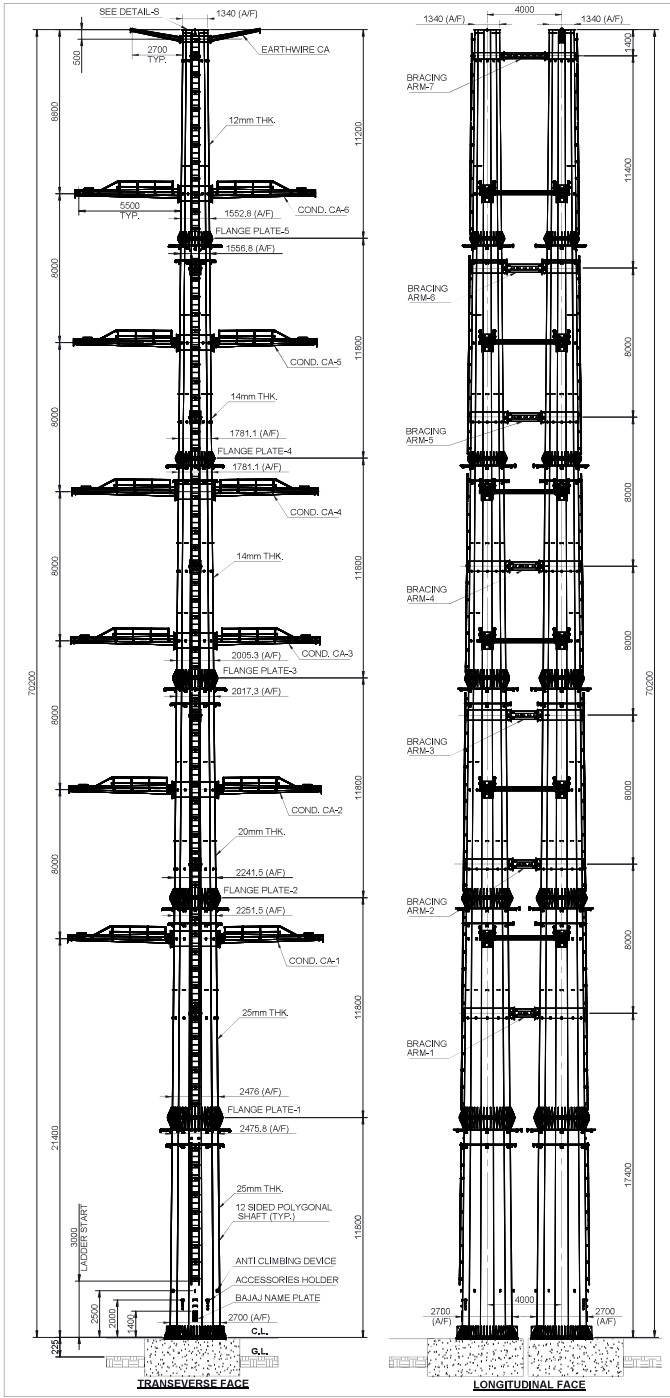
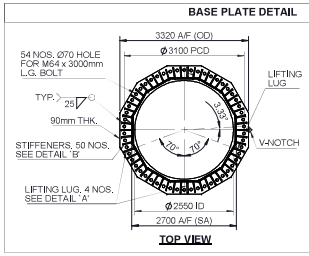
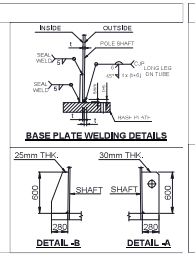
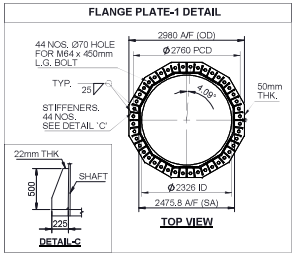


BASE PLATE DETAIL

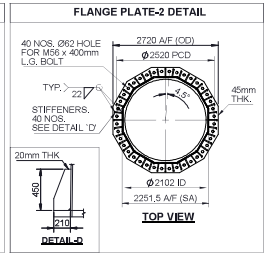




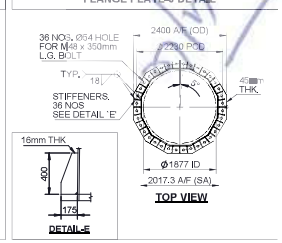
FLANGE PLATE-1 DETAIL



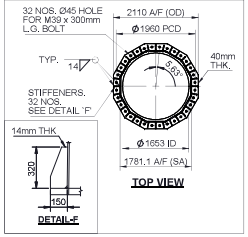
FLANGE PLATE-2 DETAIL



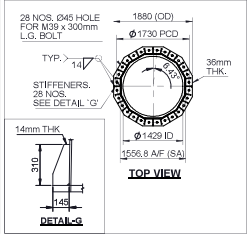
FLANGE PLATE-3 DETAIL

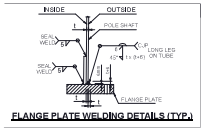


FLANGE PLATE-4 DETAIL

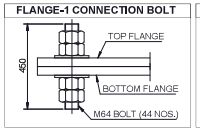


FLANGE PLATE-5 DETAIL

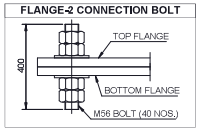




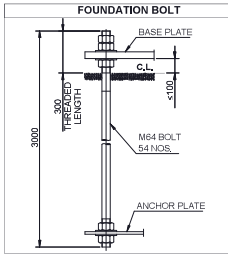
FLANGE-1 CONNECTION BOLT



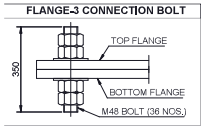
FLANGE-2 CONNECTION BOLT



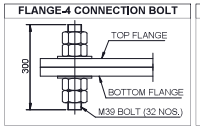
FOUNDATION BOLT



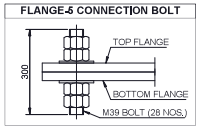
FLANGE-3 CONNECTION BOLT



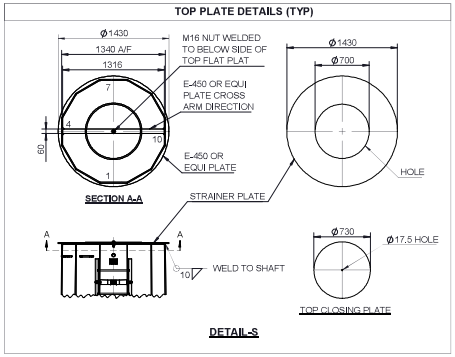
FLANGE-4 CONNECTION BOLT



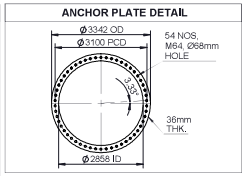
FLANGE-5 CONNECTION BOLT



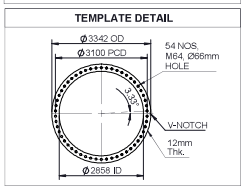
TOP PLATE DETAILS (TYP)



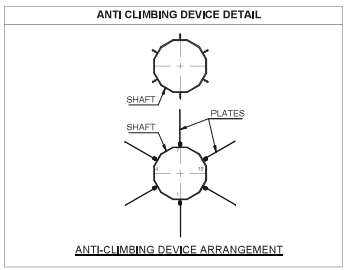
ANCHOR PLATE DETAIL



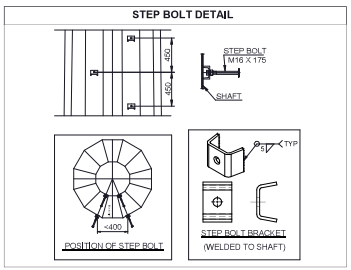
TEMPLATE DETAIL



ANTI CLIMBING DEVICE DETAIL



STEP BOLT DETAIL



R2

NOTES :-

1. ALL DIMENSIONS ARE IN M.M.
2. BASIC WIND SPEED 50 M/SEC.
3. SPAN -150 MTRS
4. DESIGN STANDARD ASCE 48-19
5. MATERIAL:
   SHAFT, CROSS ARM & BRACING ARM : ASTM A-572 GRADE-65 OR BSEN 10025 S450J0/JR OR IS 2062-2011 E450 OR EQUI.
   BASE PLATE & FLANGE PLATES : BSEN 10025 S355 FR OF IS 2062-2011 E350 OR ASTM A-572 GRADE-50 OR EQUI.
6. STEP BOLT AS PER IS : 10238 : (2001) (GRADE-4.6).
7. HOT DIP GALVANIZED TO BSEN ISO 1461:2009
8. CROSS ARM & BRACING ARM CONNECTING BOLT SHALL BE OF 8.8 GRADE.
9. FOUNDATION BOLT SHALL BE OF 8.8 AS PER IS-1367 PART-III.
10. ANCHOR PLATE & TEMPLATE MADE OF TWO/THREE/FOUR JOINTS AND IN BLACK CONDITION
11. WELDING SHALL BE AS PER AMERICAN WELDING SOCIETY D1.1 STRUCTURAL WELDING CODE - STEEL.
12. 'V' NOTCH INDICATED FOR CROSS ARM DIRECTION.
13. OTHER CONNECTION BOLT GRADE-5.6
14. MINIMUM GRADE OF CONCRETE : M25

REV.	DATE	DECRIPTION
2	21.08.2023	REVISED AS PER PGCIL COMMENTS
1	22.02.2023	REVISED AS PER PGCIL COMMENTS

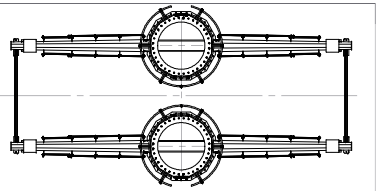
DATE	30.12.2022	CLIENT :-	POWER GRID CORPORATION OF INDIA LTD.
DRN BY	JBT	PROJECT:-	400kV MAHARANIBAGH-NARELA LINE ON M/C TOWER USING TWIN HTLS CONDUCTOR.
DESGN BY	AB		
CHECK BY	AB		
APPR. BY	KD	TITLE:-	GENERAL ARRANGEMENT DRAWING FOR 400kV M/C TENSION TWIN POLE "PD+9M(30 -60°)"
SCALE	N.T.S		

BAJAJ ELECTRICALS LIMITED

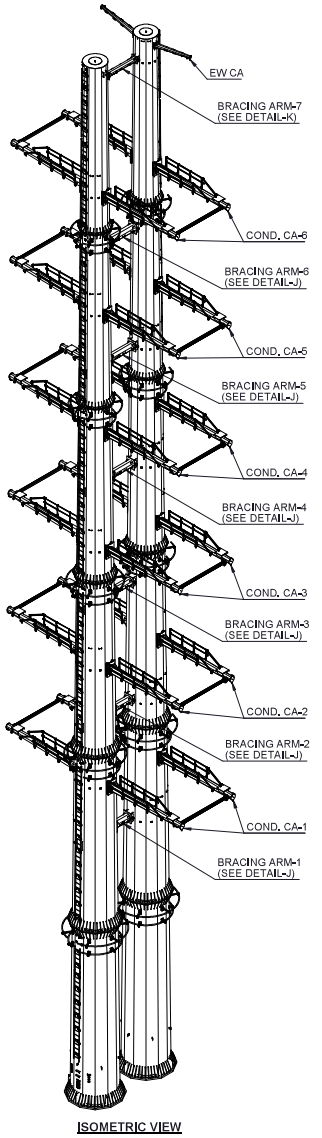
CAD FILE PATH:-	SHEET	REV.
EPC-TLT\MONOPOLE ORDERS\WO 395	1 OF 2	R2

DRAWING NUMBER:-

EPC-22-TLT-O-395-400kV MC-PGCIL-GA-TP-PD+9M-R2

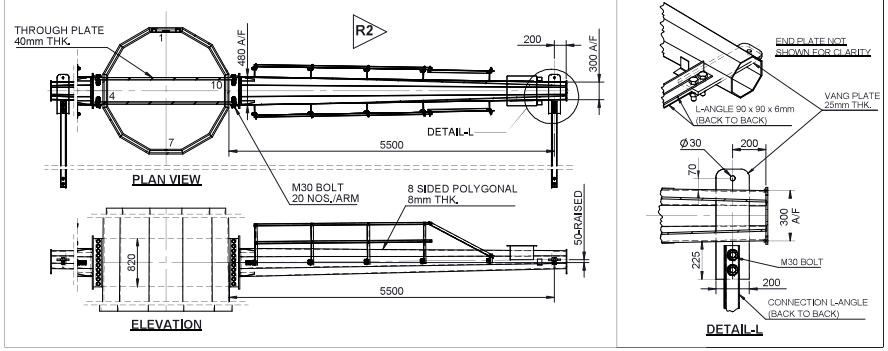


CONDUCTOR CROSS ARM PLAN VIEW (TYP.)

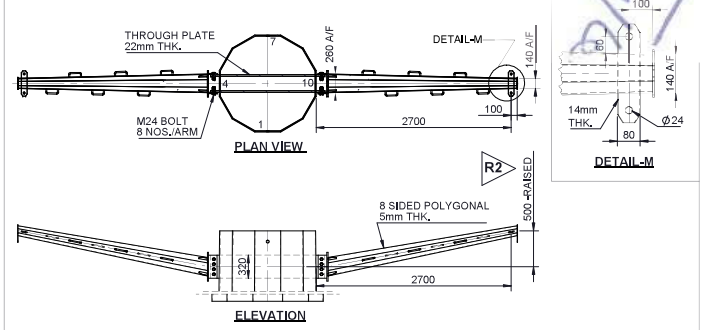


ISOMETRIC VIEW

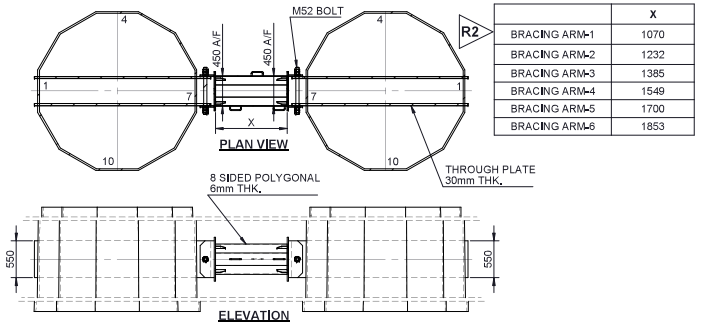
CONDUCTOR CROSS ARM- 1, 2, 3, 4, 5 & 6 DETAILS



EARTHWIRE CROSS ARM DETAIL

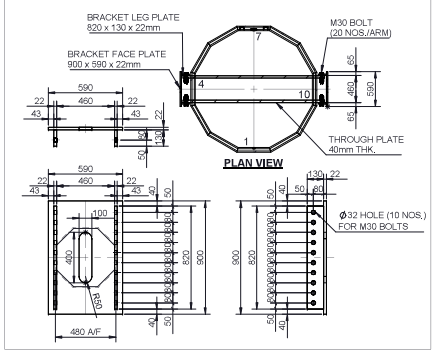


DETAIL-J (BRACING ARM- 1, 2, 3, 4, 5 & 6)

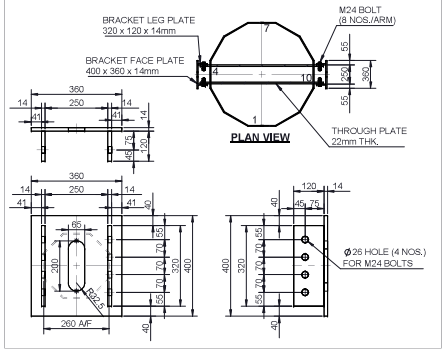


	X
BRACING ARM-1	1070
BRACING ARM-2	1232
BRACING ARM-3	1385
BRACING ARM-4	1549
BRACING ARM-5	1700
BRACING ARM-6	1853

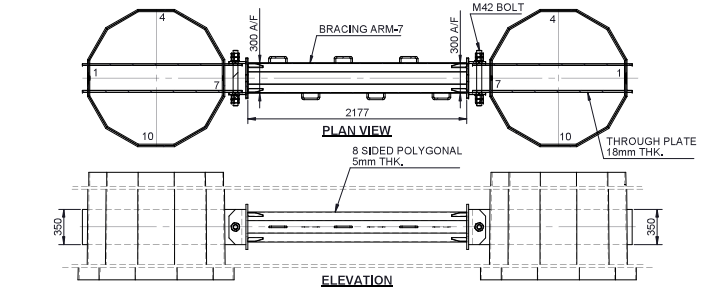
THREE PIECE BRACKET DETAILS: CONDUCTOR CA 1, 2, 3, 4, 5 & 6



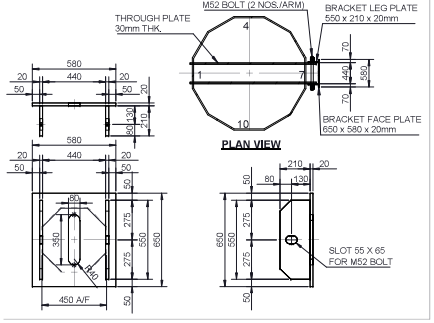
THREE PIECE BRACKET DETAILS: EARTHWIRE CA



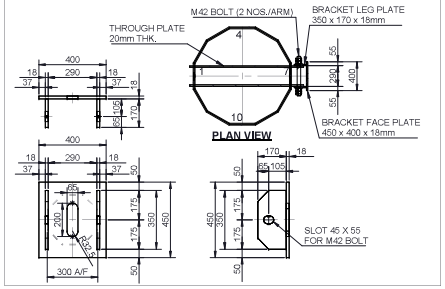
DETAIL-K (BRACING ARM-7)



THREE PIECE BRACKET DETAILS: BRACING ARM 1 TO 6



THREE PIECE BRACKET DETAILS: BRACING ARM-7



R2 NOTE:- REFER TO SHEET NO. 1 OF 2 TO VIEW ALL NOTES.

REV.	DATE	DESCRIPTION
2	21.08.2023	REVISED AS PER PGCIL COMMENTS.
1	22.02.2023	REVISED AS PER PGCIL COMMENTS.

DATE	30.12.2022	CLIENT :-	POWER GRID CORPORATION OF INDIA LTD.
DRN BY	JBT	PROJECT:-	400kV MAHARANIBAGH-NARELA LINE ON M/C TOWER USING TWIN HTLS CONDUCTOR.
DESGN BY	AB		
CHECK BY	AB		
APPR. BY	KD	TITLE:-	GENERAL ARRANGEMENT DRAWING FOR 400kV M/C TENSION TWIN POLE "PD+9M(30°-60°)"
SCALE	N.T.S		

BAJAJ ELECTRICALS LIMITED

CAD FILE PATH:-	SHEET	REV.
EPC-TLT\MONOPOLE ORDERS\WO 395	2 OF 2	R2

DRAWING NUMBER:-

EPC-22-TLT-O-395-400kV MC-PGCIL-GA-TP-PD+9M-R2

Bajaj Electricals Limited.
B-7 , MIDC Ranjangaon ,
Village Dhoksangavi, Tal. Shirur,
Dist. Pune. Pin - 412 209
Ph 02138-232061, 232629/30
Fax 02138-232062

BILL OF MATERIAL (FBOM)	Prepared By :- JBT
MONOPOLE / STRUCTURE TYPE : "PD+9m"	Checked By :- AB
BOM FOR : MONOPOLE	Approved By :- KD
BOM NO : WO395/PGCIL/MP/PD+9m	REV :0
PO NO.-	**Date : 23.08.2023**
W.O. NO. : WO-395	**No. of Pages : 5.0**

CLIENT : - POWER GRID CORPORATION OF INDIA LTD
CONTRACTOR : - BAJAJ ELECTRICALS LIMITED
PROJECT : - 400kV MULTI CIRCUIT MAHARANIBAGH-NARELA TL
Drawing No. : - EPC-22-TLT-O-395-PGCIL-400kV MC-MP-PD+9M-FD

ITEM NO.	PART NAME	DESCRIPTION	Nos.	WT/PC	WEIGHT (Kg)	MATERIAL	REMARK
	SA-1	**P1+P2**					
1	POLE SHAFT: SA-1	2700 x 2475.8 x 25 x 11750	2	18876.79	37753.57	ASTM-A572-GR65 OR EQUI.	POLE SHAFT 1
2	BASE PLATE	Φ3320 x 90	2	2651.68	5303.36	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
3	FLANGE PLATE-1	Φ2980 x 50	2	1134.03	2268.07	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
4	BACKUP RING FOR BASE PLATE	2648 x 2648 x 6 x 50	2	20.01	40.01	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
5	BACKUP RING FOR (F.P.-1)	2424 x 2424 x 6 x 50	2	18.31	36.62	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
6	STEP BOLT BRACKET	138 x 60 x 6	8	0.390	3.12	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
7	LADDER BRACKET	138 x 60 x 6	18	0.390	7.02	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
8	LIFTING LUG	280 x 600 x 30	8	39.56	316.51	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
9	STIFFNER	280 x 600 x 25	100	21.69	2168.56	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
10	STIFFNER FOR (F.P.-1)	225 x 500 x 22	88	13.38	1177.81	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
11	PLATFORM BOTTOM PIPE 40 NB	48.3 x 3.2 x 4378	4	15.58568	62.34	IS: 1239-P1 OR EQUI.	LOOSE ITEM
12	PLATFORM TOP PIPE 40 NB	48.3 x 3.2 x 5457	4	19.42692	77.71	IS: 1239-P1 OR EQUI.	LOOSE ITEM
13	HOLDER-1	L-50x50x5mm (260 LG.)	4	0.988	3.95	IS: 2062 E250	WELDED TO POLE SHAFT
14	HOLDER-2	ISMC75 - 50 LG.	20	0.357	7.14	IS: 2062 E250	WELDED TO POLE SHAFT
15	ANTI CLIMBING PLATES-1	110 x 110 x 10	12	0.95	11.40	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
16	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
-	ANTI CLIMBING PLATES-2	45 x 1000 x 5	12	1.77	21.20	ASTM-A572-GR65 OR EQUI.	FABRICATED LOOSE ITEM
-	FLANGE CONNECTION BOLT	FULL THREADED M64 x 450	88	11.364	1000.03	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
-	FLANGE CONNECTION NUT	NUT FOR M64	352	1.980	696.96	IS 1364-1967	LOOSE ITEM
-	FLANGE CONNECTION WASHER	WASHER FOR M64	176	0.492	86.59	IS 2016-1967	LOOSE ITEM
-	ACD CONNECTION BOLT	FULL THREADED M16 x 45	26	0.097	2.52	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
-	ACD CONNECTION NUT	NUT FOR M16	26	0.031	0.80	IS 1364-1967	LOOSE ITEM
-	ACD CONNECTION WASHER	WASHER FOR M16	26	0.011	0.28	IS 2016-1967	LOOSE ITEM
-	STEP BOLT	M16 x 175	8	0.304	2.43	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
-	N1	NUT FOR M16	16	0.0308	0.49	IS 1364-1967	LOOSE ITEM
-	W1	WASHER FOR Ø16	16	0.0106	0.17	IS 2016-1967	LOOSE ITEM
				TOTAL WEIGHT OF =	**51048.94**		
	SA-2	**P1+P2**					
1	POLE SHAFT: SA-2	2476 x 2251.5 x 25 x 11705	2	17148.90	34297.80	ASTM-A572-GR65 OR EQUI.	POLE SHAFT 2
2	FLANGE PLATE-1	Φ2980 x 50	2	1134.03	2268.07	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
3	FLANGE PLATE-2	Φ2720 x 45	2	874.99	1749.98	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
4	BACKUP RING FOR (F.P.-1)	2424 x 2424 x 6 x 50	2	18.31	36.62	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
5	BACKUP RING FOR (F.P.-2)	2200 x 2200 x 6 x 50	2	16.61	33.23	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
6	STIFFNER FOR (F.P.-1)	225 x 500 x 22	88	13.38	1177.81	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
7	STIFFNER FOR (F.P.-2)	210 x 450 x 20	80	9.90	791.91	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
8	LADDER BRACKET	138 x 60 x 6	24	0.390	9.36	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
9	STEP BOLT BRACKET	138 x 60 x 6	22	0.390	8.58	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
10	THROUGH PLATE (CA-1)	2553 x 820 x 40	4	351.74	1406.95	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
11	THROUGH PLATE (BA-1)	2630 x 550 x 30	4	187.28	749.13	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
12	PLATFORM BOTTOM PIPE 40 NB	48.3 x 3.2 x 4022	4	14.31832	57.27	IS: 1239-P1 OR EQUI.	LOOSE ITEM
13	PLATFORM TOP PIPE 40 NB	48.3 x 3.2 x 5101	4	18.15956	72.64	IS: 1239-P1 OR EQUI.	LOOSE ITEM
14	ROD	Φ16 x 266	10	0.42	4.20	IS: 2062 E250	WELDED TO ARM SHAFT
15	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
-	FLANGE CONNECTION BOLT	FULL THREADED M56 x 400	80	7.734	618.72	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
-	FLANGE CONNECTION NUT	NUT FOR M56	320	1.420	454.40	IS 1364-1967	LOOSE ITEM
-	FLANGE CONNECTION WASHER	WASHER FOR M56	160	0.425	68.00	IS 2016-1967	LOOSE ITEM
-	STEP BOLT	M16 x 175	22	0.304	6.69	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
-	N1	NUT FOR M16	44	0.0308	1.36	IS 1364-1967	LOOSE ITEM
-	W1	WASHER FOR Ø16	44	0.0106	0.47	IS 2016-1967	LOOSE ITEM
				TOTAL WEIGHT OF SA-2 =	**43813.44**		
	SA-3	**P1+P2**					
1	POLE SHAFT: SA-3	2241.5 x 2017.3 x 20 x 11710	2	12394.53	24789.07	ASTM-A572-GR65 OR EQUI.	POLE SHAFT 3
2	FLANGE PLATE-2	Φ2720 x 45	2	874.99	1749.98	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
3	FLANGE PLATE-3	Φ2400 x 45	2	658.14	1316.28	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
4	BACKUP RING FOR (F.P.-2)	2200 x 2200 x 6 x 50	2	16.61	33.23	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
5	BACKUP RING FOR (F.P.-3)	1975.3 x 1975.3 x 6 x 50	2	14.91	29.82	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
6	STIFFNER FOR (F.P.-2)	210 x 450 x 20	80	9.90	791.91	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
7	STIFFNER FOR (F.P.-3)	175 x 400 x 16	72	6.08	437.69	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
8	LADDER BRACKET	138 x 60 x 6	24	0.390	9.36	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
9	STEP BOLT BRACKET	138 x 60 x 6	22	0.390	8.58	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
10	THROUGH PLATE (CA-2)	2391 x 820 x 40	4	329.61	1318.44	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
11	THROUGH PLATE (BA-2)	2468 x 550 x 30	4	175.84	703.34	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
12	THROUGH PLATR (BA-3)	2315 x 550 x 30	4	165.03	660.11	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
13	PLATFORM BOTTOM PIPE 40 NB	48.3 x 3.2 x 3652	4	13.00112	52.00	IS: 1239-P1 OR EQUI.	LOOSE ITEM
14	PLATFORM TOP PIPE 40 NB	48.3 x 3.2 x 4732	4	16.84592	67.38	IS: 1239-P1 OR EQUI.	LOOSE ITEM
15	ROD	Φ16 x 266	18	0.42	7.57	IS: 2062 E250	WELDED TO ARM SHAFT
16	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
-	FLANGE CONNECTION BOLT	FULL THREADED M48 x 350	72	4.972	357.98	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
-	FLANGE CONNECTION NUT	NUT FOR M48	288	0.924	266.11	IS 1364-1967	LOOSE ITEM
-	FLANGE CONNECTION WASHER	WASHER FOR M48	144	0.284	40.90	IS 2016-1967	LOOSE ITEM
-	STEP BOLT	M16 x 175	22	0.304	6.69	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
-	N1	NUT FOR M16	44	0.0308	1.36	IS 1364-1967	LOOSE ITEM
-	W1	WASHER FOR Ø16	44	0.0106	0.47	IS 2016-1967	LOOSE ITEM
				TOTAL WEIGHT OF SA-3 =	**32648.52**		

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BILL OF MATERIAL (FBOM)	Prepared By :- JBT
MONOPOLE / STRUCTURE TYPE : "PD+9m"	Checked By :- AB
BOM FOR : MONOPOLE	Approved By :- KD
BOM NO : WO395/PGCIL/MP/PD+9m	REV :0
PO NO.-	**Date : 23.08.2023**
W.O. NO. : WO-395	**No. of Pages : 5.0**

CLIENT : - POWER GRID CORPORATION OF INDIA LTD
CONTRACTOR : - BAJAJ ELECTRICALS LIMITED
PROJECT : - 400kV MULTI CIRCUIT MAHARANIBAGH-NARELA TL
Drawing No. : - EPC-22-TLT-O-395-PGCIL-400kV MC-MP-PD+9M-FD

ITEM NO.	PART NAME	DESCRIPTION	Nos.	WT/PC	WEIGHT (Kg)	MATERIAL	REMARK
	SA-4	**P1+P2**					
1	POLE SHAFT: SA-4	2005.3 x 1781.1 x 14 x 11715	2	7746.70	15493.40	ASTM-A572-GR65 OR EQUI.	POLE SHAFT - 4
2	FLANGE PLATE-3	Φ2400 x 45	2	658.14	1316.28	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
3	FLANGE PLATE-4	Φ2110 x 40	2	449.89	899.78	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
4	BACKUP RING FOR (F.P.-3)	1975.3 x 1975.3 x 6 x 50	2	14.91	29.82	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
5	BACKUP RING FOR (F.P.-4)	1751.1 x 1751.1 x 6 x 50	2	13.21	26.43	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
6	STIFFNER FOR FLANGE PLATE-3	175 x 400 x 16	72	5.50	395.64	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
7	STIFFNER FOR FLANGE PLATE-4	150 x 320 x 14	64	3.42	218.92	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
8	LADDER BRACKET	138 x 60 x 6	24	0.390	9.36	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
9	STEP BOLT BRACKET	138 x 60 x 6	22	0.390	8.58	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
10	THROUGH PLATE (CA-3)	2228 x 820 x 40	4	307.34	1229.38	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
11	THROUGH PLATE (CA-4)	2075 x 820 x 40	4	286.45	1145.79	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
12	THROUGH PLATE (BA-4)	2151 x 550 x 30	4	153.44	613.76	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
13	PLATFORM BOTTOM PIPE 40 NB	48.3 x 3.2 x 3274	4	11.65544	46.62	IS: 1239-P1 OR EQUI.	LOOSE ITEM
14	PLATFORM TOP PIPE 40 NB	48.3 x 3.2 x 4355	4	15.5038	62.02	IS: 1239-P1 OR EQUI.	LOOSE ITEM
15	ROD	Φ16 x 266	18	0.42	7.57	IS: 2062 E250	WELDED TO ARM SHAFT
16	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
-	FLANGE CONNECTION BOLT	FULL THREADED M39 x 300	64	2.813	180.03	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
-	FLANGE CONNECTION NUT	NUT FOR M39	256	0.472	120.83	IS 1364-1967	LOOSE ITEM
-	FLANGE CONNECTION WASHER	WASHER FOR M39	128	0.126	16.13	IS 2016-1967	LOOSE ITEM
-	STEP BOLT	M16 x 175	22	0.304	6.69	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
-	N1	NUT FOR M16	44	0.0308	1.36	IS 1364-1967	LOOSE ITEM
-	W1	WASHER FOR Ø16	44	0.0106	0.47	IS 2016-1967	LOOSE ITEM
				TOTAL WEIGHT OF SA-4 =	**21829.12**		
	SA-5	**P1+P2**					
1	POLE SHAFT: SA-5	1781.1 x 1556.8 x 14 x 11724	2	6823.60	13647.21	ASTM-A572-GR65 OR EQUI.	POLE SHAFT - 5
2	FLANGE PLATE-4	Φ2110 x 40	2	449.89	899.78	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
3	FLANGE PLATE-5	Φ1880 x 36	2	349.66	699.32	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
4	BACKUP RING FOR (F.P.-4)	1751.1 x 1751.1 x 6 x 50	2	13.21	26.43	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
5	BACKUP RING FOR (F.P.-5)	1527 x 1527 x 6 x 50	2	11.52	23.03	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
6	STIFFNER FOR FLANGE PLATE-4	150 x 320 x 14	64	3.42	218.92	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
7	STIFFNER FOR FLANGE PLATE-5	145 x 310 x 14	56	3.23	180.63	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
8	LADDER BRACKET	138 x 60 x 6	24	0.390	9.36	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
9	STEP BOLT BRACKET	138 x 60 x 6	22	0.390	8.58	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
10	THROUGH PLATE (CA-5)	1923 x 820 x 40	4	265.68	1062.74	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
11	THROUGH PLATE (BA-5)	1965 x 550 x 30	4	140.30	561.20	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
12	THROUGH PLATE (BA-6)	1847 x 550 x 30	4	131.96	527.85	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
13	PLATFORM BOTTOM PIPE 40 NB	48.3 x 3.2 x 2918	4	10.38808	41.55	IS: 1239-P1 OR EQUI.	LOOSE ITEM
14	PLATFORM TOP PIPE 40 NB	48.3 x 3.2 x 4001	4	14.24356	56.97	IS: 1239-P1 OR EQUI.	LOOSE ITEM
15	ROD	Φ16 x 266	18	0.42	7.57	IS: 2062 E250	WELDED TO ARM SHAFT
16	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
-	FLANGE CONNECTION BOLT	FULL THREADED M39 x 300	56	2.813	157.53	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
-	FLANGE CONNECTION NUT	NUT FOR M39	224	0.472	105.73	IS 1364-1967	LOOSE ITEM
-	FLANGE CONNECTION WASHER	WASHER FOR M39	112	0.126	14.11	IS 2016-1967	LOOSE ITEM
-	STEP BOLT	M16 x 175	22	0.304	6.69	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
-	N1	NUT FOR M16	44	0.0308	1.36	IS 1364-1967	LOOSE ITEM
-	W1	WASHER FOR Ø16	44	0.0106	0.47	IS 2016-1967	LOOSE ITEM
				TOTAL WEIGHT OF SA-5 =	**18257.29**		
	SA-6	**P1+P2**					
1	POLE SHAFT: SA-6	1552.8 x 1340 x 12 x 11164	2	4828.66	9657.32	ASTM-A572-GR65 OR EQUI.	POLE SHAFT - 6
2	FLANGE PLATE-5	Φ1880 x 36	2	349.66	699.32	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
3	BACKUP RING FOR (F.P.-5)	1527 x 1527 x 6 x 50	2	11.52	23.03	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & F.P
4	STIFFNER FOR FLANGE PLATE-5	145 x 310 x 14	56	3.23	180.63	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT & B.P.
5	LADDER BRACKET	138 x 60 x 6	24	0.390	9.36	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
6	STEP BOLT BRACKET	138 x 60 x 6	18	0.390	7.02	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
7	THROUGH PLATE (CA-6)	1768 x 820 x 40	4	244.51	978.05	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
8	THROUGH PLATE (CA-7)	1590 x 320 x 22	4	51.38	205.53	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
9	THROUGH PLATE (BA-7)	1587 x 350 x 20	4	50.42	201.68	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
10	ROD	Φ16 x 266	16	0.42	6.73	IS: 2062 E250	WELDED TO ARM SHAFT
11	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO POLE SHAFT
12	STRAINER PLATE	Φ1430 x 10	2	95.87	191.73	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
13	TOP FLAT PLATE	1316 x 60 x 5	2	3.10	6.20	ASTM-A572-GR65 OR EQUI.	WELDED TO POLE SHAFT
14	TOP CLOSING PLATE	Φ730 x 5	2	16.43	32.86	ASTM-A572-GR65 OR EQUI.	FABRICATED LOOSE ITEM
15	CAP PLATE-BOLT	FULL THREADED M16 x 50	2	0.121	0.24	Gr 5.6 As per IS 1367/ ISO 898	LOOSE ITEM
16	CAP PLATE-WASHER	WASHER FOR M16	2	0.011	0.02	IS 2016-1967	LOOSE ITEM
17	CAP PLATE-NUT	NUT FOR M16	2	0.031	0.06	IS 1364-1967	LOOSE ITEM
-	STEP BOLT	M16 x 175	18	0.304	5.48	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
-	N1	NUT FOR M16	36	0.0308	1.11	IS 1364-1967	LOOSE ITEM
-	W1	WASHER FOR Ø16	36	0.0106	0.38	IS 2016-1967	LOOSE ITEM
				TOTAL WEIGHT OF SA-6 =	**12207.02**		

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BILL OF MATERIAL (FBOM)
MONOPOLE / STRUCTURE TYPE : "PD+9m"
BOM FOR : MONOPOLE
BOM NO : WO395/PGCIL/MP/PD+9m
PO NO.-
W.O. NO. : WO-395

Prepared By :- JBT
Checked By :- AB
Approved By :- KD
REV :0
Date : 23.08.2023
No. of Pages : 5.0

CLIENT : - POWER GRID CORPORATION OF INDIA LTD
CONTRACTOR : - BAJAJ ELECTRICALS LIMITED
PROJECT : - 400kV MULTI CIRCUIT MAHARANIBAGH-NARELA TL
Drawing No. : - EPC-22-TLT-O-395-PGCIL-400kV MC-MP-PD+9M-FD

ITEM NO.	PART NAME	DESCRIPTION	Nos.	WT/PC	WEIGHT (Kg)	MATERIAL	REMARK
	CONDUCTOR ARM 1-6	**P1+P2**					
1	LEFT CROSS ARMS 01,02,03	480 x 300 x 8 x 5518	24	433.87	10412.78	ASTM-A572-GR65 OR EQUI.	CROSS ARM SHAFT
2	BACKUP RING	462 x 462 x 5 x 25	24	1.44	34.61	ASTM-A572-GR65 OR EQUI.	WELDED TO CROSS ARM SHAFT
3	CA FACE PLATE	590 x 900 x 22	24	91.70	2200.89	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
4	CA LEG PLATE	820 x 130 x 22	48	18.41	883.67	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
5	VANG PLATE	200 x 657 x 25	24	25.79	618.89	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
6	CONNECTING ANGLE	L 90 x 90 x 6 x 3644 mm Long	24	29.88	717.14	IS: 2062 E250	FABRICATED LOOSE ITEM
7	CA STIFFNER	80 x 250 x 8	96	1.26	120.58	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
8	CA END PLATE	330 x 425 x 10	24	11.01	264.23	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
9	ID TAG	100 x 60 x 3	24	0.13	3.18	ASTM-A572-GR50 OR EQUI.	WELDED TO ARM SHAFT
10	M30x130Lg BOLT (75 mm Threaded)	M30 x 130	480	0.854	409.92	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
11	M30 WASHER	WASHER FOR M30	480	0.051	24.24	IS 2016-1967	LOOSE ITEM
12	M30 NUT	NUT FOR M30	960	0.216	207.36	IS 1364-1967	LOOSE ITEM
13	M30x110Lg BOLT (75mm Threaded)	M30 x 110	72	0.804	57.89	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
14	M30 WASHER	WASHER FOR M30	72	0.051	3.64	IS 2016-1967	LOOSE ITEM
15	M30 NUT	NUT FOR M30	144	0.216	31.10	IS 1364-1967	LOOSE ITEM
		TOTAL WEIGHT OF CONDUCTOR ARM 1-6 =			**15990.11**		
	ARM -HANDRAIL						
2	SEATING PLATE	500 x 500 x 5	24	9.81	235.50	ASTM-A572-GR65 OR EQUI.	WELDED TO FLAT PLATE
3	FLAT PLATE	400 x 230 x 5	48	3.61	173.33	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT & S.P.
4	HANDRAIL PLATE	180 x 90 x 10	240	1.27	305.21	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
5	HANDRAIL ANGLE-1	L 45 x 45 x 4 x 3000 mm Long	96	8.100	777.60	IS: 2062 E250	FABRICATED LOOSE ITEM
6	HANDRAIL ANGLE-2	L 45 x 45 x 4 x 1238 mm Long	48	3.343	160.44	IS: 2062 E250	FABRICATED LOOSE ITEM
7	HANDRAIL ANGLE-3	L 45 x 45 x 4 x 700 mm Long	192	1.890	362.88	IS: 2062 E250	FABRICATED LOOSE ITEM
8	HANDRAIL ANGLE-4	L 45 x 45 x 4 x 150 mm Long	48	0.405	19.44	IS: 2062 E250	FABRICATED LOOSE ITEM
9	FOOT REST	75 x 175 x 5	48	0.52	24.73	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
10	M16 BOLT	FULL THREADED M16 x 50	960	0.121	116.16	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
11	M16 WASHER	WASHER FOR M16	960	0.011	10.18	IS 2016-1967	LOOSE ITEM
12	M16 NUT	NUT FOR M16	1920	0.031	59.14	IS 1364-1967	LOOSE ITEM
		TOTAL WEIGHT OF W1 =			**2244.60**		
	EARTH WIRE CROSS ARM	**P1+P2**					
1	EARTH WIRE CROSS ARM	260 x 140 x 5 x 2727	2	68.33	136.66	ASTM-A572-GR65 OR EQUI.	CROSS ARM SHAFT
2	STEP BOLT BRACKET	138 x 60 x 6	4	0.390	1.56	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
3	CA FACE PLATE	360 x 400 x 14	2	15.83	31.65	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
4	CA LEG PLATE	320 x 120 x 14	4	4.22	16.88	ASTM-A572-GR65 OR EQUI.	WELDED TO FACE PLATE
5	VANG PLATE	354 x 80 x 14	2	3.11	6.22	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
6	CA END PLATE	170 x 245 x 5	2	1.63	3.27	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
7	CA STIFFNER-1	50 x 150 x 5	4	0.29	1.18	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
8	CA STIFFNER-2	50 x 150 x 5	4	0.29	1.18	ASTM-A572-GR65 OR EQUI.	WELDED TO ARM SHAFT
9	ROD	Φ16 x 266	14	0.42	5.88	IS: 2062 E250	WELDED TO ARM SHAFT
10	ID TAG	100 x 60 x 3	2	0.13	0.26	ASTM-A572-GR50 OR EQUI.	WELDED TO ARM SHAFT
11	M24x90Lg BOLT (60mm Threaded)	M24 x 90	16	0.408	6.53	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
12	M24 WASHER	WASHER FOR M24	16	0.031	0.50	IS 2016-1967	LOOSE ITEM
13	M24 NUT	NUT FOR M24	32	0.103	3.30	IS 1364-1967	LOOSE ITEM
14	STEP BOLT	M16 x 175	4	0.304	1.22	Gr 4.6 (ISO 10238 : (2001)	LOOSE ITEM
15	N1	NUT FOR M16	8	0.0308	0.25	IS 1364-1967	LOOSE ITEM
16	W1	WASHER FOR Ø16	8	0.0106	0.08	IS 2016-1967	LOOSE ITEM
		TOTAL WEIGHT OF EARTH WIRE CROSS ARM =			**216.62**		
	BRACING ARM 1/2/3/4/5/6/7	**P1+P2**					
1	BRACING ARM-1	450 x 450 x 6 x 1070	1	73.66	73.66	ASTM-A572-GR65 OR EQUI.	BRACING ARM-1
2	BRACING ARM-2	450 x 450 x 6 x 1232	1	84.81	84.81	ASTM-A572-GR65 OR EQUI.	BRACING ARM-2
3	BRACING ARM-3	450 x 450 x 6 x 1385	1	95.34	95.34	ASTM-A572-GR65 OR EQUI.	BRACING ARM-3
4	BRACING ARM-4	450 x 450 x 6 x 1549	1	106.63	106.63	ASTM-A572-GR65 OR EQUI.	BRACING ARM-4
5	BRACING ARM-5	450 x 450 x 6 x 1700	1	117.03	117.03	ASTM-A572-GR65 OR EQUI.	BRACING ARM-5
6	BRACING ARM-6	450 x 450 x 6 x 1853	1	127.56	127.56	ASTM-A572-GR65 OR EQUI.	BRACING ARM-6
7	BRACING ARM-7	300 x 300 x 5 x 2177	1	82.86	82.86	ASTM-A572-GR65 OR EQUI.	BRACING ARM-7
8	BA-1/2/3/4/5/6 FACE PLATE PLATE-1	580 x 650 x 20	12	59.19	710.27	ASTM-A572-GR65 OR EQUI.	WELDED TO BA-1/2/3/4/5/6
9	BA-1/2/3/4/5/6 LEG PLATE-1	210 x 550 x 20	24	18.13	435.20	ASTM-A572-GR65 OR EQUI.	WELDED TO BA-1/2/3/4/5/6
10	BA-7 FACE PLATE PLATE-2	400 x 450 x 18	2	25.43	50.87	ASTM-A572-GR65 OR EQUI.	WELDED TO BA-7
11	BA-7 LEG PLATE-2	170 x 350 x 18	4	8.41	33.63	ASTM-A572-GR65 OR EQUI.	WELDED TO BA-7
12	BA STIFFNER	50 x 150 x 5	56	0.29	16.49	ASTM-A572-GR65 OR EQUI.	WELDED TO BA & FP
13	ROD	Φ16 x 266	28	0.42	11.77	IS: 2062 E250	WELDED TO BA
14	ID TAG	100 x 60 x 3	7	0.13	0.93	ASTM-A572-GR50 OR EQUI.	WELDED TO BA
15	M52x750Lg BOLT (130mm Threaded Both Ends)	M52 x 750	12	12.503	150.04	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
16	M52 NUT	NUT FOR M52	48	1.130	54.24	IS 1364-1967	LOOSE ITEM
17	M52 WASHER	WASHER FOR M52	24	0.319	7.66	IS 2016-1967	LOOSE ITEM
18	M42x550Lg BOLT (110mm Threaded Both Ends)	M42 x 550	2	5.982	11.96	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
19	M42 NUT	NUT FOR M42	8	0.610	4.88	IS 1364-1967	LOOSE ITEM
20	M42 WASHER	WASHER FOR M42	4	0.175	0.70	IS 2016-1967	LOOSE ITEM
		TOTAL WEIGHT OF BRACING ARM 1/2/3/4/5/6/7 =			**2176.54**		

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BILL OF MATERIAL (FBOM)	Prepared By :- JBT
MONOPOLE / STRUCTURE TYPE : "PD+9m"	Checked By :- AB
BOM FOR : MONOPOLE	Approved By :- KD
BOM NO : WO395/PGCIL/MP/PD+9m	REV :0
PO NO.-	**Date : 23.08.2023**
W.O. NO. : WO-395	**No. of Pages : 5.0**

CLIENT : - POWER GRID CORPORATION OF INDIA LTD
CONTRACTOR : - BAJAJ ELECTRICALS LIMITED
PROJECT : - 400kV MULTI CIRCUIT MAHARANIBAGH-NARELA TL
Drawing No. : - EPC-22-TLT-O-395-PGCIL-400kV MC-MP-PD+9M-FD

ITEM NO.	PART NAME	DESCRIPTION	Nos.	WT/PC	WEIGHT (Kg)	MATERIAL	REMARK
	RING MOUNTING BRACKTS	**P1**					
1	TOP SIDE ANGLE	L 45 x 45 x 4 x 615 mm Long	120	1.66	199.26	IS: 2062 E250	FABRICATED LOOSE ITEM
2	BOTTOM SIDE ANGLE	L 45 x 45 x 4 x 265 mm Long	120	0.72	85.86	IS: 2062 E250	FABRICATED LOOSE ITEM
3	MOUNTING BRACKET PLATE	140 x 250 x 6	120	1.65	197.82	IS: 2062 E250	FABRICATED LOOSE ITEM
4	MOUNTING PLATE	140 x 170 x 8	120	1.49	179.36	IS: 2062 E250	FABRICATED LOOSE ITEM
5	CLAMPING PLATE	80 x 130 x 6	40	0.49	19.59	IS: 2062 E250	FABRICATED LOOSE ITEM
6	U' BOLT M10	Φ10 x 250	240	0.15	37.04	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
7	M10 WASHER	WASHER FOR M10	480	0.004	1.89	IS 2016-1967	LOOSE ITEM
8	M10 NUT	NUT FOR M10	960	0.01	10.46	IS 1364-1967	LOOSE ITEM
9	M16 BOLT	FULL THREADED M16 x 50	520	0.10	53.41	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
10	M16 WASHER	WASHER FOR M16	520	0.01	5.51	IS 2016-1967	LOOSE ITEM
11	M16 NUT	NUT FOR M16	1040	0.03	32.03	IS 1364-1967	LOOSE ITEM
		TOTAL WEIGHT OF RING MOUNTING BRACKTS =			**822.24**		
	LADDER AND ACCESSORIES (1.5M)						
1	LADDER ANGLE	L 45 x 45 x 4 x 1500 mm Long	24	4.050	97.20	IS: 2062 E250	FABRICATED LOOSE ITEM
2	LADDER FLAT PLATE	550 x 60 x 6	24	1.55	37.30	IS: 2062 E250	FABRICATED LOOSE ITEM
3	LADDER ROD	Φ16 x 410	60	0.647	38.83	IS: 2062 E250	WELDED TO LADDER ANGLE
-	M16 BOLT	FULL THREADED M16 x 50	72	0.103	7.42	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
-	M16 WASHER	WASHER FOR M16	72	0.011	0.76	IS 2016-1967	LOOSE ITEM
-	M16 NUT	NUT FOR M16	144	0.031	4.44	IS 1364-1967	LOOSE ITEM
		TOTAL WEIGHT OF LADDER AND ACCESSORIES (1.5M) =			**185.94**		
	LADDER AND ACCESSORIES (3M)						
1	LADDER ANGLE	L 45 x 45 x 4 x 3000 mm Long	20	8.100	162.00	IS: 2062 E250	FABRICATED LOOSE ITEM
2	LADDER FLAT PLATE	550 x 60 x 6	30	1.55	46.63	IS: 2062 E250	FABRICATED LOOSE ITEM
3	LADDER ROD	Φ16 x 410	100	0.647	64.71	IS: 2062 E250	WELDED TO LADDER ANGLE
-	M16 BOLT	FULL THREADED M16 x 50	90	0.103	9.27	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
-	M16 WASHER	WASHER FOR M16	90	0.011	0.95	IS 2016-1967	LOOSE ITEM
-	M16 NUT	NUT FOR M16	180	0.031	5.54	IS 1364-1967	LOOSE ITEM
		TOTAL WEIGHT OF LADDER AND ACCESSORIES (3M) =			**289.11**		
	LADDER AND ACCESSORIES (6M)						
1	LADDER ANGLE	L 45 x 45 x 4 x 6000 mm Long	24	16.200	388.80	IS: 2062 E250	FABRICATED LOOSE ITEM
2	LADDER FLAT PLATE	550 x 60 x 6	84	1.55	130.56	IS: 2062 E250	FABRICATED LOOSE ITEM
3	LADDER ROD	Φ16 x 410	240	0.647	155.31	IS: 2062 E250	WELDED TO LADDER ANGLE
-	M16 BOLT	FULL THREADED M16 x 50	252	0.103	25.96	Gr 5.6 As per IS 1367/ISO 898	LOOSE ITEM
-	M16 WASHER	WASHER FOR M16	252	0.011	2.67	IS 2016-1967	LOOSE ITEM
-	M16 NUT	NUT FOR M16	504	0.031	15.52	IS 1364-1967	LOOSE ITEM
		TOTAL WEIGHT OF LADDER AND ACCESSORIES (6M) =			**718.82**		
	AB, AP	**P1+P2**					
1	ANCHOR PLATE	3342 x 2858 x 36	2	666.04	1332.08	ASTM-A572-GR50 OR EQUI.	LOOSE ITEM
2	TEMPLATE	3342 x 2858 x 12	0	222.01	0.00	ASTM-A572-GR36 OR EQUI.	LOOSE ITEM
2	ANCHOR FLAT PLATE-1	120 x 2630 x 12	0	29.73	0.00	IS: 2062 E350	FABRICATED LOOSE ITEM
3	ANCHOR FLAT PLATE-2	120 x 1150 x 12	0	13.00	0.00	IS: 2062 E350	FABRICATED LOOSE ITEM
-	ANCHOR BOLT	M64 x 3000	108	75.852	8192.00	Gr 8.8 As per IS 1367/ ISO 898	LOOSE ITEM
-	NUT	NUT FOR 64	540	1.980	1069.20	IS 1364-1967	LOOSE ITEM
-	WASHER	WASHER FOR Ø 64	432	0.4920	212.54	IS 2016-1967	LOOSE ITEM
		TOTAL WEIGHT OF AB, AP =			**10805.82**		

POLE WEIGHT SUMMARY	
WEIGHT OF SA-1 :	49258.7
WEIGHT OF SA-2 :	42663.8
WEIGHT OF SA-3 :	31975.0
WEIGHT OF SA-4 :	21503.6
WEIGHT OF SA-5 :	17971.4
WEIGHT OF SA-6 :	12199.7
WEIGHT OF CONDUCTOR ARM 1-6 :	15256.0
WEIGHT OF ARM -HANDRAIL :	2059.1
WEIGHT OF EARTH WIRE CROSS ARM :	204.7
WEIGHT OF BRACING ARM 1/2/3/4/5/6/7 :	1947.1
WEIGHT OF RING MOUNTING BRACKTS :	681.9
LADDER AND ACCESSORIES (1.5M) :	173.3
LADDER AND ACCESSORIES (3M) :	273.3
LADDER AND ACCESSORIES (6M) :	674.7
TOTAL BLACK WEIGHT (Kg) :	**196842.4**

ANCHOR PLATE WEIGHT SUMMARY	
ANCHOR PLATE	1332.08
TEMPLATE	0.00
ANCHOR FLAT PLATE-1	0.00
ANCHOR FLAT PLATE-2	0.00
TOTAL AP WT.(Kg)	**1332.08**

Bajaj Electricals Limited.
B-7 , MIDC Ranjangaon ,
Village Dhoksangavi, Tal. Shirur,
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BILL OF MATERIAL (FBOM)	Prepared By :- JBT
MONOPOLE / STRUCTURE TYPE : "PD+9m"	Checked By :- AB
BOM FOR : MONOPOLE	Approved By :- KD
BOM NO : WO395/PGCIL/MP/PD+9m	REV :0
PO NO.-	**Date : 23.08.2023**
W.O. NO. : WO-395	**No. of Pages : 5.0**

CLIENT : - POWER GRID CORPORATION OF INDIA LTD
CONTRACTOR : - BAJAJ ELECTRICALS LIMITED
PROJECT : - 400kV MULTI CIRCUIT MAHARANIBAGH-NARELA TL
Drawing No. : - EPC-22-TLT-O-395-PGCIL-400kV MC-MP-PD+9M-FD

ITEM NO.	PART NAME	DESCRIPTION	Nos.	WT/PC	WEIGHT (Kg)	MATERIAL	REMARK

BOLT SUMMARY

SIZE	GRADE	QTY.	WT	REMARK
M30x130Lg BOLT (75 mm Threaded)	Gr 8.8 As per IS 1367/ ISO 898	480	409.92	COND. ARM CONNECTION BOLT
M30 NUT	IS 1364-1967	960	207.36	COND. ARM CONNECTION BOLT WASHER
M30 WASHER	IS 2016-1967	480	24.24	COND. ARM CONNECTION BOLT NUT
M30x110Lg BOLT (75mm Threaded)	Gr 8.8 As per IS 1367/ ISO 898	72	57.89	COND. ARM CONNECTION BOLT
M30 NUT	IS 1364-1967	144	31.10	COND. ARM CONNECTION BOLT WASHER
M30 WASHER	IS 2016-1967	72	3.64	COND. ARM CONNECTION BOLT NUT
M24x90Lg BOLT (60mm Threaded)	Gr 8.8 As per IS 1367/ ISO 898	16	6.53	EARTH ARM CONNECTION BOLT
M24 WASHER	IS 1363-1967	16	0.50	EARTH ARM CONNECTION BOLT WASHER
M24 NUT	IS 2016-1967	32	3.30	EARTH ARM CONNECTION BOLT NUT
M16 x 175 Long STEP BOLT	Gr 4.6 (ISO 10238 : (2001)	118	35.90	STEP BOLTS
NUT FOR M16	IS 1364-1967	236	7.27	STEP BOLT NUT
WASHER FOR Ø16	IS 2016-1967	236	2.50	STEP BOLT WASHER
FULL THREADED M16 x 45	Gr 5.6 As per IS 1367/ISO 898	26	2.52	ACD BOLT
NUT FOR M16	IS 1364-1967	26	0.80	ACD NUT
WASHER FOR M16	IS 2016-1967	26	0.28	ACD WASHER
FULL THREADED M16 x 50	Gr 5.6 As per IS 1367/ ISO 898	2	0.24	POLE TOP COVER PLATE BOLT
NUT FOR M16	IS 1364-1967	2	0.06	POLE TOP PLATE COVER BOLT NUT
WASHER FOR M16	IS 2016-1967	2	0.02	POLE TOP PLATE COVER BOLT WASHER
FULL THREADED M64 x 450	Gr 8.8 As per IS 1367/ ISO 898	88	1000.03	FLANGE-1 CONNECTION BOLT
NUT FOR M56	IS 1364-1967	352	696.96	FLANGE-1 CONNECTION BOLT NUT
WASHER FOR M56	IS 2016-1967	176	86.59	FLANGE-1 CONNECTION BOLT WASHER
FULL THREADED M56 x 400	Gr 8.8 As per IS 1367/ ISO 898	80	618.72	FLANGE-2 CONNECTION BOLT
NUT FOR M56	IS 1364-1967	320	454.40	FLANGE-2 CONNECTION BOLT NUT
WASHER FOR M56	IS 2016-1967	160	68.00	FLANGE-2 CONNECTION BOLT WASHER
FULL THREADED M48 x 350	Gr 8.8 As per IS 1367/ ISO 898	72	357.98	FLANGE-3 CONNECTION BOLT
NUT FOR M48	IS 1364-1967	288	266.11	FLANGE-3 CONNECTION BOLT NUT
WASHER FOR M48	IS 2016-1967	144	40.90	FLANGE-3 CONNECTION BOLT WASHER
FULL THREADED M39 x 300	Gr 8.8 As per IS 1367/ ISO 898	64	180.03	FLANGE-4 CONNECTION BOLT BOLT
NUT FOR M39	IS 1364-1967	256	120.83	FLANGE-4 CONNECTION BOLT NUT
WASHER FOR M39	IS 2016-1967	128	16.13	FLANGE-4 CONNECTION BOLT WASHER
FULL THREADED M39 x 300	Gr 8.8 As per IS 1367/ ISO 898	56	157.53	FLANGE-5 CONNECTION BOLT BOLT
NUT FOR M39	IS 1364-1967	224	105.73	FLANGE-5 CONNECTION BOLT NUT
WASHER FOR M39	IS 2016-1967	112	14.11	FLANGE-5 CONNECTION BOLT WASHER
M52x750Lg BOLT (130mm Threaded Both Ends)	Gr 8.8 As per IS 1367/ ISO 898	12	150.04	ARM BRACING CONNECTION BOLT
M52 NUT	IS 1364-1967	48	54.24	ARM BRACING CONNECTION BOLT NUT
M52 WASHER	IS 2016-1967	24	7.66	ARM BRACING CONNECTION BOLT WASHER
M42x550Lg BOLT (110mm Threaded Both Ends)	Gr 8.8 As per IS 1367/ ISO 898	2	11.96	ARM BRACING CONNECTION BOLT
M42 NUT	IS 1364-1967	8	4.88	ARM BRACING CONNECTION BOLT NUT
M42 WASHER	IS 2016-1967	4	0.70	ARM BRACING CONNECTION BOLT WASHER
U' BOLT M10	Gr 5.6 As per IS 1367/ISO 898	240	37.04	U BOLT FOR RING PIPE CONNECTION
WASHER FOR M10	IS 2016-1967	480	1.89	WASHER FOR RING PIPE CONNECTION
NUT FOR M10	IS 1364-1967	960	10.46	NUT FOR RING PIPE CONNECTION
FULL THREADED M16 x 50	Gr 5.6 As per IS 1367/ISO 898	1894	212.21	RING PLATFORM CONNECTION BOLT
WASHER FOR M16	IS 2016-1967	1894	20.08	RING PLATFORM CONNECTION WASHER
NUT FOR M16	IS 1364-1967	3788	116.67	RING PLATFORM CONNECTION NUT
M64 x 3000	Gr 8.8 As per IS 1367/ ISO 898	108	8192.00	FOUNDATION BOLT
NUT FOR 64	IS 1364-1967	540	1069.20	FOUNDATION BOLT NUT
WASHER FOR Ø 64	IS 2016-1967	432	212.54	FOUNDATION BOLT WASHER
	TOTAL WEIGHT OF HARDWARE =		**15079.69**	**KG**

TOTAL BLACK WEIGHT OF POLE	(KG)	**213254**