



TYPE TEST REPORTS relating to VARISIL™ HTS Polymer Housed Surge Arresters

TYPE TESTS PERFORMED	REFERENCE STANDARD	SAMPLES TESTED	TEST REPORT			ADDITIONAL INFORMATION
			Reference	Date	Language	
Insulation withstand tests on the housings	IEC 60099-4 § 10.8.2	Housings rated 24 kV & 36 kV	CERDA N° 4715	January 14, 2004	French / English	
		Housing assemblies rated 48 kV to 144 kV	CERDA N° 4701	November 21, 2003	French / English	
Lightning, switching and steep current impulse residual voltage tests	IEC 60099-4 § 10.8.3	5 kV rated metal oxide resistors	CESI C1010230	June 18, 2021	English	Voltage vs current characteristic curve VI 8993 0X XX / E rev. 05 (October 15, 2021, English)
Repetitive charge transfer rating test	IEC 60099-4 § 10.8.5	5 kV rated metal oxide resistors	CESI C1010229	June 17, 2021	English	
Operating duty test	IEC 60099-4 § 10.8.7 (including § 10.8.4, § 10.8.6 and § 10.8.15)	5 kV dielectrically & thermally prorated sections	CESI C1013205	September 17, 2021	English	Technical note ALSTOM N° 494 (September 18, 2003, English)
Power-frequency voltage versus time test	IEC 60099-4 § 10.8.8	5 kV thermally prorated sections	CESI C1013207	September 17, 2021	English	Voltage vs time characteristic curve UT 8993 0X XX / E rev. 05 (October 15, 2021, English)
Short circuit tests	IEC 60099-4 § 10.8.10	HI 144 surge arresters	CERDA N° 4700	October 9, 2003	French / English	
		HI 36 surge arresters	CESI A8018576	June 25, 2008	English	

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Bending moment test	IEC 60099-4 § 10.8.11	HI 60 surge arresters	TRIDELTA TR-E 12003BM	April 20, 2012	English	
Radio Interference Voltage (RIV) & Partial Discharge (PD) tests	IEC 60099-4 § 10.8.14	HI 144 surge arrester	CESI B8011360	May 31, 2018	English	
Weather ageing test	IEC 60099-4 § 10.8.17.2 (1000 h test)	HI 144 surge arrester	CESI AT-A4/513921	August 30, 2004	English	
	IEC 60099-4 § 10.8.14.2.2 (*) (5000 h test) & § 10.8.17.3	HI 24 surge arrester	CESI A6026074	October 6, 2006	English	

Note 1 : Reference is made to IEC 60099-4 - edition 3.0 (June 2014) except for the test marked with a "(*)" in the 2nd column which is based on edition 2.2 (May 2009).

Note 2 : The HTS arrester design and dimensions are identical to the HI : only the type of MO resistors is distinct.

Therefore, the type tests carried out on HI samples for checking all performance not involving directly the MO resistors also cover the HTS range.