

UHV-related Standards, Pre-Standards and Projects

Standard	Title	Committee // Status
IEC 60633:1998/ A1:2009-05	Terminology for high-voltage direct current (HVDC) transmission	SC22F
IEC 60700-1:1998/ A2:2008-08	Thyristor valves for high-voltage direct current (HVDC) power transmission - Part 1: Electrical testing	SC22F
IEC/TR 60919-1: 2010-05	Performance of high-voltage direct current (HVDC) systems with line-commutated converters -- Part 1: Steady-state conditions	SC 22F: in progress (CD, closing date: 2011-07-29)
IEC/TR 60919-2: 2008-11	Performance of high-voltage direct current (HVDC) systems with line-commutated converters - Part 2: Faults and switching	SC 22F
IEC/TR 60919-3: 2009-10	Performance of high-voltage direct current (HVDC) systems with line-commutated converters - Part 3: Dynamic conditions	SC 22F
IEC 61803:1999/ A1:2010-11	Determination of power losses in high-voltage direct current (HVDC) converter stations with line commutated converters	SC 22F (DIN EN in progress)
IEC 61954:2011-04	Static var compensators (SVC) - Testing of thyristor valves	SC 22F (DIN EN in progress)
IEC/TS 61973: 2011-XX	High voltage direct current (HVDC) substation audible noise	SC 22F: (DTS approved in 2011-06)
IEC 61975: 2010-07	High-voltage direct current (HVDC) installations - System tests	SC 22F
IEC/PAS 62001: 2004-07	Technical guide/specification and design evaluation of a.c. filters for HVDC system	SC 22F
IEC/TR 62543: 2011-03	"High-voltage direct current (HVDC) power transmission using voltage sourced converters (VSC)"	SC 22F
IEC/TR 62544: 2011-06	Active filters in HVDC applications	SC 22F: (DTR approved in 2011-06)
22F/246/NP: 2011-04-29	Terminology for voltage sourced converters (VSC) for HVDC systems	SC 22F closing date: 2011-07-29
22F/247/NP:	Determination of power losses in voltage sourced	SC 22F

2011-05-06	converters (VSC) for HVDC systems - Part 1: General requirements	closing date: 2011-08-12
22F/248/Q: 2011-05-06	TR "Fire Prevention Measures on HVDC, SVC and FACTS converters and their valve halls"	SC 22F closing date: 2011-07-01, results not available yet
22F/249/NP: 2011-05-24	Determination of power losses in voltage sourced converters (VSC) for HVDC systems - Part 2: Valves for Modular Multi-Level Converters	SC 22F closing date: 2011-09-16
IEC/TR 60815-Serie	Selection and dimensioning of high-voltage insulators for polluted conditions	TC 36: Part 4 in progress/ Teil 4 in Arbeit
IEC 61245:1993-10	Artificial pollution tests on high-voltage insulators to be used on d.c. systems	TC 36:
IEC 61245:1993-10	Artificial pollution tests on high-voltage insulators to be used on d.c. systems	TC 36:
IEC 62199 2004-05	Bushings for d.c. application	SC 36A: Dual-Logo-Standard IEC/IEEE 65700-19-03 in progress
IEC/TS 60071-5 2002-06	Insulation co-ordination– Part 5: procedures for high-voltage direct current (HVDC) converter	TC 28:
IEC 61378-1 : 2011-07-26	Converter transformers– Part 1: Transformers for industrial applications	TC 14: new IS (not strictly relevant for UHV)
IEC 61378-2: 2001-02	Converter transformers– Part 2: Transformers for HVDC applications	TC 14:
IEC 61378-3: 2006-04	Converter transformers– Part 3: Application guide	TC 14: (not strictly relevant for UHV)
60076-6:	Power transformers -	TC 14:

2007-12	Part 6: Reactors	
IEC 60038 Ed. 7: 2009-06 <i>(horizontal standard)</i>	IEC 60038: IEC standard voltages	TC 8:
IEC 60060-1 Ed.3: 2010-09	High Voltage Test Techniques – Part 1: General definitions and test requirements	TC 42: Amendment or new IS in discussion
IEC 60060-2 Ed.3: 2010-11	High Voltage Test Techniques – Part 2: Measuring systems	TC 42: new IS
IEC 60060-3: 2006-02	High Voltage Test Techniques – Part 3: Definitions and requirements for on-site tests	TC 42: The present standard with its wide tolerances seems to be sufficient for the UHV range.
IEC 60270 Ed. 3: 2000-12	High Voltage Test Techniques – Partial discharge measurement	TC 42: CD (Amendment), closing date: 2011-07-15
Draft IEC 62478: PNW 42/291/NP: 2011-05	High Voltage Test Techniques – Measurement of partial discharge by electromagnetic and acoustic methods	TC 42: NP: Proposed horizontal standard, TC 42 will provide a new CD by the end of March 2011.
IEC 61083-1 Ed. 2: 2001-06	Instruments and software used for measurement in high-voltage impulse tests – Part 1: Requirements for instruments	TC 42: The related MT is preparing a revision of this standard, relatively few points are related especially to UHV.
IEC 61083-2 Ed. 1: 1996-07	Instruments and software used for measurement in high-voltage impulse tests – Part 2: Evaluation of software used for the determination of the parameters of impulse waveforms	TC42: CDV, closing date: 2011-10-21 For the so-called test data generator, impulse shapes typically for UHV impulse testing must be considered in the revised standard.
IEC 61083-3	Part 3: Requirements for instruments for	TC42:

	measurements of alternating and direct currents and voltages"	This new project was started.
IEC 61083-4 42/293/CD:2011-07	Part 4: Requirements for software for measurements of alternating and direct currents and voltages	TC42: This new project was started.
IEC 62475:2010-09	High current test techniques – Definitions and requirements for test currents and measurement systems	TC 42:
IEC 62478 42/291/NP:2011-05	Measurement of partial discharge by electromagnetic and acoustic methods	TC 42: NP, closing date: 2011-09-02
IEC 62271-XXX, Serie of standards	High-voltage switchgear and controlgear – Part XXX	TC 17, 17A, 17C: AC High-voltage switchgear and controlgear
IEC 62271-1	Gemeinsame Festlegungen	17A: FDIS approved (2011-06-03) addition of the rated voltage of 1 100 kV and 1 200 kV
IEC 62271-100	Wechselstrom-Leistungsschalter	17A: CDV closing date: 2011-07-22 addition of the rated voltage of 1 100 kV and 1 200 kV
IEC 62271-102	Alternating current disconnectors and earthing switches	17A: FDIS closing date: 2011-08-05 addition of the rated voltage of 1 100 kV and 1 200 kV
IEC 62271-110	Inductive load switching	17A: CDV closing date: 2011-07-22 one point is the addition of the rated voltage of 1 100 kV and 1 200 kV
IEC 62271-113	Alternating current high-speed earthing switches for secondary arc extinction on transmission lines	17A: CD closing date: 2011-07-22

		The application range of the HSES is for rated voltages of 550 kV and above and frequencies of 50/60 Hz.
IEC 62271-203	Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV	17C: FDIS closing date: 2011-08-05 addition of the rated voltage of 1 100 kV and 1 200 kV in Annex G
IEC 62271-204	Rigid gas-insulated transmission lines for rated voltage above 52 kV	17C: FDIS closing date: 2011-07-08 alignment of the voltage ratings and the test voltages
IEC/TR 62271-306 (62271-1, -100)	Application guide to IEC 62271-1 and IEC 62271-100	17A/870/INF:2009-04-03: addition of the rated voltage of 1100 kV and 1200 kV and their implications for TRVs, testing, etc.
IEC/PAS 62344: 2007-05	General guidelines for the design of ground electrodes for HVDC links	SC 22F transferred to TC 115
IEC 62344, Ed. 1 115/41/CD:2011-06	General guidelines for the design of ground electrodes for high-voltage direct current (HVDC) links	TC 115 CD
IEC/TS 62672	Reliability and availability evaluation of HVDC systems	TC 115: NP is approved (2010-03-26)
IEC/TS 62681	Electromagnetic Environment Criterion for High-voltage Direct Current (HVDC) Overhead Transmission Lines	TC 115: NP is approved (2010-05-14)
IEC 61243-6	Non Contact Voltage Detectors	TC 78: New project

Vorgesehene Normungsthemen (noch nicht aktuell)

Control and protection facilities of high voltage direct current (HVDC) transmission system –

Standard	EN Titel	Stand
	Part 1: operator control system;	TC 57 SC 22F
	Part 2: facilities for station control in AC and DC transmission system	TC 57 SC 22F
	Part 3: facilities for electrode control in DC transmission system	TC 57 SC 22F
	Part 4: protection facilities of DC system	TC 57 SC 22F
	Part 5: fault locating devices for DC transmission lines	TC 57 SC 22F
	Part 6: transient fault record system of converter stations;	TC 57 SC 22F
	Part 7: information management substation for fault record protection	TC 57 SC 22F
	Part 8: remote-control communication facilities	TC 57 SC 22F
	Part 9: electric energy metering system.	TC 57 SC 22F