



UDUPI COCHIN SHIPYARD LIMITED

Malpe Harbour Complex, Malpe,
Udupi, Karnataka – 576 108, India.
Tel – 0820 2538604

MATERIALS DEPARTMENT

CORRIGENDUM - 1 dated 10.10.2023

EXTENSION OF TENDER OPENING DATE, CHANGE IN TECHNICAL SPECIFICATION

Tender No.: UCSSL/MAT/2023-24/527

Date: 10.10.2023

Sir,

CORRIGENDUM - 1 dated 10.10.2023 - TENDER FOR SUPPLY OF 1000 KVA CU OLTC TRANSFORMER

The following terms of the subject tender is amended as follows:

Sl. No.	Description	FOR	READ AS
1	Last date for Receipt.	13 th October 2023, 15:30 Hrs	20 th October 2023, 15:30 Hrs
	Technical Bid Opening date.	13 th October 2023, 15:30 Hrs	20 th October 2023, 15:30 Hrs
2	Technical Specification (Sl. No.1) - Type	1000 KVA 11000/433 Volts, 3 phase, EEL-3 (5 Star) 01 No Copper Wounded, Oil Cooled, Outdoor Distribution Transformer with Box Type with On Load Tap Changer (OLTC) RTCC Panel with annunciator Suitable for LT Side Busduct	1000 KVA 11000/433 Volts, 3 phase, Energy efficiency level- 2,01 No Copper Wounded, Oil Cooled, Outdoor Distribution Transformer with Box Type with On Load Tap Changer (OLTC) RTCC Panel with annunciator Suitable for LT Side Busduct

Bidders may take note of the above changes and consider the same prior to quoting. All the other terms and conditions of the tender enquiry remains unchanged

For Udupi Cochin Shipyard Limited,

Assistant General Manager (Materials & Contract Cell)

सोणि क्लेमेन्ट टी एम
SONY CLEMENT T M
सहायक महासंचालक ASSISTANT GENERAL MANAGER
उदुपी कोचीन शिपयार्ड लिमिटेड
UDUPI COCHIN SHIPYARD LIMITED
माल्पे, कर्नाटक/MALPE, KARNATAKA-576 108



UDUPI COCHIN SHIPYARD LIMITED

UDUPI COCHIN SHIPYARD LIMITED

(Formerly **TEBMA Shipyards Limited**)

Ministry of Ports, Shipping and Waterways,
Government of India

TECHNICAL SPECIFICATION

FOR

SUPPLY OF 1000 KVA TRANSFORMER

Scope of work for 1000 KVA Transformer

- 1.0. The scope covers supply of Distribution transformers of outdoor type suitable for industrial application including supply of all auxiliary components to give reliable and continuous operation.
- 2.0. **General requirement:**
 - 2.1. The transformer shall be able to withstand the corrosive atmosphere. All the MS part shall be galvanised to make them free from corrosive.
 - 2.2. The construction of the winding of the transformer shall be such that no creep age path is found even in dust and corrosive ambient condition. Both high voltage and medium voltage winding shall be made of copper conductors.
 - 2.3. The transformer shall be suitable for outdoor installation.
 - 2.4. The transformer shall be designed and constructed to withstand without damage the thermal and dynamic effects of the external short circuit conditions as per IS.
- 3.0. **Submission of Documents (Along with offer):** The following documents shall be furnished along with the offer.
 - 3.1. Documentary evidence showing the supply of similar transformers during the last 3 years.
 - 3.2. List of fittings and accessories of the transformers.
 - 3.3. General arrangement drawing of HV/MV terminal box of the transformers.
 - 3.4. Transformer to be tested in Central Power Research Institute (CPRI) in the presence of UCSL representative. The same report is to be submitted before the delivery of the transformer.
 - 3.5. Offer of guarantee certificate/after-sales service.
- 4.0. **Inspection:** The transformer shall be inspected by UCSL representative or any other agencies nominated by UCSL prior to despatch for verification for conformity with P.O specifications. The copies of valid calibration certificates of the testing equipment shall be submitted during pre-dispatch inspection.
- 5.0. **Submission of Documents (Along with item):** The following documents shall be furnished along with item.
 - 5.1. Transformer accessories interconnecting wiring diagram.
 - 5.2. Reports of routine tests conducted, as per relevant IS, in your factory and witnessed by UCSL officials
 - 5.3. Hard copies of O&M manuals (3 Nos.) and soft copy.

5.4. Guarantee certificate/after-sale service

TECHNICAL SPECIFICATION OF 1000 KVA, 11,000/433V, 50Hz TRANSFORMER

1.	Type	1000 KVA 11000/433 Volts, 3 phase, Energy efficiency level-2,01 No Copper Wounded, Oil Cooled, Outdoor Distribution Transformer with Box Type with On Load Tap Changer (OLTC) RTCC Panel with annunciator Suitable for LT Side Busduct
2.	Reference Standards	I S 1181
3.	Rated Power	1000kVA
4.	No load voltage ratio	11,000/433V
5.	Primary winding	11,000V
6.	Secondary winding	433V
7.	No. of phase	Three
8.	Frequency	50Hz +/- 3%
9.	Winding Material	Copper
10.	Installation	To be installed in outdoor
9.	Duty	Continuous
10.	Nature of load	Induction motor/welding machine etc.
11.	Type of Cooling	ONAN
12.	Vector Group	Dyn11
13.	Temperature rise	40/45 over an ambient temperature of 50° C
14.	Tap changing	ON load 12kV, 17 Position, 200 A, +5%to-15%,17 Taps
15.	Highest voltage Pry. side	12,000V (r.m.s.)
16.	Highest voltage Sec. side	1,100V (r.m.s.)
17.	Connection HT /LT	Delta /Star
18.	Lightning impulse withstanding voltage Pry. side	75,000V (peak)
19.	Power frequency withstand voltage HV. side	28,000V (r.m.s.)
20.	Power frequency withstands voltage LV. side	3,000V (r.m.s.)

21.	Termination Pry. side	Suitable for termination of 1x3x300mm ² XLPE cable
.22.	Termination LT side	Suitable for connecting bus duct
23	Terminal Arrangement (HV/LV)	Cable box/provision for connecting bus duct for 1000kVA
24.	Fitting and accessories	<p>The transformer shall be complete with the following fitting.</p> <ol style="list-style-type: none"> 1. Rating & Diagram Plate 1 No 2. Earthing Terminals 2 No 3. Lifting Lugs 4 No 4. Air Release Plug 1 No 5. Silica Gel Breather 1 No 6. Conservator Oil Level Gauge 1 No 7. Bottom & Top Filter Valves 2 No 8. Inspection Cover 1 No 9. OLTC (Make: CTR) 1 No 10. External RTCC Panel with AVR 1 No 11. Marshalling Box with OTI & WTI meters 1 No 12. Buchholtz Relay 1 No 13. MOG (Magnetic Oil Guage) 14. Annunciator panel 1 No
25	Max total losses at 50% rated load.	2620 Watts
26	Max total losses at 100% rated load.	7000 Watts

TECHNICAL PARTICULARS TO BE FURNISHED BY THE MANUFACTURER

1.	Name of manufacturer	
2.	Year of manufacture	
3.	Service	
4.	Capacity (kVA)	
5.	Rated voltage HT side (V)	
6.	Rated voltage LT side (V)	
7.	Rated frequency (Hz)	
8.	No. of phases	
9.	Connection HT side	
10.	Connection LT side	
11.	Vector group reference	
12.	Tapping (range)	
13.	Tapping (No. of steps)	
14.	Tapping ratio (HT/LT)	
15.	Type of cooling	
16.	Reference ambient temperature (°C)	
17.	Temperature rise of winding (°C)	
18.	No load losses (kW) (Rated voltage and frequency on principal tap)	
19.	Load losses (kW) (Rated current at 75°C on principal tap.)	
20.	Total losses (kW) (Rated voltage and frequency on principal tap.)	

21.	Load losses (kW) (50% of rated load)	
22.	Total losses (kW) (50% of rated load)	
23.	Impedance voltage (V) (Rated current on principal tap)	
24.	Reactance (Ω) (Rated current and frequency)	
25.	No load current (A) (rated voltage and frequency)	
26.	Temperature class of insulation	
27.	Insulation material HT side	
28.	Insulation material LT side	
29.	Insulation level (Power frequency withstand voltage HT side)	
30.	Insulation level (Power frequency withstand voltage LT side)	
31.	Insulation level (Induced over-voltage withstand HT side)	
32.	Insulation level (Induced over-voltage withstand LT side)	
33.	Insulation level (Full wave lightning impulse withstand HT side)	
34.	Insulation level (Full wave lightning impulse withstand LT side)	
35.	Insulation level (Switching impulse withstand HT side)	
36.	Insulation level (Switching impulse withstand LT side)	
37.	Efficiency (%) (75°C and unity power factor at full load)	
38.	Efficiency (%) (75°C and unity power factor at $\frac{3}{4}$ load)	
39.	Efficiency (%) (75°C and unity power factor at $\frac{1}{2}$ load)	
40.	Maximum efficiency (%)	
41.	Load at which maximum efficiency occurs in % of full load	
42.	Regulation (full load, 75°C, and unity power factor)	
43.	Regulation (full load, 75°C, and 0.8 lagging power factor)	
44.	Method of cooling	
45.	Minimum clearance (mm) (between phases)	

46.	Minimum clearance (mm) (Between HT side and body)	
47.	Terminal arrangement HT side	
48.	Terminal arrangement LT side	
49.	Terminal arrangement Earth	
50.	Masses (kg) Approximate (Tol +/- 10%) (Core And Windings)	
51.	Masses (kg) Approximate (Tol +/- 10%) (Tank and fittings)	
52.	Masses (kg) Approximate (Tol +/- 10%) (oil)	
53.	Masses (kg) Approximate (Tol +/- 10%) (Total)	
54.	Overall dimension (mm) Approximate (Tol +/- 10%) Length	
55.	Overall dimension (mm) Approximate (Tol +/- 10%) Breadth	
56.	Overall dimension (mm) Approximate (Tol +/- 10%) height	
57.	Reference standards	
58.	Standard accessories supplied with the item	
59.	RTCC, OLTC and Annunciator panel Control / power Cable size and cores details to be provided	