



NÁRODNÍ AKREDITAČNÍ ORGÁN

EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. 747/2020

ORGREZ, a.s.
with registered office Hudcova 321/76, Medlánky, 612 00 Brno, Company Registration
No. 46900829

to the Testing Laboratory No. 1179.2
Testing Laboratory E01

Scope of accreditation:

Diagnostic measurement of electrical rotating machines (generators, motors), transformers, surge arresters, diagnostics of electrically insulating liquids, gases and the state of electrically insulating materials, chromatography of insulating liquids and determination of the content of PCB compounds to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 447/2019 of 2. 9. 2019, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **20. 4. 2023**

Prague: 8. 12. 2020



Jiří Růžička
Director
Czech Accreditation Institute
Public Service Company

**The Appendix is an integral part of
Certificate of Accreditation No. 747/2020 of 08/12/2020**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ORGREZ, a.s.
Testing Laboratory E01
Vítkova 17, 186 00 Praha 8 – Karlín

The Laboratory is qualified to carry out independent sampling.

Tests:

Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
1	Measurement of insulation resistance	SOP 1-01-20/72 (TSE_RIZ_02r06, TSE_RIZ_03r06, ČEZ_ME_0983r00, Annex B p. 3.4)	Rotating machine, power transformer, instrument transformer
2	Measurement of capacity and dissipation factor	SOP 1-02-21/72 (TSE_TGC_05r06, ČEZ_ME_0983r00, Annex B, C p. 1.4)	Rotating machine, power transformer, instrument transformer, bushing
3	Partial discharge measurement	SOP 1-04/72 (TSE_VYB_06r06)	Rotating machine
4	Test by applied voltage	SOP 1-06/72 (TSE_UZ_09r06, TSE_UZ_10r06, TSE_UZ_11r06)	Rotating machine
5	Measurement of winding resistance by dc current	SOP 1-22/72 (ČEZ_ME_0983r00, Annex B p. 2.4)	Power transformer
6	Diagnostic tests of surge arresters – valve arresters	SOP 1-50/72 (ZM-06)	Arrester
7	Diagnostic tests of surge arresters – gapless arresters	SOP 1-51/72 (ZM-07 2nd Issue)	Gapless arrester
8	Determination of SF ₆ content by acoustic method	SOP 1-60/72 (ČSN EN 60480, ČSN EN 60376)	Insulating gas
9	Measurement of SF ₆ dew point by acoustic method	SOP 1-61/72 (ČSN EN 60480, ČSN EN 60376)	Insulating gas
10	Determination of water in insulating oil – by Karl Fischer automatic coulometric titration (Q _v) ⁺	SOP 2-10/72 (ČSN EN 60814, ZM-03, MP 04-2012)	Insulating liquid

**The Appendix is an integral part of
Certificate of Accreditation No. 747/2020 of 08/12/2020**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ORGREZ, a.s.
Testing Laboratory E01
Vítkova 17, 186 00 Praha 8 – Karlín

Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
11	Determination of the breakdown voltage of liquid insulants at power frequency (Up) ⁺	SOP 2-11/72 (ČSN EN 60156, ZM-04)	Insulating liquid
12	Determination of dissipation factor (tg δ) ⁺ , relative permittivity (ε _r) ⁺ and d.c. resistivity (ρ) ⁺	SOP 2-12/72 (ČSN EN 60247, ZM-13)	Insulating liquid
13	Determination of acid value of insulating liquids by automatic potentiometric titration (ČK)	SOP 2-14/72 (ČSN EN 62021-1, ZM-12)	Insulating liquid
14	Determination of PCB content by gas chromatography (GC/ECD - congeners 28, 52, 101, 138, 153, 180) and the sum of PCB congeners by calculation from measured values	SOP 2-19/72 (ČSN EN 61619)	Insulating liquid
15	Determination of the content of free and dissolved gases from oil-filled electrical equipment by gas chromatography (GC/TCD + FID) ³	SOP 2-23/72 (ČSN EN 60567 ed. 3)	Insulating liquid
16	Determination of the content of dibenzyl disulfide (DBDS) by gas chromatography method (GC/ ECD)	SOP 2-26/72 (ČSN EN 62697-1)	Insulating liquid
17	Determination of the content of passivators in mineral oils by high-performance liquid chromatography (HPLC/UV) ⁴	SOP 2-29/72 (ČSN EN 60666 Annex B)	Insulating liquid



**The Appendix is an integral part of
Certificate of Accreditation No. 747/2020 of 08/12/2020**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ORGREZ, a.s.
Testing Laboratory E01
Vítkova 17, 186 00 Praha 8 – Karlín

Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
18	Determination of average viscometric degree of polymerization (PPS) of paper insulation	SOP 2-30/72 (ČSN EN 60450)	Cellulosic electrically insulating materials
19	Determination of thermal oxidation stability of insulating liquids – determination of volatile acidity (VA) ⁺ by titration and total acidity (TA) ⁺ by calculation	SOP 2-33/72 (ČSN EN 61125)	Insulating liquid
20	Determination of the content of furan derivatives by high-performance liquid chromatography (HPLC/UV) ⁵	SOP 2-34/72 (ČSN EN 61198)	Insulating liquid

- ¹ Asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises.
- ² If the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes).
- ³ The determination is for gases – hydrogen, methane, ethane, ethylene, acetylene, carbon monoxide, carbon dioxide, oxygen, nitrogen and their sum calculated from measured values (Qp)
- ⁴ The determination is for inhibitors: benzotriazol (BTA), 5-methyl-1H-benzotriazol (TTA), Irgamet 39 (TTAA) and their sum calculated from measured values.
- ⁵ The determination is for derivatives: 5-hydroxymethyl-2-furfural (5HMF), 2-furfurylalcohol (2FOL), 2-furfural (2FAL), 2-acetylfuran (ACF), 5-methyl-2-furfural (5MEF) and their sum calculated from measured values.

Explanations:

SOP Standard Operating Procedure
 ZM Test method of the Czech Association of High-Voltage Laboratories (AZVN)
 MP Guideline
 TSE Rotating electrical machines – Technological procedure of ČEZ a. s.
 ČEZ_ME ČEZ a. s. method
 (...) ⁺ The data in parentheses at the test procedure name are abbreviations of the individual tests and they are stated in reports.



**The Appendix is an integral part of
Certificate of Accreditation No. 747/2020 of 08/12/2020**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ORGREZ, a.s.
Testing Laboratory E01
Vítkova 17, 186 00 Praha 8 – Karlín

Sampling:

Ordinal number	Sampling procedure name	Sampling procedure identification ¹	Sampled object
1	Sampling of insulating liquids (manual sampling)	SOP 2-02/72, (ČSN EN 60567 ed. 3 chap. 4-5, ČSN EN 60475, ZM-02, MP 03-2012)	Insulating liquid

- ¹ If the document identifying the sampling procedure is dated, only these specific procedures are used. If the document identifying the sampling procedure is not dated, the latest edition of the specified procedure is used (including any changes).

