

(i) WINDING ARRANGEMENT

(II) OPERATING POSITION

(III) DIRECTION OF POWER FLOW

2. OLTC TYPE

3. OLTC RATED CURRENT

The diagram shows a horizontal beam with nodes labeled 0 through 12. Node 0 is at the left end, followed by node 1 which has a vertical support. The beam continues through nodes 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and ends at node 12. There are four spans between the supports: Span 1 (between nodes 1 and 4), Span 2 (between nodes 4 and 7), Span 3 (between nodes 7 and 10), and Span 4 (between nodes 10 and 12). A coordinate system is shown at node 9 with a vertical axis labeled 'z' pointing upwards.

Test Voltage in kV	Between phases	Tap To Earth	Across Range	Between tap
Power frequency 50Hz	82	140	82	20
Impulse (1.2/50) Micro Sec.	350	350	350	90

a) ON LOAD TAP CHANGER MOTOR

b) ON LOAD TAP CHANGER CONTROL

(DRIVEN FROM 415V THROUGH AN AUXILIARY TRANSFORMER OF 415V/55-0-55V, 500VA RATING AND TO BE PROVIDED INSIDE THE OLTC LOCAL DRIVE UNIT BY THE OLTC MANUFACTURER)

c) THERMOSTATIC CONTROL
HEATING & LIGHTING

6. OLTC CONTROL REQUIREMENT (ONLY PROVISION):-

a) LOCAL ELECTRICAL

b) REMOTE ELECTRICAL

c) PARALLEL

c) MANUAL

d) AUTO

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6 (a) POTENTIAL FREE CONTACTS FOR FOLLOWINGS:

- | | | |
|----|-----------------------------------|----------|
| a) | OLTC MOTOR PROTECTION SWITCH TRIP | - 01 No |
| b) | OLTC REACHED AT LOWEST POSITION | - 01 No. |
| c) | OLTC REACHED AT HIGHEST POSITON | - 01 No |
| d) | TAP CHANGE IN PROGRESS | - 02 No. |
| e) | OLTC CONTROL SUPPLY 110V AC FAIL | - 02 No. |
| f) | OLTC CONTROL ON LOCAL & REMOTE | - 01 No. |

SINGLE PHASE PREVENTER WITH PHASE REVERCE INTER-LOCK FACILITY

7. RADIAL SWITCH & CCU REQUIREMENT:

4 NOS. RADIAL SWITCHES SHOULD BE PROVIDED AS PER FOLLOWING DETAILS

- a) 1 NO. MBB SWITCH WITH 1000+/-1% OHM PER STEP RESISTANCE ASSEMBLY FOR REMOTE TAP POSITION INDICATOR.
- b) 1 NO. MBB SWITCH WITH RESISTANCE ASSEMBLY FOR 2 No. 4-20 mA DC OUTPUT THROUGH CCU MOUNTED IN OLTC MOTOR DRIVE UNIT FOR TPI.
- c) 1 NO. BBM SWITCH FOR PARALLEL OPERATION.
- d) 1 NO. BBM SWITCH FOR ODD/EVEN SWITCH FOR PARALLEL OPERATION.

8. PAINTING:-

EXTERIOR: PAINT THICKNESS 70 TO 100 MICRON.

PAINT DETAILS & SHADE: AT THE TIME OF ORDER PLACEMENT.

9. ACCESSORIES TO BE SUPPLIED LOOSE:

- a) OIL SURGE RELAY WITH PIPE ELBOWS FOR OSR, SUCTION WITH EACH OLTC, BEVEL GEAR, DRIVE SHAFT, SHAFT GUARD FOR ALL SHAFT ALONG WITH OLTC MOTOR DRIVE UNIT. (THE HEAD VARIANT, SWIVELLING RANGE & CABINET HINGE WILL BE INFORM LATER ON AT ORDER STAGE).
- b) MANUAL OPERATING HANDLE.

10. WIRING OF LOCAL MOTOR DRIVE UNIT:

SUPPLIER TO SUBMITT THEIR STANDARD WIRING DIAGRAM FOR EVALUATION. HOWEVER MINOR CHANGES AT THE TIME OF END CUSTOMER'S APPROVAL IS TO BE INCORPOARTED WITHOUT PRICE IMPLICATION.

11. TESTING OF OLTC:

FOLLOWING TYPE TEST & ROUTINE TEST REPORTS AS PER IEC-60214 & ENCLOSED CUSTOMER SPECIFICATION (NOT OLDER THAN FIVE YEARS) SHALL BE SUBMITTED ALONG WITH OFFER.

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ANNEXURE-1
Sheet 3 of 3

- a) THE VARIOUS TESTS (ROUTINE AND TYPE) AS STIPULATED IN THE IEC-60214 (AS AMENDED UP TO DATE) INCLUDING VACUUM HELIUM AND GAS LEAK ROUTINE TESTS SHALL BE CARRIED OUT.
- b) SUPPLIER SHALL SUBMIT TYPE TEST CERTIFICATE & COPIES OF OSCILLOGRAMS AS CALLED FOR IN IEC-60214 (AS AMENDED UP TO DATE).
- c) TEMPERATURE RISE OF CONTACT, SHORT CIRCUIT TEST, MECHANICAL TEST, DIELECTRIC TEST AS PER IEC-60214 AND DEGREE OF PROTECTION IP-55 TEST ON MOTOR DRIVING UNIT.
- d) OLTC MOTOR CURRENT SIGNATURE AS ROUTINE TEST.

ALL ABOVE TEST REPORTS SHOULD BE FURNISHED IN TRIPLICATE.

12. DOCUMENTS AND DRAWINGS REQUIRED WITH OFFER:

- a) ALL TYPE REPORTS AS PER IEC-60214.
- b) OVER ALL DIMENSIONAL DRG. OF OLTC, OLTC MOUNTING ARRANGEMENT, OSR, BEVEL GEAR, HEAD VARIANT, OGA OF MOTOR DRIVE UNIT, SHAFTS ARRANGEMENT. (ALL TYPE OF ALTERNATIVES)
- c) PHASE DIAGRAM OF OLTC.

12 (a) AFTER AWARD OF CONTRACT:

- a) FINAL LOCAL DRIVE UNIT WIRING DIAGRAM DRAWING IN AUTO-CAD.
- b) MAKE AND TYPE OF ALL EQUIPMENTS ALONG WITH THEIR OVER ALL DIMENSIONS AND ELECTRICAL CONNECTION DIAGRAM.

12 (b) WITH CONSIGNMENT:

- a) INSTALLATION, OPERATION AND MAINTENANCE MANUAL IN TEN COPIES WITH EACH OLTC.
- b) TESTS CERTIFICATE IN TRIPLICATE.

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