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Cluase no. 7.3 TYPE TESTS

Specification no. ENG-HV-2015

Specification no. ENG-HV-2015

Clause no. 11, Guarantee Specification no. ENG-HV-2015

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Cluase no. 7.4 SPECIAL THERMAL STABILITY TEST



Response to Pre-Bid Queries

or his authorized representative. The above mentioned tests shall be made on 100 % of

m) Tests on arrestor disconnectors- Time current characteristics (optional)

The bidder shall further be responsible for 'free replacement' for another period of THREE

from the end of gurantee period for any 'latent defects' if noticed by the company.

arrestors to be supplied.

Seal leak rate test

Special thermal stability test

) Hot dip Galvanizing test on exposed steel parts.



which is as specified in IS / IEC standard. Hence 100% testing as acceptance

Since our design uses Stainless Steel hardware and since no MS parts are used,

As per IEC / IS standard, this test is applicable for arresters having an enclosed gas volume and a seperate sealing system. Polymer arrester doesn't use any

sealing / o ring (like in porcelain type) in the manufacturing and are directly

If disconnector is not applicable, then this test is also not applicable

Not applicable as lightning arresters are protective equipment and are subjected for surge streas frequently. If the intensity of the surge is more than

the arrester withstand capability, it will self sacrifise while protecting the

duty test) will be submitted, hence it is not applicable.

moulded and doesn't has any gap between housing and blocks. Hence this test

Since this is part of operating duty test and type test report for this (operating

test is not applicable

is not applicable.

equipment.

this test is not applicable



## Centralized Contract Group (CCG)

Dated: 19.02.2025

Acceptance test is required to be done on 5 to 10% of whole lot shall be decided during

the inspection after visual check & also depend upon the lot size.

Disconnector is mandatory & required. Hence mentioned test is applicable

For Stainless Steel hardware said test is not applicable

Shall be as per technical specification

## Tender no.TPCODL/CCG/24-25/1000001764 Detailed Reference to TPCODL Technical Document, Please specify Document No / Clause No / Page **Description as per Bid Document** Remarks - Query / Clarification **CCG** Response No 1 2 Cluase no. 4 GENERAL TECHNICAL REQUIREMENTS: Specification no. ENG-HV-2015 GENERAL TECHNICAL REQUIREMENTS: sl. no. 30 Disconnector (optional) Disconnector is mentioned as optional, clarify whether disconnector is required Clarify whether disconnector connecting lead is required or not since . Disconnector connecting lead - Insulated flexible tinned plated disconnector is optional, requirement of lead is also not required. Disconnector is mandatory & required copper braid with lugs Not applicable if disconnector is not required b. Size of Insulated Tinned copper braid - 25 sq.mm c Length of Insulated Tinned conner Not applicable if disconnector is not required nraid - 300 mm Assembly - a) The 12kV 10kA station class Lightning Arrester shall have L-shaped terminal clamp Normally arresters with bracket mounting are provided with studs on both Cluase no. 5.1 Assembly Specification no. ENG-HV-2015 suitable for conductor size of 148 sqmm ends of LA which will provide robust connection for line and ground leads. Also Insluating terminal cap will fit tightly on the LA with stud design on line side. Shall be as per technical specification Hence, L shaped terminal clamp is not applicable. 5.4 DISCONNECTORS (OPTIONAL): Cluase no. 5.4 DISCONNECTORS (OPTIONAL): Clarify whether disconnector is required or not as it is mentioned as optional Disconnector is mandatory & required. Specification no. ENG-HV-2015 If disconnector is applicable, terminal can be M12 also which is more robust Disconnector shall be suitable for screwing directly Shall be as per technical specification, however better can be accepted to LA with terminal of M10 Clause no. 6, Marking Specification no. ENG-HV-2015 A stainless steel rating plate, of at least 1 mm thickness, shall be fitted to each Lightning Due to limitations in manufacturing, Name plate thickness will be 0.3mm 4 Shall be as per technical specification Arrester Cluase no. 7.1 ACCEPTANCE TESTS Specification no ENG-HV-2015 All acceptance tests shall be witnessed by TPCODL/TPWODL/TPNODL/TPSODL / the purchaser's All accentance tests shall be performed on the cubernot of the lot quantity

Sr. No.	Detailed Reference to TPCODL Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	CCG Response
1	2	3	4	5
9	Clause no. 13, TENDER SAMPLE Specification no. ENG-HV-2015	One sample to be submitted during technical bid submission. This shall be Non-returnable basis.	Since we are regular suppliers to TPCODL / TPSODL/ TPNODL / TPWODL and have supplied many 12kV 10KA Lightning Arresters, sample submission is not applicable	In case of new BA to TATA power Odisha Discom, Sample Submission is applicable Sample to be submitted to below address Address:  To, Khajan Bhardwaj, P. Engineering(CA), HOD-CEQG, JSS Tower, STP-2, 6th Floor, Infocity, Bhubaneswar-751024
10	Clause no. 4, General Technical Requirements SI. no. 22 (Technical Particulars Class SL Class - II & SM Class - III) - Specification no. ENG-EHV-1021	Max. Cantilever Strength - 325 KgF - For both Class II & Class III arresters	Normally 325 KgF strength is applicable for Porcelain type LAs due to its high strength ceramic housing. Since Polymer LA housing is of Rubber type, cantilever strength will be > 150 KgF	Shall be as per technical specification
11	Clause no. 5.4, Surge counter Specification no. ENG-EHV-1021	Surge Counter	Clarify whether surge counter is required or not for Class 2 LAs	Surge counter is not required for Class 2 LAs
		a) Cyclometric 5 digit, non-resetting type counter, dial type surge counter shall be provided for each lightning arrestor	Our design has 6 digit counter which is better than 5 digits.	Shall be as per technical specification, however better can be accepted
12	Clause no. 5.4, Surge counter Specification no. ENG-EHV-1021 (If Surge Counter is applicable)	<ul> <li>d) The connecting conductor from lightning arrester earth terminal to the discharge counter, Approved Make for this Cable is Polycab/KEI/KEC/Sterlite/Finolex/Havells.</li> </ul>	As insulated cable / conductor is standard design with ISI marking, equivalent make will be supplied. Since ISI marking will be printed, the cable will be able to meet the requirements of the standard which is irrespective of the manufacturer.	Shall be as per technical specification
		d) Bimetallic strips must be provided along with Surge Counter for bimetallic connections.	There is no bi-metalic connection between arrester and surge counter, hence the same is not applicable	Shall be as per technical specification
13	Clause no. 6, Marking Specification no. ENG-EHV-1021	A stainless steel rating plate, of at least 1 mm thickness, shall be fitted to each Lightning Arrester	Due to limitations in manufacturing, Name plate thickness will be 0.3mm	Shall be as per technical specification
14	Clause no. 7.1, Acceptance tests Specification no. ENG-EHV-1021	g) Measurement of power-frequency voltage on the arrester at the reference current  h) Lightning impulse residual voltage on the arrester at nominal discharge current ( wet power frequency voltage test)	This test is same as a) Measurement of reference voltage test. Hence not applicable  Wet Power frequency is different from Lightnng impulse residual voltage test. As per IEC / Is standard, wet power frequency test is a type test on arrester housing, hence the same is not applicable as acceptance test.	Noted  Lightning impulse residual voltage on the arrester at nominal discharge current shall be performed as per IEC 60099-4
15	Clause no. 7.2, Routine tests Specification no. ENG-EHV-1021	e) The power-frequency voltage	This test is same as a) Measurement of reference voltage test.  Hence not applicable	Noted
16	Clause no. 11, Guarantee Specification no. ENG-EHV-1021	Guarantee: The bidder shall further be responsible for 'free replacement' for another period of THREE years from the end of gurantee period for any 'latent defects' if noticed by the company.	Not applicable as lightning arresters are protective equipment and are subjected for surge streas frequently. If the intensity of the surge is more than the arrester withstand capability, it will self sacrifise while protecting the equipment.	Shall be as per technical specification
17	Clause no. 5.1 Sl. no. 9, Assembly Specification no. ENG-HV-2004-02	The arrester disconnector shall be suitable for screwing directly to L.A with terminal of M10.	Terminal can be M12 also which is more robust than M10	Shall be as per technical specification, however better can be accepted
18	Clause no. 5.1 Sl. no. 13, Assembly Specification no. ENG-HV-2004-02	The 9kV 10kA Distribution class Lightning Arrester shall have L-shaped terminal clamp suitable for conductor size of 9mm-16mm diameter.	Normally arresters with bracket mounting are provided with studs on both ends of LA which will provide robust connection for line and ground leads. Also Insluating terminal cap will fit tightly on the LA with stud design on line side. Hence, L shaped terminal clamp is not applicable.	Shall be as per technical specification
19	Cluase no. 7.1, Type Test SI. no. 1. Specification no. ENG-HV-2004-02	Power frequency reference voltage test (both in dry and wet condition)	As per IEC 60099-4 Ed.3 clause 10.8.2, this test is Insulation withstand test and there is no type test as Power frequency reference voltage test (both in dry and wet condition), hence not applicable	This is Insulation Withstand Test on the Arrester Housing. a.Lightning Impulse b.Power frequency (wet)
20	Clusse no. 7.1, Type Test SI. no. 2. Specification no. ENG-HV-2004-02	Lightning impulse residual voltage on complete arrester	As per IEC 60099-4 Ed.3 clause 10.8.2, this test is Insulation withstand test and there is no type test as Lightning impulse residual voltage on complete arrester, hence not applicable. Residual voltage test is applicable on MOV Blocks only.	Noted

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1	2	3	4	5
21	Cluase no. 7.2, Routine Test Sl. no. 4. Specification no. ENG-HV-2004-02	Satisfactory absence from partial discharges and contact noise shall be checked on each unit by any sensitive method adopted by the manufacturer.	This test is same as test under sl. 3, i.e Internal Partial Discharge test, hence the same is not applicable	Noted
22	Cluase no. 7.3, Acceptance Test Sl. no. 3. Specification no. ENG-HV-2004-02	Partial Discharge Test (Both in Dry and Wet condition)	IEC / IS standard doesn't specify Partial Discharge Test in wet condition and it is done only in dry condition.  Hence test in wet condition is not applicable	Shall be as per technical specification
23	Clause no. 11 Specification no. ENG-HV-2004-02	Guarantee:  The bidder shall further be responsible for ' free replacement' for another period of THREE years  from the end of gurantee period for any 'latent defects' if noticed by the company.	Not applicable as lightning arresters are protective equipment and are subjected for surge streas frequently. If the intensity of the surge is more than the arrester withstand capability, it will self sacrifise while protecting the equipment.	Shall be as per technical specification
24	Annexure I - Inspection test plan for pre-delivery of Lightning Arrester - Sl. no. 1 Specification no. ENG-HV-2004-02	Power frequency reference voltage test (in wet condition)	As per IEC 60099-4 Ed.3 clause no. 9.2.1.a or IS:3070 part3 cl.6.2.8 , this test is applicable in dry condition only, hence wet condition test is not applicable	Shall be as per technical specification
25	Annexure I - Inspection test plan for pre-delivery of Lightning Arrester - SI. no. 3 Specification no. ENG-HV-2004-02	Partial Discharge Test (Both in Dry and Wet condition)	As per IEC 60099-4 Ed.3, this test is applicable in dry condition only, hence wet condition test is not applicable	Shall be as per technical specification
26	Clusse no. 8 TYPE TEST CERTIFICATES: Specification no. ENG-HV-2015	TYPE TEST CERTIFICATES:  Type tests should have been conducted during the period not exceeding 5 years from the date of opening the bid.	As per guidelines of Cetral Electricity Authority (CEA), validity of type test reports are for 10 years, hence the same is to be accepted	Shall be as per latest CEA Guidelines for TTRs.
27	Clause no. 6, Marking Specification no. ENG-HV-2015	A stainless steel rating plate, of at least 1 mm thickness, shall be fitted to each Lightning Arrester	Name plate marking is done directly on Lightning Arrester cap, which is not detachable.	Shall be as per Technical Specification
28	Clusse no. 7.1 ACCEPTANCE TESTS Specification no. ENG-HV-2015	Acceptance tests:  All acceptance tests shall be witnessed by TPCODL/TPWODL/TPNODL/TPSODL / the purchaser's or his authorized representative. The above mentioned tests shall be made on 100 % of arrestors to be supplied.	All acceptance tests shall be performed on the cuberoot of the 100% lot quantity which is as specified in IS / IEC standard.	Acceptance test is required to be done on 5 to 10% of whole lot shall be decided during the inspection after visual check & also depend upon the lot size.