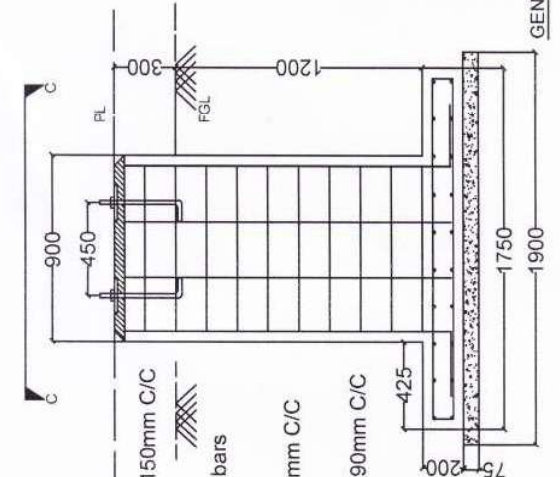
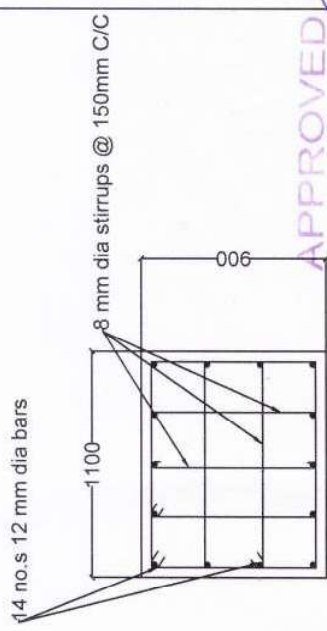


SECTION A-A



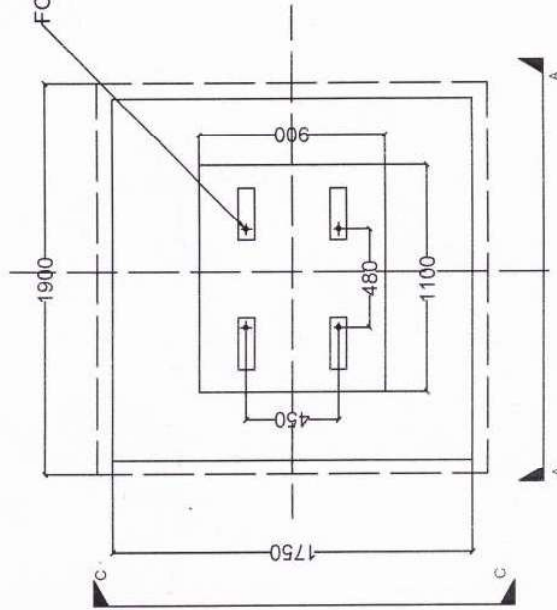
SECTION C-C



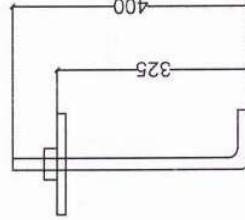
SECTION B-B

GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MM UNLESS OTHERWISE SPECIFIED.
2. IN THIS DRAWING REINFORCEMENT STEEL CONFORMS TO IS:1795-1985 OF GRADE Fe500.
3. LAP LENGTH SHALL BE 47 TIMES OF DIA OF BAR.
4. PROVIDE CLEAR COVER TO REINFORCEMENT AS UNDER
>40mm BOTTOM TOP AND SIDE REINFORCEMENT OR RAFT.
>50mm FOR COLUMN
5. FOR DETAILS OF THE FOUNDATION BOLTS REFER APPROVED STRUCTURE DRAWING.
6. FOUNDATION BOLTS SHALL BE PLACED IN POSITION BEFORE CONCRETE IS CAST.
7. UNLESS OTHERWISE NOTED ALL RCC CONCRETE GRADE SHALL BE OF M20.
8. AGGREGATES SHALL BE CONFORM TO IS:383. NOMINAL SIZE OF COURSE.
9. AGGREGATE SHALL BE 20MM COARSE SAND CONFORM TO GRADE III/III SHALL BE USED.
10. FGL DENOTES FINISHED GROUND LEVEL AND PL DENOTES PLINTH LEVEL.



FOUNDATION PLAN



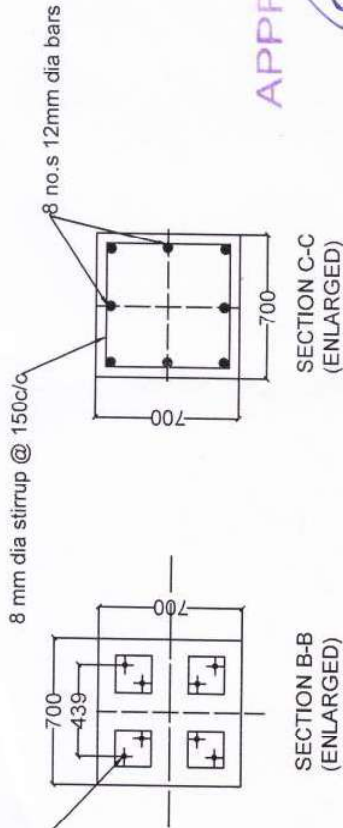
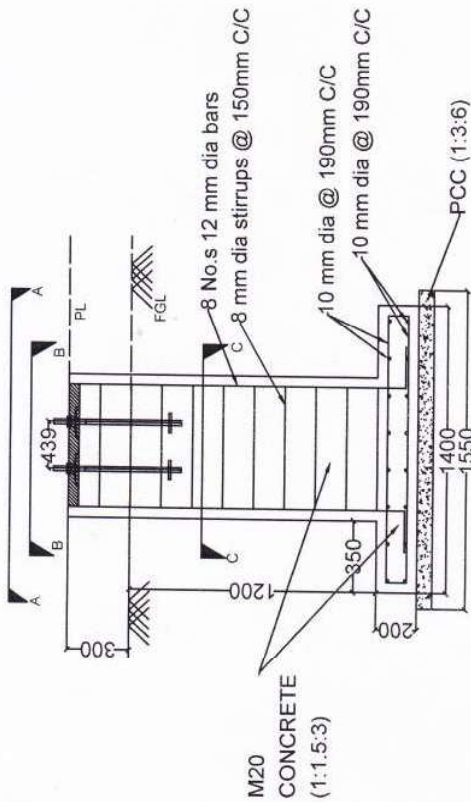
FOUNDATION BOLT



APPROVED
 Deputy General Manager (C)
 AEGCL, Bijulee Bhawan,
 Paltanbazar, Guwahati-781005

CONTRACTOR:-	P&S CONSTRUCTION, MIRZA
PROJECT:-	Construction of 1nos of IT Park Bay at 400kV Kukurmara(Mirza)GSS AEGCL
DRAWING:-	FOUNDATION DRAWING OF 33KV CB

FOUNDATION BOLT HOLE



APPROVED

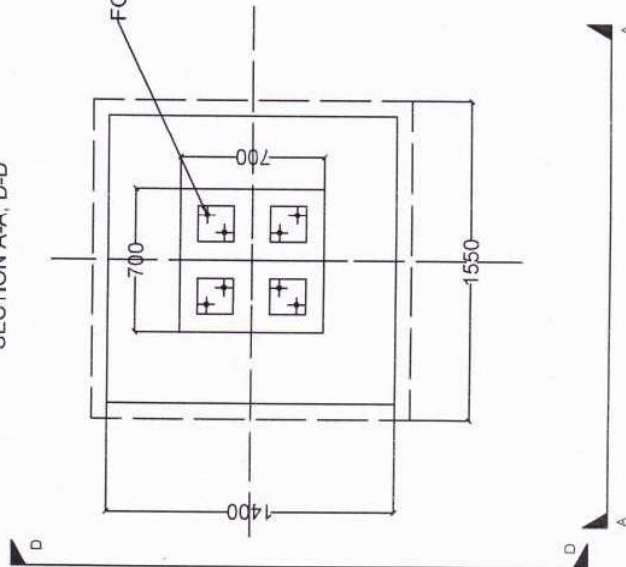
8/6/22

Deputy General Manager (C)
AEGCL, Bijulee Bhowan,
Paltanbazar, Guwahati-1

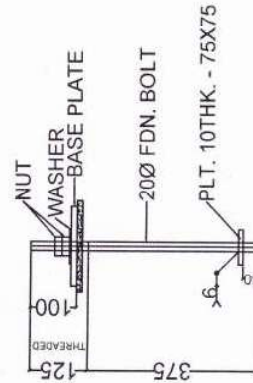
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SECTION A-A, D-D



FOUNDATION BOLT HOLE

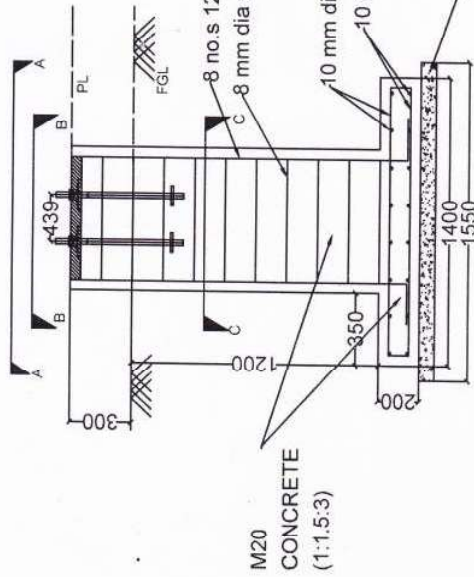


20 MM FDN. BOLT - QTY. 8 NO.S



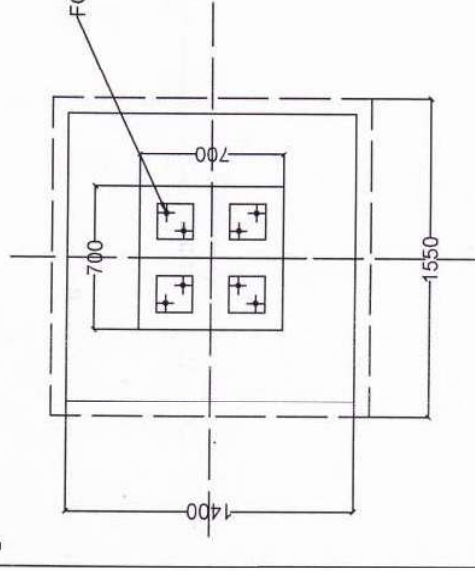
CONTRACTOR:-	P&S CONSTRUCTION, MIRZA
PROJECT:-	Construction of 1nos of IT Park Bay at 400kV Kukurmara, GSS AEGCL
DRAWING:-	FOUNDATION DRAWING OF 33KV CT

FOUNDATION BOLT HOLE



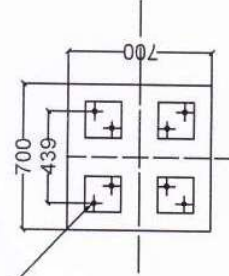
M20
CONCRETE
(1:1.5:3)

SECTION A-A, D-D

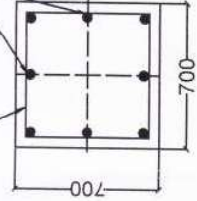


FOUNDATION PLAN

8 mm dia stirrup @ 150c/c



SECTION B-B
(ENLARGED)



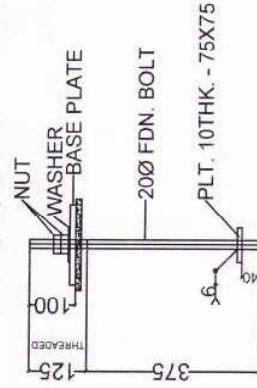
SECTION C-C
(ENLARGED)

APPROVED
02/06/23

Deputy General Manager (G)
AEGCL, Bijulee Bhowan,
Paltanbazar, Guwahati-781001

GENERAL NOTES

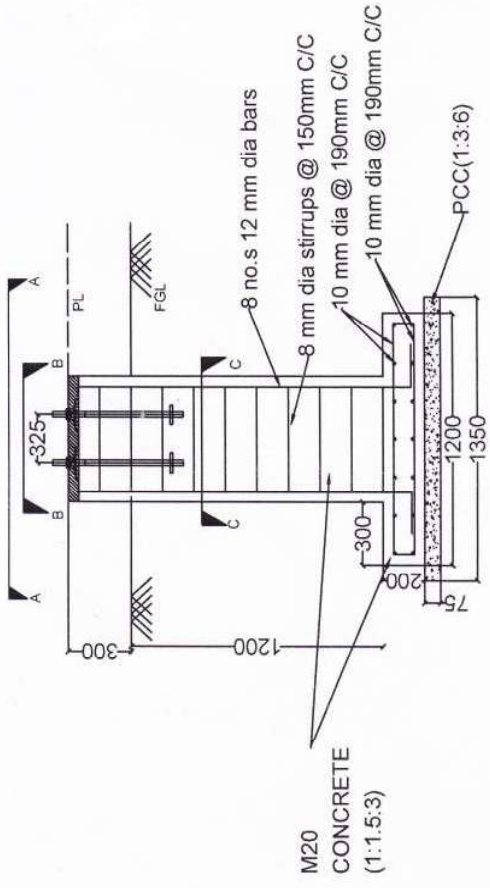
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>50mm FOR COLUMN
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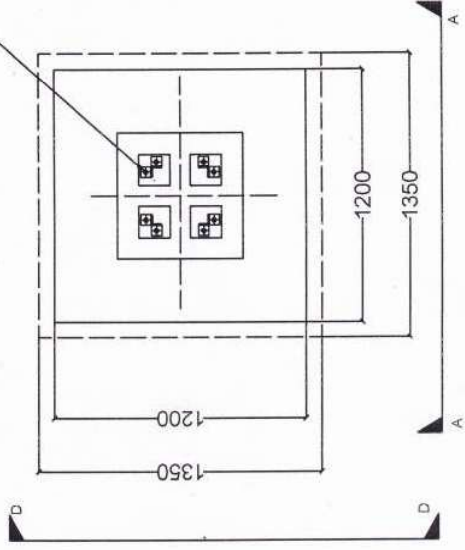
20 MM FDN. BOLT - QTY. 8NO.S

CONTRACTOR:-	P&S CONSTRUCTION, MIRZA
PROJECT:-	Construction of 1 nos of IT park bay at 400kV Kukurmara(Mirza)GSS AEGCL
DRAWING:-	FOUNDATION DRAWING OF 33KV PT

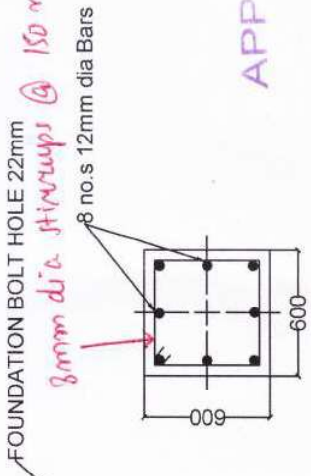




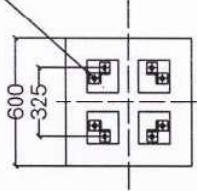
SECTION A-A, D-D



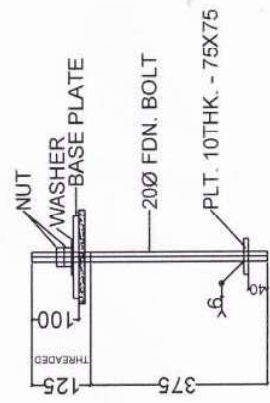
FOUNDATION PLAN



SECTION C-C (ENLARGED)



SECTION B-B (ENLARGED)



20 MM FDN. BOLT - QTY. 8NO.S

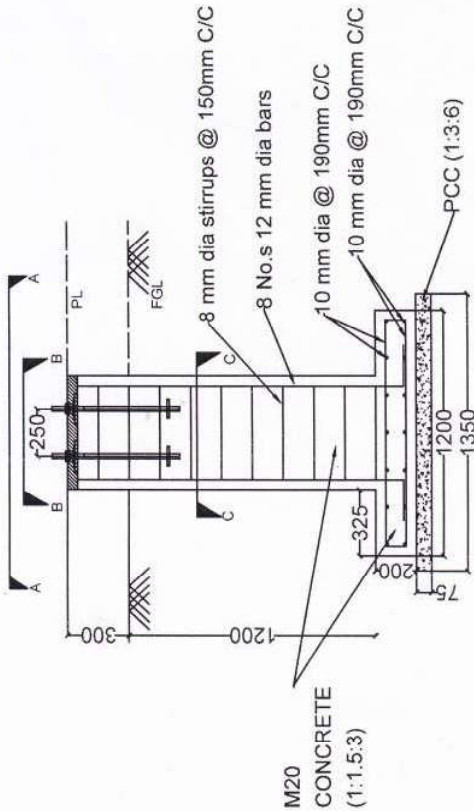
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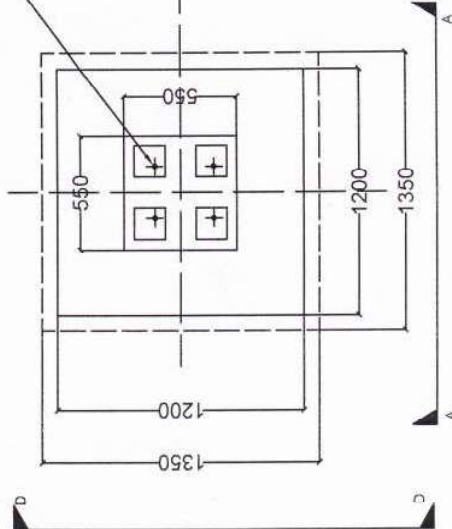
APPROVED
Deputy General Manager (C)
AEGCL, Bijuiee Bhawan,
Paltanbazar, Guwahati-1

CONTRACTOR:-	P&S CONSTRUCTION, MIRZA
PROJECT:-	Construction of 1nos of IT Park bay at 400kv Kukurmara GSS,AEGCL
DRAWING:-	FOUNDATION DRAWING OF 33KV LA



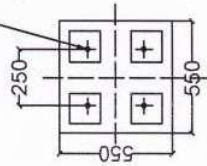


SECTION A-A, D-D

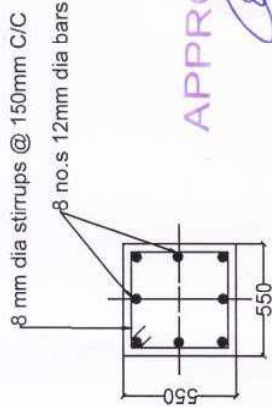


FOUNDATION PLAN

FOUNDATION BOLT HOLE



SECTION B-B
(ENLARGED)

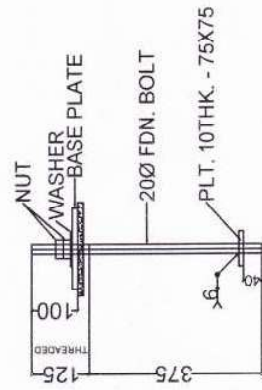


SECTION C-C
(ENLARGED)

APPROVED
Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati

GENERAL NOTES

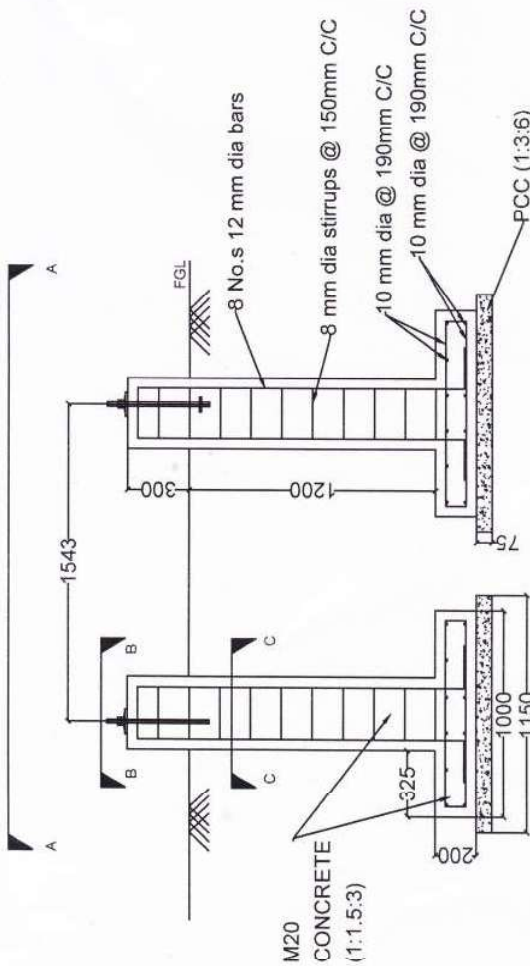
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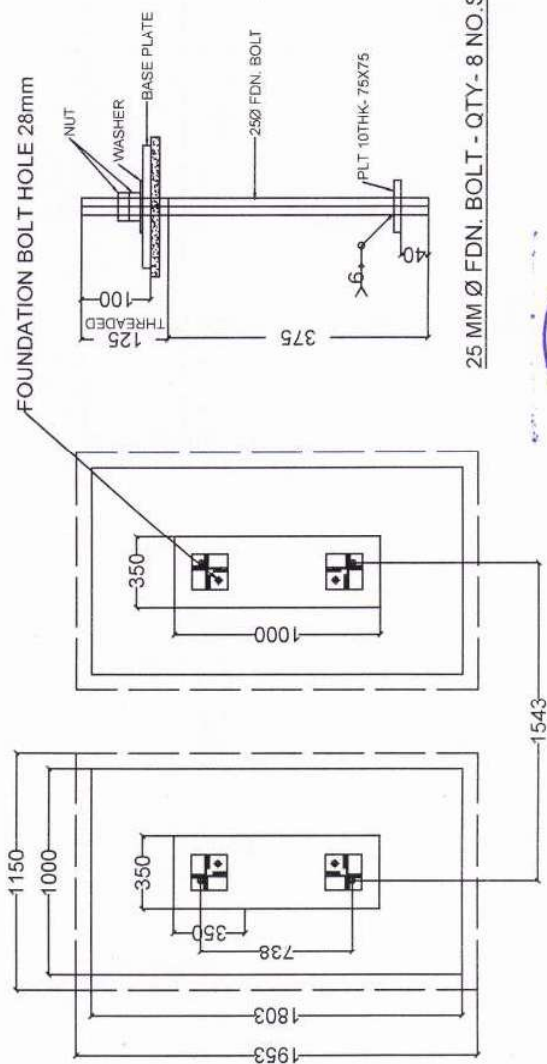
20 MM FDN. BOLT - QTY. 4NO.S



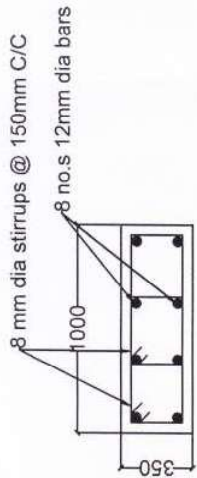
CONTRACTOR:-	P&S CONSTRUCTION, MIRZA
PROJECT:-	Construction of 1nos of IT Park Bay at 400KV Kukurmara(Mirza)GSS AEGCL
DRAWING:-	FOUNDATION DRAWING OF 33KV PI



SECTION A-A, D-D



FOUNDATION PLAN



SECTION C-C

GENERAL NOTES

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APPROVED

08/06/22

Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-1

CONTRACTOR:- P&S CONSTRUCTION, MIRZA

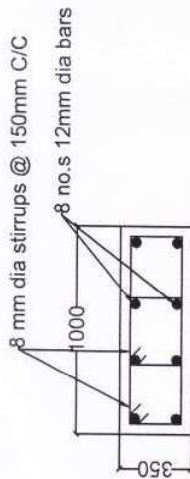
PROJECT:- Construction of 1nos of IT Park Bay at 400kV Kukurmara(Mirza)GSS AEGCL

DRAWING:-

FOUNDATION DRAWING OF 33KV
DOUBLE BREAK C.R TYPE
ISOLATOR WITH EARTH SWITCH

25 MM Ø FDN. BOLT - QTY - 8 NO.S



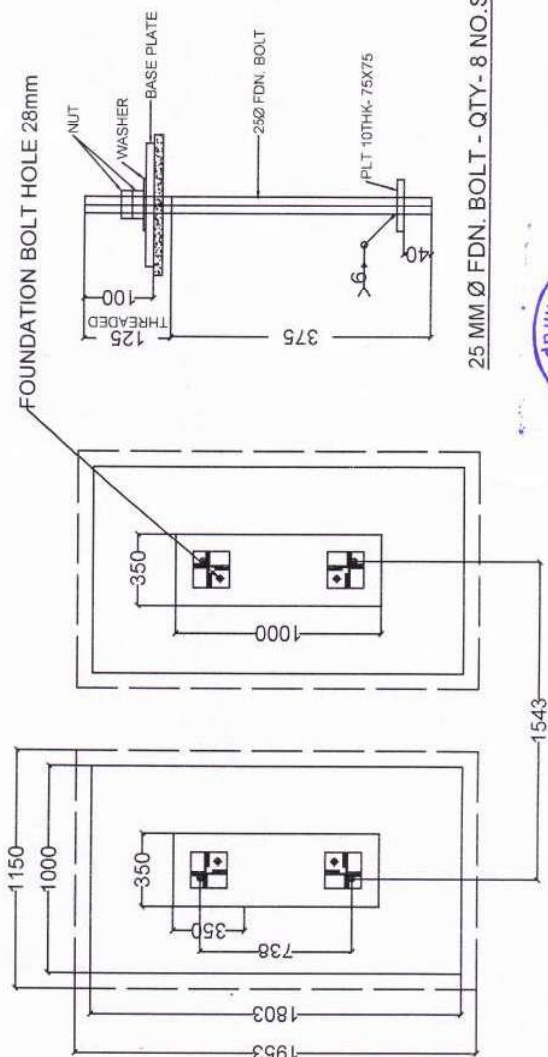


SECTION C-C

APPROVED
Deputy General Manager (C)
AEGCL, Bijules Enkavan,
Paltanbazar, Guwahati-1

GENERAL NOTES

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FOUNDATION PLAN

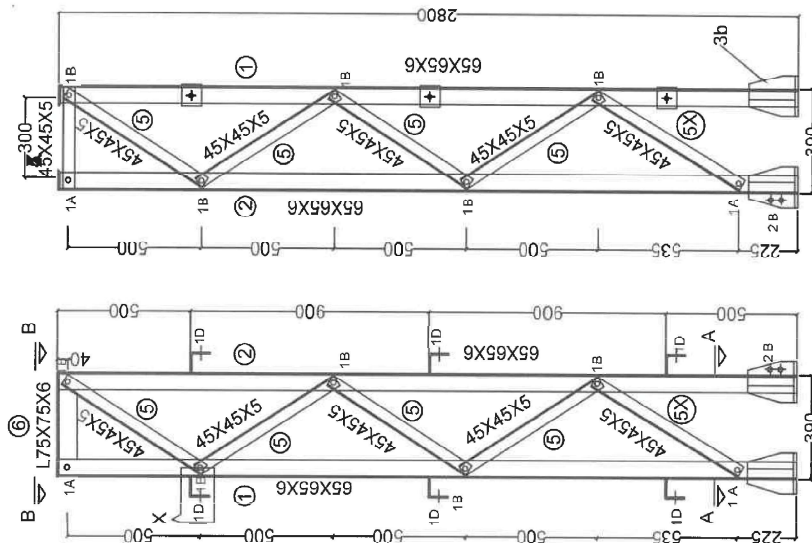
25 MM Ø FDN. BOLT - QTY- 8 NO.S

<u>CONTRACTOR:-</u>	P&S CONSTRUCTION, MIRZA
<u>PROJECT:-</u>	Construction of 1nos of IT Park Bay at 400kV Kukumara(Mirza)GSS,AEGCL
<u>DRAWING:-</u>	FOUNDATION DRAWING OF 33kV DOUBLE BREAK C.R TYPE ISOLATOR WITHOUT EARTH SWITCH

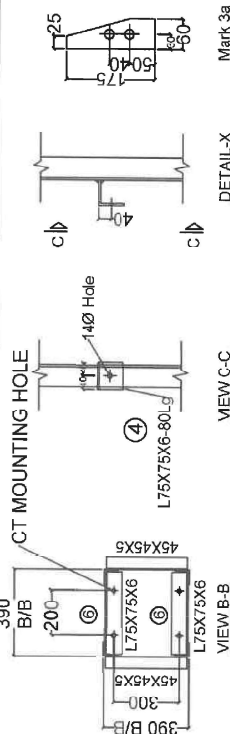
SI No.	Mark No.	Member	Section	Length IN MM	Qty./Set No.s	Unit Wt KG/M or KG/Sq	Wt/Pc Kgs	Wt/Set Kgs	Remarks
1	CT-1	LEG	65 X 65 X 6	2788	2	5.8	16.17	32.34	
2	CT-2	LEG	65 X 65 X 6	2788	2	5.8	16.17	32.34	
3	CT-3	BASE-PL	PL 12 X 175	175	4	94.2	2.885	11.54	
4	CT-3a	STIFFENER	PL 6 X 60	175	2	47.1	0.495	0.99	WELDED
5	CT-3b	STIFFENER	PL 6 X 60	175	14	47.1	0.495	6.93	WELDED
6	CT-4	CLEAT	75 X 75 X 6	80	6	6.8	0.544	3.26	WELDED
7	CT-5	BRACING	45 X 45 X 5	624	16	3.4	2.122	33.95	
8	CT-5X	BRACING	45 X 45 X 5	654	4	3.4	2.224	8.9	
9	CT-6	BRACING	75 X 75 X 6	370	2	6.8	2.516	5.03	
TOTAL WEIGHT OF THE STRUCTURE EXCLUDING FASTENERS (IN KG):								135.28	

SL NO.	MARK	DESCRIPTION	UNIT WT (Kg)	NOS.	TOTAL WT.(KG)
1	A	M- 16 X 40	0.13	8	1.04
2	B	M- 16 X 45	0.138	24	3.312
3	C	M- 12 X 40	0.07	6	0.42
SPRING WASHER					
1	3.5mm THK		0.009	32	0.288
TOTAL WEIGHT OF FASTENERS (Kg)					
					5.06

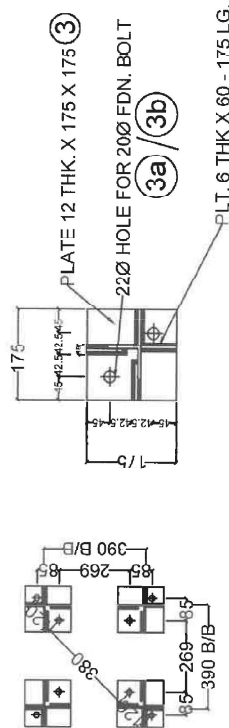
DATE	DESCRIPTION	QTY	UNIT	AMOUNT	TOTAL
12/15/20	12/15/20	1	EA	0.8	0.8
TOTAL WEIGHT OF THE STRUCTURE EXCLUDING FASTENERS (IN KG):					



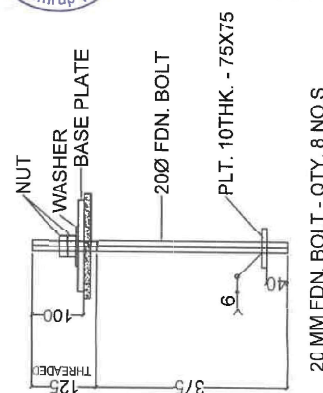
ELEVATION



SIDE VIEW



VIEW A-A



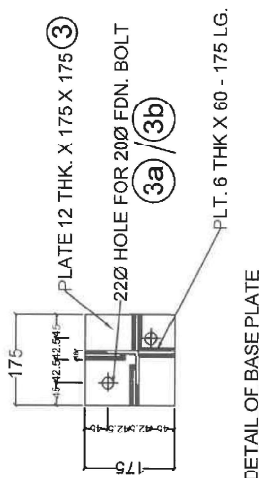
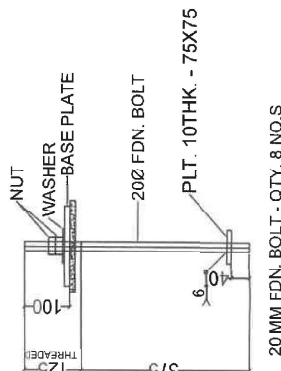
APPROVED
Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-1



**CONSTRUCTION OF 33 kV IT feeder at
400 kV Kukurmara GSS**

DRAWING:-

SI No.	Mark No.	Member	Section	Length IN MM	Qty./Set No.s	Unit Wt KG/M or KG/Sq	Wt/Pc Kgs	Wt/Set Kgs	Remarks
1	PT-1	LEG	65 X 65 X 6	2388	2	5.8	13.85	27.7	
2	PT-2	LEG	65 X 65 X 6	2388	2	5.8	13.85	27.7	
3	PT-3	BASE-PL	PL 12 X 175	175	4	94.2	2.885	11.54	WELED
4	PT-3a	STIFFENER	PL 6 X 60	175	2	47.1	0.495	0.99	WELED
5	PT-3b	STIFFENER	PL 6 X 60	175	14	47.1	0.495	6.93	WELED
6	PT-4	CLEAT	75 X 75 X 6	80	6	6.8	0.544	3.26	WELED
7	PT-5	BRACING	45 X 45 X 5	562	16	3.4	1.911	30.58	
8	PT-5X	BRACING	45 X 45 X 5	570	4	3.4	1.938	7.75	
9	PT-6	BRACING	75 X 75 X 6	370	2	6.8	2.516	5.03	
TOTAL WEIGHT OF THE STRUCTURE EXCLUDING FASTENERS (IN KG):								121.48	



CONSTRUCTION OF 33 kV IT feeder at 400 kV Kukurmara GSS

EQUIPMENT SUPPORT STRUCTURE FOR 33KV PT

APPROVED
Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-1

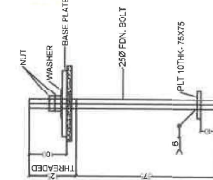
Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-1

PROJECT:-	CONSTRUCTION OF 33 kV IT feeder at 400 kV Kukurmara GSS
DRAWING:-	EQUIPMENT SUPPORT STRUCTURE FOR 33KV DOUBLE BREAK C.R TYPE ISOLATOR WITH EARTH SWITCH



NUT, BOLT & WASHER STATEMENT

MARK 3a



25 MM Ø FDN. BOLT - QTY- 8

<u>PROJECT:-</u>	CONSTRUCTION OF 33 KV IT FEEDER AT 400 KV Kulkurnara GSS	
<u>DRAWING:-</u>	EQUIPMENT SUPPORT STRUCTURE FOR 33KV DOUBLE BREAK C.R TYPE ISOLATOR WITHOUT EARTH SWITCH	



Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-1

**CONSTRUCTION OF 33 kV IT feeder at
400 kV Kukurmara GSS**

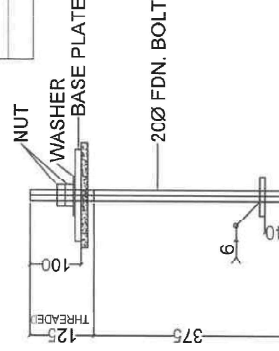
**EQUIPMENT SUPPORT STRUCTURE
FOR 33KV DOUBLE BREAK C.R TYPE
ISOLATOR WITHOUT EARTH SWITCH**

BILL OF MATERIALS

Sl No.	Mark No.	Member	Section	Length IN MM	Qty./Set No.s	Unit Wt KG/M or KG/Sq	Wt/Pc Kgs	Wt/Set Kgs
1	LA-1	LEG	50 x 50 x 6	3165	2	4.49	14.211	28.42
2	LA-2	LEG	50 x 50 x 6	3165	2	4.49	14.211	28.42
3	LA-3	BRACING	45 X 45 X 5	259	8	3.4	0.881	7.05
4	LA-4	BRACING	50 x 50 x 6	375	2	4.49	1.684	3.37
5	LA-5	BRACING	50 x 50 x 6	275	2	4.49	1.235	2.47
6	LA-6	PLATE	375 x 6	375	1	47.1	6.623	6.62
7	LA-7	STIFFENER	50 x 50 x 6	50	8	4.49	0.225	1.8
8	LA-8	CLEAT	65 x 65 x 6	80	6	5.8	0.464	2.78
9	LA-9	BASE PLT.	12 x 150	150	4	94.2	2.12	8.48
TOTAL WEIGHT OF THE STRUCTURE EXCLUDING FASTENERS (IN KG):								89.41

NUT, BOLT & WASHER STATEMENT

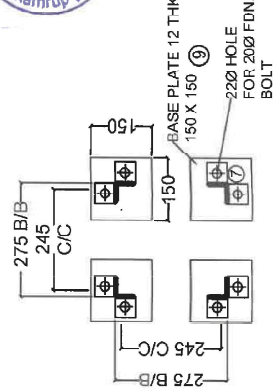
SL NO.	MARK	DESCRIPTION	UNIT WT (Kg)	NOS.	TOTAL WT. (KG)
1	A	M- 16 X 40	0.13	24	3.12
2	B	M- 16 X 45	0.138	8	1.104
3	C	M- 12 X 40	0.07	6	0.42
		SPRING WASHER			
1		3.5mm THK	0.009	32	0.288
TOTAL WEIGHT OF FASTENERS (Kg)					4.932



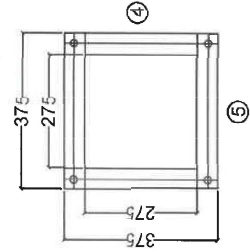
20 MM FDN. BOLT - QTY. 8 NOS



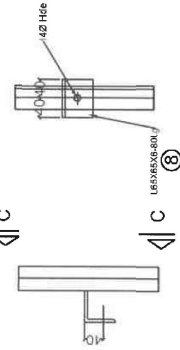
APPROVED
Deputy General Manager (C)
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-1



VIEW A-A



VIEW B-B



DETAIL-X VIEW C-C

PROJECT:- CONSTRUCTION OF 33 KV IT feeder at
400 KV Kukurmara GSS

DRAWING:- EQUIPMENT SUPPORT STRUCTURE
FOR 33KV LA

Sl No.	Mark No.	Member	Section	Length IN MM	Qty./Set No.s	Unit Wt KG/M or KG/Set	Wt/Pc Kgs	Wt/Set Kgs
1	PI-1	BASE-PL	12 X 150	150	4	94.2	2.12	8.48
2	PI-2	PLATE	6 X 50	100	8	47.1	0.236	1.89
3	PI-3	ANGLE	50 X 50 X 6	3180	2	4.5	14.31	28.62
4	PI-3X	ANGLE	50 X 50 X 6	3180	2	4.5	14.31	28.62
5	PI-4	ANGLE	45 X 45 X 5	629	20	3.4	2.139	42.78
6	PI-5	ANGLE	50 X 50 X 6	450	2	4.5	2.025	4.05
7	PI-6	ANGLE	50 X 50 X 6	350	2	4.5	1.575	3.15
8	PI-7	PLATE	8 X 500	500	1	62.8	15.7	15.7
TOTAL WEIGHT OF THE STRUCTURE EXCLUDING FASTENERS (IN KG):								133.29

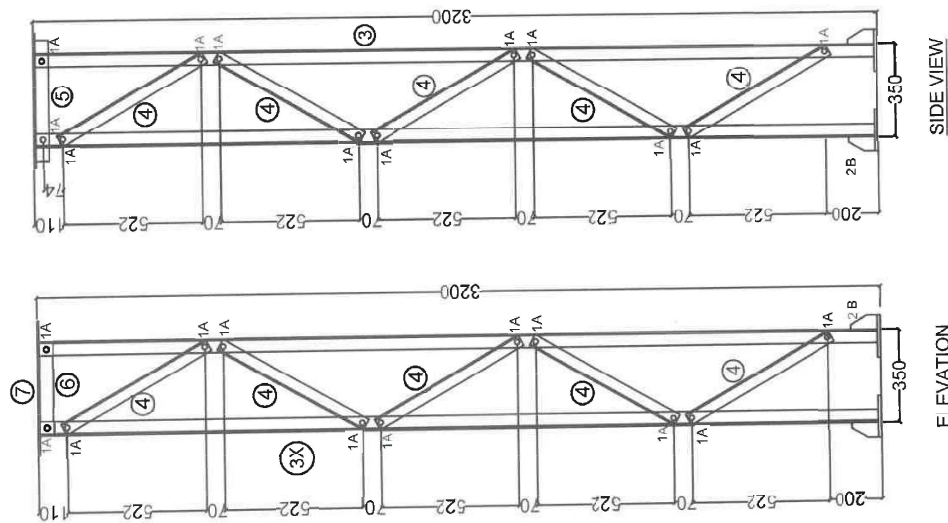
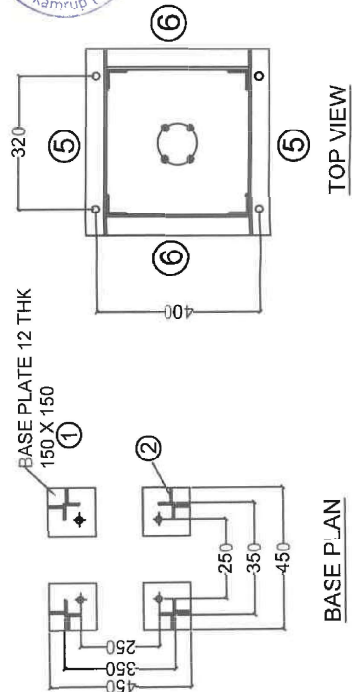
Technical drawing of a base plate assembly. The drawing shows a base plate with a central rectangular cutout. A 20mm diameter foundation bolt is shown passing through the base plate. The bolt is secured with a nut, washer, and base plate. The drawing includes dimensions: 125, 375, 25, 6, 125, 375, 20mm Ø FDN. BOLT, NUT, WASHER, BASE PLATE, 20 Ø FDN. BOLT, PLT 75X6 LG=75, 20mm Ø FDN. BOLT, QTY. 4 NO s.

SL NO.	MARK	DESCRIPTION	UNIT WT (Kg)	NOS.	TOTAL WT.(Kg)
1	A	M- 16 X 40	0.13	48	6.24
2	B	M- 16 X 45	0.138	4	0.552
SPRING WASHER					
1	3.5mm THK		0.009	52	0.468
TOTAL WEIGHT OF FASTENERS (Kg)					
					7.26

APPROVED *24/12/23* NOT
Deputy General Manager (C)
P&SCL, Bijulal Bhawan,
New Bazar, Chanchal-1

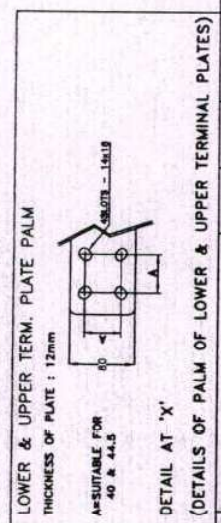
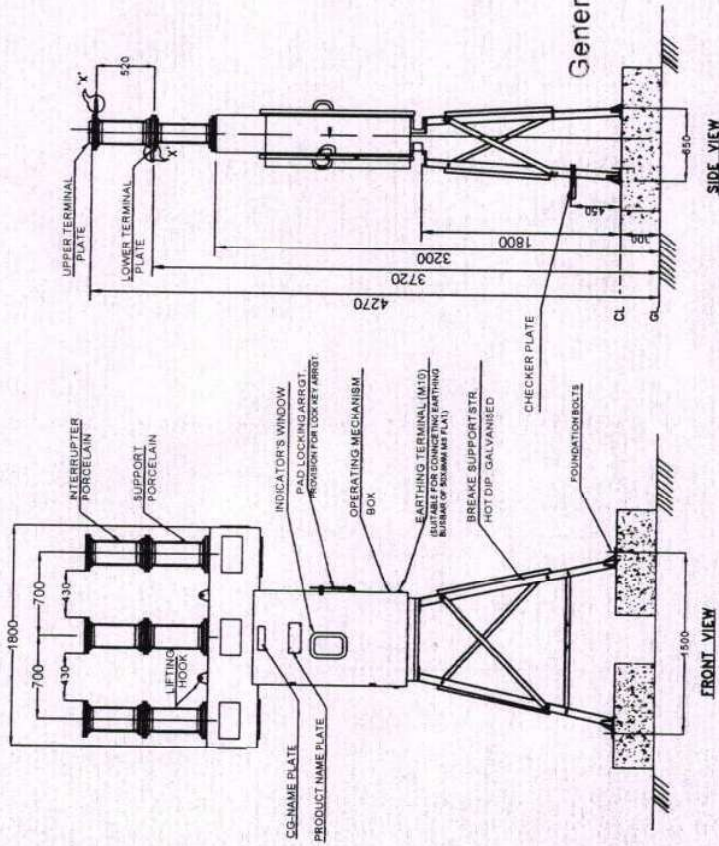


BASE PLATE 12 THK



FILE NAME: _____		DRG. NO. _____		COVERSHEET		REV 1	
<p>LOA NO: AEGCL/ND/TECH-1068/Deposit/33KV Nagpur Medical College/2023/24 DT: 07.07.23</p> <p>AND</p> <p>LOA NO: AEGCL/ND/TECH-1077/KUKUMARA - RANV Feeder/Deposit/2023/25 DT: 07.07.23</p>							
<p>REGENERATE</p> <p>P & S Construction</p>							
<p>DRAWING FOR 33KV OUTDOOR PCVCB</p>							
<p>PROJECT : P & S CONSTRUCTION.</p>							
<p>CUSTOMER : AEGCL</p>							
<p>Approved</p> <p>General Manager (P&D)</p> <p>AEGCL</p>							
<p>Checked by</p> <p>Asstt. Manager</p> <p>O/o the GM (P&D)</p>							
<p>Checked</p> <p>AGM O/o the GM (P&D)</p>							
<p>Checked</p> <p>DGM O/o the GM (P&D)</p>							
<p>Approved</p> <p>General Manager (P&D)</p> <p>AEGCL</p>							
<p>CGM (PP&D)</p> <p>AEGCL</p>							
<p>CG Power and Industrial Solutions Limited</p> <p>MV Switchgear Division</p> <p>Ambad, Nashik, India</p>							
<p>W.O. NO. PV7574</p>							
<p>NAME _____ DATE _____</p>							
<p>DRN _____ ADS _____ 26.08.23</p>							
<p>APPD _____ VAC _____ 26.08.23</p>							
<p>SHEET 1 OF 1</p>							
<p>THIRD ANGLE PROJECTION</p>							
<p>ALL DIMENSIONS ARE IN mm</p>							
<p>SCALE _____ NTS _____ DRG. NO. _____ COVERSHEET _____ REV 1</p>							

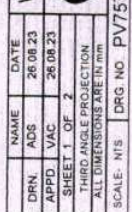
1	2	3	4	5	6	7	8	9	10
<p>NOTES:</p> <p>1) FINISH: INTERIOR & EXTERIOR PAINT SHADE RAL 7032 AND ACCESSORIES MOUNTING PLATE SHALL BE MILKY WHITE.</p> <p>2) TOTAL CREEPAGE DISTANCE :- 900mm.(FOR INSULATORS)</p> <p>3) * :- TO INCREASE THE LOWEST LIVE PART TO GROUND CLEARANCE, CHANGE THE PLINTH HEIGHT, IF REQUIRED.</p> <p>4) OPERATION COUNTER, MECHANICAL ON-OFF INDICATOR, SPRING CHARGING HANDLE ARE PROVIDED.</p> <p>5) 2.5sq.mm,1.1kV GRADE PVC INSULATED COLOUR CODED TINNED COPPER WIRE SHALL BE USED FOR ALL CONTROL CIRCUIT.</p> <p>COLOUR CODE: AC CKT.- BLACK & DC CKT.- GREY.</p> <p>6) SCREW TYPE TERMINAL BLOCK SHALL BE USED FOR ALL CIRCUIT.</p> <p>7) CONTROL CUBICAL SHALL BE MADE OF 3mm THICK CRCA SHEET STEEL AND COVERING SHEETS & DOORS SHALL BE MADE OF 2.0mm THICK.</p> <p>8) ALL EXPOSED HARDWARE M10 AND ABOVE SHALL BE HOT DIP GALVANISED AND M8 AND BELOW H/W -STAINLESS STEEL</p> <p>9) SUPPORTING STRUCTURE FOR BREAKER SHALL BE HOT DIP GALVANISED.</p> <p>10) A GROUND BUS OF COPPER BAR OF 6MM X 25MM IS TO BE USED.</p>									
<p>General Manager (P&D) AEGCL</p> <p>Approved</p>									
<p>General Manager (P&D) AEGCL</p> <p>Checked</p> <p>DGM O/o the GM (P&D)</p>									
<p>Checked by</p> <p>Asstt. Manager O/o the GM (P&D)</p> <p>Checked</p> <p>AGM O/o the GM (P&D)</p>									
<p>General Arrangement DRG</p> <p>FOR</p> <p>36KV OUTDOOR PCVCB</p>									
<p>Scale: NTS</p> <p>DRG NO. PV7574GB</p> <p>REV 1</p>									



RATINGS:-	
RATED VOLTAGE	36KV
RATED CURRENT	1250A
BASIC INSULATION LEVEL	70kV r.m.s./ 170kVpk
SHORT TIME RATING	26.3sec (As per GTP)
SYSTEM	38kV, 50Hz EFFECTIVELY EARTHED
TOLERANCE	ON DIMENSIONS ±5%
DEGREE OF PROTECTION-	IP55




DRN	ADD	DATE
APPD	VAC	26.08.23
SHEET 1 OF 2		
THIRD ANGLE PROJECTION		
ALL DIMENSIONS ARE IN mm		
SCALE:	NTS	DRG NO. PV7574GB
		REV 1



CG Power and Industrial Solutions Limited
 MV Switchgear Division
 Ambad, Nashik, India
 (Formerly Compton Greaves Ltd.)

Approved
 Mr. [Signature]
 CGM (PP&D)
 AEGCL

RATING PLATE DETAILS

 CG Power and Industrial Solutions Limited. (Formerly Crompton Greaves Ltd.) Medium Voltage Switchgear Divn. Ambad, Nashik-422010. MADE IN INDIA.		RATING TO : IEC62271-100 CIRCUIT BREAKER TYPE 36PV25A SR NO 26.3 ## 26.3	
VOLTAGE	36 kV	BREAKING CAPACITY	25 KA
CURRENT	1250 AMP	MAKING CAPACITY	65.75 KA
FREQUENCY	50 Hz	SHORT TIME CURRENT	25 KA FOR 25 SEC
NO OF POLES	3	DC. COMPONENT	< 50% BIL
OPERATING SEQUENCE/DUTY : O - 0.3Sec - CO - 3Min - CO		CLOSING COIL 110 VDC	
* Name of Substation and D.No. shall be mentioned.		VDC	

Sr. Nos.

MONTH & YEAR TO BE INCORPORATED IN WHICH JOB IS DESPATCHED

MATERIAL:- METALIC PALTE -ALLUMINIUM

QUANTITY : 1 No. EACH PER PCVCB.

Checked by

Asstt. Manager
O/o the GM (P&D)

Checked

AGM O/o the GM (P&D)

Checked

DGM O/o the GM (P&D)

Approved
General Manager (P&D)
AEGCL



CGM (P&D)
AEGCL

Approved

No	1	REVISION	DATE	24.11.22	AD	RATING PLATE DETAILS FOR 36KV OUTDOOR PCVCB	DRN APPD. VAC SHEET 2 OF 2 THIRD ANGLE PROJECTION ALL DIMENSIONS ARE IN mm SCALE - NTS	W.O. NO. PV7574GB DRG. NO. PV7574GB REV 1
	2	REVISED AS PER AIS01 & 02						
	3							
	4							
	5							

CG Power and Industrial Solutions Limited
 Sol. Divn.
 Ambad, Nashik, India
 (Formerly Crompton Greaves Ltd.)

IF IN DOUBT, ASK

FILE NAME

DRG. NO. PV7574GB

REV 1

* The height of the structure shall be such that minimum clearance from live point to plinth level is 3700mm.

* Comments regarding fabrication and BOM of structure may be obtained from civil wing of AEGCL.

USED ON: 36KV PCVCB

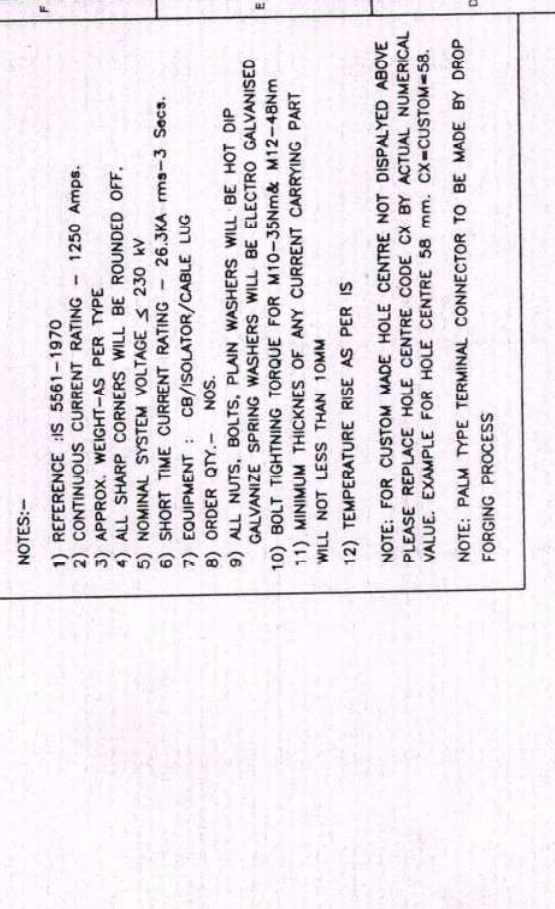
REV	FILE NAME	DRG NO	PG	1	2	3	4	5	6	7	8	9	10
1	PV7574GB												
<p>IF IN DOUBT, ASK</p>													
<p>CG Power and Industrial Solutions Limited</p>													
<p>Asstt. Manager</p>													
<p>O/o the GM (P&D)</p>													
<p>Checked by</p>													
<p>FRONT VIEW</p>													
<p>Checked</p>													
<p>AGM O/o the GM (P&D)</p>													
<p>STRUCTURE</p>													
<p>DETAIL FOR</p>													
<p>36KV OUTDOOR PCVCB</p>													
<p>TITLE</p>													
<p>DGM O/o the GM (P&D)</p>													
<p>Checked</p>													
<p>DGM O/o the GM (P&D)</p>													
<p>General Manager (P&D)</p>													
<p>Approved</p>													
<p>ISOMETRIC VIEW</p>													
<p>TOP VIEW</p>													
<p>SIDE VIEW</p>													
<p>Approved</p>													
<p>General Manager (P&D)</p>													
<p>Approved</p>													
<p>CGM (PP&D)</p>													
<p>AEGCL</p>													
<p>CGM (PP&D)</p>													
<p>AEGCL</p>													



ITEM	QTY	DESCRIPTION
11	4	BASE GUSSET
10	4	BASE GUSSET
9	1	CHECKER PLATE
8	2	SUPPORT ANGLE
7	1	SHAKER PLATE SUPPORT ANGLE
6	2	JOLE BRACING ANGLE
5	2	BENT BRACING ANGLE
4	2	VERTICAL SUPPORT ANGLE - RH
3	4	TOP SUPPORT PLATE
2	2	VERTICAL SUPPORT ANGLE - LH
1	4	BOTTOM SUPPORT PLATE



DRN.	ADG	DATE	W.O. NO.
APPD.	VAC	28.08.23	PV7574
SHEET	1 OF 2		
THIRD ANGLE PROJECTION			
ALL DIMENSIONS ARE IN mm			
SCALE	NTS	DRG NO.	PV7574GB
REV	1		

CG Power and Industrial Solutions Limited	CG Power and Industrial Solutions Limited
WV Switchgear Division	WV Switchgear Division
Amraoti, Nashik, India	Amraoti, Nashik, India



DATE	DESCRIPTION	NO.	APPROVED	DATE
	shall be suitable for conductor as per site		Approved	
				
			General Manager (P&D)	
				
			CGM (P&D) AEGCL	
			Mr.	
			Approved	

NOTE: PALM TYPE TERMINAL CONNECTOR TO BE MADE BY DROP FORGING PROCESS

	1	PALM TYPE TERMINAL	1	ELECTROLYTIC GRAL.
	S NO.	DESCRIPTION	QTY.	MATERIAL
X		Terminal connector		
		shall be suitable for		
		conductor as per site.		

Approved

General Manager (P&D)
AEGCL

Approved

CGM (PP&AEGCL)


MS

MS Construction

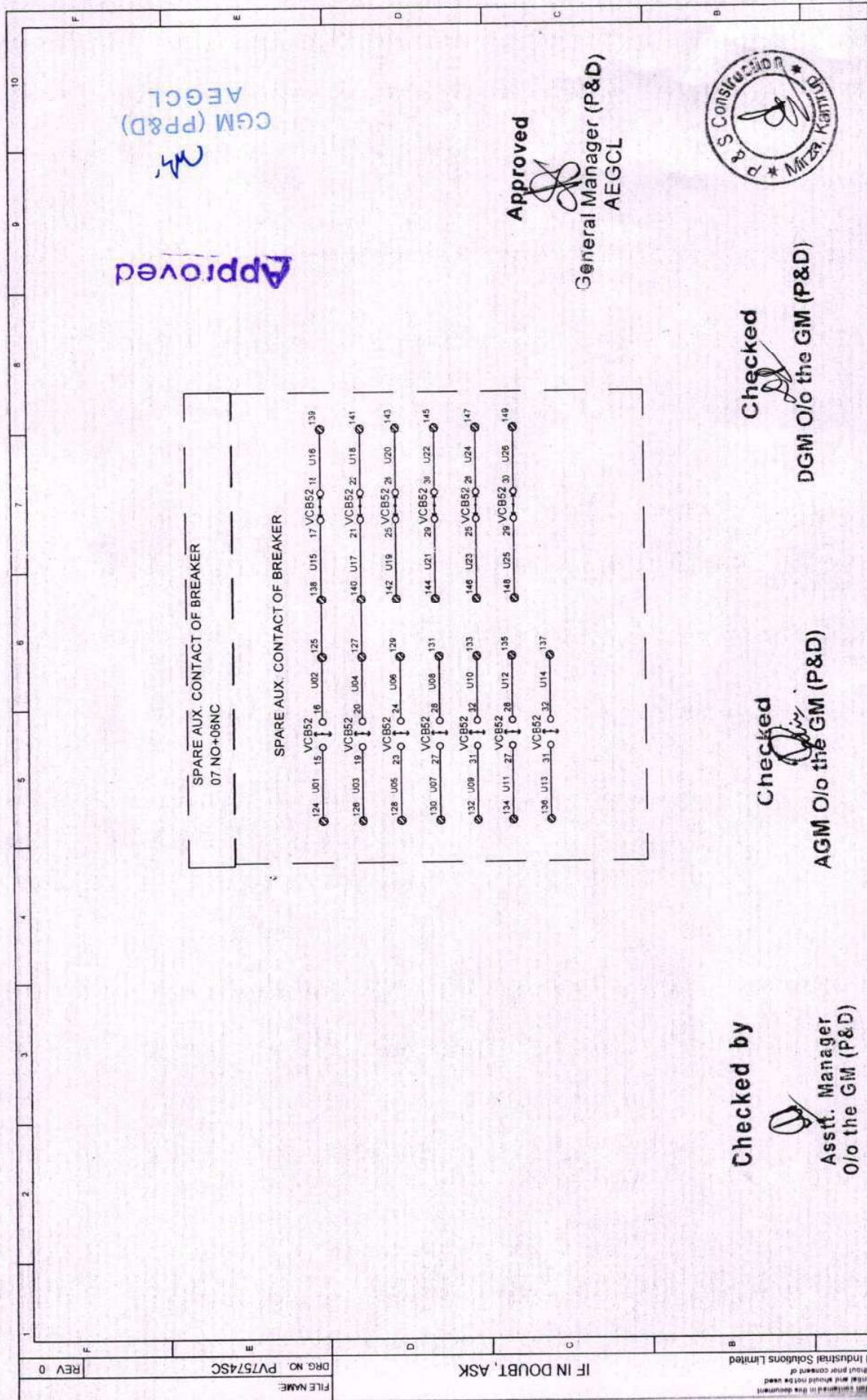
Checked  GM O/o the GM (P&D)

No	REVISION	DATE	ADS
24-11-23			
REVISED AS PER AIS01 & Q			
6	5	4	3
TITLE			
TERMINAL CONNECTOR FOR 36KV OUTDOOR PCVCB			
DRN	ADS	NAME	DATE
			26.08.23
APPRD	VAC		26.08.23
SHEET	OF	1	
THIRD ANGLE PROJECTION			
ALL DIMENSIONS ARE IN MM			
SCALE: NTS		DRG. NO: PV7574TC	
		REV 1	

W.O.NO. PV7574



CG Power and Industrial Solutions
MV System Support Division
Ambad, Nashik, India



IF IN DOUBT, ASK

DRG. NO. PV7574SC

FILE NAME:

REV 0

10 9 8 7 6 5 4 3 2 1

AEGCL

Approved

General Manager (P&D)

AEGCL

CG Power and Industrial Solutions Limited		W.O. NO. PV7574		CG Power and Industrial Solutions Limited		W.O. NO. PV7574SC	
5	DATE	26/08/23	DRN.	26/08/23	26/08/23	26/08/23	26/08/23
4	NAME	ADG	APPD.	VAC	26/08/23	26/08/23	26/08/23
3	SHEET 3 OF 3	3	SHEET 3 OF 3	3	3	3	3
2	THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION
1	ALL DIMENSIONS ARE IN mm		ALL DIMENSIONS ARE IN mm		ALL DIMENSIONS ARE IN mm		ALL DIMENSIONS ARE IN mm
No	REVISION	DATE	DRAWN	DATE	DRAWN	DATE	DRAWN

Checked by

Asstt. Manager

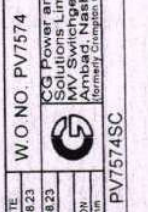
O/o the GM (P&D)

Checked

DGM O/o the GM (P&D)

Checked

DGM O/o the GM (P&D)



Approved

General Manager (P&D)

AEGCL

Approved

General Manager (P&D)

AEGCL

Approved

General Manager (P&D)

AEGCL

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General Manager (P&D)

AEGCL

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General Manager (P&D)

AEGCL

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General Manager (P&D)

AEGCL

Approved

General Manager (P&D)

AEGCL

Approved

General Manager (P&D)

AEGCL

FILE NAME
DGM NO. PV6512Q
REV 1

IF IN DOUBT, ASK

CG Power and Industrial Solutions Limited
is confidential and should not be used
without prior consent of

1	2	3	4	5	6	7	8	9	10
ANSI CODE, TAG, SYMBOL DESCRIPTIONS									
ANSI CODE	PROTECTIVE FUNCTIONS	SYMBOL	DESCRIPTION	TAG	TAG DESCRIPTION				
94	ANTI PUMPING RELAY		HRC FUSE						
VCB52	VACUUM CIRCUIT BREAKER		LINK						
ZZ1	OPENS WHEN SPRINGS ARE CHARGED		NORMALLY OPEN CONTACT						
ZZ2,ZZ3	CLOSES WHEN SPRINGS ARE CHARGED		NORMALLY CLOSED CONTACT						
TNC	BREAKER CONTROL SWITCH		MOTOR (Conversal)						
LR	LOCAL REMOTE SWITCH		THERMOSTAT						
HE	SPACE HEATER		LAMP						
TH	THERMOSTAT		SWITCH(NC,LR,AUTO MANUAL)						
HSW	TOGGLE SWITCH FOR HEATER		TOGGLE SWITCH						
SSW	TOGGLE SWITCH FOR SOCKET		COIL						
PSW	DOOR SWITCH SWITCH FOR LAMP		(52a)VCB OPERATED NO CONTACT						
52X	AUX CONTACTOR FOR VCB CONTACT MULT		(52b)VCB OPERATED NC CONTACT						
VCB52CC	VCB CLOSING COIL		3PIN SOCKET						
VCB52TC	VCB TRIPPING COIL								
⊗	FUSES & MCB								
FC1,FC2	CLOSING CIRCUIT FUSES								
FT1,FT2	TRIPPING CIRCUIT FUSES								
F11,F12	INDICATION CIRCUIT FUSES								
FMLKM	FUSE/LINK FOR MOTOR CIRCUIT								
FHLKH	FUSE/LINK FOR HEATER CIRCUIT								
MCB	MINIATURE CIRCUIT BREAKER								

Approved

CGM (PP&D)
AEGCL

Approved

General Manager (P&D)
AEGCL

Checked

DGM O/o the GM (P&D)

Checked

Asstt. Manager
O/o the GM (P&D)

Checked

AGM O/o the GM (P&D)

CG Construction

M. Z. Khatun

LEGENDS

SYMBOLS

DEVICE NUMBER

DRN

ADS

26.08.23

APPD

VAC

26.08.23

SHEET 1 OF 1

THIRD ANGLE PROJECTION

ALL DIMENSIONS ARE IN mm

SCALE: HTS

DRG. NO. PV6512Q

W.O. NO. PV7574

CG Power and Industrial Solutions Limited

MY Switchgear Division

Ambed, Nashik, India

REV 1

NOTES
1. THESE ARE THE FREQUENTLY USED ABBREVIATIONS AS PER CGL STANDARD DRAWINGS
2. REFERENCES: IEC-440, IS-5578, IEC-50050



Smart solutions.
Strong relationships.

B-SHEET FOR W.O.NO. PV7574

B'SHEET.NO.: PB7574

BOARD NO.: 36kV O/D PCVCB

QTY.: 4

PREPARED BY: ADS

APPROVED BY: VAC

DATE: 26.08.23

REV'1'

Nos.

REV'1'

REVISED AS PER AIS01 & 02

ADS

24.11.23

IT	DESCRIPTION	O/D VCB	TOTAL
1	BASIC UNIT 36kV/1250A/25kA AUX.SUPPLY: 110V DC SP.CH.MOTOR: 230V AC /DC (Universal) AUX. CONTACT: 12NO+12NC	1	4
2	ANTI PUMPING DEVICE MAKE : SELECTRON/EQ. AUX.SUPPLY: 110V DC.	1	4
3	TNC SWITCH W/O BELL ALARM CONTACT TYPE - NON-LOCKABLE/LOCKABLE CONTACTS: 2N/O IN EACH POSITION MAKE : KAYCEE/ RECOM/ SWITRON/EQ.	1	4
4	LOCAL/REMOTE SELECTOR SWITCH TYPE - NON-LOCKABLE/LOCKABLE CONTACTS: 3N/O IN EACH POSITION MAKE : KAYCEE/ RECOM/ SWITRON/EQ.	1	4
5	ON-OFF TOGGLE SWITCH FOR HEATER & SOCKET RATING: 6A, 230V AC MAKE : KAYCEE/ RECOM/ SWITRON/EQ.	2	8
6	DOOR OPERATED SWITCH RATING : 2A, 230V AC MAKE : KAYCEE/ RECOM/ SWITRON/EQ.	1	4
7	SPACE HEATER MAKE: GIRISH/VILECO/DASPASS/ALCO/EQ RATING : 80W, 230V AC	1	4
8	3PIN SOCKET MAKE: ANCHOR/LEGRAND/MDS/HPL/EQ RATING : 5A, 230V AC	1	4
9	PANEL LAMP- LED TYPE MAKE: CGL/PHILIPS/ANCHOR/EQ RATING : 5W, 230V AC	1	4
10	HOLDER FOR PANEL LAMP MAKE: CGL/ANCHOR/EQ	1	4
11	THERMOSTAT-RIGID PROBE TYPE	1	4

Approved

General Manager (P&D)
AEGCL

Checked

DGM O/o the GM (P&D)

Checked

AGM O/o the GM (P&D)

Checked by

Asstt. Manager
O/o the GM (P&D)

Approved

MR

CGM (PP&D)
AEGCL



	MAKE: APT/GIRISH/VILECO/EQ		
	RATING : 230V AC		
12	MCB		
	MAKE : ABB/ SIEMENS/ L&T/SCHNEIDER/EQ		
	a) 2 POLE - 16A,110V DC - FOR DC SUPPLY	1	4
	c) 2 POLE - 16A,230V AC - FOR AC SUPPLY	1	4
13	AUX. SWITCH		
	AUX.CONTACTS : 12N/O+12N/C	1	4
14	INDICATION LAMPS		
	MAKE : VAISHNO/ TEKNIC/ LUMEN/ STS/EQ		
	a) 'RED' - VCB ON - 110V DC	1	4
	b) 'GREEN' - VCB OFF - 110V DC	1	4
	C) 'BLUE' - SPRING CHARGING - 110V DC	1	4
	D) 'WHITE' - AC SUPPLY INDICATION - 230V AC	1	4
	E) AMBER' - DC SUPPLY INDICATION - 110VDC	1	4
15	TERMINAL CONNECTORS-CRIMPING TYPE	6	24
	MAKE : EXALT/RAMLEX/ ME/ EQ.		
	SUITABLE FOR :		
	PANTHER ACSR CONDUCTOR DIA = 21mm		
16	CASTLE LOCK		
	a)FOR BREAKER	1	4
	b)FOR ISOLATOR	2**	8
	c) KEYS FOR ABOVE LOCKS	1	4
	MAKE: CGL		
	** SHALL BE SUPPLIED LOOSE		
17	AUXILIARY CONTACTOR		
	CONTACTS : 2NO + 2NC	2	8
	AUX VOLTAGE: 110V DC		
	CONTACTS : 2NO + 2NC	1	4
	AUX VOLTAGE: 230V AC		

Checked

DGM O/o the GM (P&D)

Approved

General Manager (P&AEGCL



Checked by


Asstt. Manager
O/o the GM (P&D)

Checked

AGM O/o the GM (P&D)

Approved

CGM (PP&D)
AEGCL


BILL OF MATERIAL			
 <small>Smart solutions. Strong relationships.</small>	W.O.NO.:		PV7574 SPARES
	B'SHEET.NO.:		PB7574 SPARES
	BOARD NO.:		36kV O/D PCVCB
	QTY.:	1	NOS.
	PREPARED BY:		ADS
APPROVED BY:		VAC	
DATE:		26.08.23	
SPARES			
IT	DESCRIPTION		TOTAL
1	OPERATING MECHANISM		4
2	SPRING CHARGING MOTOR		4
	230AV AC		
3	Complete One No. VCB pole with VI(Spare) compatible to fitting in any phase of the CB		4




Approved

General Manager (P&D)
AEGCL


Checked by


Asstt. Manager
O/o the GM (P&D)

Checked


AGM O/o the GM (P&D)

Checked


DGM O/o the GM (P&D)

Approved


CGM (PP&D)
AEGCL

LOAN NO: AEGCL/MD/TECH - 1068/DEPOSIT/33KV Nagaon Medical College/2023/24 Dt: 07.07.23
AND LOAN NO: AEGCL/MD/TECH - 1077/KUKUMARA-RANI Fredder/Deposit/2023/25 Dt: 07.07.23.

LOAN NO: CGM(D&S)/UAR/APDCL/DEPOSIT/TINSUKIA MEDICAL COLLEGE/26 Dt. 14-07-2023

REGENERATE
P & S Construction

GUARANTEED TECHNICAL PARTICULARS FOR 33kV, 1250A, 26.3 kA for 3 sec VACUUM CIRCUIT BREAKERS		
Sl.No.	Description	Bidder's Confirmation For 33KV
1	Name of Manufacturer	CGPISL
2	Type of Outdoor switchgear	Porcelain Clad
3	Designation of outdoor circuit breaker	36PV25A
4	VCB conforms to IEC 62271-100 amended upto date / IS: 13118:1991: Yes/No	Yes
5	Whether offered outdoor circuit breaker is porcelain clad type (yes/no)	Yes
6	Shall outdoor circuit breaker provided 3 number of poles (yes/no)	Yes
7	Rated voltage of outdoor circuit breaker in kV.	33kV
8	Is offered out door circuit breaker suitable for 50 Hz rated frequency.(Yes/No)	Yes
9	Type of operation - Mechanically coupled gang operated : Yes/No	Yes
10	Operating mechanism, A. C. Control & Protective devices, lighting fixtures, space heaters and motor operating on supply single phase, 250 Volts \pm 10% A.C., 50 Hz, two pole with one pole grounded : Yes/No	Yes
11	Maximum continuous voltage of outdoor circuit breaker in kV	36kV
12	Rated continuous current of outdoor circuit breaker in amps.	1250A
13	Offered VCB shall be suitable for solid neutral earthing : Yes/No	Yes
14	Rated symmetrical short circuit breaking current (for 3 seconds) of outdoor circuit breaker in ka (rms) 25 kA	26.3kA rms
15	Rated operating sequence of outdoor circuit breaker shall be 0-0.3 sec-co-3 min - co	0 0.3 sec-co-3 min - CO
16	Amplitude factor of outdoor circuit breaker on restriking voltage at 100% rated breaking capacity shall be 1.4	1.4 as per IEC
17	First pole to clear factor of outdoor circuit breaker on restriking voltage at 100% rated breaking capacity shall be 1.5	1.5
18	Rate of rise of restriking voltage of outdoor circuit breaker on restriking voltage at 100% rated breaking capacity in kv/microsecs) 50/70	70
19	Dry-1 minute power frequency withstand voltage of outdoor circuit breaker between line terminal and earth in kvrms shall be 50/70kV	70kVrms
20	Dry-1 minute power frequency withstand test voltage for outdoor circuit breaker between terminal with breaker contacts open in kvrms	70
21	1.2 / 50 micro second impulse with-stand voltage for outdoor circuit breaker between line terminal and earth in kvp	170
22	1.2 / 50 micro second impulse with-stand voltage for outdoor circuit breaker between terminals with breaker contacts open in kvp	170
23	Material of main contacts of outdoor circuit breaker	Copper Chromium
24	Material of terminal pad of outdoor circuit breaker (copper/Aluminium)	Aluminium
25	If Terminal Pads are made of metal other than aluminum, thickness of silver plating on terminal pads shall be at least 25 microns.	Aluminium
26	The current density for copper terminal pad shall not be more than 1.6 A/sq. mm.	Aluminium

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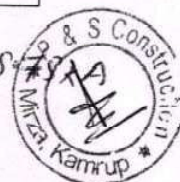
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* Dynamic peak withstand capacity = 65 kA
* Opening time < 60ms
* Closing time < 80ms
* DC voltage level shall be as per site

27	The current density for other than copper terminal pad shall not be more than 1 A/sq. mm.	Aluminium
28	Net cross section of terminal pad of outdoor circuit breaker in sq mm	As per type tested design
29	Material of make -break contacts in Vacuum Interrupter	Copper Chromium
30	Material of tips of Main contacts of circuit breaker	Copper Chromium
31	Whether electrical anti pumping device provided for outdoor circuit breaker (yes/no)	Yes
32	Size of auxiliary contacts of outdoor circuit breaker in sq. Mm.	Adequate
33	Material of auxiliary contacts of outdoor circuit breaker	Copper
34	Continuous current capacity of auxiliary contacts of outdoor circuit breaker in amps.	10A
35	Breaking current capacity of auxiliary contacts of outdoor circuit breaker in amps.	1kA
36	Insulation level of auxiliary contacts of outdoor circuit breaker in volts.	2kV
37	1 minute p. F. Withstand voltage of auxiliary contacts of outdoor circuit breaker in kvrms.	2kV
38	Whether any contact multiplier are used for outdoor circuit breaker (yes/no) (if *yes* then fill 39 to 42)	No
39	Make of contact multiplier used for circuit breaker	No
40	Making and breaking capacity of contact multiplier used for outdoor circuit breaker in ka	No
41	Voltage rating of contact multiplier used for outdoor circuit breaker in kv	N/A
42	Capacity of coil of contact multiplier used for outdoor circuit breaker in watts	N/A
43	No. Of normally open auxiliary contacts provided for outdoor circuit breaker available for use in remote C&R panels	2NO+2NC
44	No. Of normally close auxiliary contacts provided for outdoor circuit breaker available for use in remote C&R panels	8NO+8NC
45	Whether potential free contact available for remote indication of spring charged" of outdoor circuit breaker (yes/no)	Yes
46	Voltage rating of bushing used for outdoor circuit breaker in kv.	36kV
47	Dry-1 minute power frequency withstand voltage of bushing used for outdoor circuit breaker in kvrms	70kVrms
48	Dry flashover voltage of bushing used for outdoor circuit breaker in kvrms	70kVrms
49	Wet flashover voltage of bushing used for outdoor circuit breaker in kvrms	70kVrms
50	1.2/50 micro second impulse withstand voltage of bushing used for outdoor circuit breaker shall be 125/170 kvp	170kVpeak
51	Total creepage distance of bushing used for outdoor circuit breaker shall be 300 mm.	As per type tested design
52	Center to center minimum clearances in air between phases of outdoor circuit breaker in mm	700mm
53	Minimum Clearances provided in air between two Phases : in mm	430mm
54	Minimum clearances in air between live part to live part of phases of outdoor circuit breaker shall be 430 mm.	430mm
55	Minimum clearances in air between live part to earth of outdoor circuit breaker shall be 450mm	450mm
56	Minimum clearances in air between live part of outdoor circuit breaker to ground level shall be 3700 mm	3700mm
57	Height of the lowest part of the support insulator from ground level	530mm

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58	Class of Insulating Material	B
59	Max. closing time in ms (Max.150 ms)	less than 100ms
60	Max. total break time at 100 % rated interrupting breaking capacity : 100 ms	less than 60ms
61	Type of closing mechanism of outdoor circuit breaker shall be motor assisted spring charged mechanism.	Yes
62	Type of tripping mechanism of outdoor circuit breaker shall be motor assisted spring charged mechanism with shunt trip coil.	Yes
63	Burden of trip coil of outdoor circuit breaker at 110 V (DC) in watts	250W
64	Burden of closing coil of outdoor circuit breaker at 110 V (DC) in watts	250W
65	Whether mechanical on/off and "spring charged" indications for outdoor circuit breaker provided (yes/no)	Yes
66	Whether manual trip/close of outdoor circuit breaker possible (yes/no)	Yes
67	Whether mechanical spring charging for outdoor circuit breaker possible (yes/no)	Yes
68	Voltage rating of spring charging motor of outdoor circuit breaker in volts	230V AC
69	Burden of spring charging motor of outdoor circuit breaker in VAmp	300W
70	Control circuit voltage of outdoor circuit breaker shall be 30 volts d. c. (yes/no)	Yes
71	The surface finish paints of non galvanized metallic part of VCB shall be battleship gray shade No.632 of IS 5.	Yes
72	Process of painting of parts of outdoor circuit breaker	Powder Coating
73	Type of primer used for painting of parts of outdoor circuit breaker	7 tank pre treatment
74	Type of finish paint used for painting of parts of outdoor circuit breaker	Galvanized support structure
75	Degree of protection of Operating Mechanism enclosure is IP 55 as per IEC529/ IS 2147	IP 55
76	Mounting of CB On hot dip galvanized steel support structure or on the operating mechanism box, as the case may be, to be supplied by the tenderer	Yes
77	Whether all type tests are carried out on outdoor circuit breaker at nabl laboratories within five years from date of opening of tender (yes/No)	No (Less than 10 Years)
78	Whether type tested on offered design of outdoor circuit breaker (yes / no).	Yes
79	A list of recommended spares with unit rates for each circuit breaker that may be necessary for satisfactory operation and maintenance of the circuit breaker for a period of 5 years shall be submitted.	Yes
80	A list and unit rates of all the special tools, equipments and instruments required for erection, testing, commissioning and maintenance of the breaker shall be submitted	Not required
81	The list of necessary tools/equipments which will be supplied free of cost with each CB furnished separately.	Not required
82	Are following Type test reports submitted with offer for offered equipment	
	a. Lightning impulse withstand voltage test. :Yes/No	Yes
	b. Power Frequency Voltage withstand test (dry & wet). :Yes/No	Yes
	c. Temperature rise test. :Yes/No	Yes
	d. Measurement of resistance of Circuit: Yes/No	Yes
	e. Short time and peak withstand current tests. :Yes/No	Yes
	f. Mechanical operation test. :Yes/No	Yes

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	g. Degree of protection (IP55) for all cabinets. :Yes/No	Yes
	h. Out of phase making and breaking tests. :Yes/No	Yes
	i. Short Circuit Making and Breaking current Tests a) No load operation before and after test b) Basic test duties no. 1 to 5 c) Single Phase Short circuit test d) Condition of breaker after short circuit tes	Yes
83	Are the following drawing submitted	
	a. General outline drawings showing outside dimensions, shipping dimensions, weights, quantity of insulating media air receiver capacity and such other prominent details. :Yes/No	Yes
	b. Sectional views showing the general constructional features of the circuit breaker including operating mechanism, arcing chambers, contacts, with lifting dimensions for maintenance. :Yes/No	Yes
	c. Schematic diagrams of the scheme for control, supervision and reclosing :Yes/No	Yes
	d. Structural drawing, design calculations and loading data for support structures. :Yes/No	Yes
	e. Foundation drilling plan and loading data for foundation design. :Yes/No	Yes
	f. Type test reports of circuit breakers along with a separate list showing all the tests carried out with date & place of test. :Yes/No	Yes
	g. Test reports, literatures and pamphlets of bought out items and raw materials. :Yes/No	Yes
84	Whether bidder adequate in-house testing facilities for conducting acceptance tests in accordance with relevant IS.	Yes
85	Type of operation shall be suitable for 3 phase reclosing : Yes/No.	Yes



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