LAYOUT DRAWING OF **48V DC AUXILIARY SUPPLY DISTRIBUTION BOARD**

APPROVED CHECKED DRAWN ABW

PROJECT:

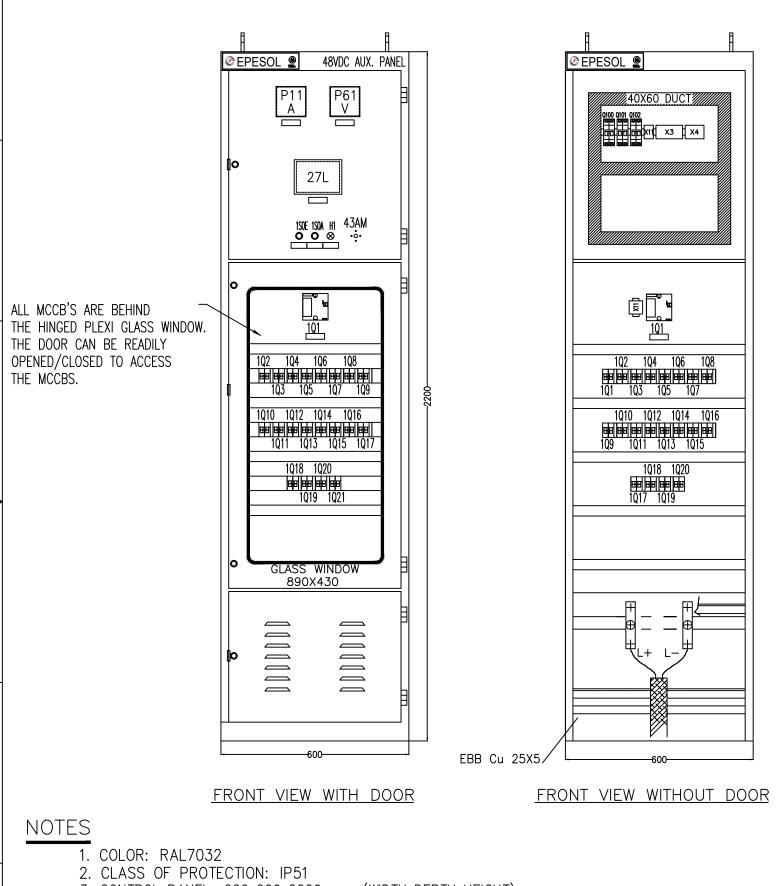
TITLE:

COVER SHEET 48VDC DISTRIBUTION BOARD



DWG# EPE/ENU-18/P1467 SHT: 01 OF 03

REV: 0



©EPESOL **2** 48VDC AUX. PANE P61 V Α CABLE DUCT 40X40 27L CABLE DUCT 40X40 O O ⊗ ·•••
1SOE 1SOA H1 1Q18 1Q20 1Q17 1Q19 GLASS WINDOW 890X430 ====== \bigcirc

FRONT VIEW WITH DOOR

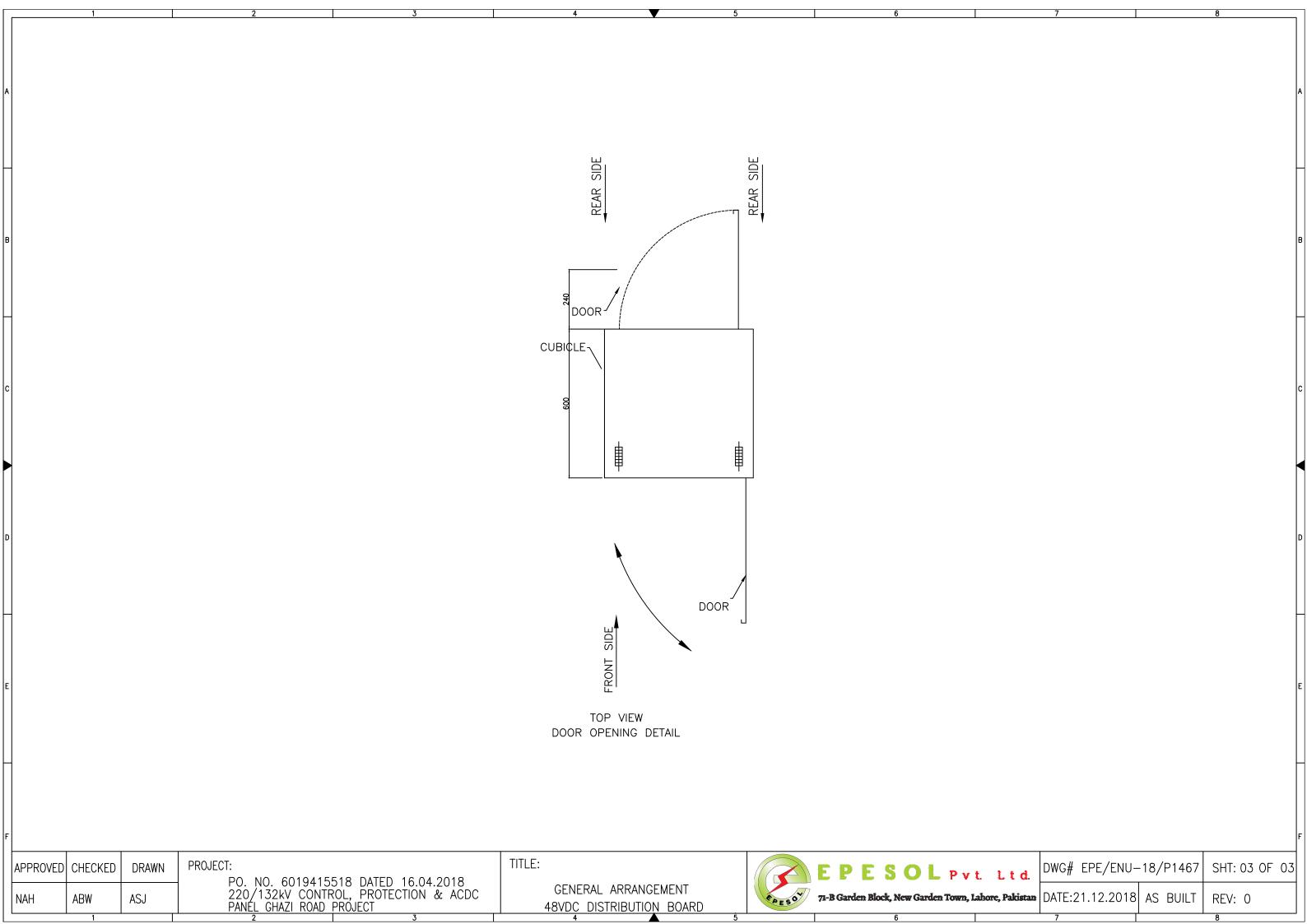
[PANEL LIGHT2] TH+HS 0 B 꼾

REAR VIEW WITHOUT DOOR

- 3. CONTROL PANEL: 600x600x2200 mm (WIDTHxDEPTHxHEIGHT)
- 4. EARTHING BUSBAR 25x5 mm²
- 5. FLEXIBLE EARTHING STRIP 16mm²

TITLE: PROJECT: APPROVED CHECKED EPESOL Pvt. Ltd. DRAWN PO. NO. 6019415518 DATED 16.04.2018 GENERAL ARRANGEMENT 220/132kV CONTROL, PROTECTION & ACDC NAH ABW ASJ PANÉL GHAZI ROAD PRÓJECT 48VDC DISTRIBUTION BOARD

SHT: 02 OF 03 |DWG# EPE/ENU-18/P1467| 71-B Garden Block, New Garden Town, Lahore, Pakistan DATE: 21.12.2018 AS BUILT REV: 0



LIST OF APPARATUS **48V DC AUXILIARY SUPPLY DISTRIBUTION BOARD**

APPROVED CHECKED DRAWN ABW

PROJECT: PO. NO. 6019415518 DATED 16.04.2018 220/132kV CONTROL, PROTECTION & ACDC TITLE:

COVER SHEET



DWG# EPE/ENU-18/P1468 SHT: 01 OF 02 REV: 0

	1	2 3 4		5		6	7	8
SR. #	ITEM DESIGNATION	DESCRIPTION	QTY	TYPE	MAKE	COUNTRY OF ORIGIN	ORDERING INFORMATION	SHEET NO
1	1Q1	TRIPLE POLE MCCB RATED CURRENT 80-100 Amp, Icu = 50 KAmp WITH 1NO+1NC AUXILIARY	1	FD160	GE	HUNGARY	FDC35TE100GD(1)+FABAT10(1)+FAS10R(1)+FAS01L	
		CONTACTS, ONE NORMALLY CLOSED TRIP CONTACT AND ELECTRICAL OPERATOR UNIT		, , , , ,			(1)+FDEMFF(1)	\uparrow
							(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2	1Q2~1Q21	DC MCB DOUBLE POLE RATED 10Amp, 10KA WITH ONE C/O CONTACT	20	EP-100	GE	HUNGARY	EP102UCC10+CAH(1)	
	142 1421					HOHOMA		
3	Q101, Q102	DC MCB's SINGLE POLE 10Amp., 10KA	2	G60	GE	HUNGARY	G61C06+CAH(1)	
	Q101, Q102	be med a since i occ formp., Tokk		000		HONGART	SO TOOL TOATI(T)	
	Q100	AC MCB's DOUBLE POLE RATED 10Amp, WITH ONE CHANGE OVER CONTACT, 10KA	1	G60	GE	HUNGARY	G62C10+CAH(1)	
4	Q100	AC MICE'S DOUBLE FOLE INVITED TOATHP, WITH ONE CHANGE OVER CONTACT, TORA	'		GL .	HONGAICT	GOZCIOTCAII(I)	
В	D44	DO ANDEDE METER O 4004 - 00000 FOR 00 - V OUNDT 40000 AGE		.=	 			В
5	P11	DC AMPERE METER 0-120Amp 96X96 FOR 60 mV SHUNT ACCURACY CLASS 1.5	1	1F96MA	FRER	ITALY		
	D04	DO VOLT METER COME O 400 VOLT DO 1000/D10V 01400 4.5		. = a o · · · ·				
6	P61	DC VOLT METER SCALE 0-100 VOLT DC ACCURACY CLASS 1.5	1	1F96MV	FRER	ITALY		
7	27L	DC UNDER VOLTAGE RELAY 48 VOLTAGE	1	ELUV-XX	ELABS	PAKISTAN		
8	1SOE, 1SOA	PUSH BUTTON FOR INCOMER BREAKER ON-OFF WITH TWO CONTACTS EACH	2	YSAP1	YOUNGSUNG	SOUTH KOREA	YS-AP1-2-40-B-DW	
c								c
9	K21	CONTACTOR RATED 230 VOLT AC WITH 2NO+2NC CONTACTS	1	MCR	GE	HUNGARY	MCRA022ATN	
10	H1	INDICATING LAMPS COLOR RED FOR CB ON POSITION INDICATION RATING 2WATTS AT 48 VOLT DC	1	_	GGT/EQU.	ITALY		
11	R1	SHUNT, 60mV, 100Amp	1		FRER	ITALY		
12	1X2 TO 1X21	TERMINAL BLOCKS SUITABLE FOR 16mm ² CABLE (2Nos. FOR EACH TYPE)	40	CBD-16	CABUR	ITALY		
13	1X1	TERMINATION PADS (40X5mm Cu) FOR INCOMING CABLES	4					ا
14	Х3	TERMINAL BLOCKS FOR AC CIRCUIT	4	CBD-4	CABUR	ITALY		
15	X11	TERMINAL BLOCKS FOR CONTROL CIRCUIT	8	CBD-4	CABUR	ITALY		†
				•				
16	DS	DOOR SWITCH	1	YSP-YSMS	YOUNGSUNG	SOUTH KOREA	YSP3315GW-B+YSMS-C	
17	IL I	CUBICLE LIGHTING, 5W, 230 VOLT AC	1	YST8	YOUNGSUNG	SOUTH KOREA	YST8-30-5W	E
	·-							
18	TPS	THREE PIN SOCKET 240 VAC, 16Amp	1		LEAR	CHINA		
						S (V.)		
19	TH+HS	THERMOSTAT AND HUMIDSTAT	1	ELH-220	E-LABS	PAKISTAN		
19	штпо	ITILINMOSTAT AND HUMIDSTAT		LLN-ZZU	L-LABS	LAVISTAN		
	011	CDAOS USATED (COM)		ELLI 200	F 14B0	DAIZICTANI		
20	SH	SPACE HEATER (60W)	1	ELH-220	E-LABS	PAKISTAN		
F		TUDES DOCUMENTALIZA OFF MANUAL OF FOTOD CHITCH WITH TO 15 CONT. CO.						F
21		THREE POSITIN AUTO-OFF-MANUAL SELECTOR SWITCH WITH 3C/O CONTACTS	1	GGT	GGT	ITLAY	<u> </u>	
APPROVED	CHECKED DRAWN PROJ				F	PFSOI	Ltd. DWG# EPE/ENU-18/P1468 S	SHT: 02 OF 02
		PO. NO. 6019415518 DATED 16.04.2018 220/132kV CONTROL, PROTECTION & ACDC PANEL GHAZI ROAD PROJECT LIST OF APPARA 48VDC DISTRIBUTION	ZUTA					
NAH	ABW ASJ	PANEL GHAZI ROAD PROJECT PANEL GHAZI ROAD PROJECT 48VDC DISTRIBUTION) \	FAESOV 71-B	Garden Block, New Garden Town, Lah	ore, Pakistan DATE:21.12.2018 AS BUILT F	REV: 0
	1 '	2 3 4		5		6	7	8

SCHEMATIC DIAGRAMS 48V DC AUXILIARY SUPPLY DISTRIBUTION BOARD

APPROVED CHECKED DRAWN

NAH ABW ASJ

PROJECT:

PO. NO. 6019415518 DATED 16.04.2018
220/132kV CONTROL, PROTECTION & ACD

TITLE:

COVER SHEET
BVDC DISTRIBUTION BOARD



DWG# EPE/ENU-18/P1469 SHT: 01 OF 1

DATE:21.12.2018 AS BUILT REV: 0

DESCRIPTION	SHEET NO
COVER SHEET	01
LIST OF CONTENTS	02
LIST OF SYMBOLS	03
OVER ALL SINGLE LINE DIAGRAM	04
DC SUPPLY DISTRIBUTION	05
DC SUPPLY DISTRIBUTION	06
DC SUPPLY DISTRIBUTION	07
DC SUPPLY DISTRIBUTION	08
INCOMER CLOSING & OPENING CIRCUIT	09
HEATING, LIGHTING CIRCUIT FOR CABINET-1 & 2	10

APPROVED CHECKED DRAWN

ASJ

ABW

PROJECT: PO. NO. 6019415518 DATED 16.04.2018 220/132kV CONTROL, PROTECTION & ACDC PANEL GHAZI ROAD PROJECT TITLE:

LIST OF CONTENTS 48VDC DISTRIBUTION BOARD



EPESOL Pvt Ltd.

DWG# EPE/ENU-18/P1469 SHT: 02 OF 11

71-B Garden Block, New Garden Town, Lahore, Pakistan DATE:21.12.2018 AS BUILT REV: 0

-⊗-	RELAY PANEL TERMINAL BLOCK		
¢	CONTROL PANEL TERMINAL BLOCK		
<u>_</u>	EARTH CONNECTION		
7	NORMALLY CLOSED CONTACT		
	NORMALLY OPEN CONTACT		
\	CONTACT FOR TRIPPING		
	TIME DELAY PICKUP		
	CHANGE OVER CONTACT		
	MCB/MCCB		
\otimes	INDICATION BULB/LED		
	THREE PIN SOCKET		
	SPACE HEATER		
<u></u>	COIL		
	EQUIPMENT WITHIN PANEL		
	INDEPENDENT PANEL		
··	INDEPENDENT PANEL		
	RESISTOR		
	FUSE		

LIST OF SYMBOLS				
	TIME DELAYED CONTACTOR/TIMER			
H\	PUSH BUTTON			
<u></u>	TWO POSITION SWITCH			
	AC BELL			

APPROVED CHECKED DRAWN PROJECT:

NAH ABW ASJ PROJECT:

PO. NO. 6019415518 DATED 16.04.2018
220/132kV CONTROL, PROTECTION & ACDC
PANEL GHAZI ROAD PROJECT

LIST OF SYMBOLS 48VDC DISTRIBUTION BOARD



EPESOL Pvt Ltd.

DWG# EPE/ENU-18/P1469 SHT: 03 OF 11

71-B Garden Block, New Garden Town, Lahore, Pakistan DATE: 21.12.2018 AS BUILT REV: 0

