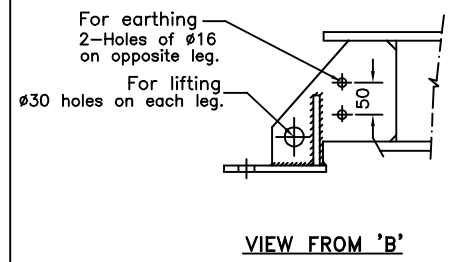
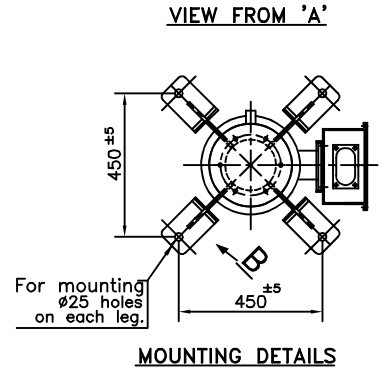
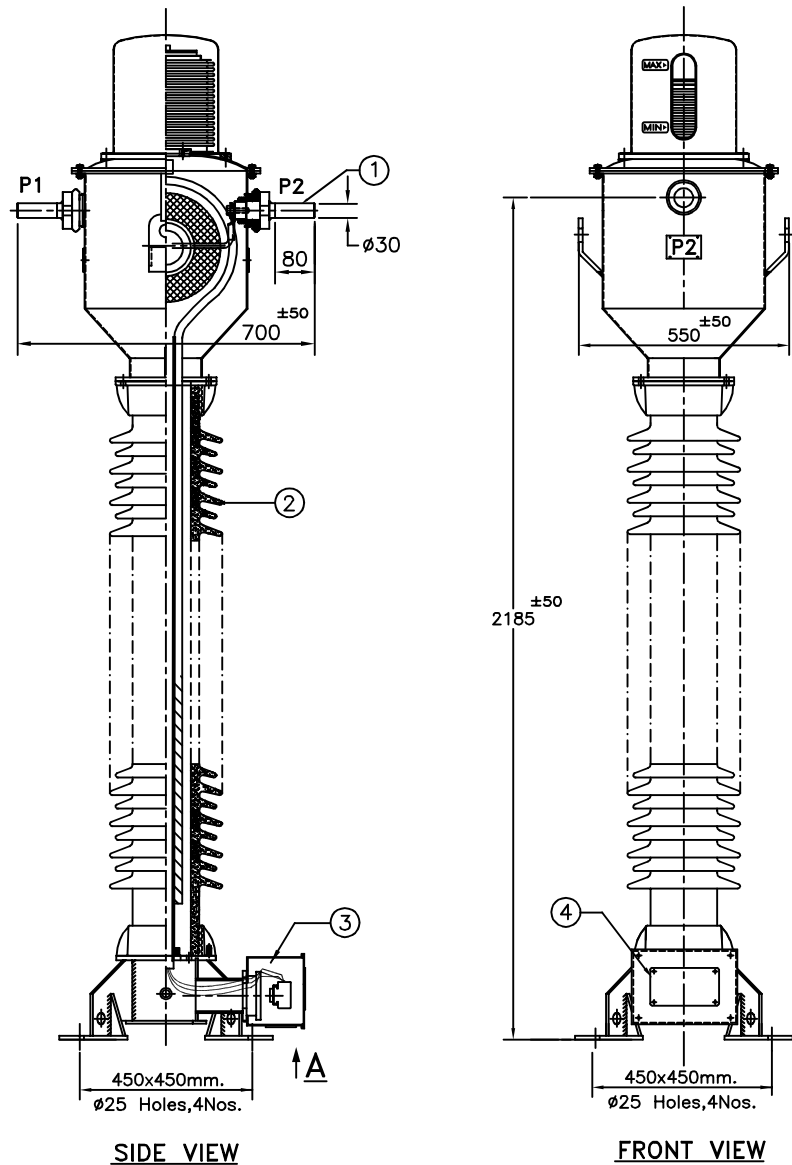


4639914/2021/EEMRT-ENE51

601 SHELL

IF IN DOUBT ASK



| NO. | QTY. | DESCRIPTION | MATERIAL/SPEC. |
|-----|------|---|-------------------------|
| 1 | 2 | PRIMARY TERMINAL- $\phi 30 \times 80L(\text{Min.})$ | COPPER |
| 2 | 1 | PORCELAIN INSULATOR (BROWN COLOUR) | PORCELAIN |
| 3 | 1 | SECONDARY TERMINAL BOX | DRG.NO: 145CT 150-1A SB |
| 4 | 1 | RATING & SCHEMATIC DIAGRAM | DRG.NO: 145CT 150-1A RS |

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NOTE : PLEASE REFER INSTRUCTION MANUAL FOR HANDLING & TRANSPORTATION OF CT.

| NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | SCALE | N.T.S. | DATE | ALL DIMENSIONS ARE IN mm | DRG.NO: 145CT 150-1A GA/RO |
|----|----------|------|------|----|----------|------|------|----|----------|------|------|-------|--------|------|--------------------------|----------------------------|
| R6 | | | | R4 | | | | R2 | | | | | | | | |
| R5 | | | | R3 | | | | R1 | | | | | | | | |

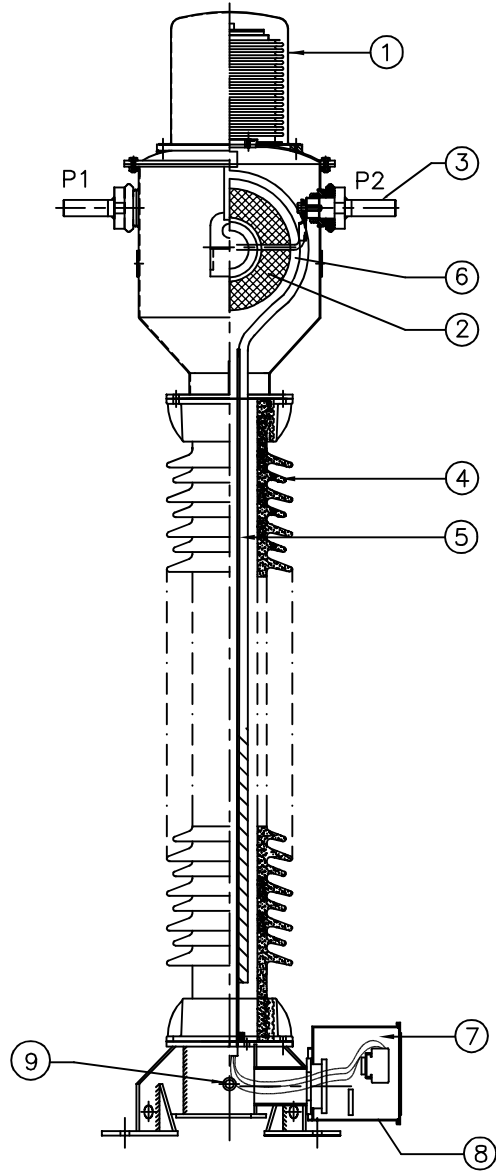
| SIGN | NAME |
|------|------|
| DRN | SSM |
| CHD | SSM |
| APPD | SDS |

GENERAL ARRANGEMENT DRAWING
 145 kV CURRENT TRANSFORMER
 TYPE-CT:145/275/650

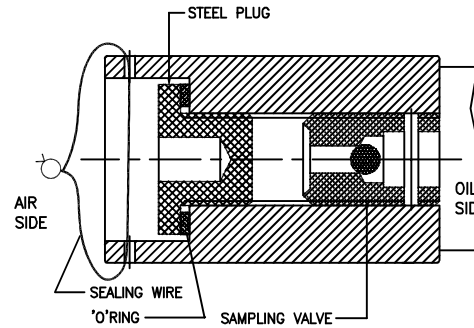


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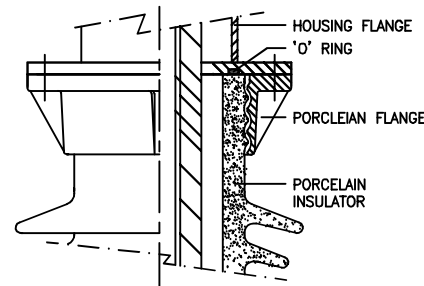
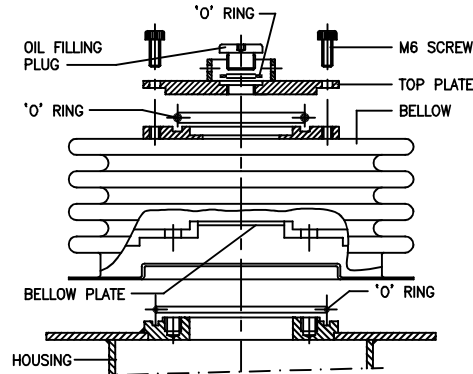
IF IN DOUBT ASK



ITEM NO: 9
ASSEMBLY OF OIL SAMPLING VALVE



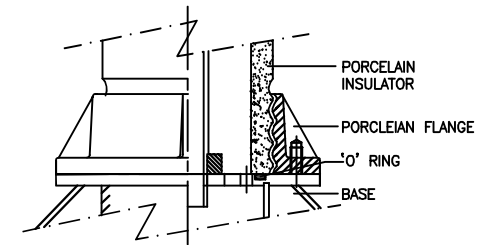
ASSEMBLY OF BELLOWS



DETAILS OF 'A'

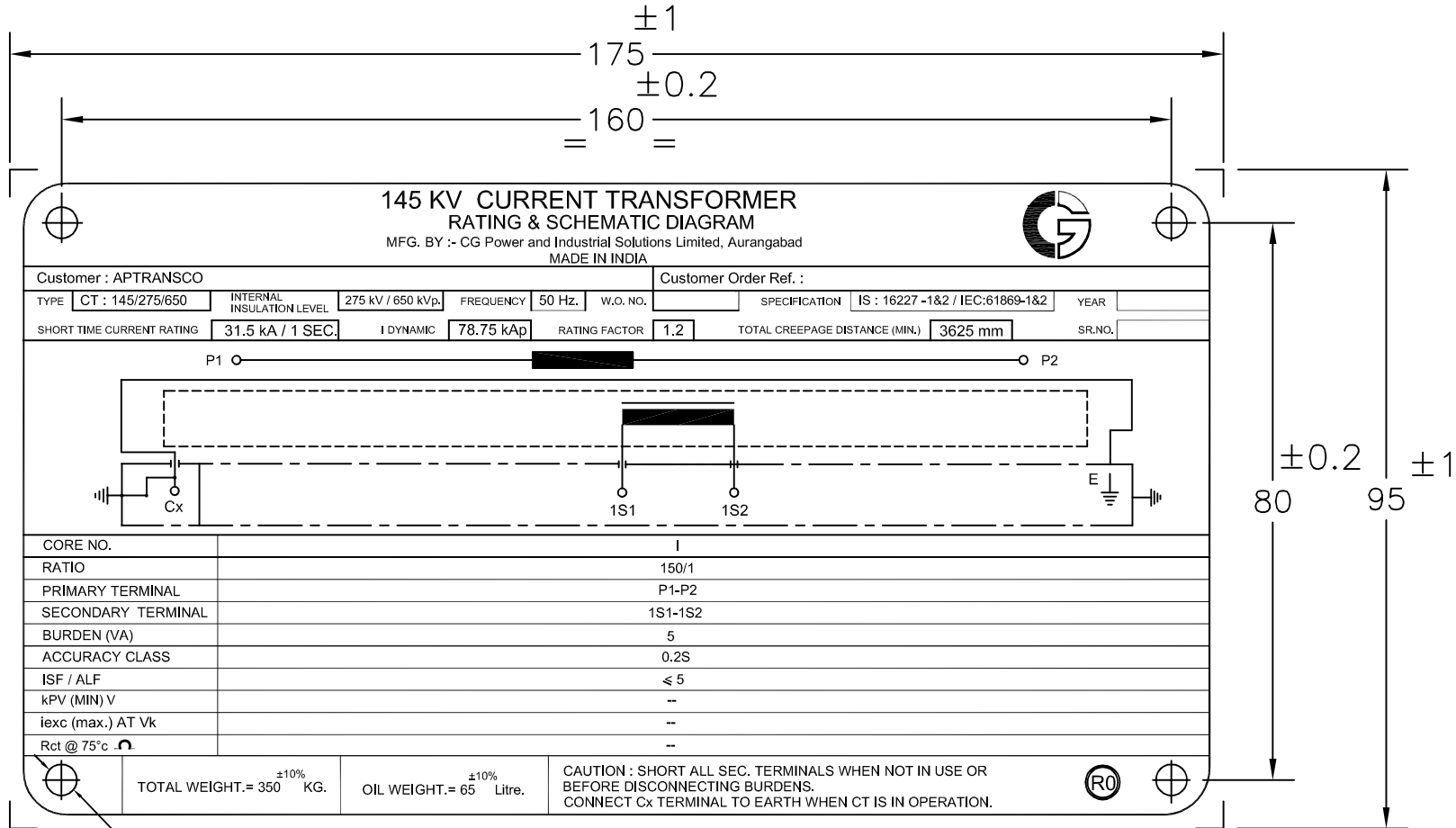
| ITEM | QTY. | DESCRIPTION |
|------|------|-------------------------------------|
| 1 | 1 | OIL LEVEL INDICATOR |
| 2 | 1 | CORE WITH SECONDARY WINDING |
| 3 | 2 | PRIMARY TERMINAL(ø30x80mm.Long.Min) |
| 4 | 1 | PORCELAIN INSULATOR |
| 5 | 1 | COND. BUSHING |
| 6 | 1 | METALLIC SHELL |
| 7 | 3 | SECONDARY TERMINALS |
| 8 | 1 | GLAND PLATE |
| 9 | 1 | OIL SAMPLING VALVE |

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DETAILS OF 'B'

| NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | SCALE | N.T.S. | DATE | SECTIONAL VIEW DRAWING FOR 145 kV CURRENT TRANSFORMER TYPE-IOSK:145/275/650 | ALL DIMENSIONS ARE IN mm | DRG.NO:-145CT 150-1A SV/RO |
|----|----------|------|------|----|----------|------|------|----|----------|------|------|-------|--------|------------|---|--------------------------|----------------------------|
| R6 | | | | R4 | | | | R2 | | | | | | | CG Power and Industrial Solutions Limited, Aurangabad | | |
| R5 | | | | R3 | | | | R1 | | | | | | 06.05.2021 | | | |




IF IN DOUBT ASK

4 HOLES OF $\phi 4.5$ mm
Material-Aluminium Anodised.

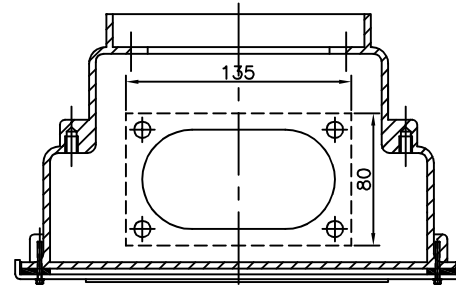
CT SR.NO.s :

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| | | | | | | | | | | | | | | | | |
|----|----------|------|------|----|----------|------|------|----|----------|------|------|-------|--------|------------------|--|--|
| R6 | | | | R4 | | | | R2 | | | | | SIGN | NAME | RATING & SCHEMATIC DIAGRAM FOR 145 KV CURRENT TRANSFORMER TYPE-CT:145/275/650 |  CG Power and Industrial Solutions Limited, Aurangabad |
| R5 | | | R3 | | | | R1 | | | | | DRN | SSM | | | |
| | | | | | | | | | | | | CHD | SSM | | | |
| | | | | | | | | | | | | APPD | SDS | | | |
| NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | SCALE | N.T.S. | DATE :09.06.2021 | ALL DIMENSIONS ARE IN mm | DRG.NO:- 145CT 150-1A RS/R0 |

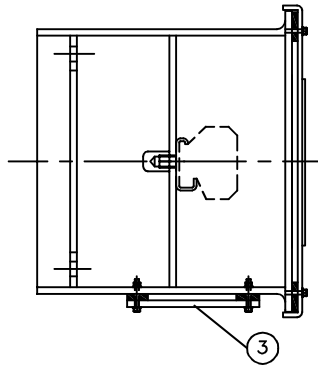
| SL.NO. | QTY | ITEM | MATERIAL | RM SIZE/SPECIFICATION |
|--------|-----|--------------------------------|-----------------|-----------------------|
| 1 | 1 | SECONDARY BOX ASSEMBLY | ALUMINIUM | DRG.NO.-480684 |
| 2 | 3 | SEC.TERMINAL BLOCK WITH MARKER | MELAMINE | MAKE: ELMEX KBT M5-15 |
| 3 | 1 | GLAND PLATE | ALUMINIUM | 135x80 mm. |
| 4 | 1 | RATING & SCHEMATIC DIAGRAM | ALUMINIUM ANOD. | -- |



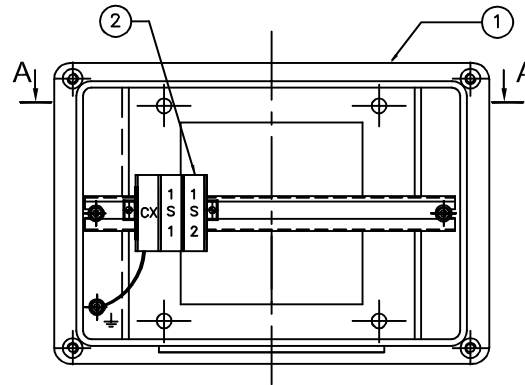
TOP VIEW (SECTION A-A)

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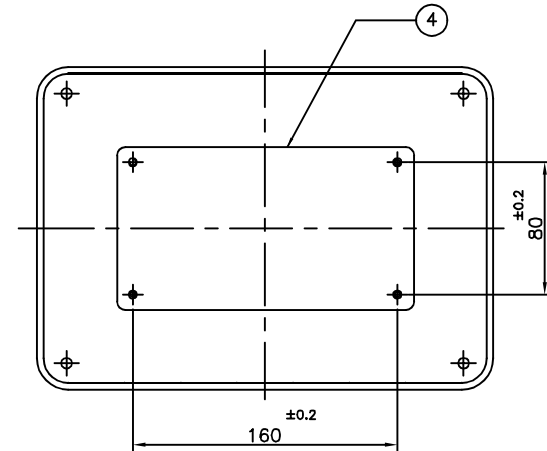
IF IN DOUBT ASK



SIDE VIEW



ELEVATION




COVER

NOTES :

- 1) SECONDARY BOX ASSEMBLY TO CONFIRM IP55 AS PER IS:13947
- 2) Cx:TERMINAL FOR CAPACITANCE & TAN DELTA MESUREMENT ONLY. SHOULD BE KEPT EARTHED WHEN NOT IN USE.

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| | | | | | | | | | | | | | | | | |
|----|----------|------|------|----|----------|------|------|------|---|--|------|-------|--------|------------------|--------------------------|----------------------------|
| R6 | | R4 | | R2 | | | SIGN | NAME | SECONDARY BOX ASSEMBLY FOR 145 kV CURRENT TRANSFORMER TYPE-CT:145/275/650 |  CG Power and Industrial Solutions Limited, Aurangabad | | | | | | |
| R5 | | R3 | | R1 | | DRN | SSM | | | | | | | | | |
| | | | | | | CHD | SSM | | | | | | | | | |
| NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | NO | REVISION | SIGN | DATE | SCALE | N.T.S. | DATE: 09.06.2021 | ALL DIMENSIONS ARE IN mm | DRG.NO: 145CT 150-1A SB/R0 |

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**GUARANTEED TECHNICAL PARTICULARS FOR
CURRENT TRANSFORMERS**

| | | | | | |
|------|-----------|--------|-----------------|-----------|----|
| REF. | 145 KV CT | 150/1A | Normal Creepage | Revision: | R0 |
|------|-----------|--------|-----------------|-----------|----|

| Sr# | Particulars | Unit | Values |
|-----|---|------------|--|
| 1 | Type/ Installation | | Single Phase, Oil impregnated, Hermetically sealed, Outdoor Current Transformer. LIVE Tank Type |
| 2 | Manufacturer's Name and Country of Manufacture | | CG Power and Industrial Solutions Limited Aurangabad, India |
| 3 | Manufacturers Type designation | | CT:145/275/650 |
| 4 | Highest System Voltage (Phase to phase) | kV | 145 |
| 5 | Type of insulation used | | Class A (Oil Impregnated Paper) |
| 6 | Rated Frequency | Hz | 50 |
| 7 | Suitable for Altitude (Max) | Meters | 1000 |
| 8 | Conforming to Standard | | IS: 16227-1&2 / IEC: 61869-1&2 |
| 9 | Rated System Voltage (Phase to Earth) | kV | 132/V3 |
| 10 | Rated Primary Current | Amps | Refer Table on Page-2 |
| 11 | Rated Secondary Current | Amps | Refer Table on Page-2 |
| 12 | Details of Cores | | Refer Table on Page-2 |
| 13 | Rated Continuous current rating | | 120% of Rated Current |
| 14 | Ratio selection (taps) by | | Secondary Taps Only. |
| 15 | No. of Secondary Cores | | 1 |
| 16 | Rated Short Time withstand Current & duration | kAmps/secs | 31.5 kA for 1 Sec. |
| 17 | Dynamic peak withstand current | kA peak | 78.75 |
| 18 | One minute Power Frequency (Wet & Dry) withstand Voltage on Primary Winding | kV rms | 275 |
| 19 | 1.2/50 micro sec. Lightning Impulse withstand Voltage | kV peak | 650 |
| 20 | One minute Power Frequency withstand Voltage on Secondary Winding | kV rms | 3 |
| 21 | Total Creepage distance | mm (mm/kV) | 3625 (25 mm/kV) |
| 22 | Primary Terminal material & details | | Copper ϕ 30 x 80 mm long |
| 23 | Surface Finish of MS components exposed to atmosphere | | Hot Dip Galvanised. |
| 24 | Secondary Terminal Box arrangement | | Single Door Box. |
| 25 | Volume of Oil | Litres | 65 +/-10% |
| 26 | Total weight of equipment | kg | 350 +/-10% |
| 27 | Mounting details | mm | 4 Holes of Dia. 25 mm. @ 450x450 mm. |
| 28 | Material of Tank/Housing | | Mild Steel |
| 29 | Dielectric Dissipation Factor (Tan-Delta) | | < 0.005 |
| 30 | Measurement of Partial Discharge @ 1.2 UM/ $\sqrt{3}$ | pC | < 5 |
| 31 | Measurement of Partial Discharge @ UM | pC | < 10 |

145LT601MS

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 Corporate Identity Number: L99999MH1937PLC002641

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| | | | | |
|------|-----------|--------|-----------|----|
| REF. | 145 KV CT | 150/1A | Revision: | R0 |
|------|-----------|--------|-----------|----|

TABLE - CORE DETAILS

| | | | | | | |
|----------------------------|-----------|--|--|--|--|--|
| CORE NO. | I | | | | | |
| PRIMARY CURRENT | 150 | | | | | |
| SEC. CURRENT (Amps) | 1 | | | | | |
| PRIMARY TERMINALS | P1 - P2 | | | | | |
| SEC. TERMINALS | 1S1 - 1S2 | | | | | |
| ACCURACY CLASS | 0.2S | | | | | |
| BURDEN (VA) | 5 | | | | | |
| ISF (for METERING) | ≤ 5 | | | | | |
| ALF (For PROTECTION) | | | | | | |
| KNEE POINT VOLTAGE | | | | | | |
| I _{exc} (MAX), mA | | | | | | |

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS.

- 1). Minimum 300 mm Plinth shall be maintained for Current transformers in the substation during foundation works to ensure safe live to ground clearances as per IE rules.
- 2). Since the supply of terminal connectors is not in the scope of CT Manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with the CT requirement and compatibility.

FOR EPC CONTRACTS ONLY

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