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Dimensions in millimeters (mm) except marked differently

A30-297 x 420

M.BOX SIDE (SIDE-2)

9300 OVERALL

2750

6550

COOLER BANK-2
AC620

COOLER BANK-1
AC619

1725
HV BUSHING

AB601

BQ011

AA514

BQ012

BR656

BQ010

CE117

AB610

BR628

CP082

BR326

BR626

AA671

AA672

AA673

AA674

AA675

AA676

AA677

AA678

AA679

AA680

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AA1000

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AA1002

AA1003

AA1004

AA1005

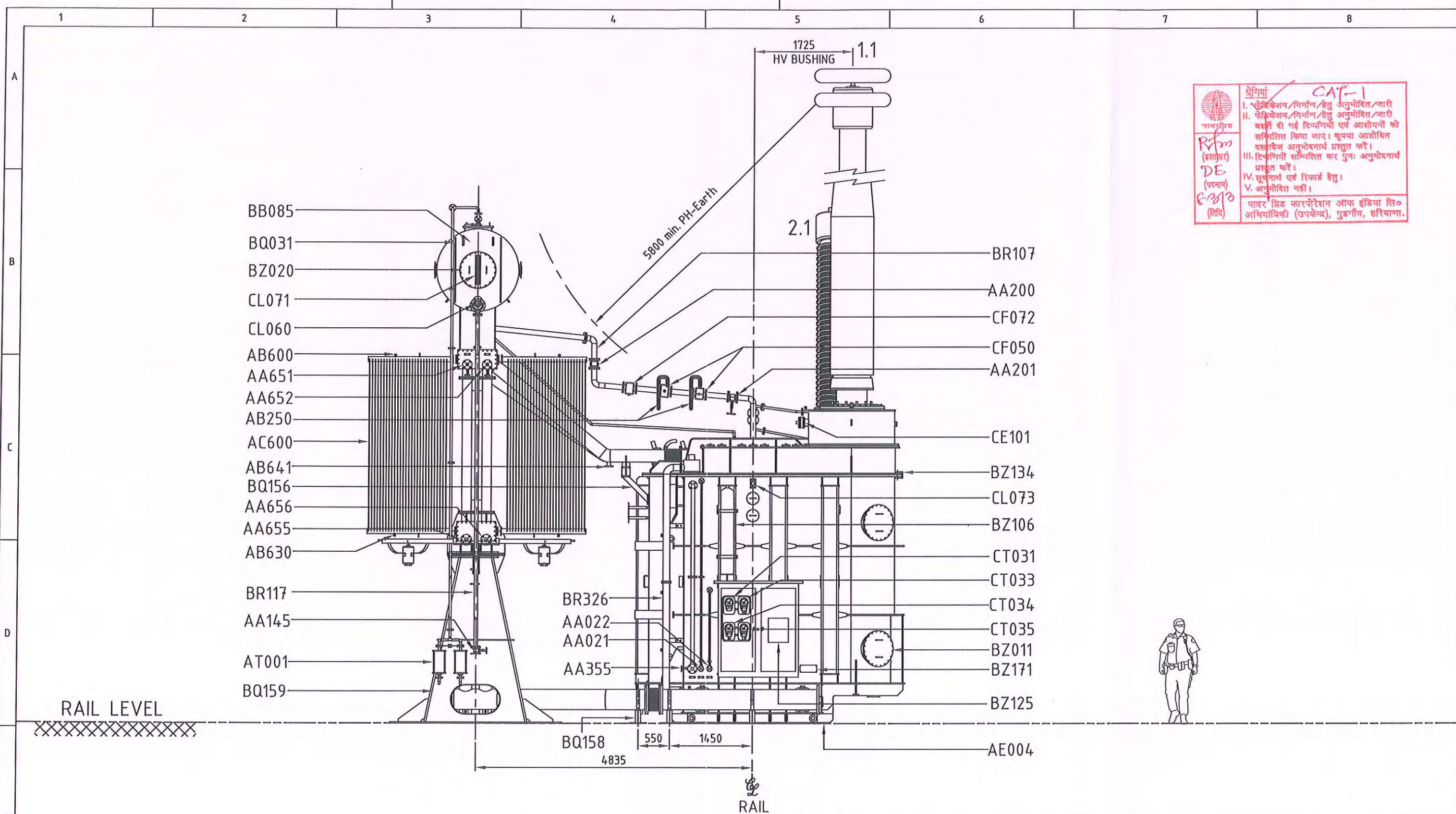
AA1006

AA1007

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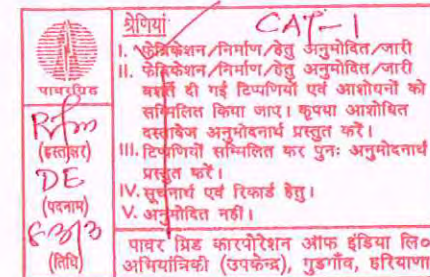
A30-297 x 420



M.BOX SIDE (SIDE-2)

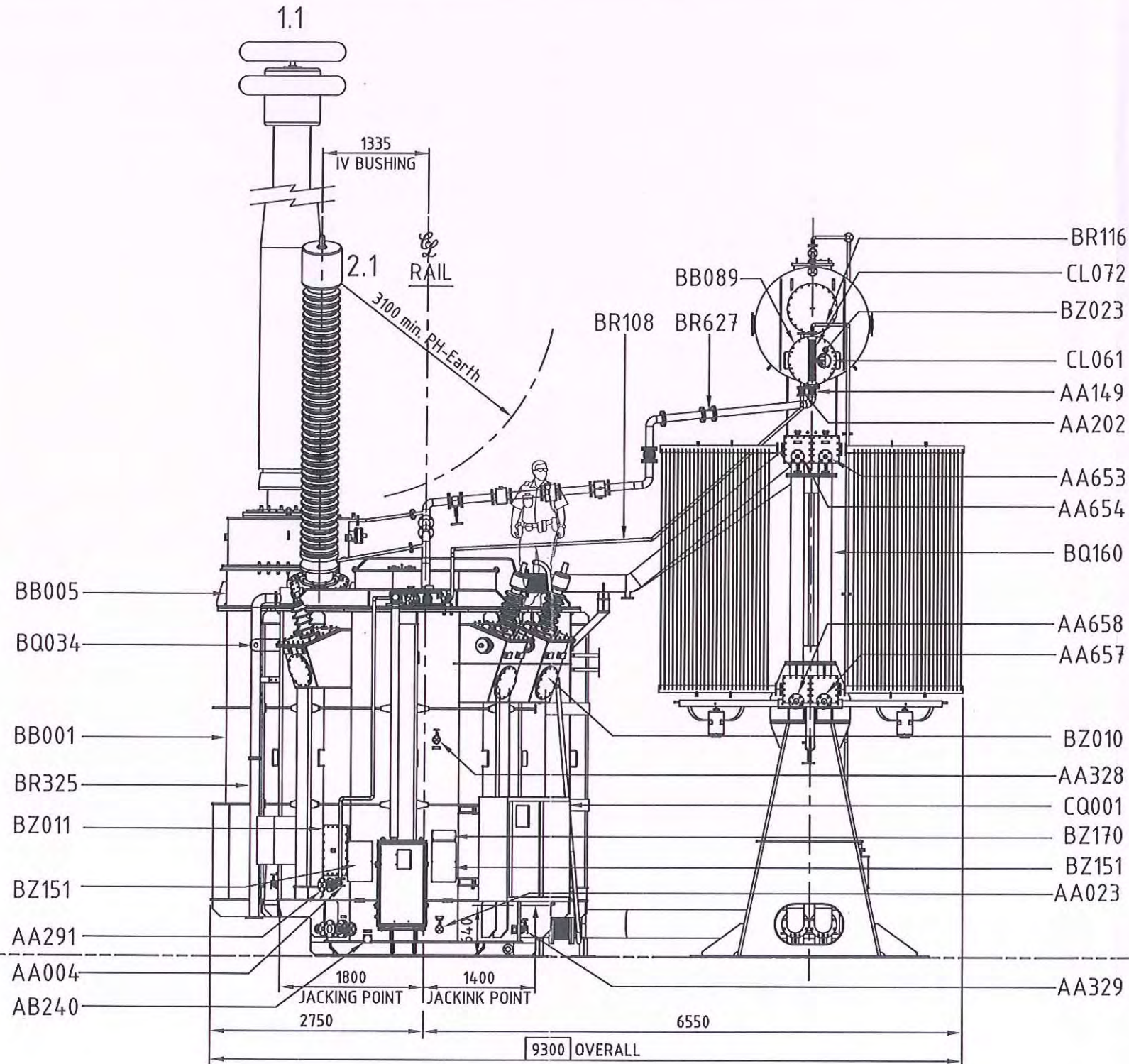
EMPLOYER	: POWER GRID CORPORATION OF INDIA LTD. (A Government of India Enterprise)
PROJECT	: On Shore Supply Contract for Auto Transformer package (P325 - TR01) for 7 x 500MVA Single phase Auto Transformers at 765/400kV Kurnool (NEW) Sub-Station under Transmission System Associated with Krishnapatnam UMPP - Prat - C1
SPECIFICATION NO.	: CC - CS / 325 - SR1 / TR - 1787 / 1 / G5
PO NO.	: CC - CS / 325 - SR1 / TR - 1787 / 1 / G5 / NOA - 1 / 4572 Dt.24.01.2013

REV. NO.	DESCRIPTION	DATE	SIGN
POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise)			
Date	05.02.2013	Approved	General tolerances --
Distr. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd	DIVAKAR	VMV	Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
Chk'd	MBP		W.D. No. I130100
SIEMENS		ET TR	Title GENERAL ARRANGEMENT FOR 500 MVA 7650kV AUTO TRANSFORMER (SIDE VIEW)
			Projection method
			Language EN AutoCAD
			Dwg. No. I00 02 340
			Rev. --
			Sheet No. 03+

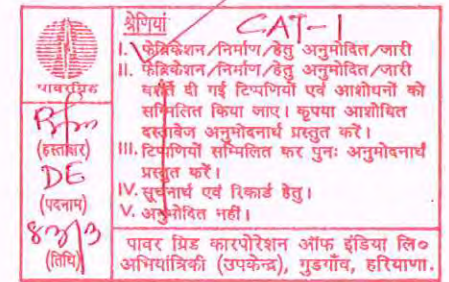


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DM BOX SIDE (SIDE-4)



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POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise)			
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Distr. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd	DIVAKAR	VMV	Projection method
Chk'd	MBP		Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
SIEMENS		ET TR	W.D. No. I130100
			Title GENERAL ARRANGEMENT FOR 500 MVA 765kV AUTO TRANSFORMER (SIDE VIEW)
			Language EN AutoCAD
			Dwg. No. 100 02 340
			Rev. --
			Sheet No. 04 +

A30-297 x 420

A30

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A30-297 x 420

6520 "Header Bank Top"

AA501
AA502
AA503
AA504

AA677
AA678

BR616
AP605
AP607
GH002
CF605
CF607
CF071

COOLER BANK SIDE (SIDE-3)

AA345

BB120

SIEMENS
CAUTION : AIR CELL FITTED

AB642

SIEMENS

4500

ø1400

AA676
AA675

AP601
AP603
CF601
CF603
AT001
AT005

3350 "Bottom Header"

6350 "Top Header"

7915 "Conservator Center"

9075 "Conservator Top"



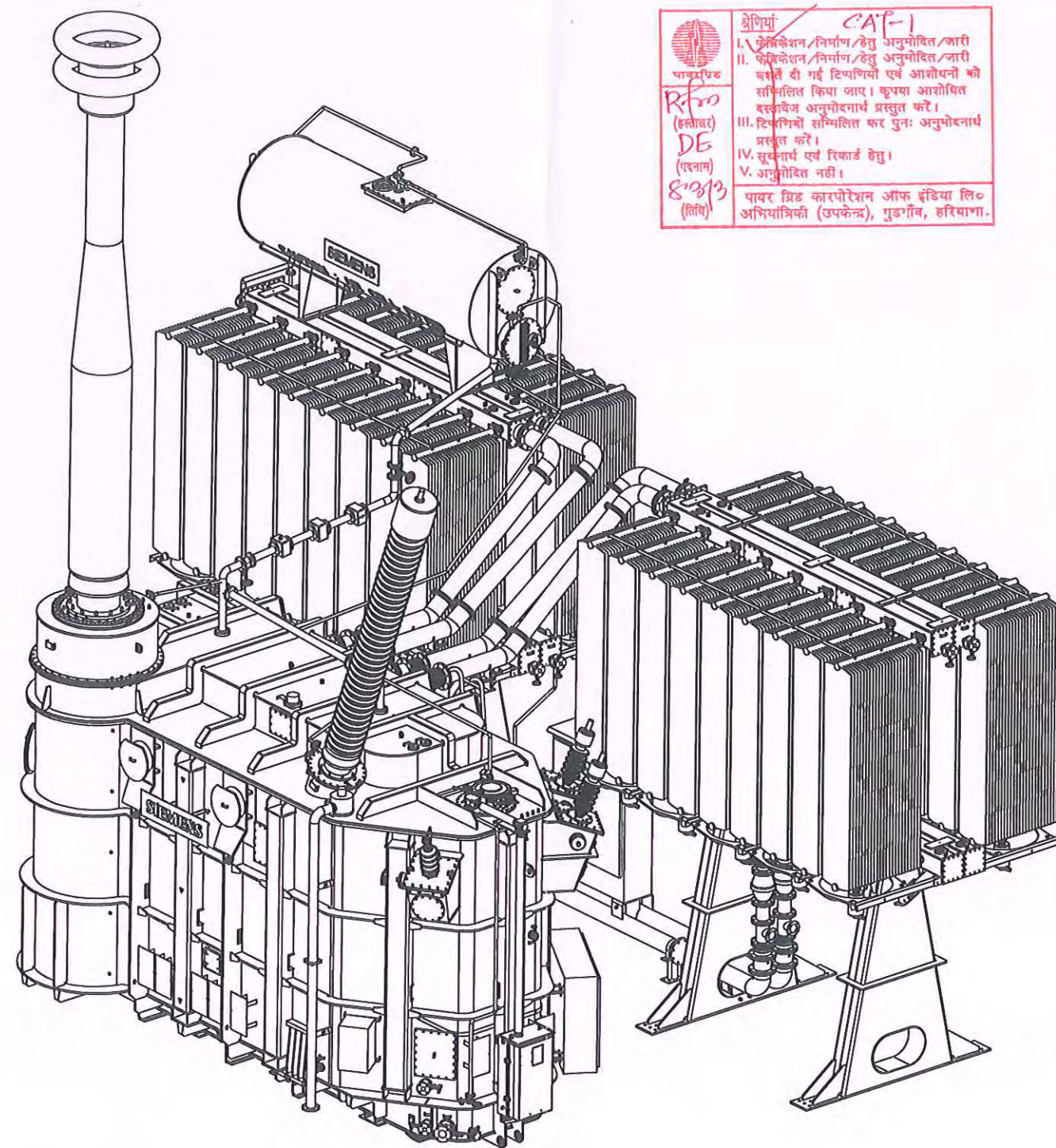
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	अनुमोदन/निर्माण/हेतु अनुमोदित/जारी
	अनुमोदन/निर्माण/हेतु अनुमोदित/जारी
	अनुमोदन/निर्माण/हेतु अनुमोदित/जारी

पावर ग्रिड कारपोरेशन ऑफ इंडिया लि.
अधिसूचना (उपकेन्द्र), गुडगाँव, हरियाणा.

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POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise)			
Date	05.02.2013	Approved	General tolerances --
Distr. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd Chk'd	DIVAKAR MBP	VMV	Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
SIEMENS		ET TR	W.D. No. I130100
			Title GENERAL ARRANGEMENT FOR 500 MVA 765kV AUTO TRANSFORMER (BACK VIEW)
			Language EN AutoCAD
			Dwg. No. I00 02 340
			Rev. --
			Sheet No. 05+

EMPLOYER	: POWER GRID CORPORATION OF INDIA LTD. (A Government of India Enterprise)
PROJECT	: On Shore Supply Contract for Auto Transformer package (P325 - TR01) for 7 x 500MVA Single phase Auto Transformers at 765/400kV Kurnool (NEW) Sub-Station under Transmission System Associated with Krishnapatnam UMPP - Prat - C1
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A3Q-297 x 420



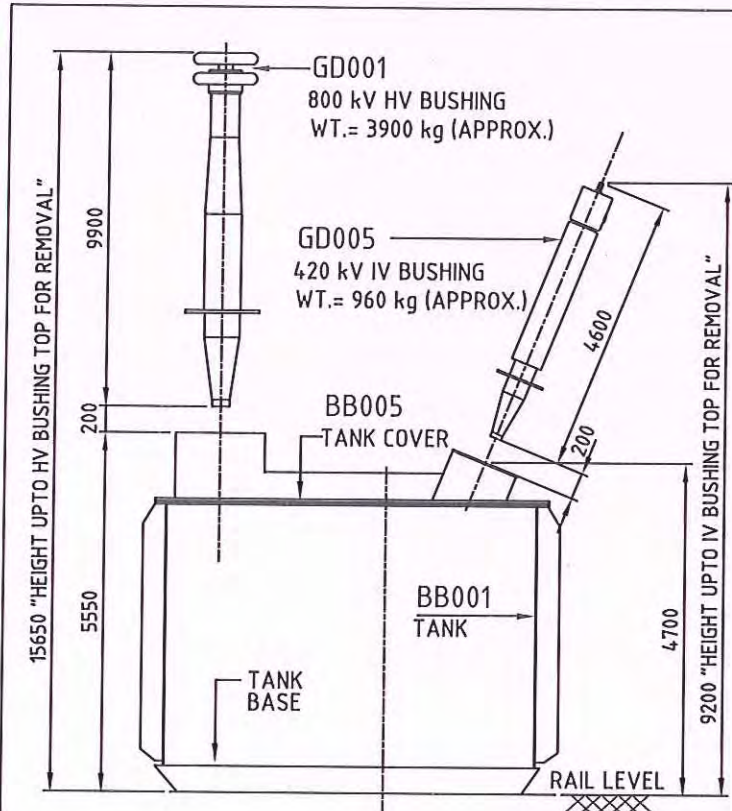
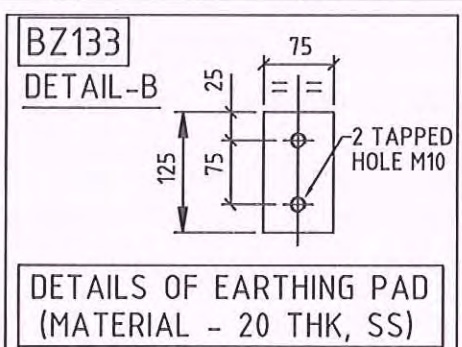
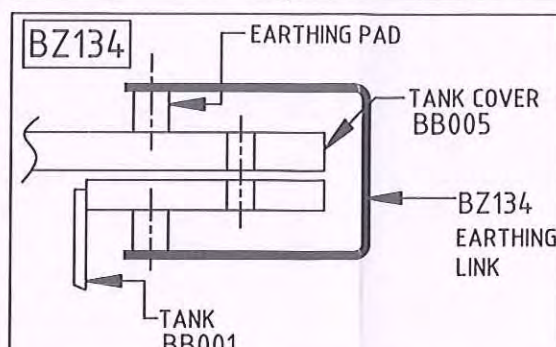
 पारकपट्ट Rf No (हस्ताक्षर) DE (प्रदानम) 8/3/13 (तिथि)	श्रेणियाँ I. वैयक्तिकेशन निर्माण हेतु अनुमोदित/जारी II. वैयक्तिकेशन निर्माण हेतु अनुमोदित/जारी करने दी गई टिप्पणियाँ एवं आशोधन को संतुष्टित किया जाए। कृपया आशोधित दस्तावेज अनुमोदनाय प्रस्तुत करें। III. टिप्पणियों को संतुष्टित कर पुनः अनुमोदनाय प्रस्तुत करें। IV. सूचनाएँ एवं रिकार्ड हेतु। V. अनुमोदित नहीं।	CAP-1
	पावर मिड कारपोरेशन ऑफ इंडिया लि० अभियांत्रिकी (उपकेन्द्र), गुडगाँव, हरियाणा।	

REV. NO.	DESCRIPTION		DATE	SIGN
POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise) 				
Date	05.02.2013	Approved	General tolerances	Scale
Distr. Team	STI	vide stamp: release status	Project	Projection method
Des'd Chk'd	DIVAKAR MBP	VMV	W.D. No.	Language
SIEMENS		ET TR	Title	Dwg. No.
				Ref.
				Sheet No.

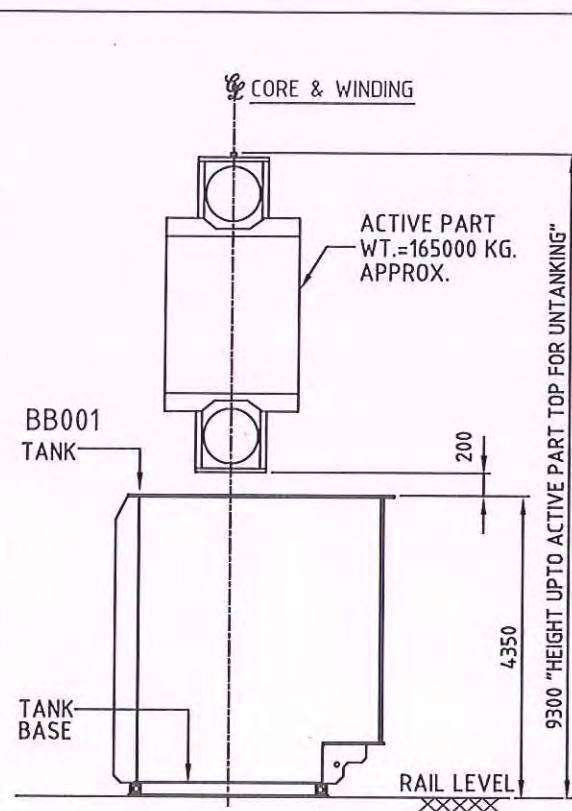
APPROX. WEIGHT & OIL QUANTITY	
CORE AND WINDING ASSEMBLY	165,000 kg.
TANK FITTINGS AND ACCESSORIES	77,000 kg.
OIL QUANTITY (FOR FIRST FILLING)	68,000 kg.
TOTAL WEIGHT OF TRANSFORMER INC. FITTINGS & ACCESSORIES WITH OIL	310,000 kg.
TRANSPORT WEIGHT (DRY-AIR FILLED)	205,000 kg.

MINIMUM ELECTRICAL CLEARANCE IN AIR AS PER CBIP				
SYSTEM VOLTAGE	BIL OF TRANSFORMER	PHASE TO PHASE	PHASE TO EARTH	PHASE TO OTHER WDG.
765 kV (H.V. BUSHING)	1950 kVp	--	5800 mm	3600 mm
400 kV (I.V. BUSHING)	1300 kVp	--	3100 mm	2400 mm
33 kV (L.V. BUSHING)	250 kVp	530 mm	480 mm	--
(NEUTRAL BUSHING)	--	--	320 mm	--

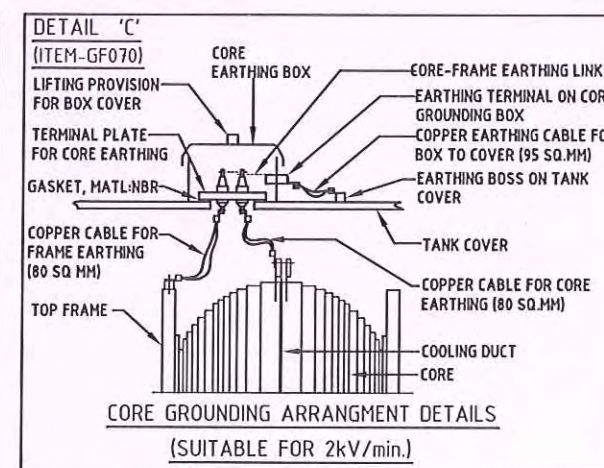
TRANSFORMER RATING	
MVA	300 / 400 / 500
VOLTAGE RATIO	$765/\sqrt{3} / 400/\sqrt{3} / 33 \text{ kV}$
PHASES	1 ϕ
FREQUENCY	50 Hz
VECTOR GROUP	YNao11
TYPE OF COOLING	ONAN / ONAF / ODAF



UN-TANKING DETAIL OF HV & IV BUSHING

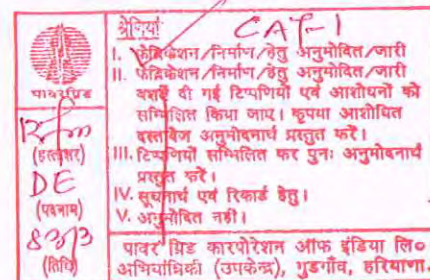


UN-TANKING DETAIL OF ACTIVE PART



NOTES:

- ALL DIMENSIONS ARE IN mm AND ARE SUBJECT TO TOLERANCE OF $\pm 5\%$.
- WHEN REFERRING THIS DRG. STATE 500MVA, 765/400/33kV AUTO TRANSFORMER, SIEMENS W.O. NO. 1130100.
- WIRING UPTO MARSHALLING BOX FROM VARIOUS ACCESSORIES ARE SUPPLIED BY SIEMENS BUT NOT SHOWN IN THIS DRAWING FOR CLARITY.
- FOUNDATION BOLTS & HARDWARES ARE NOT IN SIEMENS SCOPE OF SUPPLY.
- TRANSFORMER TANK SHALL BE CONVENTIONAL TYPE WITH BOLTED COVER.
- OUTSIDE PAINTING SHALL BE AS PER RAL 7035 (LIGHT GREY).
- VALVE FOR EQUALISING (AA005) TRANSFORMER TANK WITH OLTC DIVERTER TANK IS TO BE KEPT OPEN. DURING VACUUM OPERATION & OIL FILLING IN TRANSFORMER TANK AND IT IS TO BE KEPT CLOSED DURING NORMAL OPERATION OF TRANSFORMER.
- ALL EXTERNAL HARDWARES SHALL BE OF HOT DIP GALVANISED / STAINLESS STEEL.
- WHILE MOUNTING THE BUCHHOLZ RELAY IT IS TO BE ENSURED THAT THE ARROW IS TOWARDS CONSERVATOR.
- FOR BILL OF MATERIAL FOR GA DRG. REFER SHEET 100 02 341 PAGE 01 TO 04.
- DIMENSIONS MARKED ARE OVERALL DIMENSIONS.

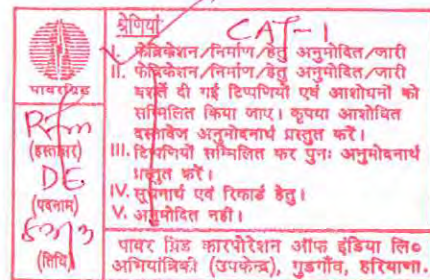


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Distr. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd	DIVAKAR	VMV	Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
Chk'd	MBP		W.D. No. I130100
SIEMENS		ET TR	Title GENERAL ARRANGEMENT FOR 500 MVA 7650kV AUTO TRANSFORMER
			Dwg. No. 100 02 340
			Rev. --
			Sheet No. 07-

1	2	3	4
ITEM	QTY	DESCRIPTION	
AA001	1	DRAIN VALVE FOR TANK DN100, GATE TYPE, MATERIAL - GUN METAL	
AA004	1	DRAIN/FILL VALVE FOR DIVERTER SWITCH DN25, GATE TYPE, MATERIAL - GUN METAL	
AA005	1	DIVERTER SWITCH TO TANK EQUILLISING VALVE, DN25, GATE TYPE, MATERIAL - GUN METAL	
AA021	2	OIL SAMPLING VALVE TOP DN15, GLOBE TYPE, MATERIAL - GUN METAL	
AA022	2	OIL SAMPLING VALVE MIDDLE DN15, GLOBE TYPE, MATERIAL - GUN METAL	
AA023	2	OIL SAMPLING VALVE BOTTOM DN15, GLOBE TYPE, MATERIAL - GUN METAL	
AA145	1	VALVE FOR DRAINING CONSERVATOR OF TANK DN50, GATE TYPE, MATERIAL - GUN METAL	
AA149	1	VALVE FOR DRAINING CONSERVATOR OF DIVERTER SWITCH DN25, GATE TYPE, MATERIAL - GUN METAL	
AA200	1	VALVE BETWEEN BUCHHOLZ RELAY (CF050) AND CONSERVATOR DN80, GATE TYPE, MATERIAL - GUN METAL	
AA201	1	VALVE BETWEEN BUCHHOLZ RELAY (CF050) AND TANK DN80, GATE TYPE, MATERIAL - GUN METAL	
AA202	1	VALVE BETWEEN PROTECTION RELAY AND OLTC CONSERVATOR DN25, GATE TYPE, MATERIAL - GUN METAL	
AA290	1	VALVE FOR ONLINE DISSOLVED GAS MONITORING SYSTEM DN15, GLOBE TYPE, MATERIAL - GUN METAL	
AA291	1	VALVE FOR ONLINEDISSOLVED GAS MONITORING SYSTEM DN50, GATE TYPE, MATERIAL - GUN METAL	
AA328	1	VALVE FOR ONLINE INSULATING OIL DRYING SYSTEM DN15, GLOBE TYPE, MATERIAL - GUN METAL	
AA329	1	VALVE FOR ONLINE INSULATING OIL DRYING SYSTEM DN15, GLOBE TYPE, MATERIAL - GUN METAL	
AA345	1	VALVE BETWEEN CONSERVATOR AND AIR BAG DN25, GATE TYPE, MATERIAL - GUN METAL	
AA355	1	VALVE FOR MAIN TANK OIL TREATMENT DN50, GATE TYPE, (TOP) MATERIAL - GUN METAL	
AA356	1	VALVE FOR MAIN TANK OIL TREATMENT DN50, (BOTTOM) GATE TYPE, MATERIAL - GUN METAL	
AA501	1	VALVE BETWEEN TANK TOP TO COOLER-1 MANIFOLD DN200, BUTTERFLY TYPE	
AA502	1	VALVE BETWEEN TANK TOP TO COOLER-2 MANIFOLD DN200, BUTTERFLY TYPE	
AA503	1	VALVE BETWEEN TANK TOP TO COOLER-3 MANIFOLD DN200, BUTTERFLY TYPE	
AA504	1	VALVE BETWEEN TANK TOP TO COOLER-4 MANIFOLD DN200, BUTTERFLY TYPE	
AA513	1	VALVE BETWEEN COOLER MANIFOLD TO TANK BOTTOM DN250, BUTTERFLY TYPE	
AA514	1	VALVE BETWEEN COOLER MANIFOLD TO TANK BOTTOM DN250, BUTTERFLY TYPE	
AA651	1	VALVE FOR COOLER BANK-1 TOP OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA652	1	VALVE FOR COOLER BANK-2 TOP OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	

5	6	7	8
ITEM	QTY	DESCRIPTION	
AA653	1	VALVE FOR COOLER BANK-3 TOP OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA654	1	VALVE FOR COOLER BANK-4 TOP OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA655	1	VALVE FOR COOLER BANK-1 BTM. OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA656	1	VALVE FOR COOLER BANK-2 BTM. OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA657	1	VALVE FOR COOLER BANK-3 BTM. OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA658	1	VALVE FOR COOLER BANK-4 BTM. OIL TREATMENT & DRAIN DN50, GATE TYPE, MATERIAL - GUN METAL	
AA671	1	VALVE FOR ISOLATING COOLER BANK-1, TOP,DN200, BUTTERFLY TYPE	
AA672	1	VALVE FOR ISOLATING COOLER BANK-2, TOP,DN200, BUTTERFLY TYPE	
AA673	1	VALVE FOR ISOLATING COOLER BANK-3, TOP,DN200, BUTTERFLY TYPE	
AA674	1	VALVE FOR ISOLATING COOLER BANK-4, TOP,DN200, BUTTERFLY TYPE	
AA675	1	VALVE FOR ISOLATING COOLER BANK-1, BTM, DN200, BUTTERFLY TYPE	
AA676	1	VALVE FOR ISOLATING COOLER BANK-2, BTM, DN200, BUTTERFLY TYPE	
AA677	1	VALVE FOR ISOLATING COOLER BANK-3, BTM, DN200, BUTTERFLY TYPE	
AA678	1	VALVE FOR ISOLATING COOLER BANK-4, BTM, DN200, BUTTERFLY TYPE	
AB005	1	AIR VENT PLUG ON CONSERVATOR DIN 42558 SIZE 12	
AB230	72	VALVE FOR RADIATOR ISOLATION DN80, BUTTERFLY TYPE	
AB240	1	RESIDUAL OIL DRAIN DEVICE FOR TANK M52X2	
AB250	2	BUCHHOLZ RELAY GAS COLLECTING PIPE WITH BLEED VALVE (1/4") & Gas collecting pot.	
AB600	36	AIR VENT PLUG ON RADIATOR DIN 42558 SIZE 12	
AB601	3	AIR VENT PLUG ON TANK COVER DIN 42558 SIZE 12	
AB610	4+1	AIR VENT PLUG ON TOP COOLER PIPE & BOTTOM MANIFOLD DIN 42558 SIZE 12	
AB630	36	DRAIN PLUG ON RADIATOR DIN 42558 SIZE 12A	
AB641	4	DRAIN PIPE WITH FLANGE ON TOP COOLER PIPING 50NB	
AB642	1	DRAIN PIPE WITH FLANGE ON BOTTOM COOLER MANIFOLD 50NB	
AC600	36	RADIATORS	

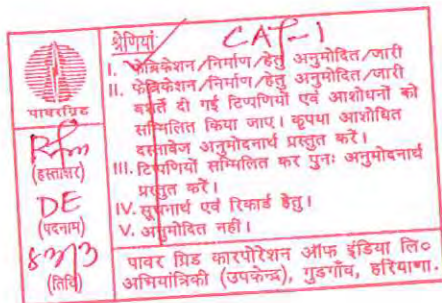


EMPLOYER	: POWER GRID CORPORATION OF INDIA LTD. (A Government of India Enterprise)
PROJECT	: On Shore Supply Contract for Auto Transformer package (P325 - TR01) for 7 x 500MVA Single phase Auto Transformers at 765/400kV Kurnool (NEW) Sub-Station under Transmission System Associated with Krishnapatnam UMPP - Prat - C1
SPECIFICATION NO.	: CC - CS / 325 - SR1 / TR - 1787 / 1 / G5
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POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise)			
Date	05.02.2013	Approved	General tolerances --
Dist. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd	DIVAKAR	VMV	Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
Chk'd	MBP		W.D. No. I130100
SIEMENS		ET TR	Title BILL OF MATERIAL FOR 500 MVA 7650kV AUTO TRANSFORMER
			Language EN AutoCAD
			Dwg. No. I00 02 341
			Rev. --
			Sheet No. 01+

1	2	3	4
ITEM	QTY	DESCRIPTION	
A	AC619	1	RADIATOR BANK-1 (33%)
	AC620	1	RADIATOR BANK-2 (33%)
	AC621	1	RADIATOR BANK-3 (33%)
	AC622	1	RADIATOR BANK-4 (33%)
B	AE004	1	SKID BASE
	AN701	1	COOLING FAN 1 (COOLER BANK-1)
	AN702	1	COOLING FAN 2 (COOLER BANK-1)
	AN703	1	COOLING FAN 3 (COOLER BANK-1)
C	AN704	1	COOLING FAN 4 (COOLER BANK-1)
	AN705	1	COOLING FAN 5 (COOLER BANK-1)
	AN706	1	COOLING FAN 6 (COOLER BANK-2)
	AN707	1	COOLING FAN 7 (COOLER BANK-2)
D	AN708	1	COOLING FAN 8 (COOLER BANK-2)
	AN709	1	COOLING FAN 9 (COOLER BANK-2)
	AN710	1	COOLING FAN 10 (COOLER BANK-2)
	AN711	1	COOLING FAN 11 (COOLER BANK-3)
E	AN712	1	COOLING FAN 12 (COOLER BANK-3)
	AN713	1	COOLING FAN 13 (COOLER BANK-3)
	AN714	1	COOLING FAN 14 (COOLER BANK-3)
	AN715	1	COOLING FAN 15 (COOLER BANK-3)
F	AN716	1	COOLING FAN 16 (COOLER BANK-4)
	AN717	1	COOLING FAN 17 (COOLER BANK-4)
	AN718	1	COOLING FAN 18 (COOLER BANK-4)
	AN719	1	COOLING FAN 19 (COOLER BANK-4)
G	AN720	1	COOLING FAN 20 (COOLER BANK-4)

5	6	7	8
ITEM	QTY	DESCRIPTION	
AP601	1	AXIAL FLOW COOLING PUMP 1	(COOLER BANK-1)
AP603	1	AXIAL FLOW COOLING PUMP 2	(COOLER BANK-2)
AP605	1	AXIAL FLOW COOLING PUMP 3	(COOLER BANK-3)
AP607	1	AXIAL FLOW COOLING PUMP 4	(COOLER BANK-4)
AT001	2	DEHYDRATING BREATHING ASSLY. FOR MAIN CONSERVATOR, TYPE - 3 IN SERIES,	
AT005	1	DEHYDRATING BREATHING ASSLY. FOR OLTC CONSERVATOR , TYPE - 2 IN SERIES,	
BB001	1	TANK	
BB005	1	TOP COVER	
BB085	1	CONSERVATOR FOR MAIN TANK (AIR CELL TYPE)	
BB089	1	CONSERVATOR FOR DIVERTER TANK (CONVENTIONAL)	
BB120	1	AIR BAG IN CONSERVATOR FOR MAIN TANK	
BQ010	4	THERMOMETER POCKET FOR (CT031, CT033, CT034, CT035)	
BQ011	2	THERMOMETER POCKET (MIG, CT627 + SPARE)	
BQ012	3	THERMOMETER POCKET FOR RTD	
BQ013	8	THERMOMETER POCKET ON AC619 - AC622	
BQ023	1	DETACHABLE LADDER WITH ANTI-CLIMBING BARRIER	
BQ029	4	JACKING PAD	
BQ030	4	LIFTING LUGS FOR COMPLETE TRANSFORMER (CAPACITY - 150 TON)	
BQ031	4	LIFTING LUGS FOR COMPLETE CONSERVATOR	
BQ034	12	LASHING LUGS (50Ø)	
BQ035	4	LIFTING LUGS TO LIFT TANK COVER ONLY	
BQ039	4	PULLING EYE (50Ø)	
BQ050	3	HOOK FOR SAFETY BELT ON BB005	

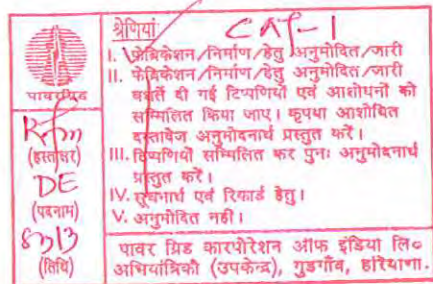


EMPLOYER	: POWER GRID CORPORATION OF INDIA LTD. (A Government of India Enterprise)
PROJECT	: On Shore Supply Contract for Auto Transformer package (P325 - TR01) for 7 x 500MVA Single phase Auto Transformers at 765/400kV Kurnool (NEW) Sub-Station under Transmission System Associated with Krishnapatnam UMPP - Prat - C1
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Distr. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd	DIVAKAR		Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
Chk'd	MBP	VMV	W.D. No. I130100
SIEMENS		ET TR	Title BILL OF MATERIAL FOR 500 MVA 7650kV AUTO TRANSFORMER
			Dwg. No. 100 02 341
			Rev. --
			Sheet No. 02+

1	2	3	4
ITEM	QTY	DESCRIPTION	
BQ156	2	BRACKET FOR TOP COOLER PIPE SUPPORT	
BQ158	5	BRACKET FOR BOTTOM MANIFOLD	
BQ159	4	BRACKET FOR COOLER BANK	
BQ160	4	BRACKET FOR COOLER BANK	
BR107	1	PIPE BETWEEN TANK & MAIN CONSERVATOR, DN80	
BR108	1	PIPE BETWEEN DIVERTER SWITCH & OLTC CONSERVATOR, DN25	
BR114	1	PIPE BETWEEN DEHYDRATING BREATHER AND MAIN CONSERVATOR, DN25	
BR116	1	PIPE BETWEEN DEHYDRATING BREATHER AND OLTC CONSERVATOR, DN25	
BR117	1	PIPE BETWEEN DRAIN VALVE (AA145) AND MAIN CONSERVATOR (BB085), DN50	
BR325	1	DRAIN PIPE FOR PRESSURE RELIEF VALVE (CP081)	
BR326	1	DRAIN PIPE FOR PRESSURE RELIEF VALVE (CP082)	
BR615	4	PIPE FROM TANK TO TOP HEADER	
BR616	4	PIPE FROM RADIATOR BANK BOTTOM MANIFOLD	
BR626	6	FLEXIBLE EXPANSION JOINTS, DN200	
BR627	1	FLEXIBLE EXPANSION JOINTS, DN80	
BR628	1	FLEXIBLE EXPANSION JOINTS, DN350	
BR656	1	MANIFOLD (OIL OUTLET), 350SQ	
BR657	1	AIR VENT PIPE BETWEEN HV, IV DOME AND CONSERVATOR	
BZ007	1	INSPECTION WINDOW FOR HV BUSHING-1.1	
BZ008	1	INSPECTION WINDOW FOR IV BUSHING-2.1	
BZ009	1	INSPECTION WINDOW FOR CORE GROUNDING TERMINAL	
BZ010	2	INSPECTION WINDOW FOR LV BUSHING-3.1 & 3.2	
BZ011	2	INSPECTION WINDOW FOR SERVICE (MANHOLE)	
BZ013	1	INSPECTION WINDOW FOR NEUTRAL BUSHING-N	
BZ020	2	HAND HOLE FOR CLEANING MAIN CONSERVATOR	

5	6	7	8
ITEM	QTY	DESCRIPTION	
BZ023	1	HAND HOLE FOR CLEANING OLTC CONSERVATOR	
BZ102	1	VACUUM CONNECTION PORT ON CONSERVATOR-150 NB	
BZ106	1	REFILLING DEVICE FOR DRY AIR WITH PRESSURE REGULATOR, DURING TRANSPORT	
BZ123	1	SHOCK RECORDER DURING TRANSPORT (ON RETURNABLE BASIS)	
BZ125	1	FIBRE OPTIC TEMP. SENSING INSTRUMENT.	
BZ133	4	TERMINAL FOR TANK EARTHING	
BZ134	6	EARTHING LINK BETWEEN COVER & TANK	
BZ135	1	EARTHING LINK BETWEEN OCTC HEAD & COVER	
BZ150	2	SIEMENS MONOGRAM PLATE	
BZ151	2	RATING PLATE	
BZ152	2	CONNECTION DIAGRAM PLATE	
BZ159	2	VALVE SCHEDULE PLATE	
BZ170	1	OCTC WARNING PLATE	
BZ171	1	INSTRUCTION PLATE FOR UNTANKING	
BZ180	1	AIRCELL INSTRUCTION PLATE	
BZ200	1	TERMINAL CONNECTOR FOR HV BUSHING (GD001)	
BZ201	1	TERMINAL CONNECTOR FOR IV BUSHING (GD005)	
BZ202	2	TERMINAL CONNECTOR FOR LV BUSHING (GD013)	
CE101	1	CURRENT TRANSFORMER CONNECTION (HV-1.1)	
CE104	1	CURRENT TRANSFORMER CONNECTION (HV-N)	
CE109	1	CURRENT TRANSFORMER CONNECTION (IV-2.1)	
CE117	1	CURRENT TRANSFORMER CONNECTION (LV-3.2)	
CF050	2	BUCHHOLZ RELAY, DOUBLE FLOAT TYPE WITH BLEED & TEST VALVE, DN80 (GOR-3)	
CF061	1	PROTECTION (SURGE) RELAY FOR DIVERTER SWITCH	
CF071	4	REVERSE FLOW BLOCKING DEVICE (NON-RETURN VALVE)	
CF072	1	PNRV (Flow sensitive non Return Valve) ✓	



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Distr. Team	STI	vide stamp: release status	Scale N.T.S.
Des'd	DIVAKAR		Projection method
Chk'd	MBP	VMV	Project 300/400/500MVA, 765/400/33kV AUTO TRANSFORMER
SIEMENS		ET TR	W.D. No. I130100
			Language EN AutoCAD
			Title BILL OF MATERIAL FOR 500 MVA 7650kV AUTO TRANSFORMER
			Dwg. No. I00 02 341
			Rev. - Sheet No. 03+

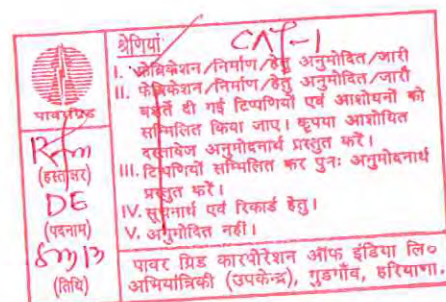
1	2	3	4	5	6	7	8
ITEM	QTY	DESCRIPTION					
CF601	1	OIL FLOW INDICATOR (T-B)	(COOLER BANK-1)				
CF603	1	OIL FLOW INDICATOR (T-B)	(COOLER BANK-2)				
CF605	1	OIL FLOW INDICATOR (T-B)	(COOLER BANK-3)				
CF607	1	OIL FLOW INDICATOR (T-B)	(COOLER BANK-4)				
CL060	1	MAGNETIC OIL LEVEL INDICATOR FOR MAIN CONSERVATOR					
CL061	1	MAGNETIC OIL LEVEL INDICATOR FOR OLTC CONSERVATOR					
CL071	1	PRISMATIC OIL LEVEL GAUGE ON MAIN CONSERVATOR					
CL072	1	PRISMATIC OIL LEVEL GAUGE ON OLTC CONSERVATOR					
CL073	1	PRISMATIC OIL LEVEL GAUGE ON TANK					
CP081	1	SPRING OPERATED SELF RESETTING TYPE PRESSURE RELIEF DEVICE ON TANK WITH DIRECTIONAL SHROUD					
CP082	1	SPRING OPERATED SELF RESETTING TYPE PRESSURE RELIEF DEVICE ON TANK WITH DIRECTIONAL SHROUD					
CQ001	1	ONLINE INSULATING OIL DRYING SYSTEM ✓					
CQ006	1	HYDROGEN AND MOISTURE MONITORING STSEM ✓					
CT031	1	OIL TEMPETRATURE INDICATOR					
CT033	1	WINDING TEMPETRATURE INDICATOR-HV					
CT034	1	WINDING TEMPETRATURE INDICATOR-IV					
CT035	1	WINDING TEMPETRATURE INDICATOR-LV					
CT627	2	BRASS ENCASED ALCOHOL IN GLASS THERMOMETER					
GD001	1	HV BUSHING (1.1) CONDENSER TYPE, 800 kV, 2500A					
GD005	1	IV BUSHING (2.1) CONDENSER TYPE, 420kV, 2500A					
GD006	1	NEUTRAL BUSHING (N), OIL COMMUNICATING TYPE 36 kV, 3150A					
GD013	2	LV BUSHING (3.1 & 3.1), CONDENSER TYPE, 52 kV, 3150A					
GF070	1	TERMINAL ARRANGEMENT FOR CORE GROUNDING					
GH001	1	MARSHALLING BOX					
GH002	1	COOLER CONTROL CUBICLE BOX					
GS001	1	ON LOAD TAP CHANGER					
GX001	1	MOTOR DRIVE FOR ON LOAD TAP CHANGER					

NOTES :-

1) REFER OUTLINE DRAWING FOR W.O. I130100, DRAWING NUMBER 100 02 340.

NOTE:

Make and model of sub-vendor items are subjected to 'QABT' POWERGRID approval.



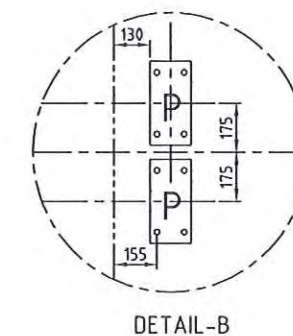
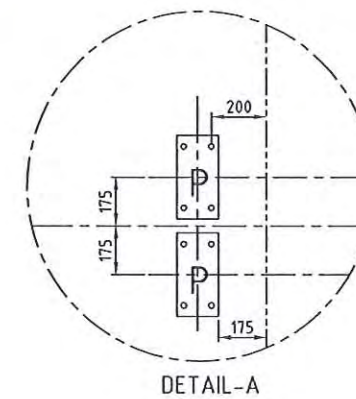
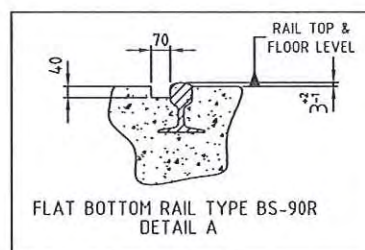
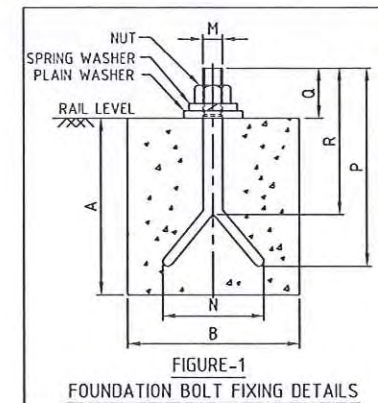
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			Language EN AutoCAD
			Dwg. No. 100 02 341
			Rev. --
			Sheet No. 04 +

COOLER BANK SIDE

TABLE OF DIM'S & DETAILS OF FOUNDATION BOLTS (FIGURE-1)									
SR.NO.	DESCRIPTION	DIMENSIONS						QTY.	(NOS.)
		M	N	P	Q	R	A		
1	RADIATOR HEADER SUPPORT FRAME (C)	M24	75	380	100	340	380	350	48
2	COOLER PIPE SUPPORT (P)	M16	50	280	70	250	280	150	28

4 SUPPORTS WITH 12 NOS - M24 FOUNDATION BOLTS FOR COOLER BANKS SUPPORT
MAXIMUM WEIGHT = 17500 KGS (APPROX)
BASE PLATE SIZE = 20THK. x 320 x 3000

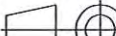


TRANSFORMER
PULL-OUT DIRECTION

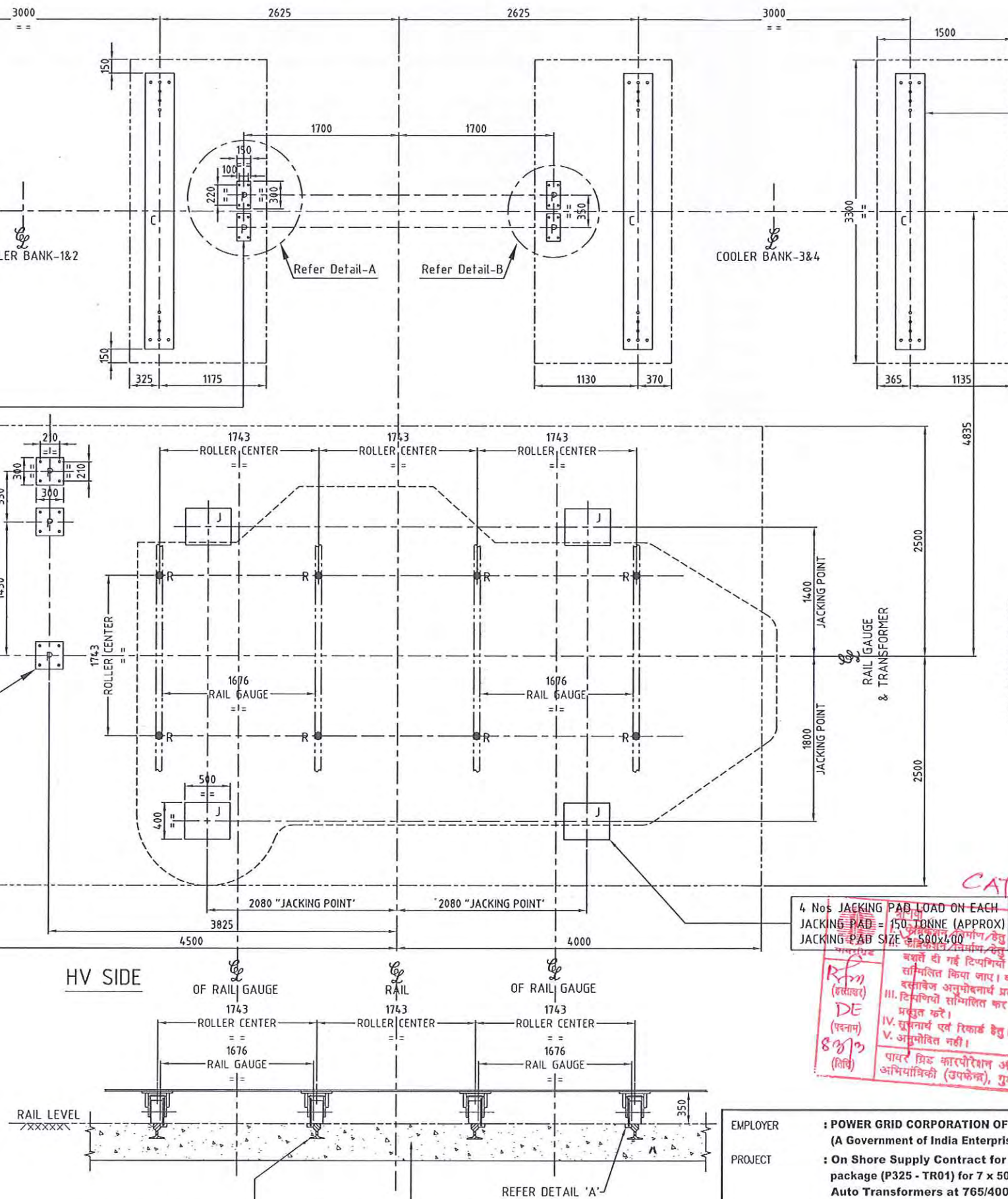
NOTES:

- 1). ALL DIMENSIONS ARE IN mm.
- 2). GROUTING OF FOUNDATION BOLTS SHALL BE DONE ONLY AFTER FINAL ERECTION OF THE STRUCTURE.
- 3). FOUNDATION BOLTS & HARDWARES SHALL NOT BE SUPPLIED BY SIEMENS.
- 4). LEVEL OF ALL FOUNDATION SHALL BE KEPT IN LINE WITH RAIL LEVEL.
- 5). LOAD ON EACH FOUNDATION BASE IS GIVEN ON THE HIGHER SIDE FOR FOUNDATION PURPOSE ONLY.
- 6). FOR GENERAL ARRANGEMENT REFER DRAWING NO. 100 02 340.
- 7). "-----" INDICATES TANK PROFILE.
- 8). "-----" INDICATES LAYOUT OF PGCL STANDARD FOUNDATION DRAWING (SKETCH) FOR 500MVA, 765kV 1Ph ICT.

POWER GRID CORPORATION
OF INDIA LIMITED
(A Government of India Enterprise)

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Des'd	DIVAKAR			Language	
Chk'd	MBP	W.D. No.	I130100	Dwg. No.	102 02 342
SIEMENS		ET TR	FOUNDATION DETAILS	Sheet No. 01-	

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STANDARD FLAT BOTTOM RAIL
TYPE BS-90R. NOT IN SIEMENS SCOPE.

FOUNDATION BELOW EACH RAIL SHOULD
BE SUITABLE FOR 2,75,000 KGS,
TOTAL WEIGHT OF TRANSFORMER

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