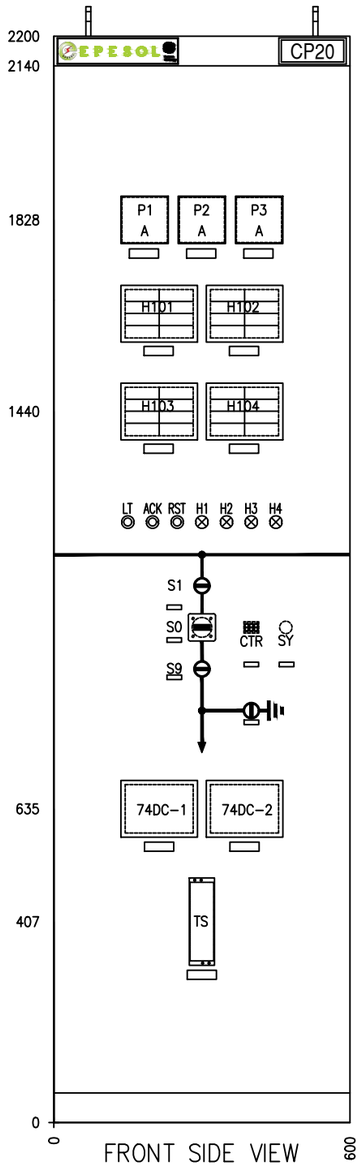
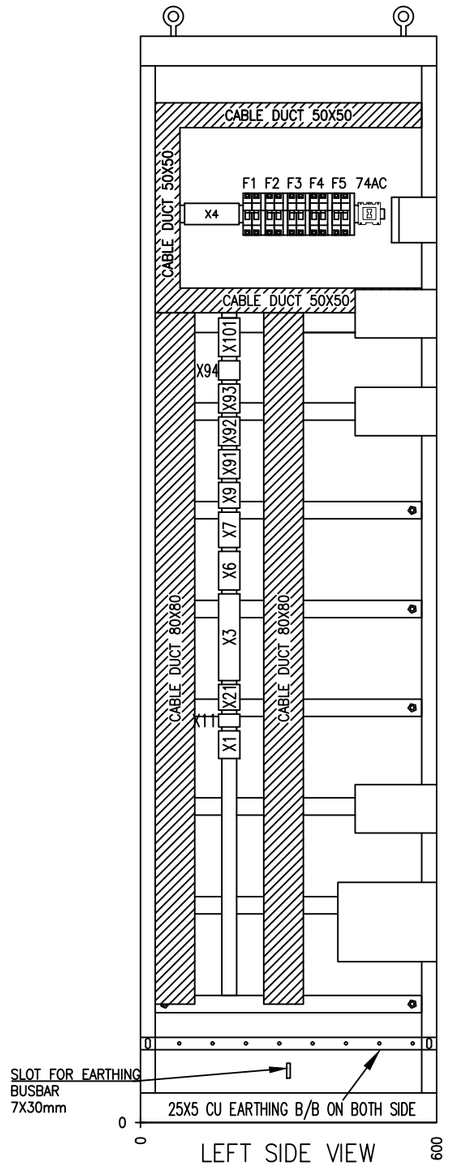
LAYOUT DRAWING
132kV LINE CONTROL PANEL
TYPE CP20

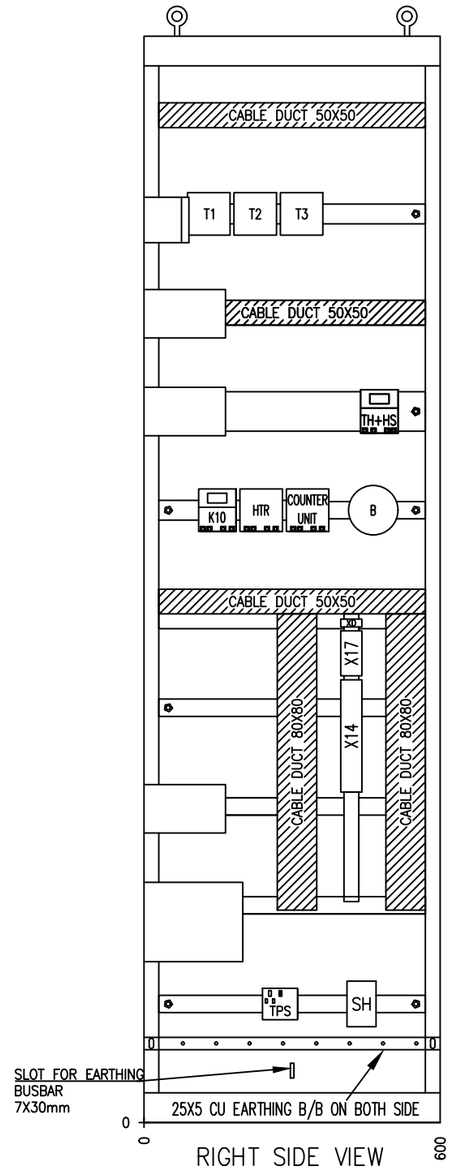
APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1391		SHT: 01 OF 03
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	COVER SHEET 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0



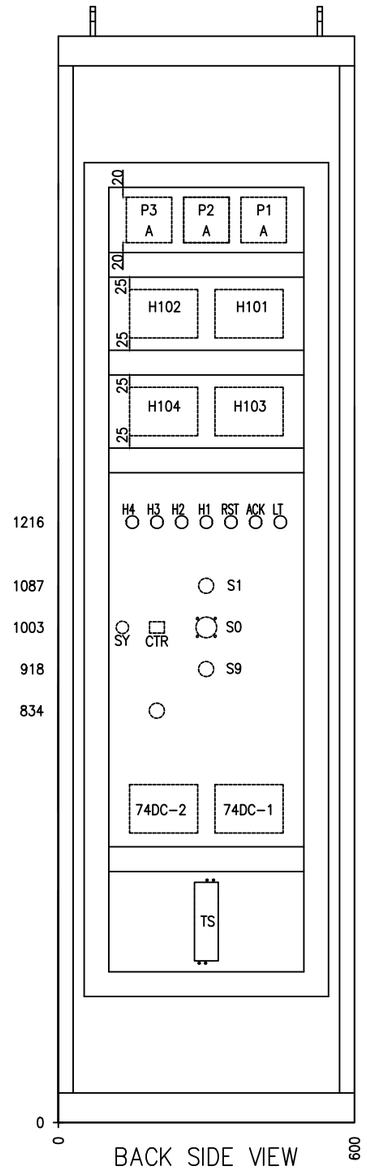
FRONT SIDE VIEW



LEFT SIDE VIEW



RIGHT SIDE VIEW

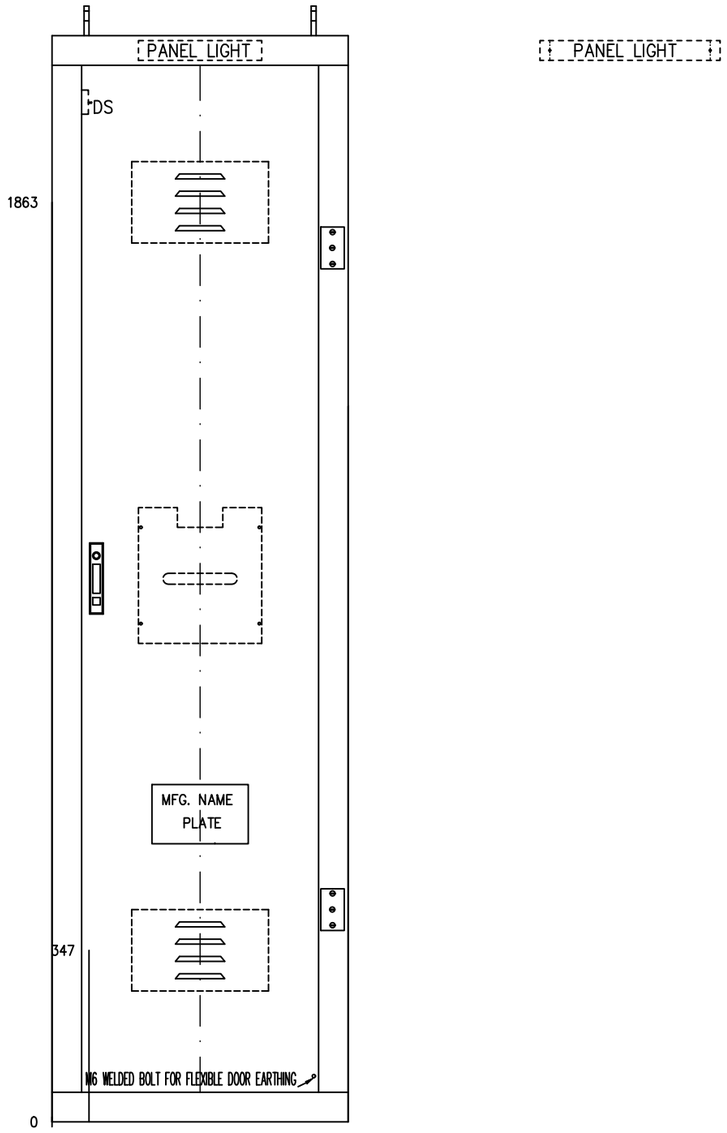


BACK SIDE VIEW
(WITH DOOR REMOVED)
FOR FIXING OF CABLE DUCT

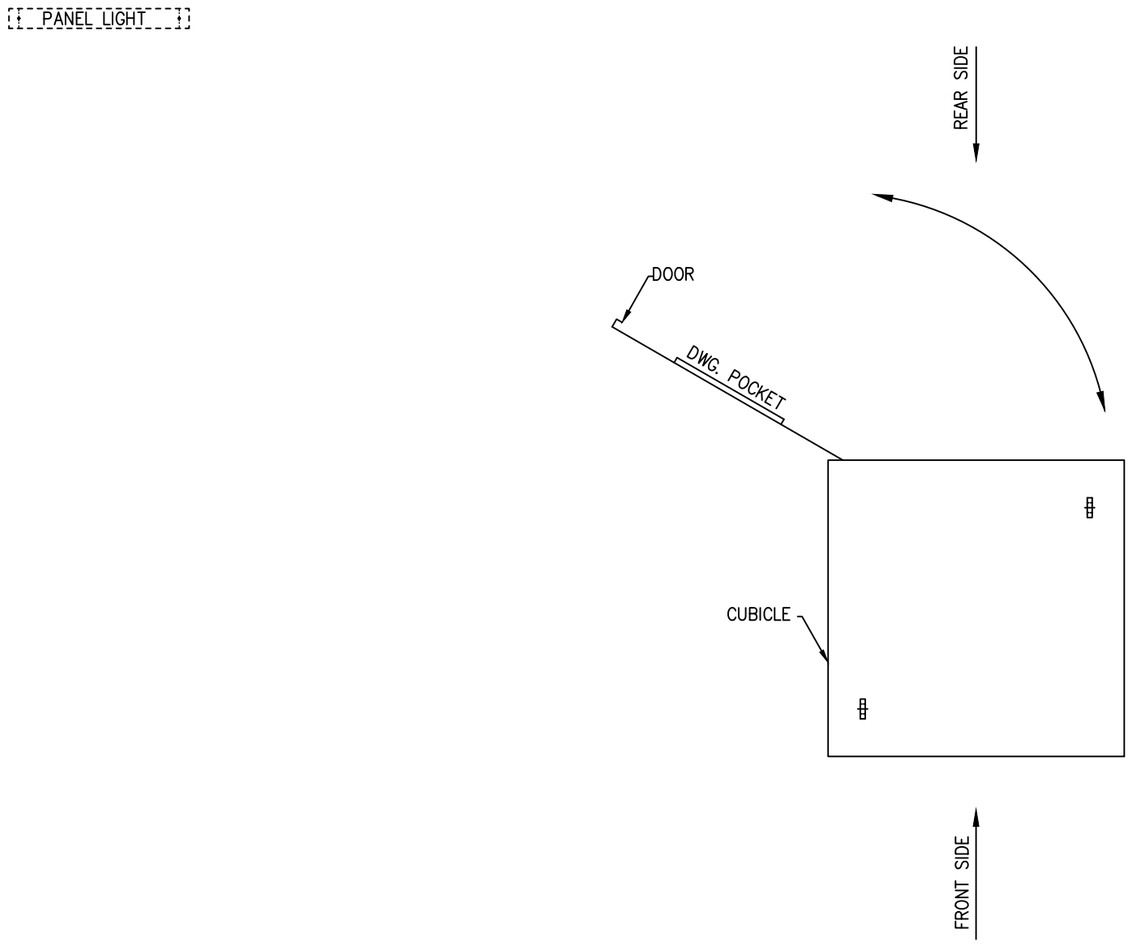
NOTES

1. CONTROL PANEL: 600x600x2200 mm
2. FACE SHEET: 600x2200 mm
3. EARTHING BUSBAR 25x5 mm^2
4. FLEXIBLE EARTHING STRAP 16mm^2
5. COLOUR: RAL7032
6. CLASS OF PROTECTION: IP51
7. APPLICABLE SPECS: P-151 : 2008
8. MIMIC BUS 6mm(W)x4mm(D) COLOURED RED FOR 132kV & BLUE FOR 11kV
9. PANEL SHEET THICKNESS 2.5 mm

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1391		SHT: 02 OF 03
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	GENERAL ARRANGEMENT 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0



REAR VIEW (WITH DOOR)



TOP VIEW
DOOR OPENING DETAIL

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1391	SHT: 03 OF 03
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	GENERAL ARRANGEMENT 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0

LIST OF APPARATUS
132kV LINE CONTROL PANEL
TYPE CP20

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1392	SHT: 01 OF 03
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	COVER SHEET 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018 FOR APPROVAL	REV: 0

SR. #	ITEM DESIGNATION	DESCRIPTION	QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
1	P1+T1, P3+T3	METER: 240 DEGREE TRANSDUCER OPERATED ANALOGUE AMPERE METER, INPUT 0...20/30 mA, ACCURACY CLASS 1,	2	A96MMA+	FRER	ITALY	A96MMA+MCOEAQ	05
		0...400/600A AUX. VOLTAGE 110 VDC, CURRENT TRANSDUCER: NOMINAL INPUT CURRENT 5/7.5A,		MCOEAQ				
		OUTPUT 0...20/30mA, AUX. VOLTAGE 110 VDC, ACCURACY CLASS 1						
2	P2+T2	METER: TRANSDUCER OPERATED DIGITAL AMPERE METER, INPUT 0...20/30 mA, ACCURACY CLASS 1,	1	D96MMA+	FRER	ITALY	D96MMA+MCOEAQ	05
		SCALE 0...400/600A AUX. VOLTAGE 110 VDC, CURRENT TRANSDUCER: NOMINAL		MCOEAQ				
		INPUT CURRENT 5/7.5A, OUTPUT 0...20/30 mA, AUX. VOLTAGE 110 VDC, ACCURACY CLASS 1						
3	H101, H102, H103	EIGHT WINDOW ANNUNCIATOR, RATED VOLTAGE 110 VDC	3	AM101	ELABS	PAKISTAN	AM-101	11,12,13
4	H104	EIGHT WINDOW ANNUNCIATOR, RATED VOLTAGE 240 VAC	1	AM101	ELABS	PAKISTAN	AM-101	14
5	TS	TEST BLOCK (14 FINGER) FOR METERING CIRCUIT	1	saTECH TSB-14	ARTECHE	SPAIN	TSB-14-2222111111AAAB	05,18
6	F1, F2, F3	DC MCB 2POLE 10A, WITH ONE C/O CONTACT, 10kA	3	EP-100	GE	HUNGRY	EP102UCC10+(CAH1)	06
7	F4, F5	AC MCB 2POLE 10A, WITH ONE C/O CONTACT, 10kA	1	G60	GE	HUNGRY	G62C10+(CAH1)	16
8	74DC-1, 74DC-2	DC SUPPLY SUPERVISION RELAY, RATED VOLTAGE 110 VDC	2	TS101	ELABS	PAKISTAN	TS101	10,13
9	74AC	AC SUPPLY SUPERVISION RELAY, RATED VOLTAGE 240 VAC 3 C/O CONTACTS	1	MCR	GE	POLAND	MCRA022ATN	14
10	K10	FLASHER RELAY, 1 C/O CONTACT, RATED VOLTAGE 110 VDC	1		ELABS	PAKISTAN		09
11	S0	CONTROL AND DISCREPANCY SWITCH FOR CIRCUIT BREAKER CONTROL AND INDICATION,	1	YS-IC-4456	YUNGSUNG	SOUTH KOREA	YS-IC-4456-S4(49)	07
		FOUR CONTACTS FOR COMMAND AND FOUR CONTACTS FOR INDICATION					-PM-K-G-D11-G	
12	S1, S9, S8	SEMAPHORE INDICATOR FOR ISOLATOR POSITION INDICATION RATED VOLTAGE 110VDC	3	SPR-30S	FUJI	JAPAN		09
13	TS+HS	THERMOSTAT AND HUMIDSTAT	1	ELH220	ELABS	PAKISTAN	ELH220	16
14	SH	SPACE HEATER	1	ELH220	ELABS	PAKISTAN	ELH220	16
15	DS	DOOR SWITCH	1	YSP-YSMS	YONGSUNG	SOUTH KOREA	YSP3315GW-B+YSMS-C	16
16	IL	ILLUMINATION LIGHT, 5W, 260 VAC	1	YST8	YONGSUNG	SOUTH KOREA	YST8-30-5W	16
17	TPS	THREE PIN SOCKET OUTLET, 240 VAC, 16A	1		LEAR	CHINA		16
18	HI,H2,H3,H4	INDICATION LAMPS, COLOURED RED	4	YSPL	YONGSUNG	SOUTH KOREA	YSPL2-DL12RW	09,10,13
19	LT, ACK, RST	PUSH BUTTON FOR ANNUNCIATORS LAMP TEST, ACKNOWLEDGE AND RESET,	3	YSAP1	YONGSUNG	SOUTH KOREA	YSAP1240RDW+YSAP1240	11
		FOUR NO CONTACTS EACH					GDW+YSAP1240YDW	
20	CTR	COUNTER FOR CIRCUIT BREAKER	1		ELABS	PAKISTAN		07

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
LIST OF APPARATUS
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1392 | SHT: 02 OF 03
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SR. #	ITEM DESIGNATION	DESCRIPTION	QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
21	SY	KEY OPERATED SWITCH FOR BREAKER LOCAL-OFF-REMOTE CONTROL	1	YSAK	YONGSUNG	SOUTH KOREA	YSAK2380D	07
22	HTR	HOOTER, RATED VOLTAGE 110VDC	1	AH-101	ELABS	PAKISTAN		11
23	B	BELL, RATED VOLTAGE 240VAC	1	YSMB	YONGSUNG	SOUTH KOREA	YSMB-722A	14
24	X1	DISCONNECTING TERMINAL BLOCK (SCREW TYPE) FOR CT CIRCUIT WITH SHORTENING ARRANGEMENT	7	SCB-6	CABUR	ITALY		
25	X3	TERMINAL BLOCKS FOR CONTROL FUNCTION	29	CBD-4	CABUR	ITALY		
26	X6	TERMINAL BLOCKS FOR TRIP CIRCUIT-1	12	CBD-4	CABUR	ITALY		
27	X7	TERMINAL BLOCKS FOR TRIP CIRCUIT-2	11	CBD-4	CABUR	ITALY		
28	X9	TERMINAL BLOCKS FOR ANNUNCIATION SUPPLY DISTRIBUTION	8	CBD-4	CABUR	ITALY		
29	X11	TERMINAL BLOCKS FOR CURRENT METERING CIRCUIT	4	CBD-4	CABUR	ITALY		
30	X21	TERMINAL BLOCKS FOR CURRENT METERING CIRCUIT	8	CBD-4	CABUR	ITALY		
31	X14	TERMINAL BLOCKS FOR SCADA/TELECOM	35	CBD-4	CABUR	ITALY		
32	X17	TERMINAL BLOCKS FOR AC SUPPLY DISTRIBUTION	14	CBD-4	CABUR	ITALY		
33	X91	TERMINAL BLOCKS FOR ANNUNCIATION CIRCUIT	9	CBD-4	CABUR	ITALY		
34	X92	TERMINAL BLOCKS FOR ANNUNCIATION CIRCUIT	9	CBD-4	CABUR	ITALY		
35	X93	TERMINAL BLOCKS FOR ANNUNCIATION CIRCUIT	9	CBD-4	CABUR	ITALY		
36	X94	TERMINAL BLOCKS FOR ANNUNCIATION CIRCUIT	6	CBD-4	CABUR	ITALY		
37	X101	TERMINAL BLOCKS FOR DC SUPPLY DISTRIBUTION	22	CBD-4	CABUR	ITALY		
38	XD	TERMINAL BLOCKS WITH DIODE TYPE IN-D4007, RATED MAXIMUM VOLTAGE 350VDC, RATED BREAK DOWN VOLTAGE 430VDC	2	DAS.4/6	CABUR	ITALY		
39	X4	SPARE TERMINAL BLOCKS	17	CBD-4	CABUR	ITALY		

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
LIST OF APPARATUS
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1392
DATE:27.01.2018
FOR APPROVAL
SHT: 03 OF 03
REV: 0

SCHEMATIC DIAGRAMS
132kV LINE CONTROL PANEL
TYPE CP20

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1393	SHT: 01 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	COVER SHEET 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0

DESCRIPTION	SHEET NO
COVER SHEET	01
LIST OF CONTENTS	02
LIST OF SYMBOLS	03
SINGLE LINE DIAGRAM	04
AC SCHEMATIC DIAGRAM	05
DC SUPPLY DISTRIBUTION	06
CB CONTROL & TRIP CIRCUIT–1	07
CB TRIP CIRCUIT – 2	08
DEVICE POSITION INDICATION	09
ISOLATOR & EARTH SWITCH INTERLOCKING	10
ANNUCIATOR UNIT – 1	11
ANNUCIATOR UNIT – 2	12
ANNUCIATOR UNIT – 3	13
ANNUCIATOR UNIT – 4	14
TERMINAL BLOCKS FOR SCADA/TELECOM	15
AC SUPPLY DISTRIBUTION	16
TEST BLOCK TYPE PMTB14 DETAILS	17

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T–67/GSC & G–SO/2016–17/3816–20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
LIST OF CONTENTS
132kV LINE CONTROL PANEL TYPE CP20

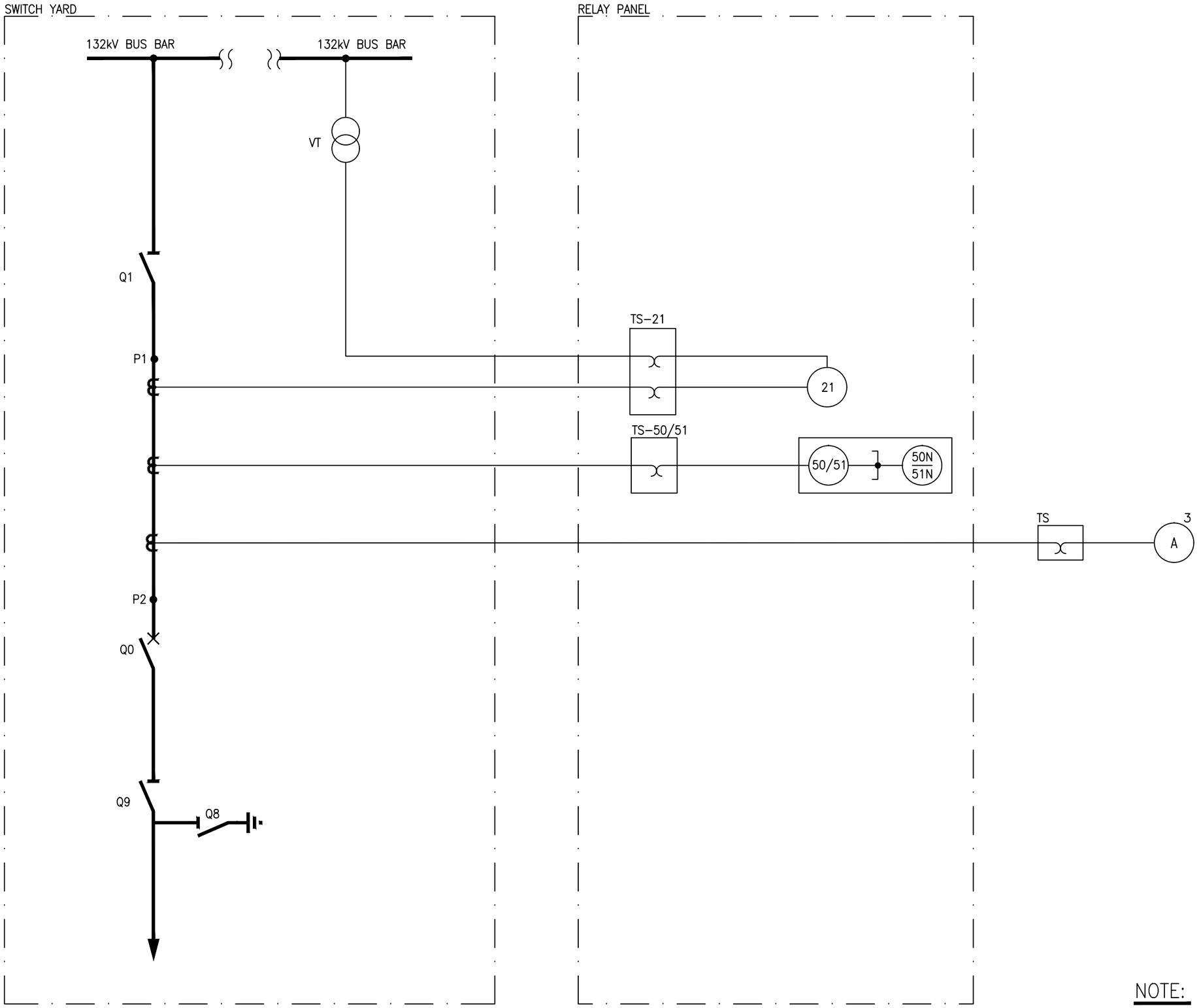
EPESOL Pvt. Ltd.
71-B Garden Block, New Garden Town, Lahore, Pakistan

DWG# EPE/ENU–18/P1393
DATE:27.01.2018
FOR APPROVAL
SHT: 02 OF 17
REV: 0

LIST OF SYMBOLS

	HV DISCONNECTOR		EQUIPMENT WITHIN PANEL
	HV CIRCUIT BREAKER		INDEPENDENT PANEL
	CURRENT TRANSFORMER		INDEPENDENT PANEL
	POWER TRANSFORMER	21	DISTANCE RELAY
	RELAY PANEL TERMINAL BLOCK	50/51	OVER CURRENT & EARTH FAULT RELAY
	CONTROL PANEL TERMINAL BLOCK	TS	TEST BLOCK
	EARTH CONNECTION	74DC-1/2	DC SUPLY SUPERVISION RELAY
	TEST BLOCK TERMINAL	X	TERMINAL BLOCK
	NORMALLY CLOSED CONTACT	MW	MEGAWATT METER
	NORMALLY OPEN CONTACT	MVAR	MEGAVAR METER
	CHANGE OVER CONTACT	KWH	ENERGY METER
	MINIATURE CIRCUIT BREAKER		
	INDICATING BULB/LED		
	240 VAC SOCKET		
	SPACE HEATER		
VSS	VOLTAGE SELECTOR SWITCH		
	COIL		
A	AMPERE METER		

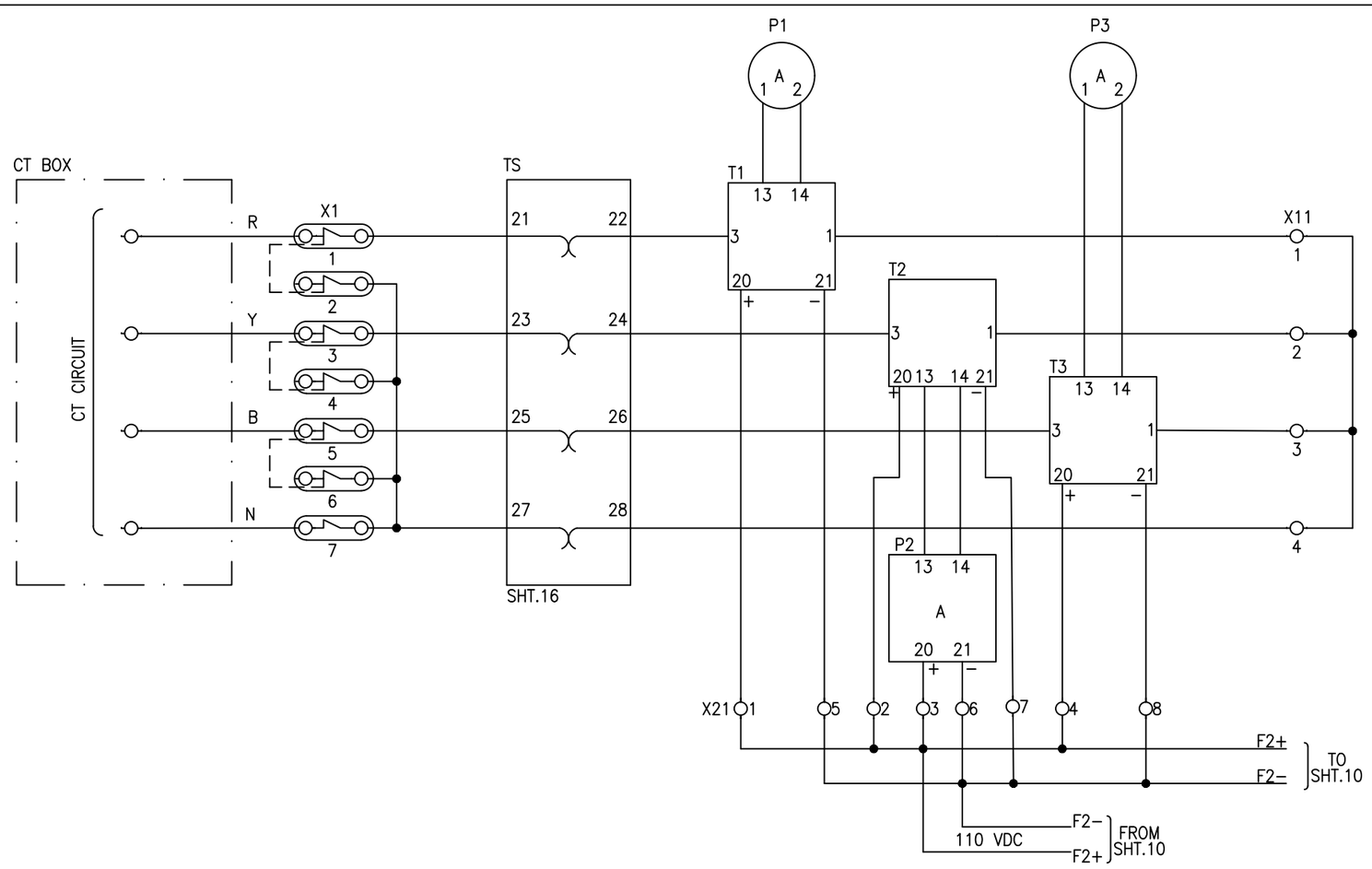
APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1393	SHT: 03 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	LIST OF SYMBOLS 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018 FOR APPROVAL	REV: 0



NOTE:

THE SWITCH YARD AND THE RELAY PANEL PART OF THE DRAWING HAS BEEN INCLUDED ONLY FOR CONCEPTUAL UNDERSTANDING OF AC SCHEME.

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1393	SHT: 04 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	SINGLE LINE DIAGRAM 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0



NOTE:

1. CT CIRCUIT WIRE SIZE IS 4mm² (COLOURED RED, YELLOW, BLUE AND BLACK).

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
TS	TEST SWITCH	saTECH TSB-14	ARTECHE
P1+T1, P3+T3	ANALOGUE AMMETER WITH TRANSDUCER	A96MMA+ MCOEAQ	FRER
P2+T2	DIGITAL AMMETER WITH TRANSDUCER	D96MMA+ MCOEAQ	FRER

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

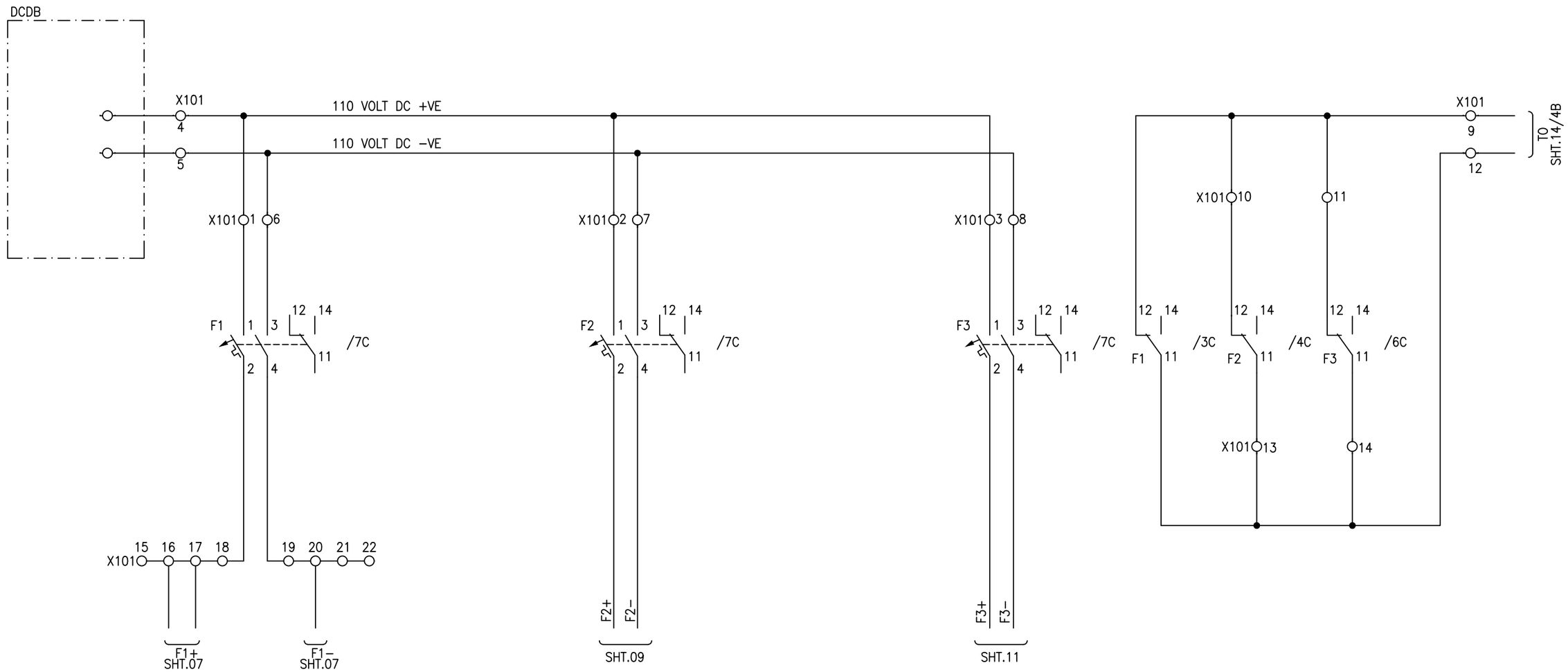
PROJECT: PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE: AC SCHEMATIC DIAGRAM
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393 | SHT: 05 OF 17
DATE:27.01.2018 | FOR APPROVAL | REV: 0

CB & ISOLATORS CONTROL SUPPLY	POSITION INDICATION & DEVICE INTERLOCKING SUPPLY	ANNUNCIATION SUPPLY

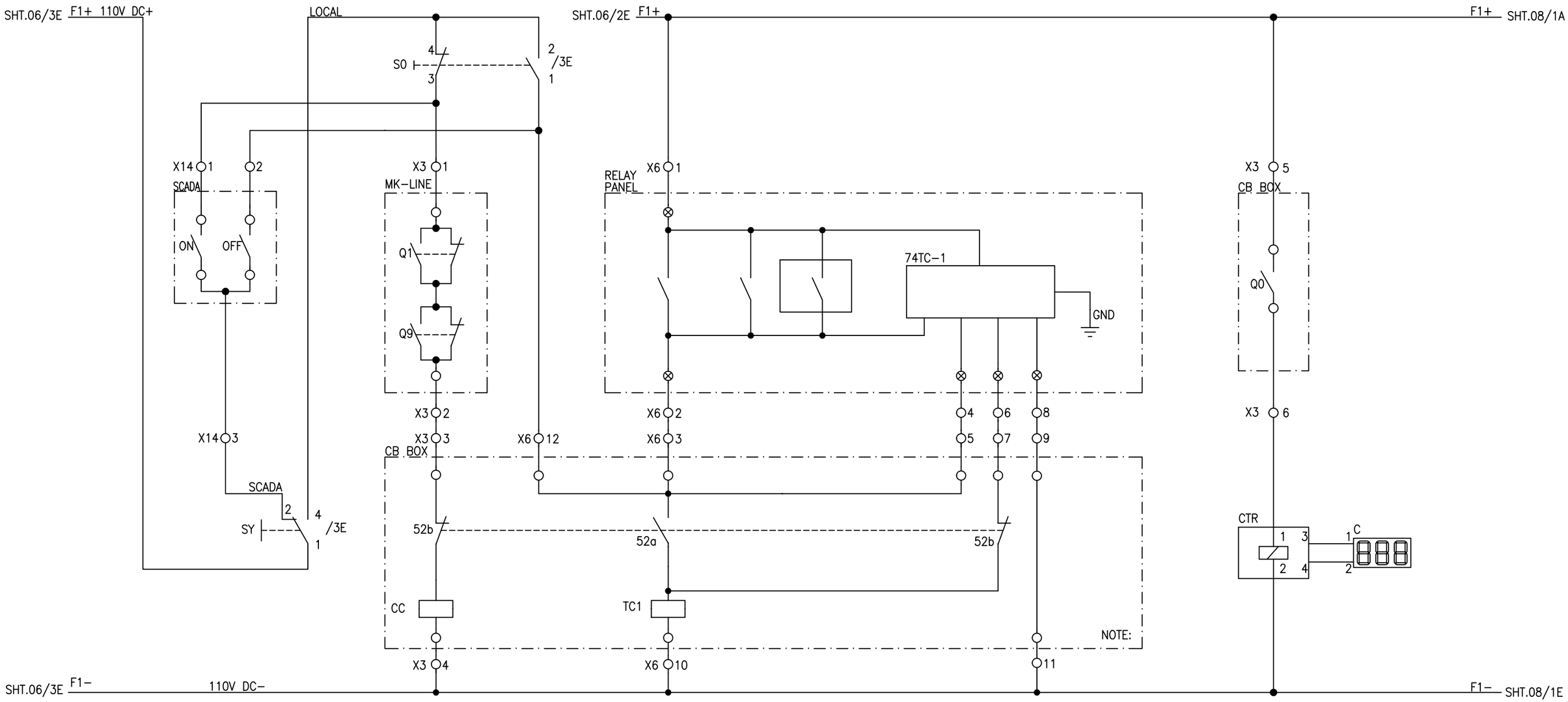


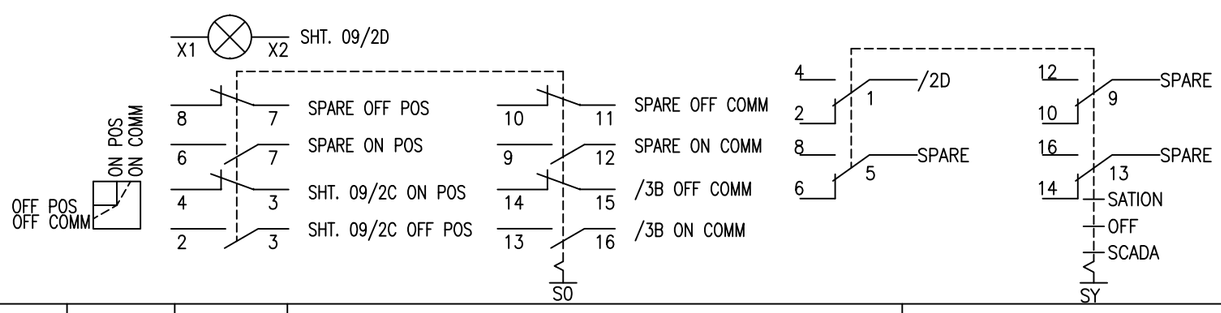
LEGEND

DES:	DESCRIPTION	TYPE	MAKE
F1,F2, F3	DC MCB, 2P, 10A	EP–100	GE

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU–18/P1393	SHT: 06 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T–67/GSC & G–SO/ 2016–17/3816–20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	DC SUPPLY DISTRIBUTION 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018 FOR APPROVAL	REV: 0

C.B Q0 ON OFF | PROTECTION TRIPPINGS | TRIP CIRCUIT-1 SUPERVISION | CB OPERATION COUNTER





NOTE:
THE INTERNAL MECHANISM OF CIRCUIT BREAKER CONTROL IS NOT THE PART OF CONTROL PANEL.
IT HAS BEEN SHOWN ONLY FOR CLARITY OF SCHEME.

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
SO	CONTROL & DESCREPANCY SWITCH	YS-IC-4456	YONGSUNG
CTR	COUNTER	–	ELABS
SY	KEY OPERATED SWITCH FOR LOCAL/REMOTE	YSAK	YONGSUNG

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

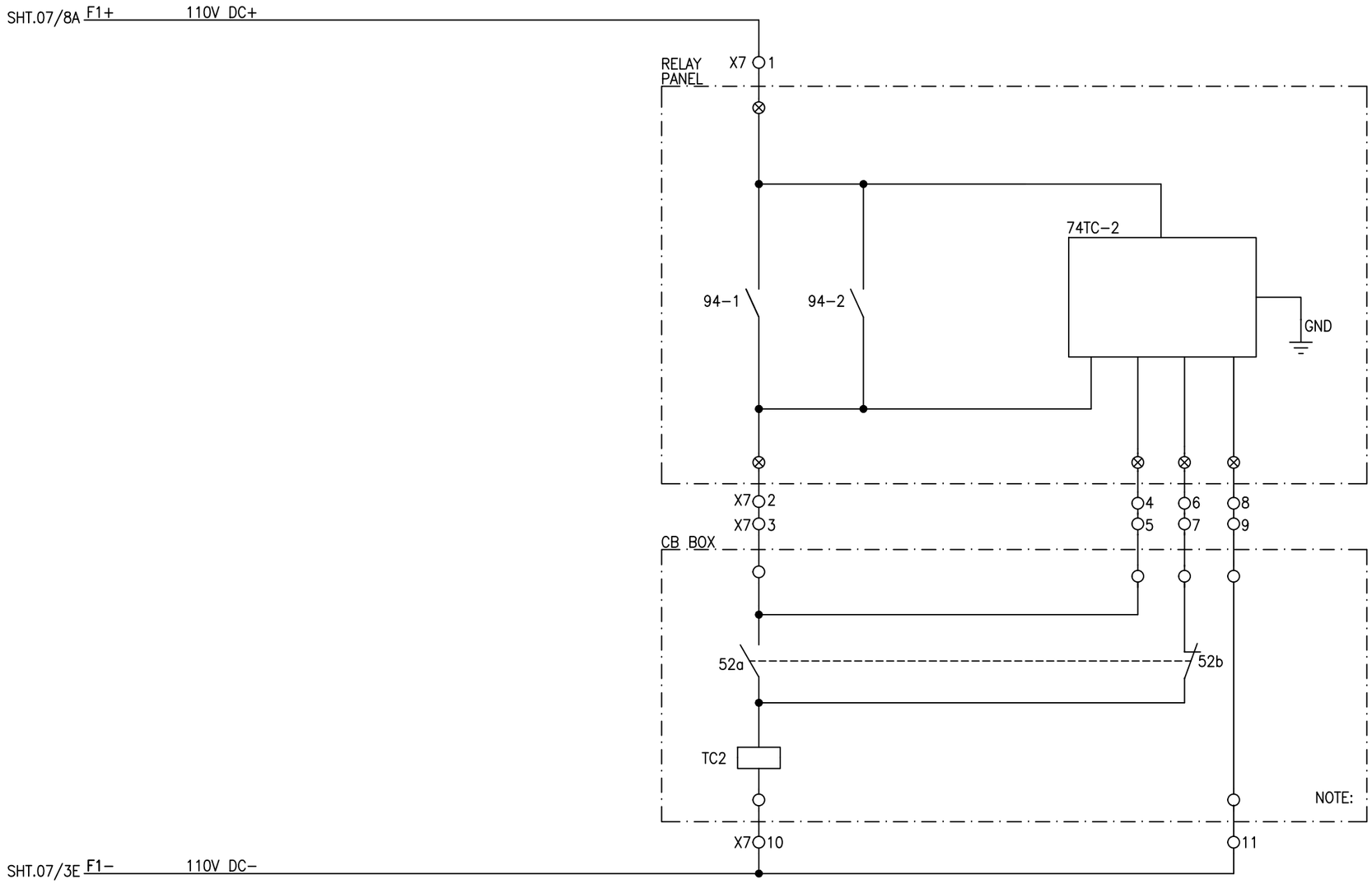
PROJECT: PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE: CB CONTROL & TRIP CIRCUIT-1
132kV LINE CONTROL PANEL TYPE CP20

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

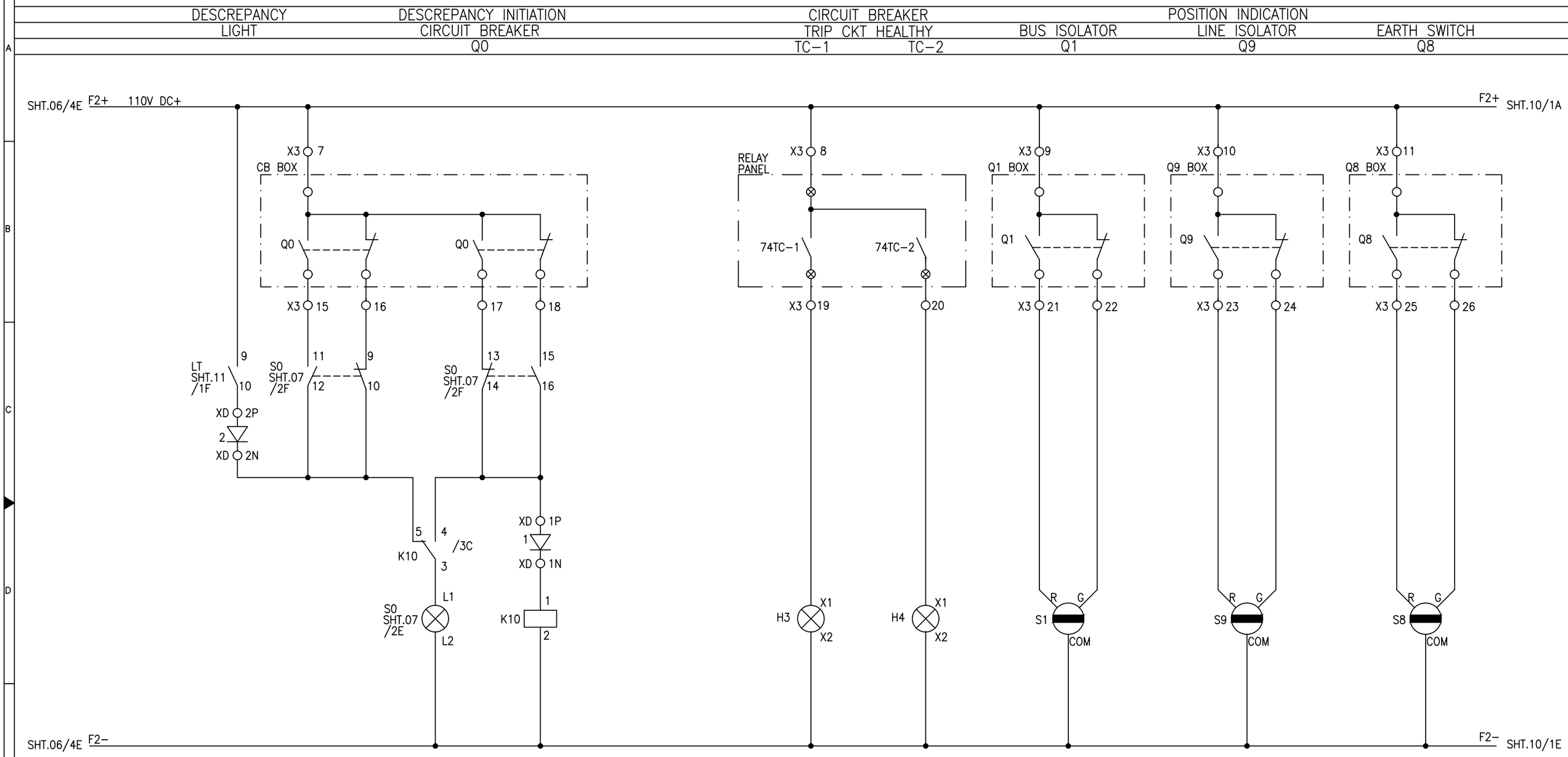
DWG# EPE/ENU-18/P1393 | SHT: 07 OF 17
DATE:27.01.2018 | FOR APPROVAL | REV: 0

PROTECTION TRIPPINGS TRIP CIRCUIT-2 SUPERVISION



NOTE:
THE INTERNAL MECHANISM OF CIRCUIT BREAKER CONTROL IS NOT THE PART OF CONTROL PANEL.
IT HAS BEEN SHOWN ONLY FOR CLARITY OF SCHEME.

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1393	SHT: 08 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	CB TRIP CIRCUIT-2 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018 FOR APPROVAL	REV: 0



LEGEND

DES.	DESCRIPTION	TYPE	MAKE
S0	CONTROL & DESCREPANCY SWITCH	YS-IC-4456	YONGSUNG
S1, S9,S8	SEMAPHORE INDICATOR	SPR30S	FUJI
K10	FLASHER RELAY	–	ELABS

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
H3, H4	INDICATION LAMP	YSAP1	YONGSUNG

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

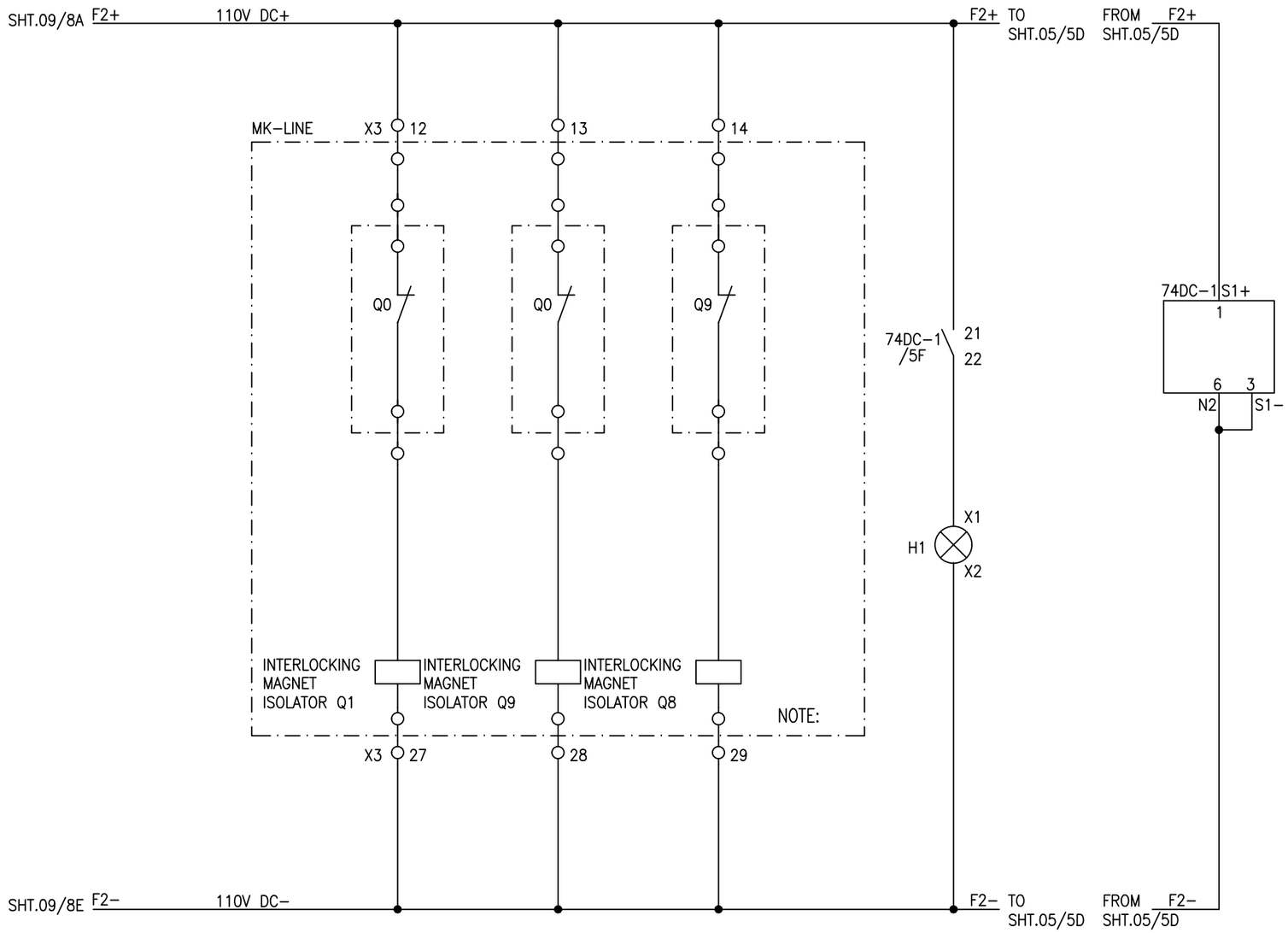
PROJECT: PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

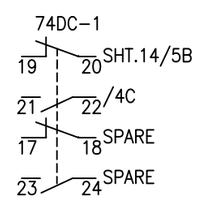
TITLE: DEVICE POSITION INDICATION
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393 | SHT: 09 OF 17
DATE:27.01.2018 | FOR APPROVAL | REV: 0

ISOLATOR Q1 INTERLOCKING	ISOLATOR Q9 INTERLOCKING	ESW Q8 INTERLOCKING	INDICATION SUPPLY HEALTHY	INDICATION SUPPLY SUPERVISION





NOTE:

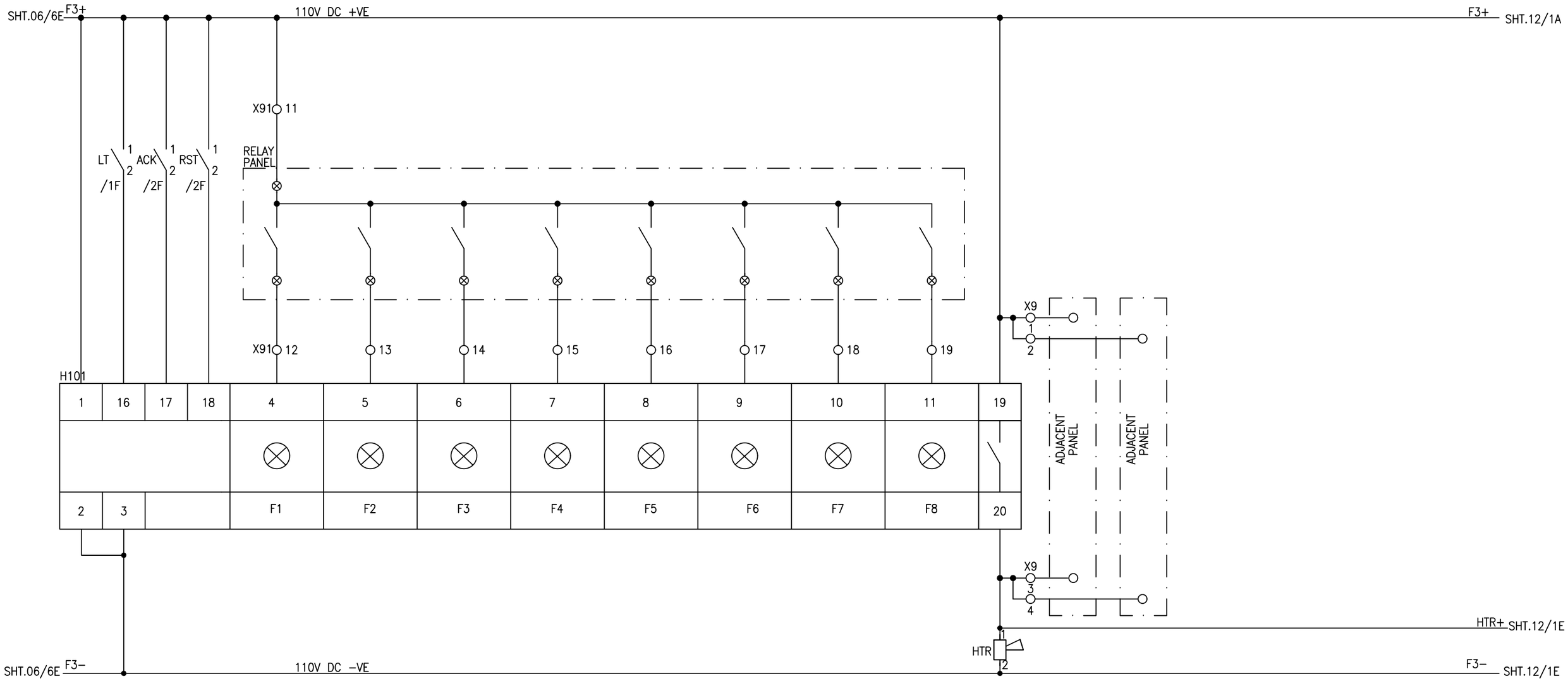
THE ISOLATOR INTERLOCKING DETAILS ARE ONLY SHOWN FOR CLARITY OF SCHEME.
THE CONTROL PANEL IS ONLY EQUIPPED WITH TERMINAL BLOCKS FOR THIS PURPOSE.

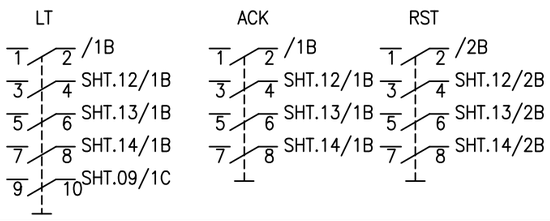
LEGEND

DES.	DESCRIPTION	TYPE	MAKE
74DC-1	DC SUPPLY SUPERVISION RELAY	TS101	ELABS
H1	INDICATION LAMP	YSAP1	YONGSUNG

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1393	SHT: 10 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	ISOLATOR & EARTH SWITCH INTERLOCKING 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0

	21							
LAMP ACK RESET	PICKUP	R PHASE	Y PHASE	B PHASE	ZONE-1	ZONE-2	ZONE-3	GENERAL
TEST		TRIP	TRIP	TRIP	TRIP	TRIP	TRIP	TRIP





LEGEND

DES.	DESCRIPTION	TYPE	MAKE
LT,ACK RST	PUSH BUTTONS	YSAP1	YONGSUNG

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
H101	DC ANNUNCIATOR	AM-101	ELABS

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
HTR	HOOTER	AH-101	ELABS

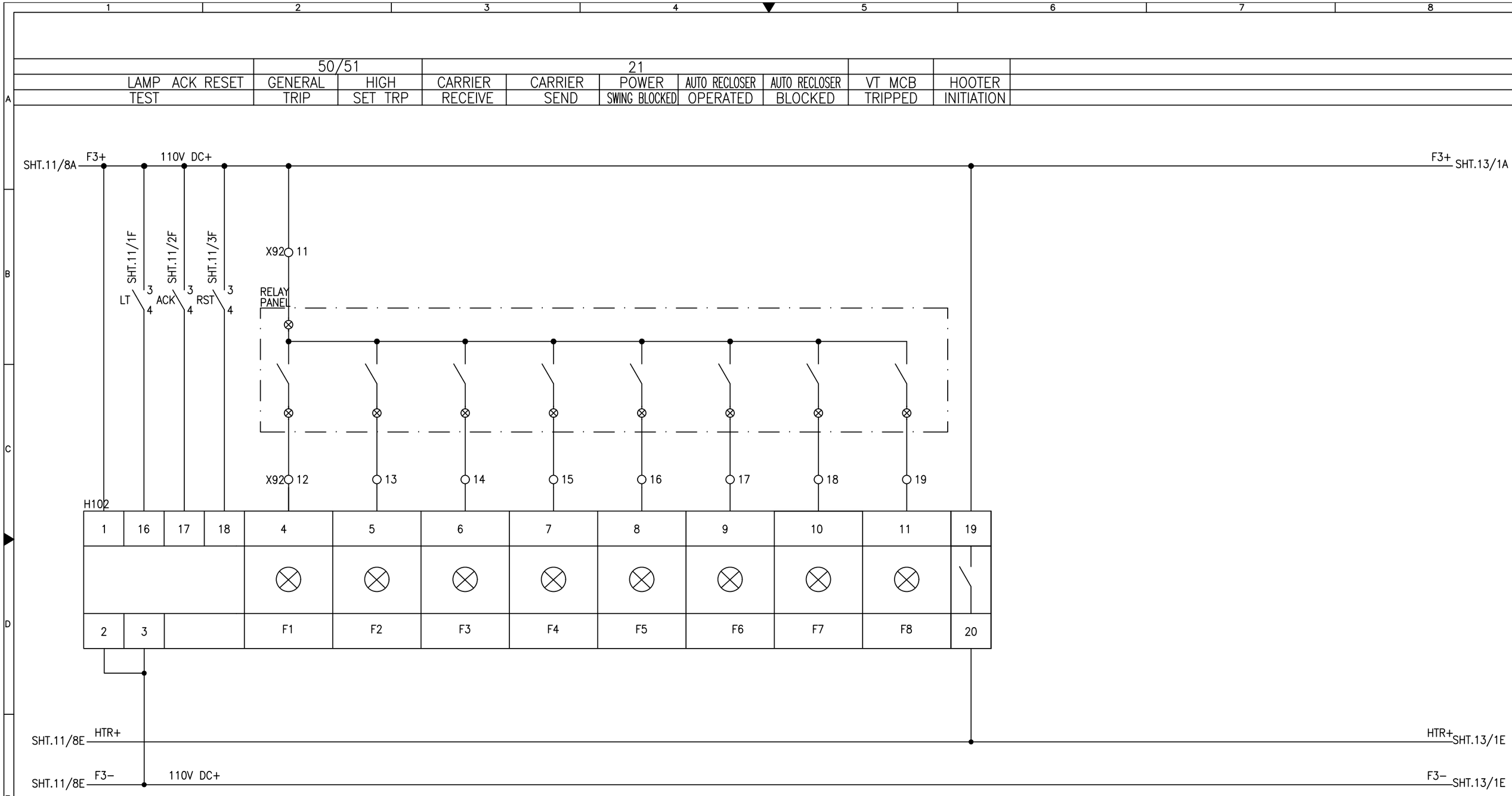
APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
ANNUNCIATOR UNIT-1
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393
SHT: 11 OF 17
DATE:27.01.2018
FOR APPROVAL
REV: 0



LEGEND

DES.	DESCRIPTION	TYPE	MAKE
H102	DC ANNUNCIATOR	AM−101	ELAB
LT,ACK RST	PUSH BUTTONS	YSAP1	YONGSUNG

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

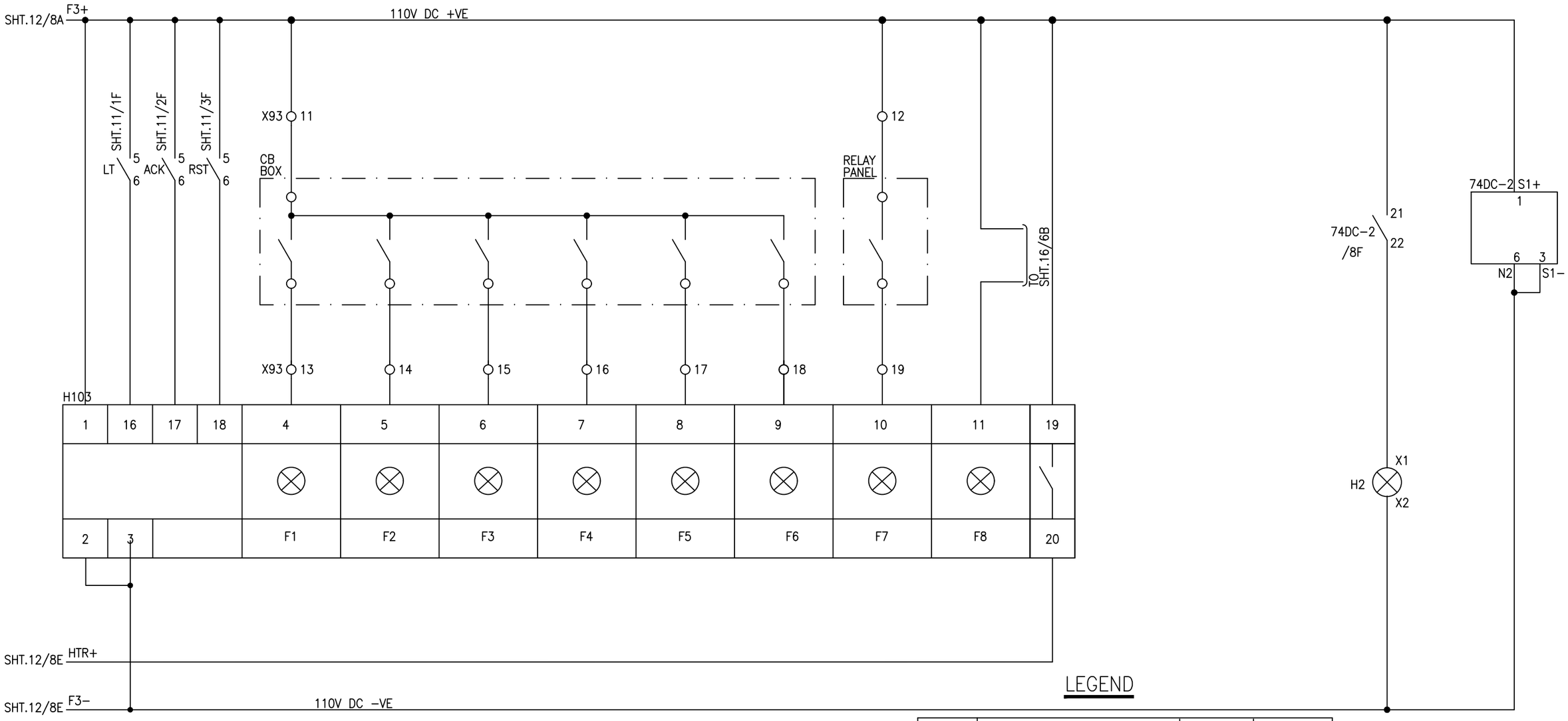
PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T−67/GSC & G−SO/2016−17/3816−20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
ANNUNCIATOR UNIT−2
132kV LINE CONTROL PANEL TYPE CP20

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

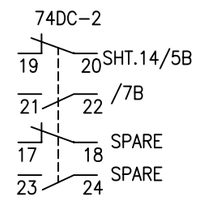
DWG# EPE/ENU−18/P1393
SHT: 12 OF 17
DATE:27.01.2018
FOR APPROVAL
REV: 0

LAMP TEST	ACK RESET	CIRCUIT BREAKER OIL/AIR/SF6 PRES. LOW	MECHANICAL FAILURE	SPRING UNCHRAGED	MOTOR SUPPLY FAIL	TRIP LOCK OUT	OIL/AIR/SF6 PRES. HIGH	RELAY PANEL AC SUPPLY FAIL	CONTROL PANEL AC SUPPLY FAIL	HOOTER INITIATION	ANN SUPPLY HEALTHY	ANN SUPPLY SUPVN



LEGEND

DES.	DESCRIPTION	TYPE	MAKE
74DC-2	DC SUPPLY SUPERVISION RELAY	TS101	ELABS
H103	DC ANNUNCIATOR	AM101	ELABS
H2	INDICATION LAMP	YSPL	YONGSUNG
LT,ACK RST	PUSH BUTTONS	YSAP1	YONGSUNG



APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

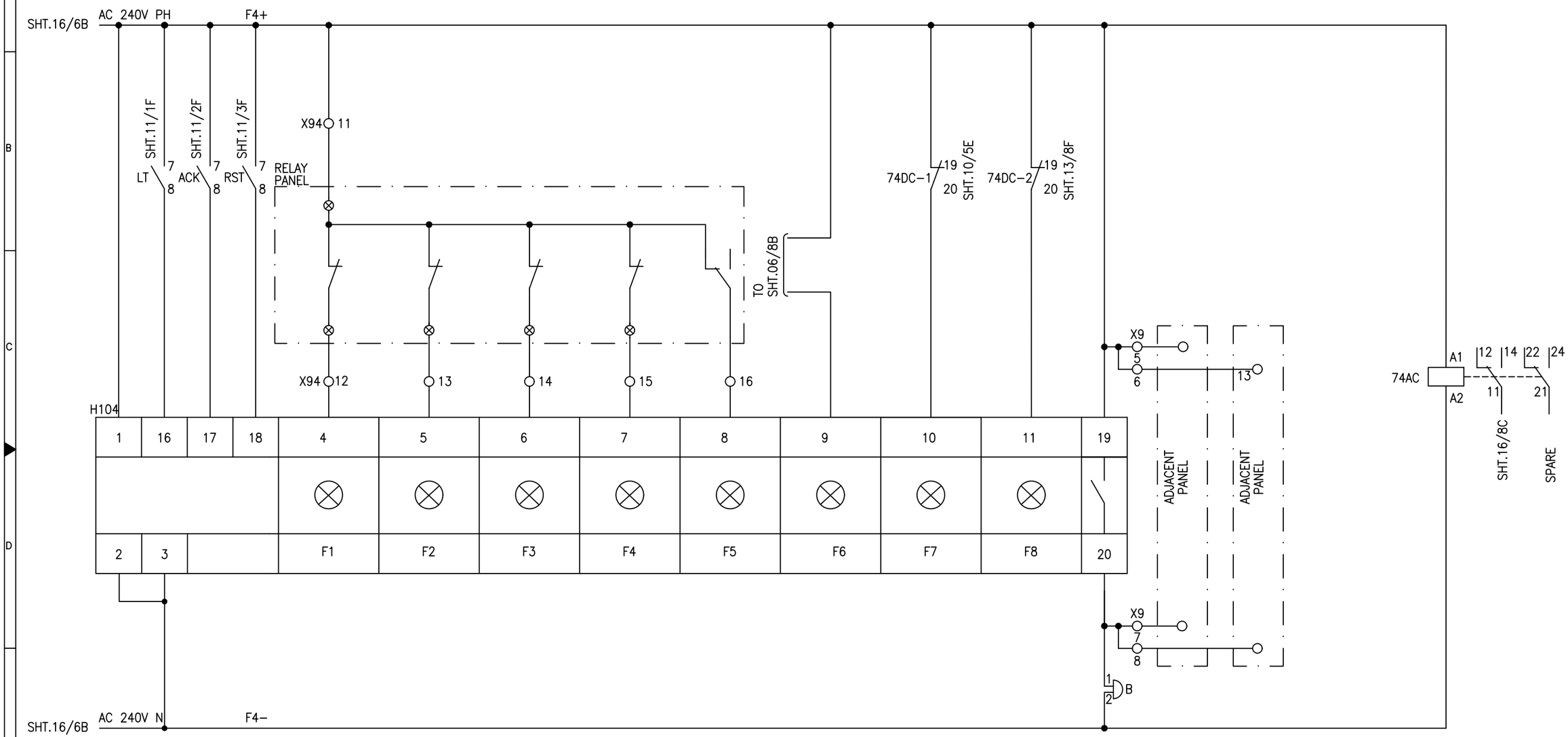
PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
ANNUNCIATOR UNIT-3
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393 | SHT: 13 OF 17
DATE:27.01.2018 | FOR APPROVAL | REV: 0

LAMP ACK RESET TEST	21 RELAY FAULTY	50/51 RELAY FAULTY	TRIP CKT-1 FAULTY	TRIP CKT-2 FAULTY	RELAY PANEL DC MCB TRIPPED	CONTROL PANEL DC MCB TRIPPED	POSITION INDICATION SUPPLY FAIL	ANNUNCIATION SUPPLY FAIL	BELL INITIATION	AC SUPPLY SUPERVISION



LEGEND

DES.	DESCRIPTION	TYPE	MAKE
LT,ACK RST	PUSH BUTTONS	YSAP1	YONGSUNG
B	BELL	YSMB	YONGSUNG

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
H104	AC ANNUNCIATOR	AM-101	ELABS
74AC	AC SUPPLY SUPERVISION RELAY	MCR	GE

LEGEND

DES.	DESCRIPTION	TYPE	MAKE
74DC-1 74DC-2	DC SUPPLY SUPERVISION RELAY	TS101	ELABS

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

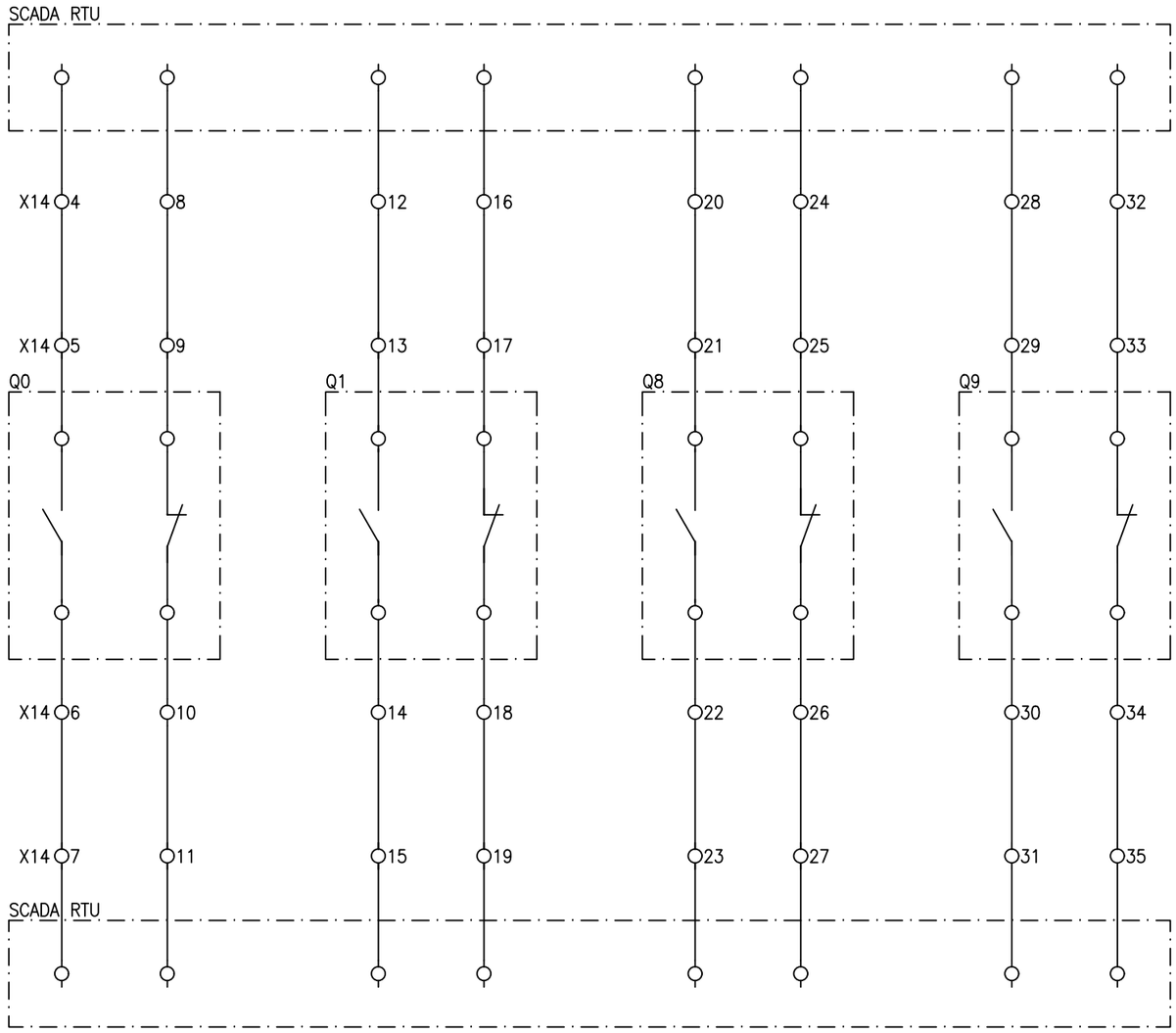
PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
ANNUNCIATOR UNIT-4
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393
SHT: 14 OF 17
DATE:27.01.2018
FOR APPROVAL
REV: 0

CIRCUIT BREAKER Q0 BUS ISOLATOR Q1 EARTH SWITCH Q8 LINE ISOLATOR Q9



APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

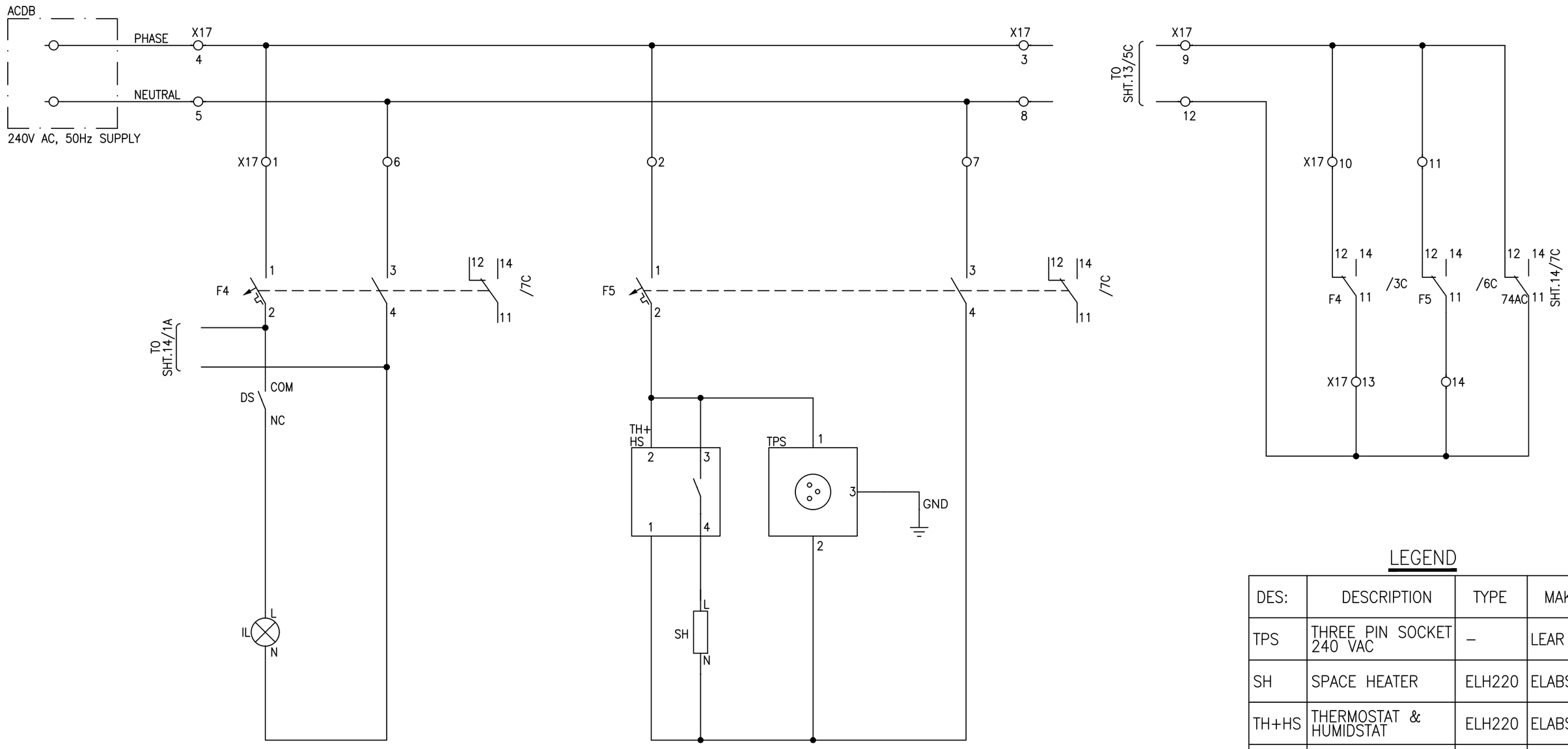
TITLE:
TERMINAL BLOCKS FOR SCADA/TELECOM
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393 SHT: 15 OF 17
DATE:27.01.2018 FOR APPROVAL REV: 0

AC SUPPLY DISTRIBUTION

DOOR SWITCH & CUBICLE LIGHT | SPACE HEATER THERMOSTAT | THREE PIN SOCKET

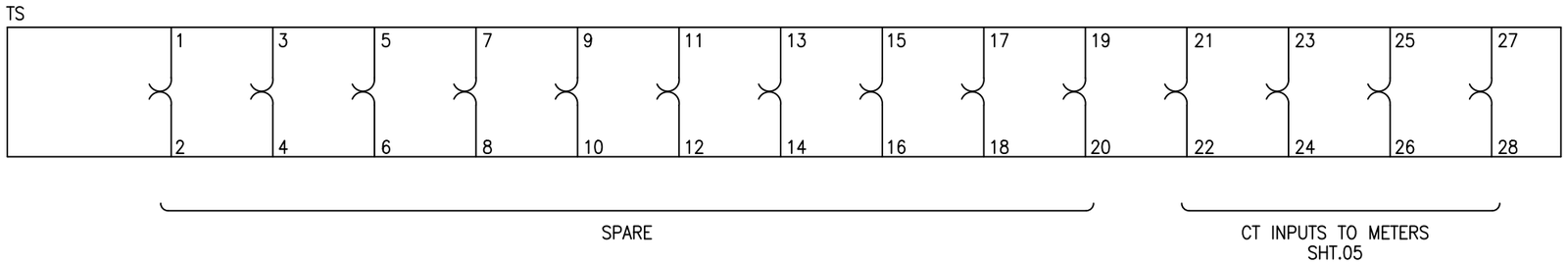


LEGEND

DES:	DESCRIPTION	TYPE	MAKE
TPS	THREE PIN SOCKET 240 VAC	–	LEAR
SH	SPACE HEATER	ELH220	ELABS
TH+HS	THERMOSTAT & HUMIDSTAT	ELH220	ELABS
DS	DOOR SWITCH	YSP+YSMS	YONGSUNG
F4, F5	AC MCB, 2P, 10A	G60	GE
IL	ILLUMINATION LIGHT	YST8	YONGSUNG

APPROVED	CHECKED	DRAWN	PROJECT:	TITLE:		DWG# EPE/ENU-18/P1393	SHT: 16 OF 17
NAH	ABA	MSC	PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4	AC SUPPLY DISTRIBUTION 132kV LINE CONTROL PANEL TYPE CP20	EPESOL Pvt. Ltd. 71-B Garden Block, New Garden Town, Lahore, Pakistan	DATE:27.01.2018	FOR APPROVAL	REV: 0

TSB-14-2222111111AAAB-V



LEGEND

DES.	DESCRIPTION	TYPE	MAKE
TS	TEST BLOCK	saTECH	ARTECHE

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TEST BLOCK TYPE PMTB14 DETAILS
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1393
SHT: 17 OF 17
DATE:27.01.2018
FOR APPROVAL
REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D– END COVER

	TERMINAL STRIP X1			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
		05/2B	1	TS	21
		05/2B	2		
		05/2B	3	TS	23
		05/2B	4		
		05/2C	5	TS	25
		05/2C	6		
D–		05/2C	7	TS	27

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:01 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D– END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

	TERMINAL STRIP X3			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
		07/3B	1	S0	3
	●	07/3D	2		
	●	07/3D	3		
		07/3E	4	X6	10
		07/7B	5	X6	1
		07/7D	6	CTR	1
	●	09/2B	7	LT	9
	●	09/5B	8	X3	7
	●	09/6B	9		
	●	09/7B	10		
	●	09/8B	11		
	●	10/2B	12		
	●	10/3B	13		
	●	10/3B	14	74DC-1	21
		09/2B	15	S0	11
		09/2B	16	S0	9
		09/3B	17	S0	13
		09/3B	18	S0	15
		09/5B	19	H3	X1
		09/5B	20	H4	X1
		09/6B	21	S1	R
		09/6B	22	S1	G
		09/7B	23	S9	R
		09/7B	24	S9	G
		09/8B	25	S8	R
		09/8B	26	S8	G
	●	10/2D	27	S8	COM
	●	10/3D	28		
D–	●	10/3D	29	H1	X2

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:02 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

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

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

	TERMINAL STRIP X6		
	LINK	REFERENCE	TERMINAL NO
		07/4B	1
	●	07/4D	2
	●	07/4D	3
	●	07/5D	4
	●	07/5D	5
	●	07/5D	6
	●	07/5D	7
	●	07/6D	8
	●	07/6D	9
	●	07/4E	10
	●	07/6E	11
D-		07/3D	12

TERMINATION B	
ITEM DESIGNATION	TERMINAL NO
F1	2
S0	1

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:03 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

	TERMINAL STRIP X7		
	LINK	REFERENCE	TERMINAL NO
		08/4B	1
	●	08/4D	2
	●	08/4D	3
	●	08/5D	4
	●	08/5D	5
	●	08/5D	6
	●	08/5D	7
	●	08/6D	8
	●	08/6C	9
	●	08/4E	10
D-	●	08/6E	11

TERMINATION B	
ITEM DESIGNATION	TERMINAL NO
X3	5
CTR	2

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:04 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

	TERMINAL STRIP X9			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
	●	11/6C	1	X91	11
	●	11/6C	2	H101	19
	●	11/6D	3	H101	20
	●	11/6D	4	HTR	1
	●	14/6C	5	74AC	A1
	●	14/6C	6	H104	19
	●	14/6D	7	H104	20
D-	●	14/6D	8	B	1

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:05 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

	TERMINAL STRIP X14			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
		07/2B	1	S0	3
		07/2B	2	S0	1
		07/2D	3	SY	2
	●	15/3B	4		
	●	15/3C	5		
	●	15/3D	6		
	●	15/3E	7		
	●	15/3B	8		
	●	15/3C	9		
	●	15/3D	10		
	●	15/3E	11		
	●	15/4B	12		
	●	15/4C	13		
	●	15/4D	14		
	●	15/4E	15		
	●	15/4B	16		
	●	15/4C	17		
	●	15/4D	18		
	●	15/4E	19		
	●	15/5B	20		
	●	15/5C	21		
	●	15/5D	22		
	●	15/5E	23		
	●	15/5B	24		
	●	15/5C	25		
	●	15/5D	26		
	●	15/5E	27		
	●	15/6B	28		
	●	15/6C	29		
	●	15/6D	30		
	●	15/6E	31		
	●	15/6B	32		
	●	15/6C	33		
	●	15/6D	34		
D-	●	15/6E	35		

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:07 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

	TERMINAL STRIP X17			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
	●	16/2B	1	F4	1
	●	16/4B	2	F5	1
	●	16/6B	3		
	●	16/2B	4		
	●	16/2B	5		
	●	16/3B	6	F4	3
	●	16/5B	7	F5	3
	●	16/6B	8		
	●	16/6B	9	74AC	12
	●	16/7B	10	F4	12
	●	16/8B	11	F5	12
	●	16/6B	12	74AC	11
	●	16/7C	13	F4	11
D-	●	16/8C	14	F5	11

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:08 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D– END COVER

	TERMINAL STRIP X21			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
	●	05/3C	1	T1	20
	●	05/3C	2	T2	20
	●	05/4C	3	P2	20
	●	05/4C	4	T3	20
	●	05/4C	5	T1	21
	●	05/4C	6	P2	21
	●	05/4C	7	T2	21
D–	●	05/4C	8	T3	21

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:09 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

| | TERMINAL STRIP X91 | | | | | | | | | | | | | |

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

	TERMINAL STRIP X92			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
		12/2B	11	RST	3
		12/2C	12	H102	4
		12/2C	13	H102	5
		12/3C	14	H102	6
		12/3C	15	H102	7
		12/4C	16	H102	8
		12/4C	17	H102	9
		12/5C	18	H102	10
D-		12/5C	19	H102	11

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:11 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

	TERMINAL STRIP X93			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
	●	13/2B	11	RST	5
	●	13/5B	12	H103	19
		13/2B	13	H103	4
		13/2B	14	H103	5
		13/3B	15	H103	6
		13/3B	16	H103	7
		13/4B	17	H103	8
		13/4B	18	H103	9
D-		13/5B	19	H103	10

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/ 2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:12 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

	TERMINAL STRIP X94			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
		14/2B	11	RST	7
		14/2C	12	H104	4
		14/2C	13	H104	5
		14/3C	14	H104	6
		14/3C	15	H104	7
D-		14/4C	16	H104	8

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:13 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

	TERMINAL STRIP X101			TERMINATION B	
	LINK	REFERENCE	TERMINAL NO	ITEM DESIGNATION	TERMINAL NO
	●	06/2C	1	F1	1
	●	06/4C	2	F2	1
	●	06/6C	3	F3	1
	●	06/2B	4		
	●	06/2B	5		
	●	06/3C	6	F1	3
	●	06/4C	7	F2	3
	●	06/6C	8	F3	3
	●	06/8B	9	F1	12
	●	06/7C	10	F2	12
	●	06/7C	11	F3	12
	●	06/8B	12	F1	11
	●	06/7D	13	F2	11
	●	06/7D	14	F3	11
	●	06/2D	15		
	●	06/2D	16	SY	1
	●	06/2D	17		
	●	06/2D	18	F1	2
	●	06/3D	19	F1	4
	●	06/3D	20	X3	4
	●	06/3D	21		
D-	●	06/3D	22		

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:14 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO		TERMINAL STRIP XD LINK	TERMINAL STRIP XD REFERENCE	TERMINAL STRIP XD TERMINAL NO	TERMINATION B ITEM DESIGNATION	TERMINATION B TERMINAL NO
																	09/3D	1	K10	1
															D-		09/2C	2	LT	10

APPROVED	CHECKED	DRAWN
NAH	ABA	MSC

PROJECT:
PO# 126/CE. (DEV.) PMU/FESCO/T-67/GSC & G-SO/2016-17/3816-20 DATED 12.01.2018 FOR THE SUPPLY OF 132kV RELAY & CONTROL PANELS TYPE CP20, CP30, CP50, RP3 & RP4

TITLE:
TERMINAL DETAIL
132kV LINE CONTROL PANEL TYPE CP20

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

DWG# EPE/ENU-18/P1394 | SHT:15 OF 16
DATE:27.01.2018 | FOR APPROVAL | REV: 0

SCHEME DWG. REF: EPE/ENU-18/P1393

Sr.	CABLE DESIGNATION	CORE CROSS SECTION	DESTINATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1	2	3	4	5	6	7	8	9	10	11	12	REMOTE DESTINATION	TERMINAL BLOCK	TERMINAL NO

LEGEND:

TEMPORARY SHORTENING LINK

PERMANENT LINK

D- END COVER

| TERMINAL STRIP X4 | | | | | | | | | | | | | |