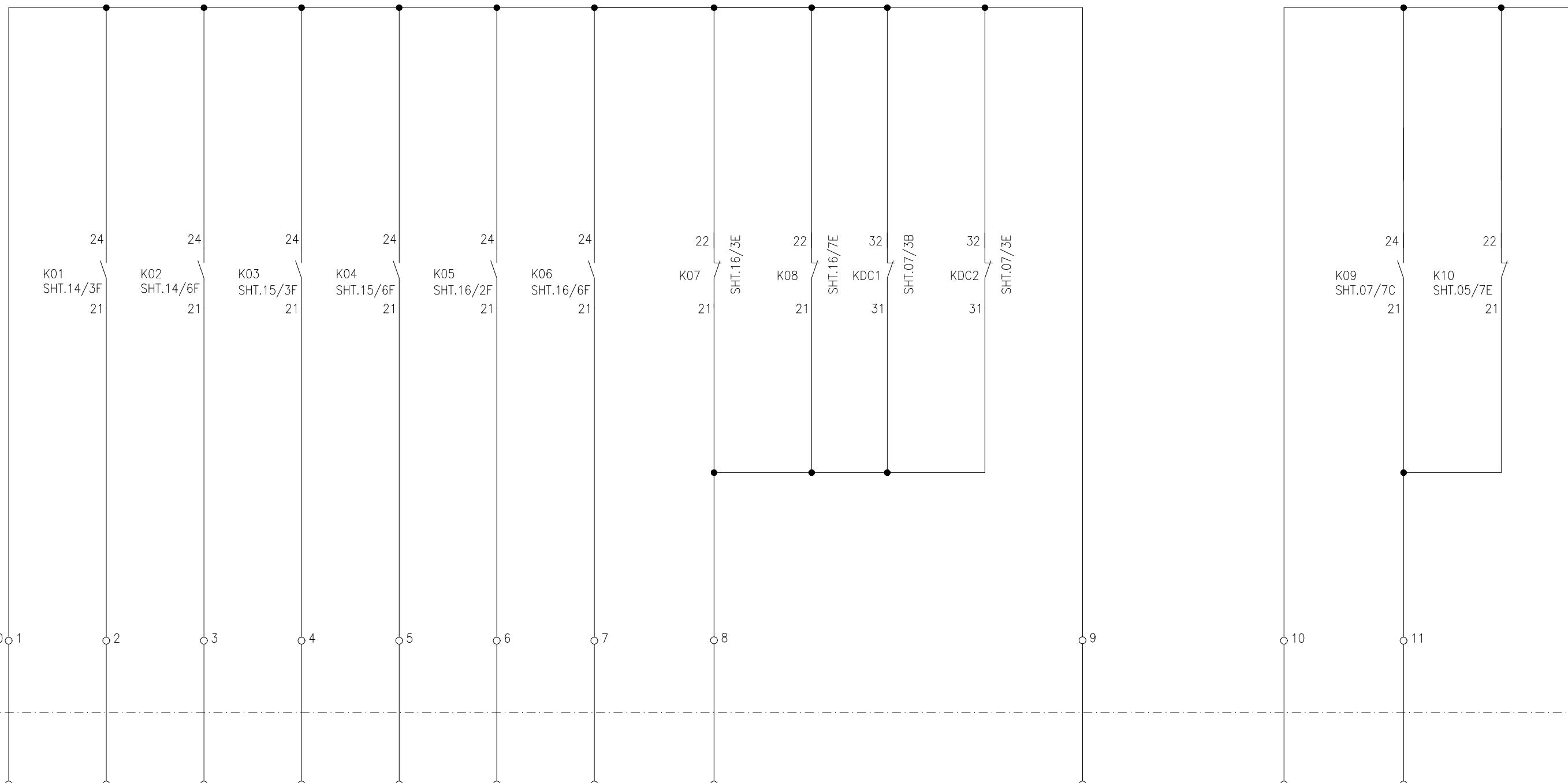
E P E S O L P v t . L t d .
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU-18/D81562	SHT: 18 OF 23
DATE: 07.03.2019	AS BUILT

REV: 0

D08Q1 CB TCS I D08Q1 CB TCS II D08Q2 CB TCS I D08Q2 CB TCS II D08Q3 CB TCS I D08Q3 CB TCS II DC SUPPLY
 FAULTY ALARM FAULTY ALARM FAULTY ALARM FAULTY ALARM FAULTY ALARM FAULTY ALARM FAILURE

AC SUPPLY
 TRIP/FAIL

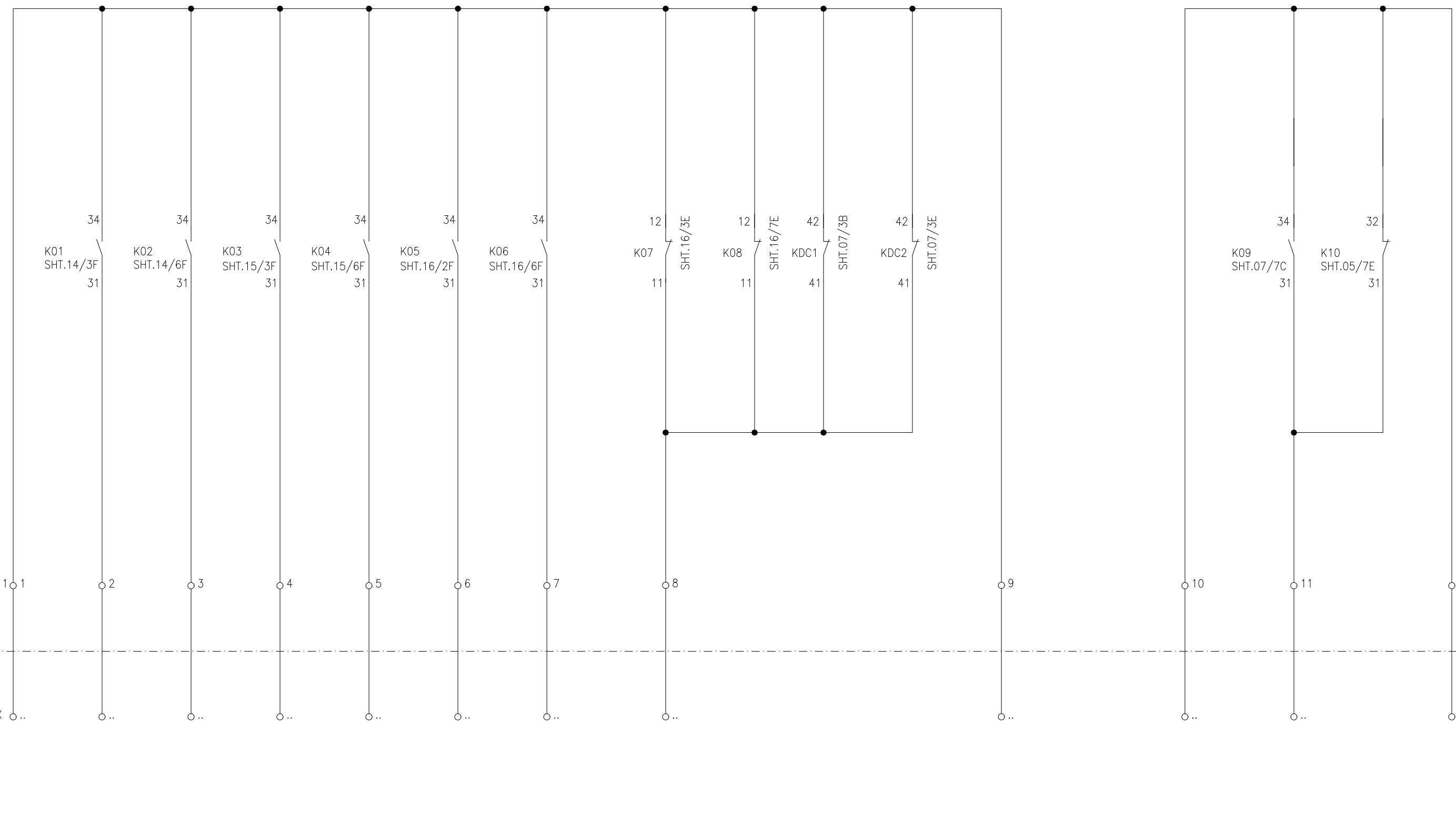


EVENT RECORDER PANEL

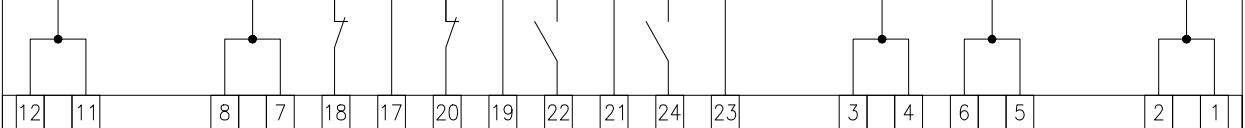
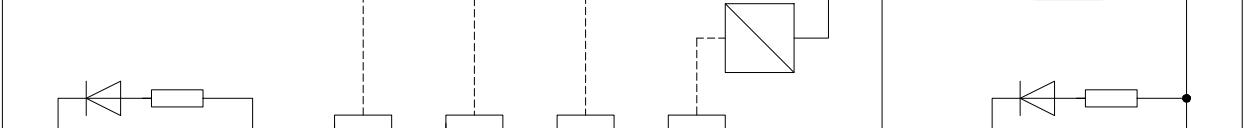
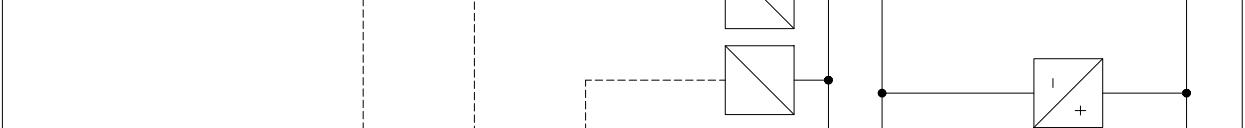
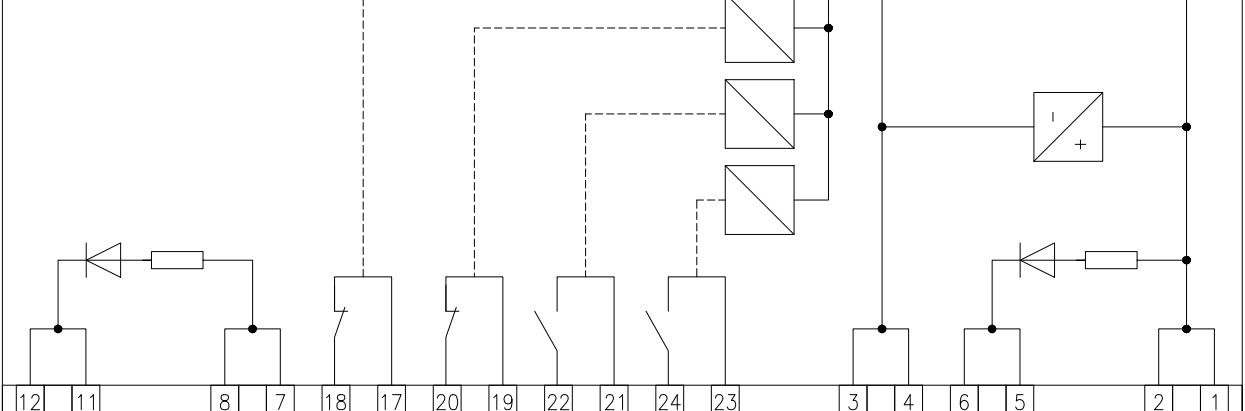
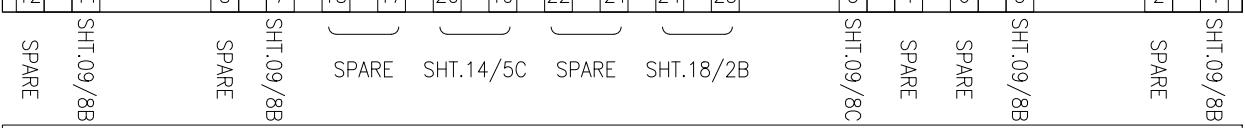
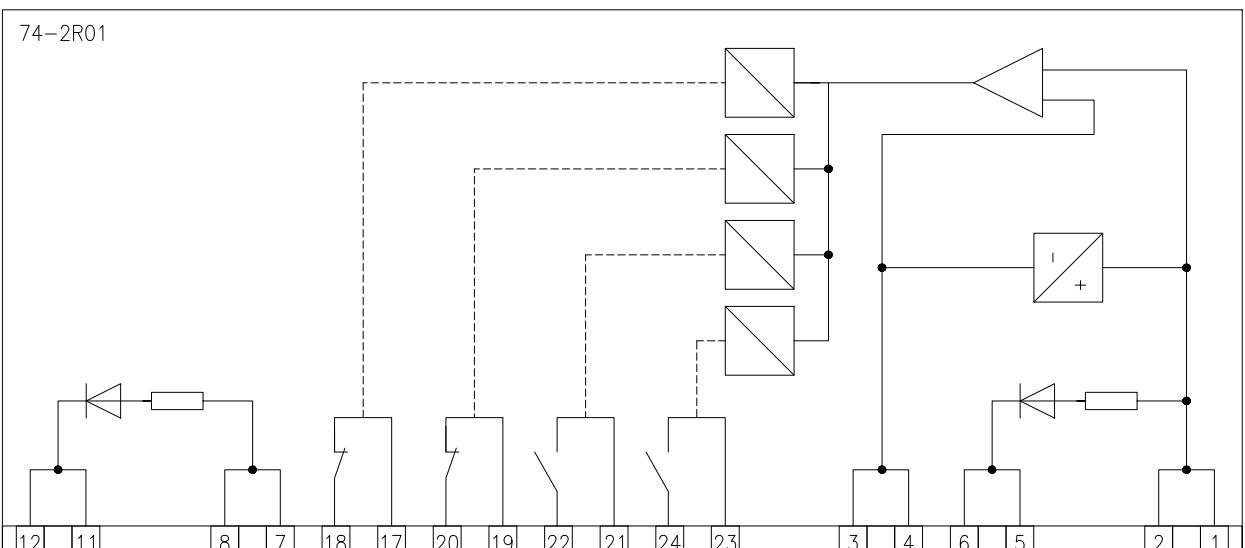
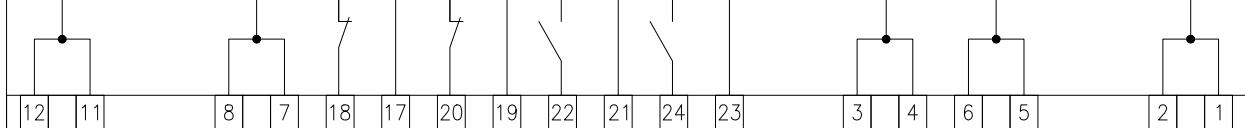
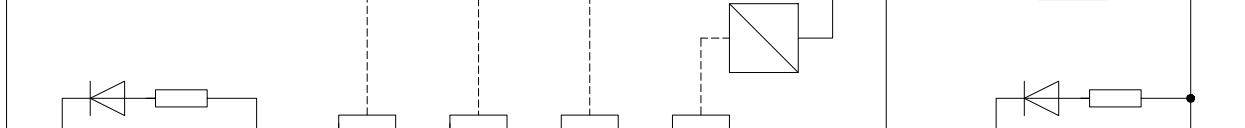
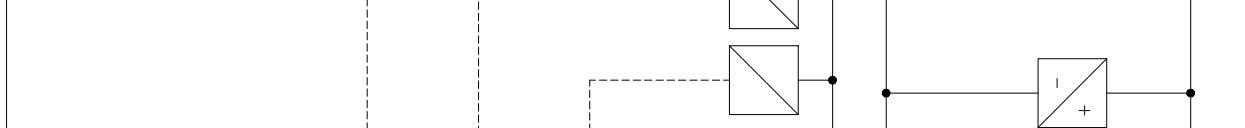
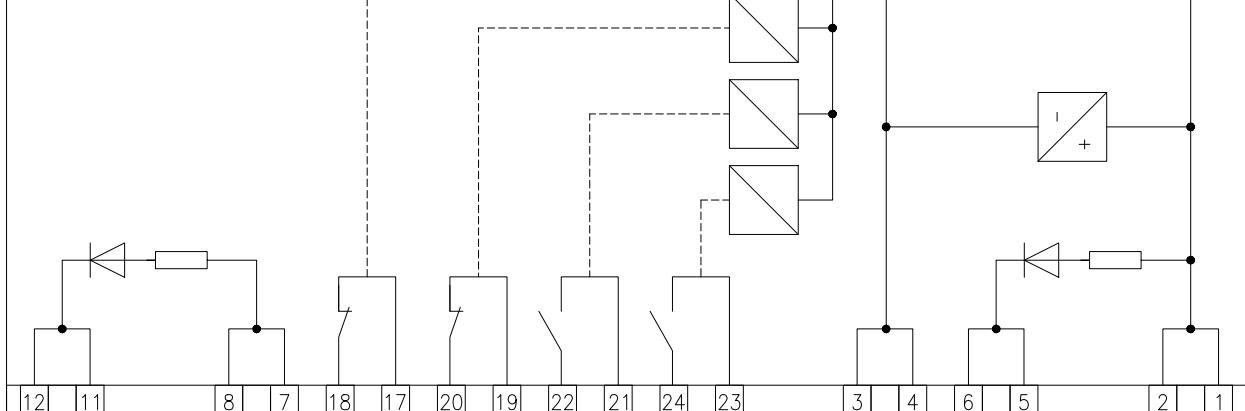
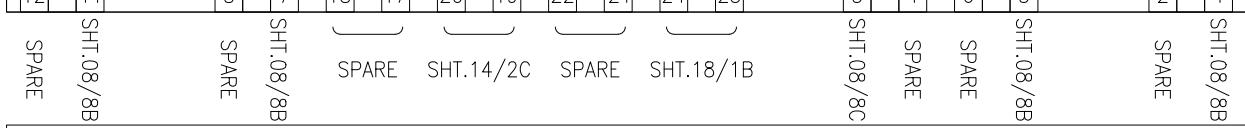
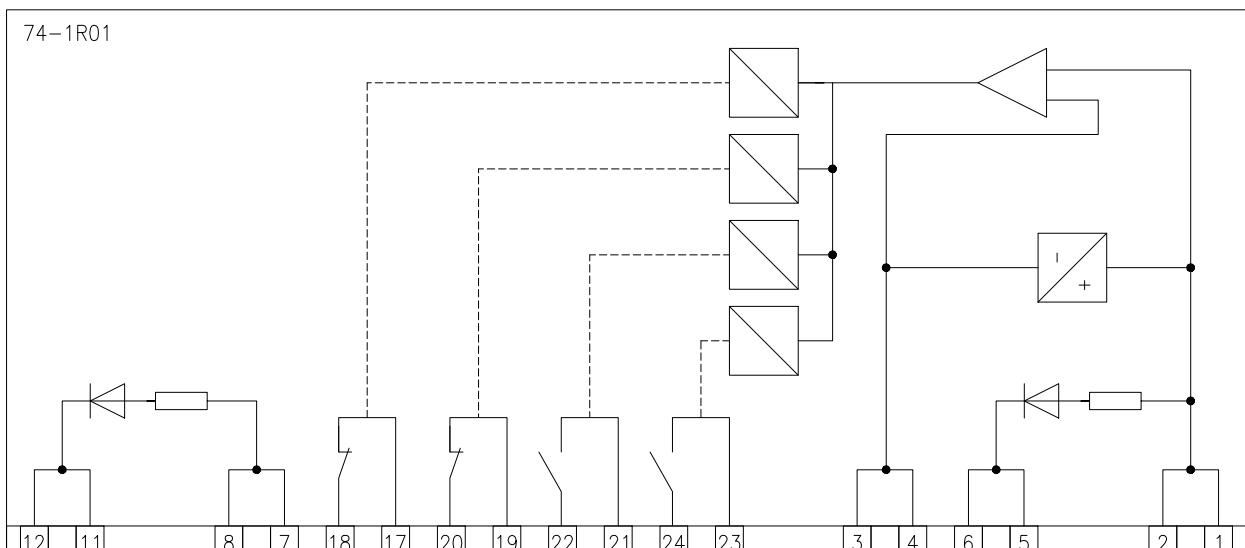
APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	EPE SOL Pvt Ltd.	DWG# EPE/ENU-18/D81562	SHT: 19 OF 23
NAH	ABA	MSC	NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	EVENTS FUNCTION 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPE SOL Pvt Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT REV: 0

D08Q1 CB TCS I	D08Q1 CB TCS II	D08Q2 CB TCS I	D08Q2 CB TCS II	D08Q3 CB TCS I	D08Q3 CB TCS II	DC SUPPLY
FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAULTY ALARM	FAILURE

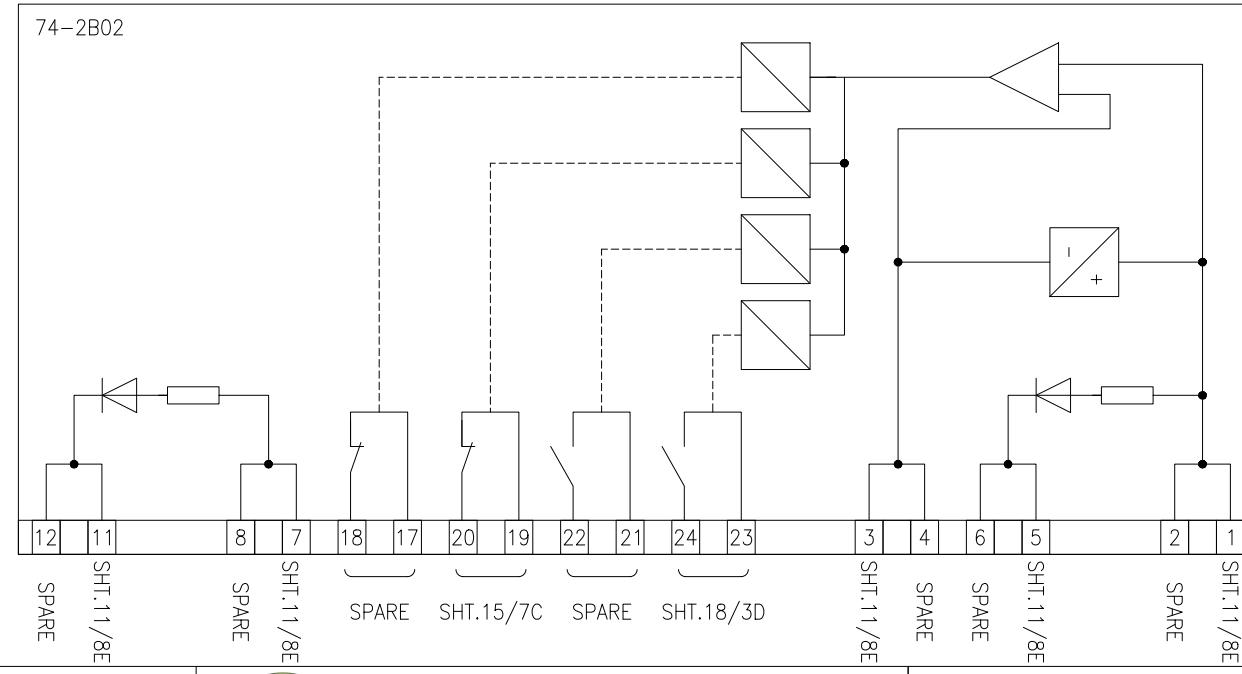
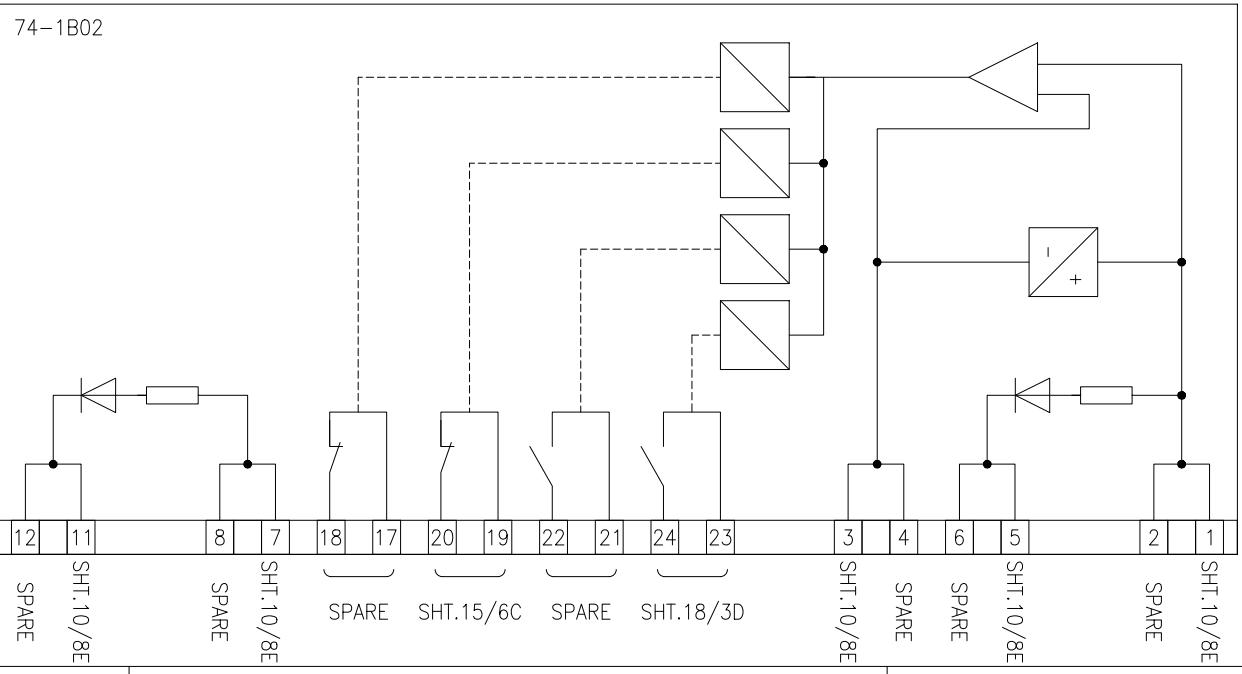
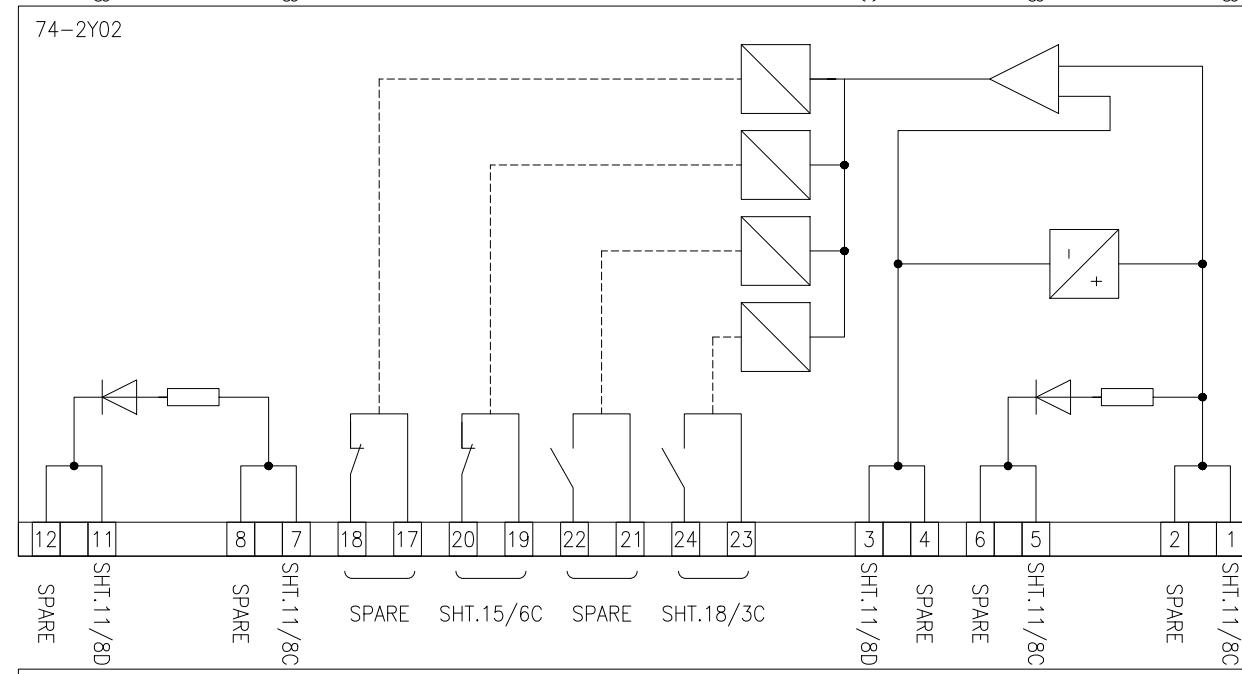
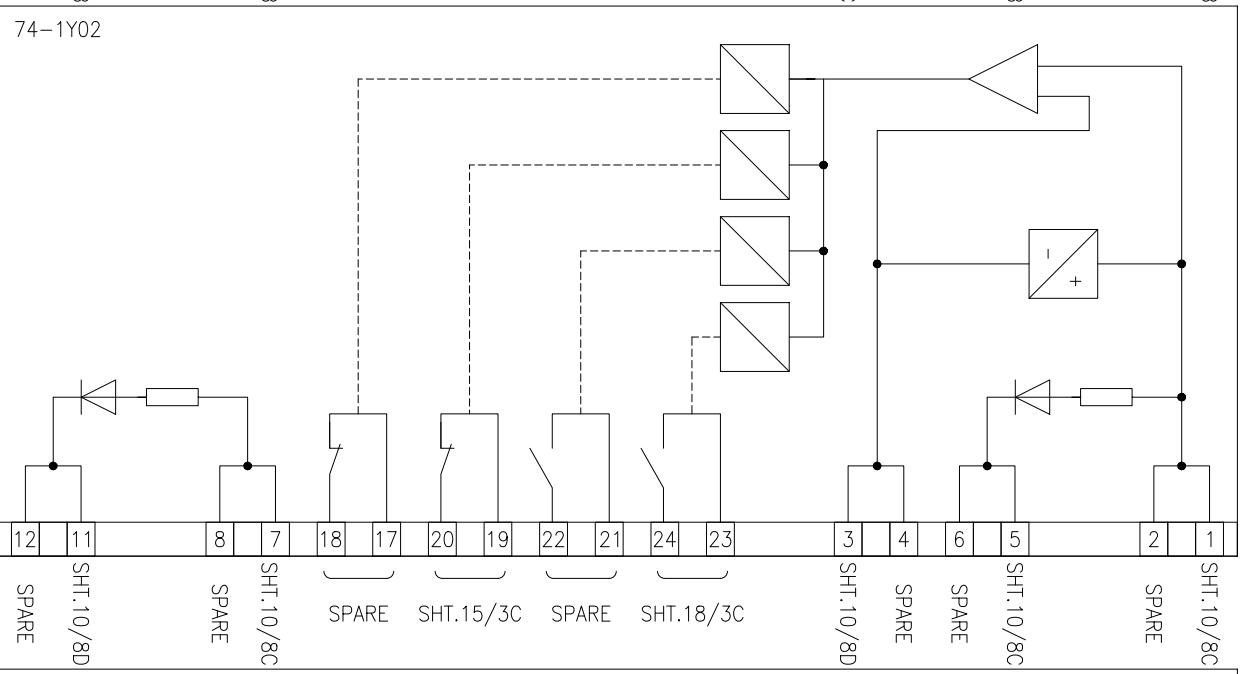
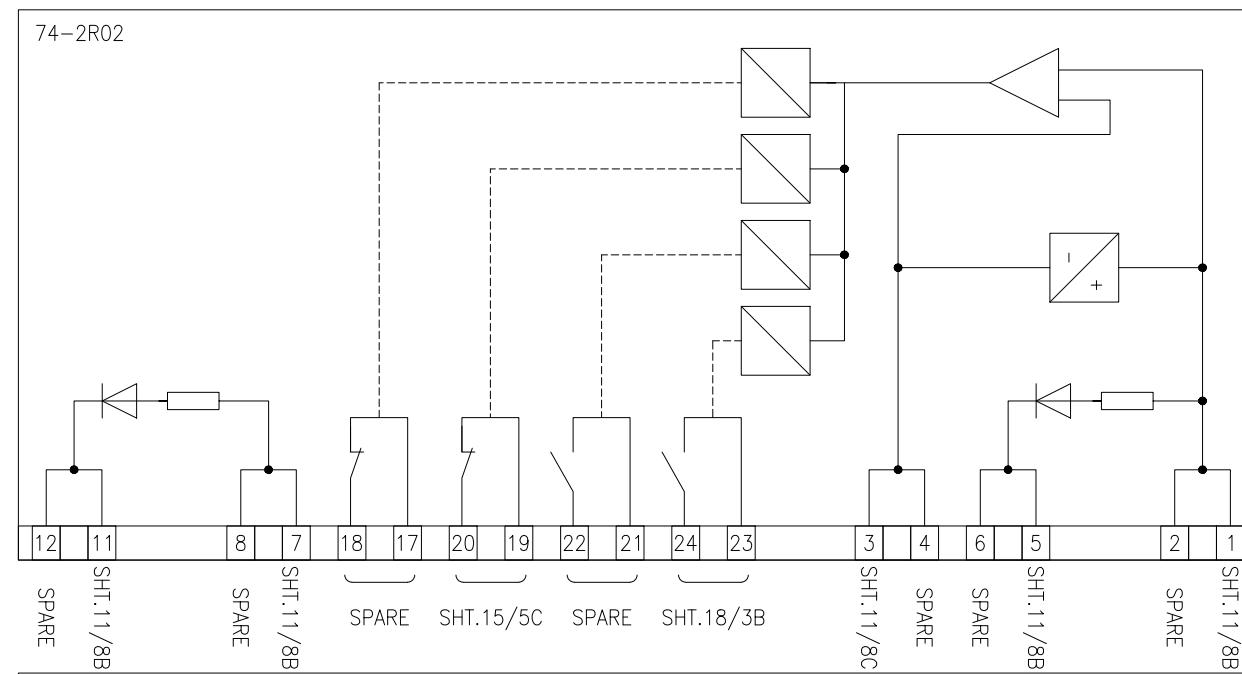
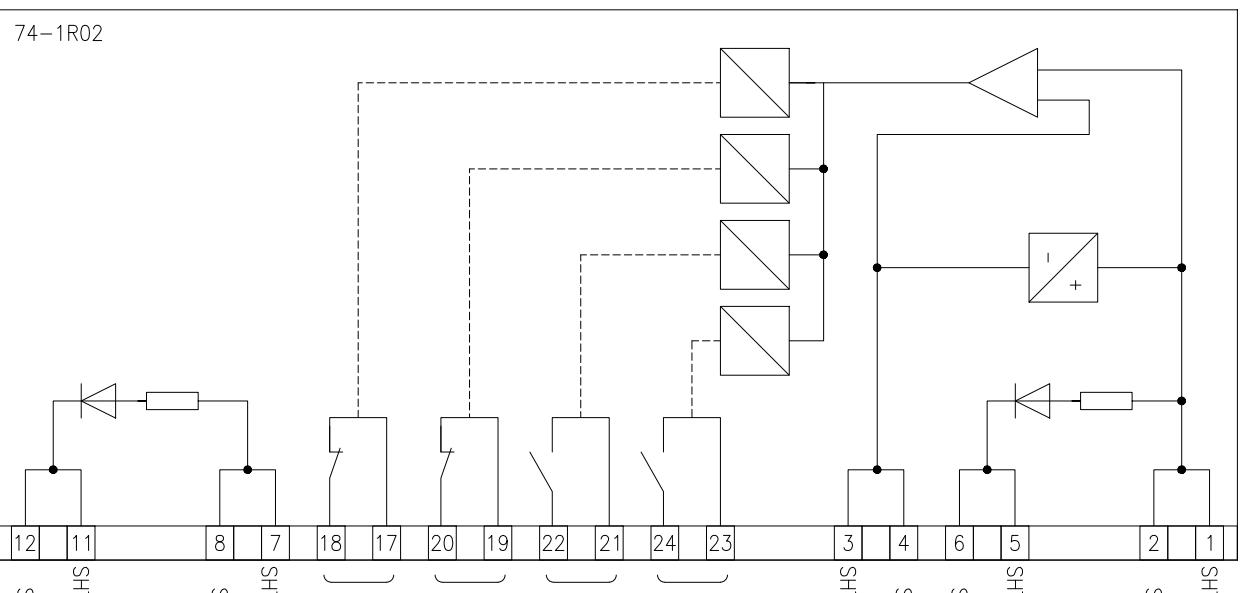
AC SUPPLY
TRIP/FAIL



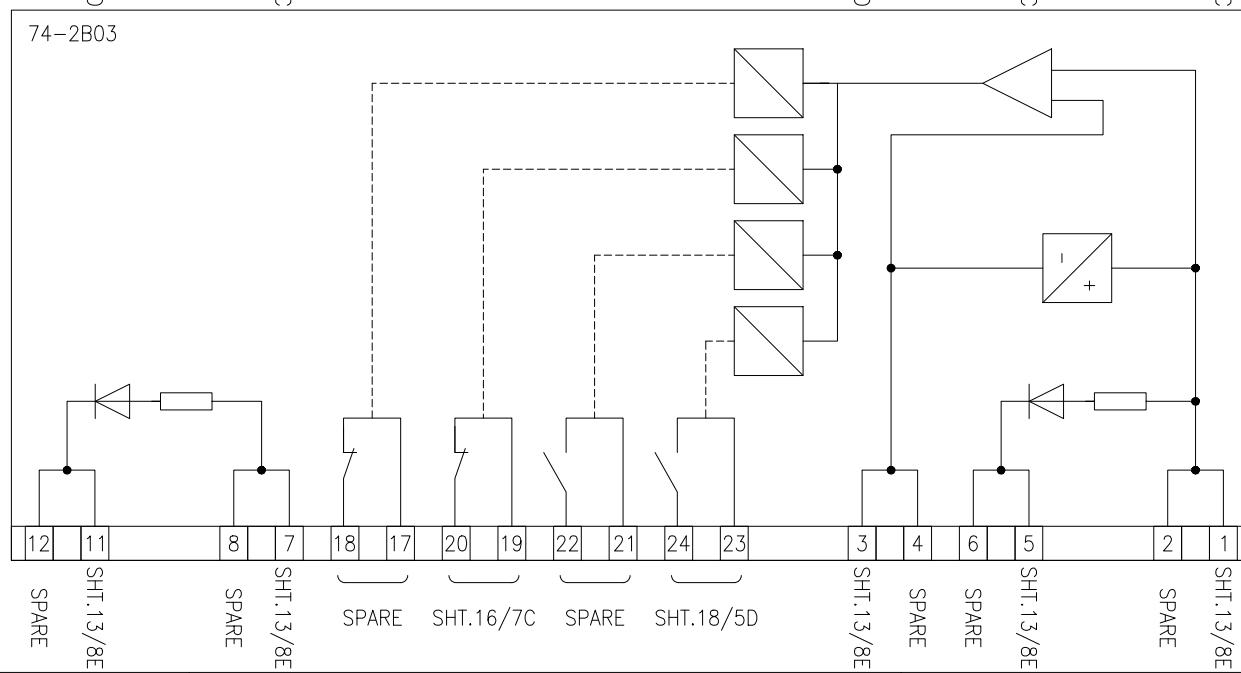
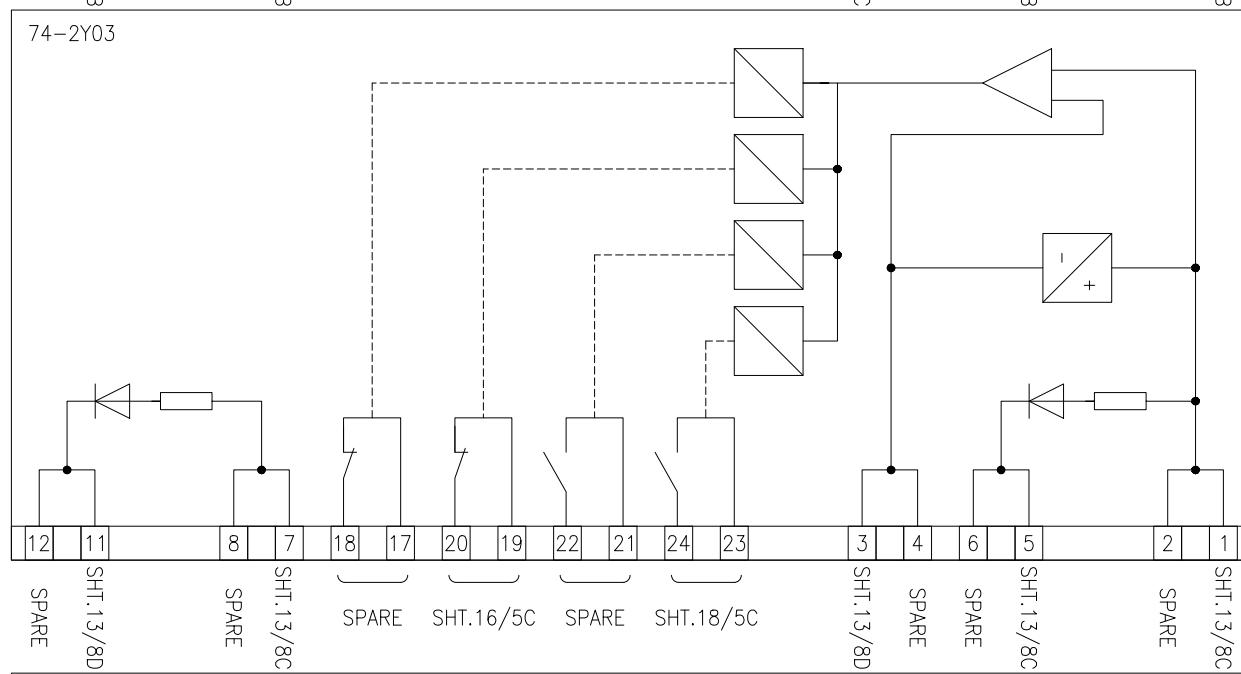
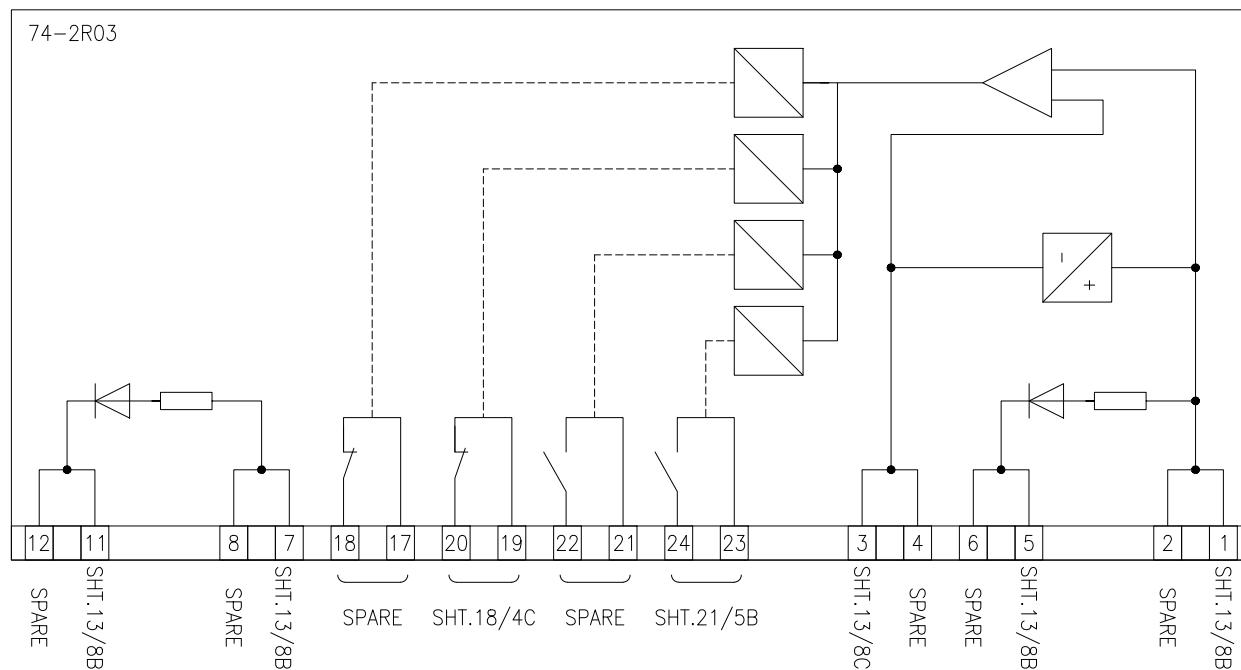
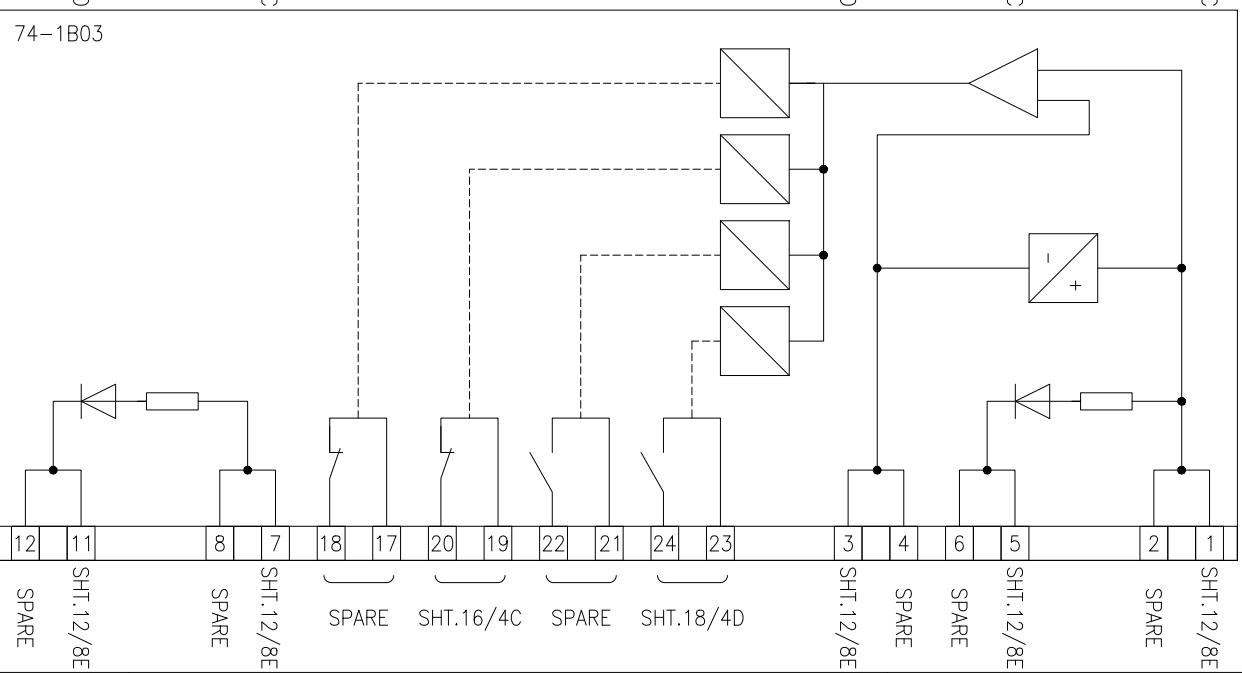
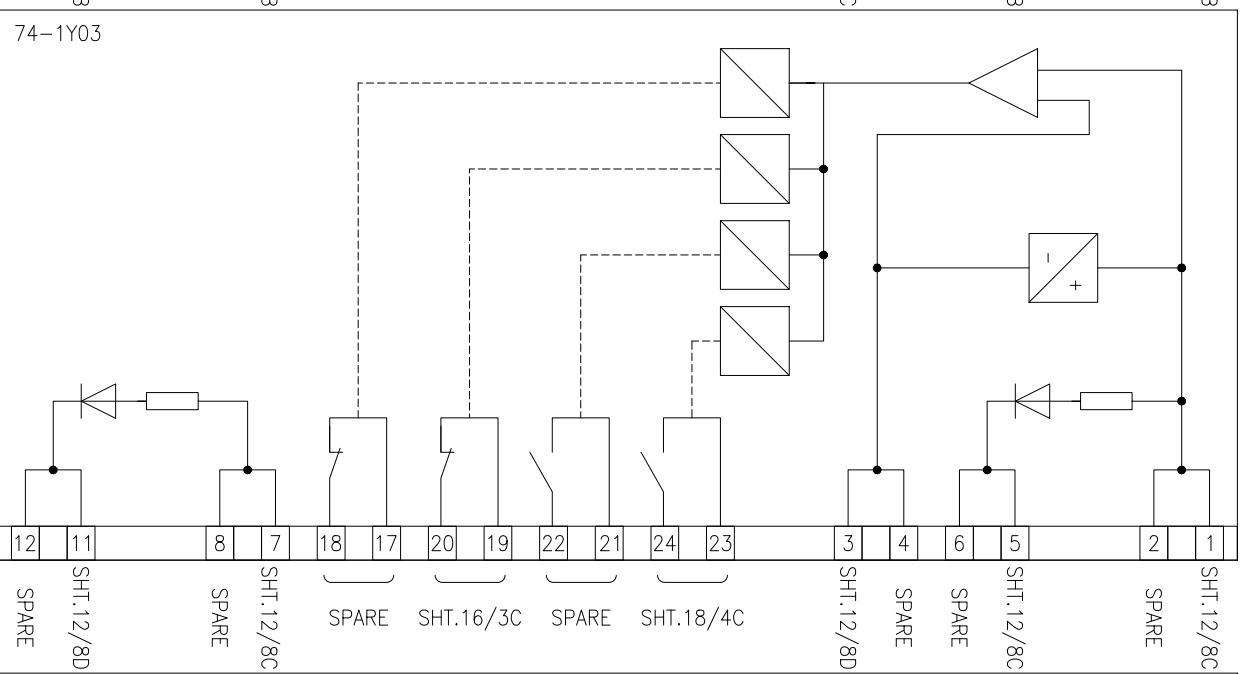
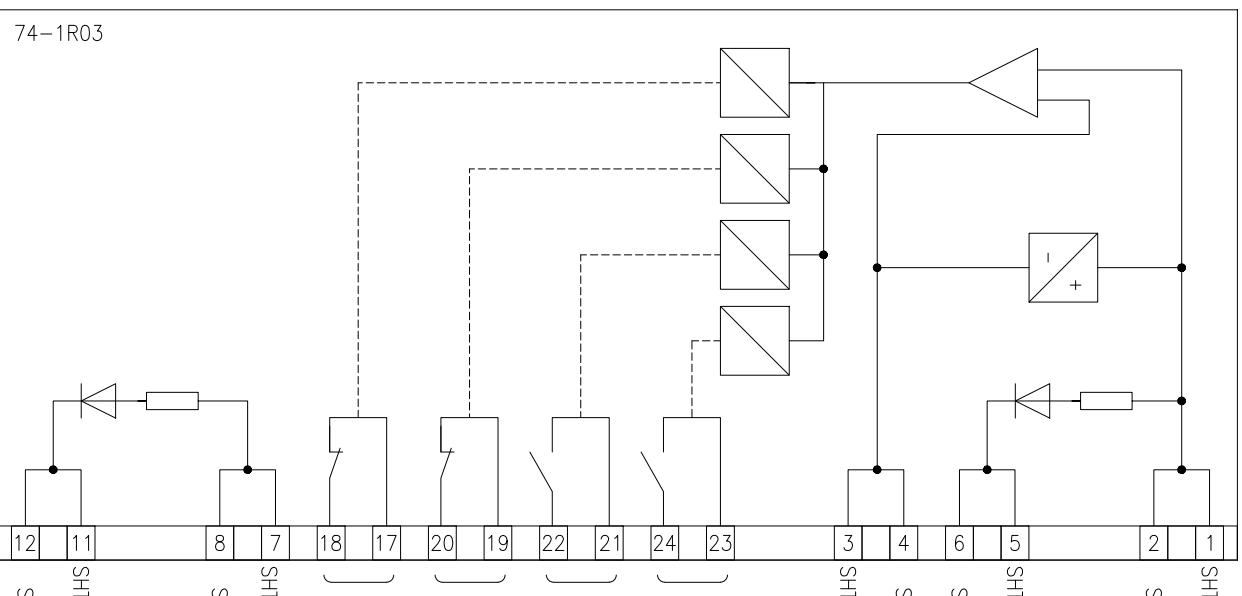
APPROVED	CHECKED	DRAWN	PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/E0/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	TITLE: SCADA FUNCTION 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	DWG# EPE/ENU-18/D81562	SHT: 20 OF 23		
NAH Q	ABA	MSC			E P E S O L P v t . L t d . 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE: 07.03.2019	AS BUILT	REV: 0



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: DEVICE DETAILS 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPE SOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81562	SHT: 21 OF 23
NAH 	ABA 	MSC 				DATE: 07.03.2019	AS BUILT



APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:	DEVICE DETAILS	EPESOL Pvt. Ltd.	DWG# EPE/ENU-18/D81562	SHT: 22 OF 23
NAH [Signature]	ABA [Signature]	MSC [Signature]	NTDC PO# CE/MP&M/M(P)/AM-VI/EO/ 9417-29 DATED 14.11.2018 FOR PROCUREMENT OF 220KV & 500KV PROTECTION & CONTROL PANELS	220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6		71-B Garden Block, New Garden Town, Lahore, Pakistan	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: DEVICE DETAILS 220KV TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	EPE SOL Pvt Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81562	SHT: 23 OF 23
NAH	ABA	MSC				DATE: 07.03.2019	AS BUILT

LEGEND:



TEMPORARY SHORTENING LINK



PERMANENT LINK



END COVER

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



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

二〇一九年

TITLE: TERMINAL DETAIL
S-2201W TRIP CIRCUIT SUPERVISION PANEL TYPE -D08-LP6



E P E S O L Pvt. Ltd.
P-Block, New Colony, Tando Jhoba, Pakistan

RWS 11-2021 (REV. 10/2015)

DWG# EPE/ENU-13

8/D81563

SUT 24 25 26

SHI: 01 C

Sr.	CABLE DESIGNATION		CORE CROSS SECTION		DESTINATION														SCHEME DWG. REF: EPE/ENU-18/D81562		
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									
c																					
c																					
c																					
c																					
c																					
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 TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6		 EPESOL Pvt Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan										DWG# EPE/ENU-18/D81563	SHT: 02 OF 08	
NAH	MSS	MUR																	DATE: 07.03.2019	AS BUILT	REV: 0
1																			7		8

LEGEND:



TEMPORARY SHORTENING LINK



PERMANENT LINK



END COVER

REMOTE DESTINATION

TERMINAL BLOCK

TERMINAL NO

TERMINAL STRIP X11

LINK	REFERENCE		TERMINAL NO
	SHT	/	

	20	/	1D	1
	20	/	1D	2
	20	/	2D	3
	20	/	2D	4
	20	/	3D	5
	20	/	3D	6
	20	/	4D	7
	20	/	4D	8
	20	/	6D	9
	20	/	7D	10
	20	/	7D	11
	20	/	8D	12
				13
				14

TERMINATION B

ITEM DESIGNATION	TERMINAL NO
------------------	-------------

K101	34
K101	31
K02	31
K03	31
K04	31
K05	31
K06	31
K07	11
KDC2	42
K09	34
K09	31
K10	32

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION															
A	1																	
B	2																	
C	3																	
D	4																	
E	5																	
F	6																	
G	7																	
H	8																	
I	9																	
J	10																	
K	11																	
L	12																	
M	1	2	3	4	5	6	7	8	9	10	11	12						
N																		
O																		
P																		
Q																		
R																		
S																		
T																		
U																		
V																		
W																		
X																		
Y																		
Z																		

LEGEND:

TEMPORARY SHORTENING LINK



PERMANENT LINK



END COVER

REMOTE DESTINATION

TERMINAL BLOCK

TERMINAL NO

TERMINAL STRIP X120

LINK

REFERENCE

TERMINAL NO

SHT / REF

SHT

REF

TERMINAL NO

TERMINAL NO

07 / 2A 1

07 / 2E 2

07 / 2B 3

07 / 2E 4

07 / 7E 5

07 / 7E 6

07 / 7E 7

07 / 7E 8

07 / 9

TERMINATION B

ITEM DESIGNATION

TERMINAL NO

F110

2

F120

2

F110

4

F120

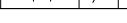
4

K110

14

K110

44

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 TRIP CIRCUIT SUPERVISION PANEL TYPE =D08+R6	 EPESOL PVT LTD. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DWG# EPE/ENU-18/D81563	SHT: 04 OF 08
NAH	MSS	MUR				DATE: 07.03.2019	AS BUILT





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

1

TITLE:	
TERMINAL DETAIL	
C-200LM TRIP CIRCUIT SUPERVISION PANEL TYPE: DSC-LP	



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

The present study was conducted to evaluate the effect of different types of organic manure on the growth and yield of *Brassica oleracea* L. var. *Italica*.

DWG# EPE/ENU-13

6

/D81563 SHT:

Sr.	CABLE DESIGNATION	CORE CROSS SECTION		DESTINATION		LEGEND:	TEMPORARY SHORTENING LINK PERMANENT LINK END COVER	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO	TERMINAL STRIP X200				
A	1					D-					REFERENCE				
B	2										SHT	/	REF		
C	3										06	/	2B	1	
D	4										06	/	5B	2	
E	5										06	/	2B	3	
F	6										06	/	5B	4	
G	7													5	
H	8														
I	9														
J	10														
K	11														
L	12														
M	1	2	3	4	5	6	7	8	9	10	11	12			

SCHEME DWG. REF: EPE/ENU-18/D81562

APPROVED	CHECKED	DRAWN	P
NAH <i>[Signature]</i>	MSSM <i>[Signature]</i>	MUR <i>[Signature]</i>	<i>(Signature)</i>



PROJECT: NTDC PO# CE/MP&M/M(P)/AM-VI/E0/
9417-29 DATED 14.11.2018 FOR PROCUREMENT
OF 25.000 M³ OF ECOLOGICAL CONTROL PANEL

TITLE: TERMINAL DETAIL
C-200LM TRIP CIRCUIT SUPERVISION PANEL TYPE: DSC-LP6



E P E S O L Pvt. Ltd.

DWG# EPE/ENU-18/D81563 SHT: 08 OF 08
 DATE: 07.03.2019 AS BUILT REV: 0