

SECTION - C

TECHNICAL SPECIFICATIONS OF STORES AND DRAWINGS.

Technical Specifications for Supply, Factory Acceptance Tests at Vendor Site and Final Acceptance Test at IPR Site of 7.5 KVA DC Isolation Transformer



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Technical Specifications for Supply, Factory Acceptance Tests and Site Acceptance Test at IPR of 7.5 KVA DC Isolation Transformer

Technical Specifications Isolation Transformer:

1. kVA rating : 7.5 kVA
2. Input : 230 \pm 10% VAC, 1-Phase
3. voltage Ratio : 1:1
4. Isolation : a) 350kV DC between secondary winding to primary winding
b) 350 kV DC between secondary winding to core
c) 3 kV DC between primary winding to core
5. Frequency : 50Hz \pm 3%
6. Duty : Continuous
7. Regulation : \leq 10 %
8. Leakage current: \leq 200 μ Amp @ 350kV
9. Efficiency : More than 85 %
10. Maximum Temp rise : \leq 40 $^{\circ}$ C above ambient
11. Standard : Relevant IEC / IS:2026 Standard as applicable
12. Insulation: Air/Oil/SF6
13. Preferred Dimension (L x W x H in m) : \leq 1.0 m x \leq 1.0 m x \leq 2 m
14. Quantity : 3 Nos

Factory Acceptance Tests at Vendor Site:

1. Following test should be conducted on the isolation transformer and test report should be submitted to IPR before shipment for approval.
 - a. All routine tests as per IS:2026 as applicable
 - b. Insulation resistance of transformer (megger test) : \geq 10 GOhm at 1 kV
 - c. No load current test: \leq 8 A
 - d. High Voltage test between outputs and input terminals : \geq 385 kV for 1 min and \geq 350 kV for 10 min with leakage current measurement
 - e. High Voltage test between outputs and core : \geq 385 kV for 1 min and \geq 350 kV for 10 min with leakage current measurement
 - f. Max % regulation: \leq 10%
 - g. Physical examination
 - h. Efficiency at
 1. At full load \geq 85 %
 2. 50 % load \geq 85 %
 3. 25 % load \geq 85 %

Site Acceptance Tests will be carried out by IPR Personnel at IPR:

2. Following tests should be conducted on the isolation transformer.
 - a. Insulation resistance of transformer(megger test) : \geq 10 GOhm at 1 kV
 - b. High Voltage test at 300 kV
 - c. Physical examination
 - d. Output voltage tests at no-load.

Warranty: 1 year

Delivery: 4 month after purchase order

Compliance Sheet

Compliance Statement for Supply, Factory Acceptance Tests and Site Acceptance Test at IPR of 7.5 KVA DC Isolation Transformer

Vendor must filled and submit the compliance statement with official seal and signature with offer.

Compliance Table	
IPR Specification	Vender Specification
kVA rating & quantity : 7.5 kVA	
Input: 230 ±10% VAC, 1-Phase	
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 85 %	
Maximum Temp rise: ≤40°C above ambient	
Standard : Relevant IEC Standard as applicable	
Preferred Dimension (LxWxH in m) : ≤ 1.0 m x ≤ 1.0 m x ≤ 2.0 m	
Insulation: Air/Oil/SF6	
Quantity: 3 Nos	
<u>Acceptance Criteria at Vendor Site:</u> Following test shall be conducted in the isolation transformer.	
a. All routing test as per IS 2026 as applicable	
b. Insulation resistance test of transformer (megger test):> 10 GOhm	
c. No load current test: ≤ 8 A	
d. High Voltage test between outputs and input terminals : > 385 kV for 1min and >350 kV for 10 min with leakage current measurement.	
e. Max % Regulation : ≤ 10%	
f. Physical examination	
g. Efficiency at	
1. At full load ≥ 85 %	
2. At 50 % load ≥ 85%	
3. At 25% load ≥ 85 %	
h. Temperature rise test	
<u>Acceptance Criteria at IPR Site will be carried out by IPR personnel :</u>	

<ol style="list-style-type: none">1. Following test shall be conducted in the isolation transformer.<ol style="list-style-type: none">a. Insulation resistance of transformerb. High Voltage testc. Physical examinationd. Output voltage tests at no-load.	
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Authorised Signatory

Official Seal

Date :-