SECTION-C

Tender No. IPR/TN/PUR/TPT/ET/18-19/25 DATED 13/08/2018

Technical Specifications Isolation Transformer:

1. kVA rating & quantity : Either 15 kVA, 1 unit or 5 kVA, 3 units
   (Purchaser will choose technically acceptable lowest cost option)

2. Input : either 420 ±10% VAC, 3-Phase or 240 ±10% VAC, 1-Phase
3. Output : same as input (i.e. with a voltage Ratio 1:1)
4. Isolation : 1. 350kV DC between secondary winding to primary winding
   2. 350 kV DC between secondary winding to core
   3. 3 kV DC between primary winding to core
5. Frequency : 50Hz ± 3Hz
6. Duty : Continuous
7. Regulation : <10 %
8. Leakage current: <200 μAmp
9. Efficiency : More than 90%
10. Maximum Temp rise : < 40 ^{0}C above ambient
11. Standard : Relevant IEC Standard as applicable
12. Insulation: Air/Oil/SF6
13. Dimension (L x W x H in m) : < 3.5 m x 1.5 m x 3.5 m

Acceptance Criteria at Vendor Site:

1. IPR representative/ representatives should inspect the tests at manufacturer works and/or at test facility.
2. Following test should be conducted in the isolation transformer.

   a. Insulation resistance of transformer (megger test) : > 10 GOhm
   b. No load current test: < 1 A for 1-phase (5 kVA) unit or < 3A for 3-phase (15 kVA)
   c. High Voltage test between outputs and input terminals : >385 kV for 1 min and >350 kV for 10 min with leakage current measurement
   d. Max % regulation: < 10%
   e. Physical examination
   f. Efficiency at
      1. At full load > 90%
      2. 50 % load >90%
      3. 25 % load >90 %
   g. Temperature rise test

Despatch clearance shall be given only after successful completion of above test/s at vendor's site.

Acceptance Criteria at IPR Site:

3. Following test shall be conducted on the Isolation Transformer by IPR personnel

   a. Insulation resistance of transformer
   b. High Voltage test
   c. Physical examination
   d. Output voltage tests at no-load.

SECTION-C

Tender No. IPR/TN/PUR/TPT/ET/18-19/25 DATED 13/08/2018

Compliance Table		
IPR Specification		**Vender Specification**
kVA rating & quantity : either 15 kVA, 1 unit or 5 kVA, 3 units		
Input: either 420 ±10% VAC, 3-Phase or 240 ±10% VAC, 1-Phase		
Output : same as input (i.e. with a voltage Ratio 1:1)		
Isolation :	350 kV DC between secondary winding to Core	
	350kV DC between secondary winding to primary winding	
	3 kV DC between primary winding to core	
Frequency: 50Hz ± 3Hz		
Duty : Continuous		
Regulation: <10 %		
Leakage current: <200 μAmp		
Efficiency: More than 90 %		
Maximum Temp rise: Less than 40^0C above ambient		
Standard : Relevant IEC Standard as applicable		
Dimension (LxWxH in m) : < 3.5 m x 1.5 m x 3.5 m		
Insulation: Air/Oil/SF6		
Acceptance Criteria at vendor's site: Following test shall be conducted in the isolation transformer.		
h. Insulation resistance test of transformer (megger test):> 10 Gohm		
i. No load current test: < 1 A for 1-phase (5 kVA) unit or < 3A for 3-phase (15 kVA)		
j. High Voltage test between outputs and input terminals : > 385 kV for 1min and >350 kV for 10 min with leakage current measurement.		
k. Max % Regulation : < 10%		
l. Physical examination		
m. Efficiency at		
1. At full load >90 %		
2. At 50 % load >90%		
3. At 25% load >90 %		
n. Temperature rise test		
Acceptance Criteria at IPR Site (shall be carried out by IPR): Following test shall be conducted in the Isolation Transformer. e. Insulation resistance of transformer f. High Voltage test g. Physical examination h. Output voltage tests at no-load.		