ACKREDITERINGSCERTIFIKAT/ACCREDITATION CERTIFICATE

Ackred. nr 1297
Testing
ISO/IEC 17025

Hitachi Energy Sweden AB

STRI

Registration number 556029-7029

är ackrediterat som provningslaboratorium för uppgifter enligt bilaga 1 i beslut daterat 2025-06-17/is accredited as a testing laboratory for the scope specified in appendix 1 to decision dated 2025-06-17.

Laboratoriet är ackrediterat enligt den internationella standarden ISO/IEC 17025:2017. Ackrediteringen innebär att det ackrediterade laboratoriet har bedömts ha erforderlig kompetens och att opartiskt och konsekvent utföra ackrediterade tjänster inom de områden som definieras i bilaga 1 enligt ovan. Det ackrediterade laboratoriet ansvarar för resultat av utförd provning./*This laboratory is accredited to the International Standard ISO/IEC 17025:2017. The accreditation is a recognition of the competence for and consistent performance and impartiality in the provision of the services defined in appendix 1. The accredited laboratory is responsible for the outcome of performed testing.*

Ackrediteringen gäller tillsvidare. Styrelsen för ackreditering och teknisk kontroll (Swedac) genomför regelbundet tillsyn, och vart fjärde år en förnyad bedömning, för att bekräfta att gällande krav för ackrediteringen kontinuerligt uppfylls./*The accreditation is valid until further notice. The Swedish Board for Accreditation and Conformity Assessment (Swedac) regularly carries out surveillance, and a full reassessment every fourth year, in order to verify that the applicable requirements for accreditation continuously are fulfilled.*

Detta ackrediteringscertifikat utfärdades 2025-06-17/*This accreditation certificate was issued* 2025-06-17
Fredrik Langmead,
Enhetschef enheten för industri/*Head of Unit of the Unit of Industry*

Beslutet om ackreditering utfärdades med stöd av artikel 5.1 i Europaparlamentets och rådets förordning (EG) nr 765/2008 om krav för ackreditering och marknadskontroll m.m. och lagen (2011:791) om ackreditering och teknisk kontroll. Swedac är nationellt ackrediteringsorgan ansvarigt för bedömning av certifieringsorgan, kontrollorgan, laboratorier, miljökontrollanter, verifierings-/valideringsorgan och arrangörer av program för kompetensprövning som ansöker om ackreditering. Den här ackrediteringen har utfärdats under EA:s MLA-avtal och kan därmed betraktas som likvärdig andra ackrediteringar under EA:s MLA-avtal med samma ackrediteringsomfattning. */Accreditation was granted in accordance with Article 5 (1) of Regulation (EC) No 765/2008 regarding accreditation and market surveillance etc. and the Act (SFS 2011:791) concerning Accreditation and Conformity Assessment. Swedac is the Swedish national accreditation body responsible for the assessment of certification bodies, inspection bodies, laboratories, environmental verifiers, validation and verification bodies and bodies for providing programme for proficiency testing applying for accreditation. This accreditation has been issued under the EA MLA and is therefore recognised as equivalent to other accreditations with the same scope of accreditation issued under the EA MLA.*

SWEDAC
Styrelsen för ackreditering och teknisk kontroll
Swedish Board for Accreditation and Conformity Assessment

Appendix 1

Date: 2025-06-17

Reference: 2024/3046

Scope of accreditation

Testing according to SS-EN ISO/IEC 17025:2018

Hitachi Energy Sweden AB | Ludvika | Accreditation number | 1297

STRI | *A000448-008*

Electrical testing

Technical area	*Parameter*	*Method*	*Material*	*Flex*	*Type of flex*
High voltage electrical testing	**Electrical voltage**	**ANSI/SAIA A92.2-2021**	**Live working on electrical installations**	**Yes**	**2**
		Cigré TB 722	**Cables**	**Yes**	**2**
		Cigré TB 852	**Cables**	**Yes**	**2**
		DIN IEC 62895 (VDE 0276-2895)	Cables	Yes	2
		Electra No. 189	Cables	Yes	2
		GHOST R 52565-2006	Switchgear	Yes	2
		IEC 60044-8	Instrument transformers	Yes	2
		IEC 60060-1	High-voltage equipment	Yes	2
		IEC 60060-2	High-voltage equipment	Yes	2
		IEC 60068-2-1	**Environmental testing**	**Yes**	**2**
		IEC 60068-2-2	**Environmental testing**	**Yes**	**2**
		IEC 60068-2-78	**Environmental testing**	**Yes**	**2**
		IEC 60099-4	Arresters	Yes	2
		IEC 60137	Insulators	Yes	2
		IEC 60168	Insulators	Yes	2
		IEC 60214-1	Switchgear	Yes	2
		IEC 60230	Cables	Yes	2

Appendix 1

Electrical testing

Technical area	*Parameter*	*Method*	*Material*	*Flex*	*Type of flex*
High voltage electrical testing	**Electrical voltage**	**IEC 60358-1**	**Capacitive couplings- and voltage dividers**	**Yes**	**2**
		IEC 60502-2	Cables	Yes	2
		IEC 60507	Insulators	Yes	2
		IEC 60811-401	Cables	Yes	2
		IEC 60840	**Cables**	**Yes**	**2**
		IEC 60885-3	Cables	Yes	2
		IEC 61057	Live working on electrical installations	Yes	2
		IEC 61284	**Mounting material**	**Yes**	**2**
		IEC 61869-14	Instrument transformers	Yes	2
		IEC 61869-2	Instrument transformers	Yes	2
		IEC 61952	Insulators	Yes	2
		IEC 61954	Thyristor valves	Yes	2
		IEC 62067	Cables	Yes	2
		IEC 62271-1	Switchgear	Yes	2
		IEC 62271-100	Switchgear	Yes	2
		IEC 62271-102	Switchgear	Yes	2
		IEC 62271-108	Switchgear	Yes	2
		IEC 62271-109	Switchgear	Yes	2
		IEC 62271-203	Switchgear	Yes	2
		IEC 62501	Converter	Yes	2
		IEC 62823	Thyristor valves	Yes	2
		IEC 62895	**Cables**	**Yes**	**2**
		IEC 62927	**Thyristor valves**	**Yes**	**2**

Electrical testing

Technical area	*Parameter*	*Method*	*Material*	*Flex*	*Type of flex*
High voltage electrical testing	**Electrical voltage**	IEC TS 61245	Insulators	Yes	2
		IEC/IEEE 61886-1	**Switchgear**	**Yes**	**2**
		IEC/IEEE 65700-19-03	**Bushings**	**Yes**	**2**
		IEC/TR 62730	Insulators	Yes	2
		IEEE 4	High-voltage equipment	Yes	2
		IEEE C37.09	Switchgear	Yes	2
		IEEE C37-04	**Switchgear**	**Yes**	**2**
		IEEE C57.13	**Instrument transformers**	**Yes**	**2**
		IEEE C57.131-2012	Switchgear	Yes	2
		IEEE C57.19.00	Bushings	Yes	2
		IEEE C62.11	**Arresters**	**Yes**	**2**
	Partial discharges	IEC 60270	High-voltage equipment	Yes	2
	Radio interferences	CISPR 16-1-1	High-voltage equipment	Yes	2
		CISPR TR 18-2	High-voltage equipment	Yes	2
	Temperature rise	IEC 61869-1	Instrument transformers	Yes	2
		IEC 61869-5	Instrument transformers	Yes	2

Changes in the scope of accreditation are in bold.

The scope of accreditation is flexible as specified in this decision. The accredited body must always retain a current list of the scope for which it is accredited.

Type of flexible scope
1: - Introduce new version of standard method and make editorial changes to non-standard method
2: - Introduce new version of standard method and make editorial changes to non-standard method - Introduce new version and modifications of non-standard method. The procedure must be equivalent - Introduce new parameter/component/characteristics - Introduce new measurement range - Introduce new material/new products/matrices - Introduce new method equivalent to methods already in the accreditation decision

ACKREDITERINGSCERTIFIKAT/ACCREDITATION CERTIFICATE

Ackred. nr 1297
Calibration
ISO/IEC 17025

Hitachi Energy Sweden AB

STRI

Registration number 556029-7029

är ackrediterat som kalibreringslaboratorium för uppgifter enligt bilaga 1 i beslut daterat 2025-06-17/is accredited as a calibration laboratory for the scope specified in appendix 1 to decision dated 2025-06-17.

Laboratoriet är ackrediterat enligt den internationella standarden ISO/IEC 17025:2017. Ackrediteringen innebär att det ackrediterade laboratoriet har bedömts ha erforderlig kompetens och att opartiskt och konsekvent utföra ackrediterade tjänster inom de områden som definieras i bilaga 1 enligt ovan. Det ackrediterade laboratoriet ansvarar för resultat av utförd kalibrering./*This laboratory is accredited to the International Standard ISO/IEC 17025:2017. The accreditation is a recognition of the competence for and consistent performance and impartiality in the provision of the services defined in appendix 1. The accredited laboratory is responsible for the outcome of performed calibration.*

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Fredrik Langmead,
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SWEDAC
Styrelsen för ackreditering och teknisk kontroll
Swedish Board for Accreditation and Conformity Assessment

Appendix 1

Date: 2025-06-17

Reference: 2024/3046

Scope of accreditation

Calibration according to SS-EN ISO/IEC 17025:2018

Hitachi Energy Sweden AB — Ludvika — Accreditation number 1297

STRI — *A000448-008*

Electricity and Magnetism

Technology area	*Method*	*Parameter*	*Material*	*Measuring range*	*Best measuring ability (CMC) +/-*	*Technique*	*Field*
Voltage	Process 0411/Sample setup during calibration, version 2021-05-11	AC	High-voltage equipment	10 kV - 600 kV	Peak-Peak/√8: 0,8 %		No
		AC	High-voltage equipment	10 kV - 600 kV	RMS: 0,8 %		No
		DC	**High-voltage equipment**	**10 kV - 300 kV**	**0,6 %**		**No**
		LI	High-voltage equipment	50 kV - 700 kV	Front time: 2,7 %		Yes
		LI	High-voltage equipment	50 kV - 700 kV	Test voltage: 0,93 %		Yes
		LI	High-voltage equipment	50 kV - 700 kV	Time to half-value: 2,3 %		Yes
		SI	High-voltage equipment	60 kV - 700 kV	Test voltage: 0,90 %		Yes
		SI	High-voltage equipment	60 kV - 700 kV	Time to half-value: 1,7 %		Yes
		SI	High-voltage equipment	60 kV - 700 kV	Time to peak: 4,1 %		Yes

Calibration and measurement capability, CMC, is the smallest uncertainty the calibration laboratory can provide, expressed as the expanded uncertainty having a coverage probability of approximately 95%.